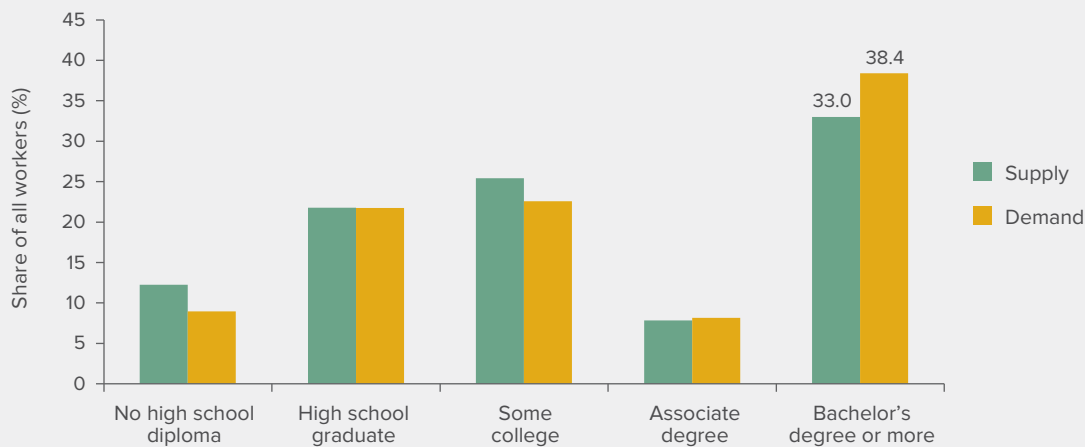


California is facing a shortfall of college-educated workers

Higher education benefits individuals and the state: college graduates are more likely to be employed and earn higher wages than nongraduates, which boosts state tax revenues and reduces pressure on the social safety net. However, California's higher education system is not keeping up with the changing economy. Projections suggest that the state will continue to need greater numbers of highly educated workers. In 2030, if current trends persist, 38 percent of jobs will require at least a bachelor's degree. But population and education trends suggest that only 33 percent of working-age adults in California will have bachelor's degrees by 2030—a shortfall of 1.1 million college graduates.

BY 2030, CALIFORNIA MAY HAVE A SHORTAGE OF HIGHLY EDUCATED WORKERS



SOURCE: PPIC projections.

The state needs to act now to close the skills gap and meet future demand. To close the gap, the state should set new statewide goals for higher education and make the investments that will be necessary to improve educational outcomes and increase the number of college-educated workers. Improving access and completion rates for underrepresented groups, including Latinos, African Americans, and students from low-income families, will also be essential. To ensure that its investments pay off, the state will need to measure progress toward its goals and identify programs and policies that improve student success.

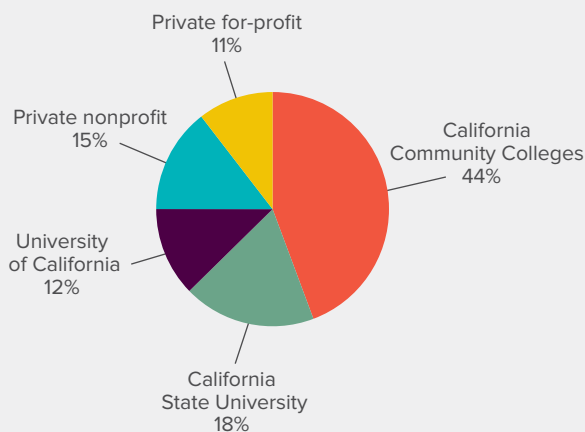
Californians are keenly aware of the importance of higher education. According to the April 2017 PPIC Statewide Survey, about eight in ten California parents hope their children will earn at least a bachelor's degree. But Californians are worried about affordability. The November 2017 PPIC Statewide Survey shows that 57 percent of adults think affordability is a big problem at the University of California (UC) and the California State University (CSU), and 72 percent agree that the price of higher education keeps students who are qualified and motivated from attending college.

California needs more college graduates

- **California's economy increasingly demands highly educated workers.**

For decades, employment growth has been strongest for workers with college degrees, as a result of changes across and within industries. For example, relatively rapid growth in the health care and information technology sectors is driving up demand for these workers, who generally need college degrees. Also, within most sectors, more jobs are requiring degrees than ever before.

MOST CALIFORNIA COLLEGE STUDENTS ATTEND PUBLIC INSTITUTIONS



SOURCE: Integrated Postsecondary Education Data System (IPEDS), 2014–2015 data.

NOTES: Restricted to two-year and above colleges. Enrollment is for full-time equivalent students.

- The supply of college graduates is not on track to keep up with workforce demand.

Two demographic trends will undercut future increases in the number of college graduates. First, the baby boomers—a large and well-educated group—are reaching retirement age; for the first time ever a large number of workers with college degrees are leaving the workforce. Second, college completion has been improving, but young adults are not graduating at sufficiently high rates to close the gap. Immigrants are also integral to California’s highly skilled workforce. Today, three of every ten highly educated workers in California are immigrants, up from two in ten in 1990. However, there will not be enough highly educated newcomers—from abroad or from other states—to fully close the skills gap.

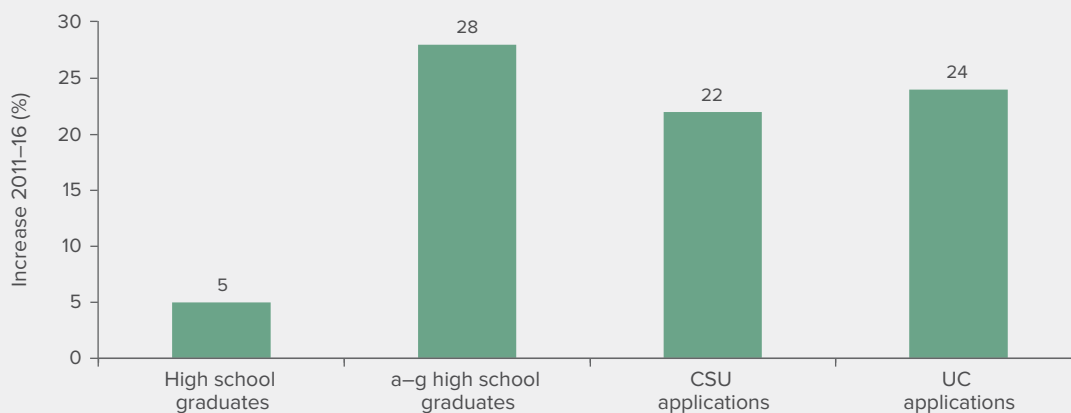
- Higher education is largely a public endeavor in California.

The vast majority of students in California—and in most other states—attend public colleges and universities. About three of every four students in California are enrolled in one of the state’s public education systems: the California Community Colleges, CSU, and UC. Three of every four bachelor’s degrees awarded annually in the state come from either CSU or UC.

- More students than ever are eligible for college, but they are competing for limited slots.

The growth in the proportion of California high school graduates completing a college preparatory curriculum has increased the competition for access to California’s four-year colleges. The state’s recent study on eligibility showed that about 14 percent of graduates are eligible for UC, and about 41 percent were eligible for CSU, above the 12.5 percent and 33 percent levels recommended in the state’s Master Plan for Higher Education. Eligible applicants are being turned away from their colleges of choice. Some students enroll elsewhere in California, but growing numbers are leaving the state to attend college.

INCREASES IN UC AND CSU APPLICATIONS INDICATE GROWING DEMAND FOR HIGHER EDUCATION



SOURCES: California Department of Education; California State University; University of California.

NOTES: The figure shows applications from California residents only; a–g refers to coursework required by CSU and UC.

Obtaining a four-year degree is challenging for many

- Students at four-year colleges often take more than four years to graduate.

About three in five first-time freshmen at CSU and about four in five at UC earn a bachelor’s degree within six years. However, only one in five CSU students and three in five UC students graduate in four years. UC and CSU are working to improve on-time graduation, with CSU adopting ambitious new goals for four-year and six-year graduation rates as a part of its Graduation Initiative 2025 program.

- **Many of California’s high school graduates attend community colleges, but few transfer.**
Community colleges account for more than half of undergraduate enrollment in California. Open access, wide geographical distribution, and relatively low fees make them especially popular. California ranks fifth among all states in the share of recent high school graduates who go to a two-year college. However, only about one in ten community college students ever transfer to a four-year university. Not all community college students intend to move on to a four-year school, but only 47 percent either transfer, obtain a degree or certificate, or earn 60 units within six years. Importantly, the vast majority of students who do transfer to UC and CSU earn bachelor’s degrees.
- **Remediation can be an obstacle.**
A lack of academic preparation or improper placement into remediation can delay or prevent students from earning an associate degree or transferring to a four-year college. About 80 percent of community college students and a third of all CSU entering freshmen require remediation before taking college-level courses. At the community colleges, new course sequences designed to shorten and improve the remediation process along with new assessment and placement policies could allow many more students to enroll in college-level courses. The CSU system will discontinue remediation in 2018, putting all students in college-credit-bearing courses upon entry and providing support for underprepared students in hopes of increasing persistence and graduation rates.

Costs have risen, but college remains a good investment for most graduates

- **CSU and UC have increased tuition for the first time since 2011.**
During the recession, per student General Fund allocations fell by about 20 percent at CSU and UC, prompting the systems to increase tuition. State support increased moderately after the recession ended, and tuition remained flat for several years, starting in 2011. State funding increased again in 2017, but UC raised tuition by about 2.5 percent and CSU raised tuition by about 5 percent; this amounted to increases of just under \$300 at both systems.
- **Higher costs have increased reliance on loans, but most graduates earn enough to pay off debts.**
The share of students taking out loans has declined slightly in the past few years but remains near historically high levels. In 2014, 44 percent of California freshmen at four-year colleges took out student loans—in 2007, only about a third did so. Even so, college is a good investment for the vast majority of students who attend public colleges and private nonprofit colleges. Labor market outcomes remain far better for college graduates than for less-educated workers, even in economic downturns. Unemployment among workers without postsecondary degrees jumped 5 to 7 points during the recession but increased by only 2 points for those with advanced degrees. All but the lowest-paid college graduates earn enough to pay off their debts.
- **Career and technical education can also bring substantial returns.**
One-third of future jobs require some postsecondary education but less than a bachelor’s degree. Career technical education programs often focus on skilled trades, applied sciences and technologies, and career preparation. Community colleges offer a lot of this training at a lower cost than private for-profit two-year colleges. Many career technical fields show substantial returns for students—especially health, where on average students see a 50 percent boost in earnings. However, short-term career technical certificates (earned in less than a year) generally afford much smaller payoffs and may be most valuable as steps on longer educational and career pathways.

Looking ahead

California is facing a serious shortfall in its supply of college-educated workers. At the same time, demand for higher education is increasing, and there is widespread concern about college affordability. If the state can respond effectively to these challenges, it will have a profound impact on the future of higher education in California.

Update higher education goals. California has not substantively updated its Master Plan for Higher Education since it was developed more than 50 years ago. Given the legislature’s renewed interest in revising the plan, the state should consider increasing the share of high school graduates eligible for UC and CSU and setting new goals for transfer, completion, and time to degree. Establishing a new higher education coordinating body to set priorities and coordinate efforts between K–12 and higher education systems could lead to further improvements in student transitions and outcomes.

Decide how to provide adequate funding to achieve state goals. California tends to cut higher education spending during economic downturns. Developing effective policies for managing higher education finances in tough economic times can help stabilize student costs and keep California on track to achieve its goals. Efficiency should be one of the state’s goals: online learning is one as-yet-unproven strategy, as is linking state funding to measures of school performance.

Ensure access for low-income students. As the costs of attending college have increased, the importance of grant and scholarship aid has grown. California should ensure that its aid programs keep up with growing college costs and are targeted to institutions with good track records in educating low-income students without saddling them with large amounts of debt. California's Dream Act will continue to allow low-income undocumented students who came to California when they were young children to pay in-state tuition and apply for state and institutional aid.

Collect information to ensure that progress is being made. California currently lacks a comprehensive longitudinal student data system that could evaluate whether the state and its colleges are meeting higher education goals. Linking college data with K-12 and earnings data would allow policy experts to determine what policies and programs produce the best and most efficient outcomes for students, colleges, and the state as a whole.

CONTACT A PPIC EXPERT



Hans Johnson
johnson@ppic.org



Marisol Cuellar Mejia
cuellar@ppic.org



Sarah Bohn
bohn@ppic.org



Patrick Murphy
murphy@ppic.org



Kevin Cook
kcook@ppic.org



Olga Rodriguez
rodriguez@ppic.org



Jacob Jackson
jackson@ppic.org

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

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



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