

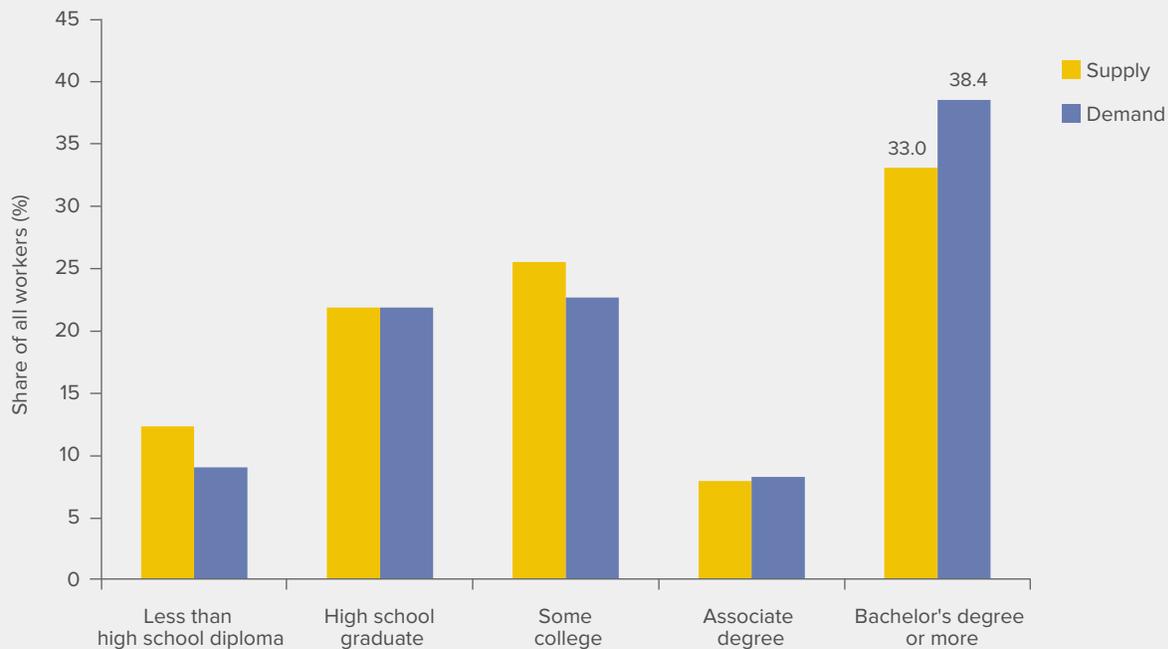
California faces a long-term shortage of college-educated workers

A skilled workforce is key to a thriving California economy. Unfortunately, California's higher education system is not keeping up with the economy's changing needs. If current trends in the demand for skilled workers and the educational attainment of the state's population continue, California will face a large skills gap by 2030—it will be 1.1 million workers with bachelor's degrees short of economic demand.

Falling behind in creating a skilled workforce could curtail economic growth, limit economic mobility, and increase inequality. The economy will be less productive, incomes and tax revenue will be lower, and more Californians will depend on the social safety net. Over time, if California's workforce does not have the skills and training that employers need, firms may close, relocate, or operate at lower levels of productivity.

To close the gap, the state and its higher education institutions should set new goals that are consistent with the demands of the 21st century. New investments will be necessary to meet those goals. Measuring progress and identifying programs and policies that improve student success should be key components of those investments. The good news is that changes made today can set California on a better trajectory. But educational progress takes time, so it is important to act now.

DEMAND FOR COLLEGE WORKERS WILL OUTSTRIP SUPPLY BY 2030



SOURCE: Johnson, Cuellar Mejia, and Bohn, *Will California Run Out of College Graduates?* (PPIC 2015).

California's economy needs and rewards degree holders

Currently, one-third of jobs in California require at least a bachelor's degree. Another third require some training beyond high school. Future job trends are expected to accelerate this demand.

- **College graduates make up a large, and growing, share of the workforce.**

The share of workers with college degrees has increased from 24.5 percent in 1990, to 29.7 percent in 2000, and to 33.7 percent in 2013. If current trends continue, by 2030 an estimated 38.4 percent of jobs—across the entire spectrum of occupations—will require a college degree or more.

- **The demand for skilled workers is increasing in the vast majority of occupations.**

Increased demand comes mostly from a growing need for highly educated workers within occupations, as opposed to a shift in the economy toward specific occupations that require higher levels of education. The share of college-educated workers is increasing not only in occupations that have traditionally required higher levels of education, such as computer science and health care, but also in occupations with low shares of college graduates, such as personal care.

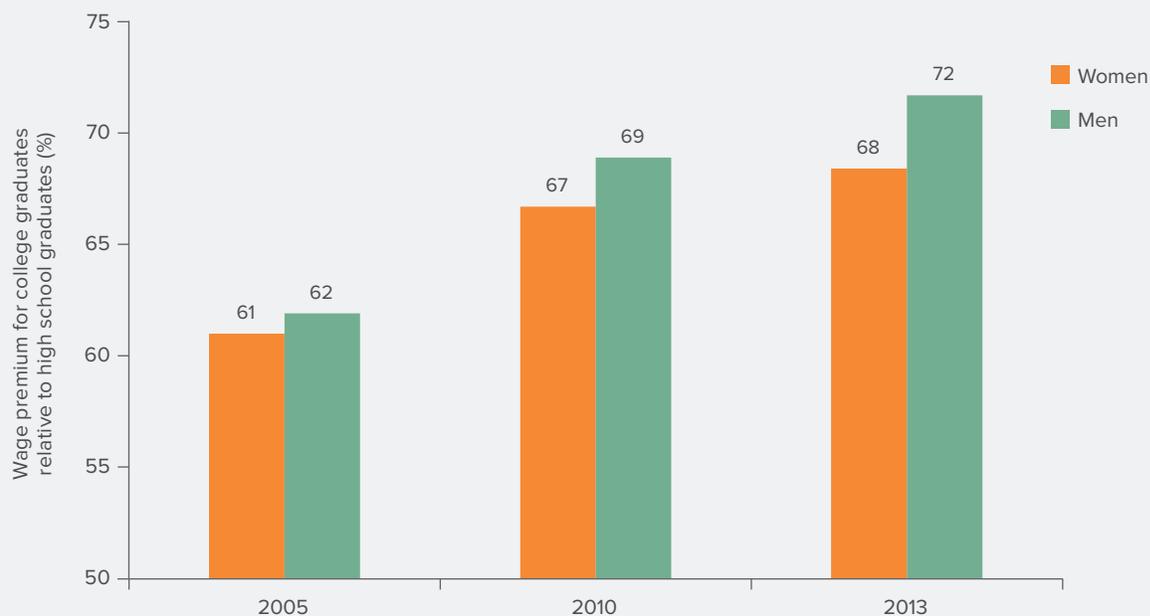
- **Educated workers earn substantially more in California . . .**

Even accounting for demographic and industry differences, workers earn successively more with higher levels of educational attainment. In 2013, workers with a bachelor's degree earned about 70 percent more than otherwise similar workers with only a high school diploma. The growth of this wage differential over time is evidence of a growing demand for higher levels of education, rather than a trend toward an over-educated workforce.

- **. . . but fields of study and work matter.**

Wages for college graduates with bachelor's degrees vary tremendously. For example, workers with engineering degrees earn a median annual wage of \$96,000, while the median wage for workers with degrees in education administration and teaching is \$57,000. But even this lower amount is substantially higher than the \$39,000 median annual wages of those with only a high school diploma.

HIGHER EDUCATION YIELDS HIGHER WAGES



SOURCE: Johnson, Cuellar Mejia, and Bohn, *Will California Run Out of College Graduates?* (PPIC, 2015), based on American Community Survey, 2005–13.

NOTE: Wage premiums indicate the percentage difference between wages of a college graduate and those of a high school graduate, adjusted for individual characteristics.

Educational attainment is not on track to meet future workforce needs

The share of college graduates in California's workforce needs to grow to about 38 percent by 2030 to meet economic demand, if the economy is to operate optimally. This is significantly above and beyond the educational attainment of today's workforce. But if current trends continue, only 33 percent of California's workforce will have college degrees.

- **Retiring baby boomers reduce the number of workers with bachelor's degrees.**
Today, the best-educated age group in California consists of adults ages 60 to 64. The retirement of these and other highly educated baby boomers is a major factor in the slow growth of working adults with at least a bachelor's degree. The share of skilled workers will increase only slightly—about 1 percent—by 2030.
- **Groups with lower educational levels are becoming a growing share of the state's population.**
College completion rates have historically been low among Latinos—who now make up California's largest group of young adults. College completion rates have been rising among Latinos but not fast enough to meet future demand.
- **The skills gap would be wider if it were not for immigration.**
The share of college graduates from other countries has increased quickly since 1980. Asia has replaced Latin America as the leading source of immigrants, and immigrants from Asia tend to be highly educated: about 60 percent of working-age Asian adults (ages 25–64) have college degrees when they arrive in California. Were it not for this trend, the size of the skills gap would be even larger.
- **The state needs more California-born college graduates.**
While immigration trends are likely to continue, future entrants to the California labor market are increasingly likely to be from the state. California's best approach to closing its skills gap will be to concentrate on improving the educational attainment of its residents. Currently, California ranks near the bottom of all states (47th) in the share of recent high school graduates who enroll in four-year colleges or universities.

Looking ahead

The key to closing a future skills gap in California is to make deliberate choices and take action today.

Align state education goals—and funding—with workforce needs. California's policymakers and practitioners need to establish a new set of commonly agreed-upon goals if the state is to close the skills gap. Although many have called for new strategies for educating California's future workforce, the state has not adopted broad and widely accepted targets since it released the Master Plan for Higher Education in 1960. Workforce demand has evolved substantially since then and will continue to do so.

Expand access to the state's four-year colleges and universities. The share of high school graduates eligible for the state's public universities has not changed in more than 50 years, despite dramatic increases in the demand for college and the importance of education for workforce success. The state and its public universities should gradually increase the share of students who are eligible for admittance to the University of California and the California State University (CSU).

Improve completion rates at both two- and four-year institutions. A large share of California's high school graduates attend college, but few obtain four-year degrees. Even small improvements in transfer and completion rates could substantially reduce the skills gap.

Provide students with information on the earnings potential of career pathways. Completing college training without the promise of a well-paying career does little to improve economic outcomes or reduce the skills gap. Students need information and guidance to make important choices during their school years. The California Community Colleges have taken a big step in the right direction by providing easily accessible information on the labor market outcomes (and success rates) from different colleges and programs in the system. Other public universities would be wise to do the same.

Focus on college readiness among K–12 students. Currently, the majority of students entering CSU and the community colleges are placed in remedial level English and/or math. Improving student achievement in high school and earlier—especially among low-income and disadvantaged students—can help lay the groundwork for success in college. One of the primary purposes of the newly adopted Common Core curriculum in K–12 schools is to improve college readiness.

CONTACT A PPIC EXPERT



Hans Johnson
johnson@ppic.org



Sarah Bohn
bohn@ppic.org



Marisol Cuellar Mejia
cuellar@ppic.org

READ MORE

-  CALIFORNIA'S HIGHER EDUCATION SYSTEM
-  ADDRESSING CALIFORNIA'S SKILLS GAP
-  EXPANDING COLLEGE ACCESS
-  IMPROVING COLLEGE COMPLETION
-  INCREASING EQUITY AND DIVERSITY
-  INVESTING IN PUBLIC HIGHER EDUCATION
-  MAKING COLLEGE AFFORDABLE

This series is funded by The Sutton Family Fund.

The PPIC Higher Education Center advances practical solutions that enhance educational opportunities for all of California's students—improving lives and expanding economic growth across the state.

The Public Policy Institute of California is dedicated to informing and improving public policy in California through independent, objective, nonpartisan research. We are a public charity. We do not take or support positions on any ballot measure or on any local, state, or federal legislation, nor do we endorse, support, or oppose any political parties or candidates for public office. Research publications reflect the views of the authors and do not necessarily reflect the views of the staff, officers, or Board of Directors of the Public Policy Institute of California.

Public Policy Institute of California
500 Washington Street, Suite 600
San Francisco, CA 94111
T 415.291.4400 F 415.291.4401
PPIC.ORG/HIGHER-EDUCATION

PPIC Sacramento Center
Senator Office Building
1121 L Street, Suite 801
Sacramento, CA 95814
T 916.440.1120 F 916.440.1121



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA