California’s economy needs college graduates

A skilled workforce is key to a thriving California economy. Strong and growing demand for highly educated workers has been a hallmark of the state’s economy for decades, and forecasts show this demand continuing into the future. If current trends continue, about 40 percent of jobs in California will require at least a bachelor’s degree by 2030. Failing to keep up with the demand for skilled workers could curtail economic growth, limit economic mobility, and increase inequality.

The importance of increasing the number of college graduates goes beyond workforce needs. Individuals with higher levels of education earn higher wages and enjoy greater job security and non-wage benefits. The state as a whole could also benefit from lower unemployment and poverty rates, lower demand for social safety net programs, lower incarceration rates, higher tax revenue, and greater civic engagement.

The challenge of increasing the number of college graduates in California is heightened by demographic shifts toward populations that have historically been underrepresented in higher education. Meeting this challenge requires sustained coordination across educational sectors—from K–12 schools to public and private universities. It also involves measuring student progress and identifying effective programs and policies.

Higher education confers multiple benefits

The value of a college degree is the highest it has been in decades. College graduates have more labor market success than less-educated adults and enjoy a range of other benefits.

- **Demand for skilled workers is increasing in the vast majority of occupations.** The share of college-educated workers is increasing not only in areas that have traditionally required high levels of education, such as computer science and health care, but also in occupations that used to have lower shares of college graduates, such as management in the hospitality industry.

- **Educated workers earn substantially more in California.** In California, the typical full-time year-round worker with only a high school diploma earns $36,000, while the typical worker with at least a bachelor’s degree earns $81,000. While the field of study does matter, even college
graduates who are in the 25th percentile of earners compared to other college graduates still earn higher wages than the typical worker with only a high school diploma. Moreover, in the last few decades wages have increased more for those with a college or advanced degree than for those with lower levels of education. Between 1990 and 2017, and when adjusted for inflation, median earnings increased by 19 percent for workers with at least a bachelor’s degree, while decreasing by 15 percent for those with only a high school diploma.

- **The college wage premium has grown despite increases in the number of college graduates.** The wage premium associated with a college degree—the ratio of average annual earnings for workers with at least a bachelor’s degree compared to those with no more than a high school diploma—has increased consistently over time. The college wage premium among full-time year-round workers grew from 58 percent in 2000 to 71 percent in 2017. The wage premium’s continued growth, even as the share of college graduates in the workforce has increased, indicates that demand for college graduates has outpaced the growing supply.

- **The benefits of a college degree extend beyond wage gains.** Three-quarters of workers with at least a bachelor’s degree are employed full time (and often get vacation, retirement, and other non-wage benefits), compared to 58 percent of workers with only a high school diploma. The unemployment rate for workers with only a high school education is 7.0 percent, more than twice the rate for those with at least a bachelor’s degree (3.4%). About a quarter of working-age adults (25–64) with only a high school diploma do not participate in the labor force, compared to 14 percent of those with at least a bachelor’s degree. College graduates are more likely to own a house and less likely to be in poverty or in need of safety net resources. They have lower mortality rates and are more likely to have long-lasting marriages and to be civically engaged.

- **Career education at California’s community colleges is critical for workers and the economy.** One out of every three jobs in California requires some college but less than a bachelor’s degree; this share is expected to hold steady in the future. Career education programs at the community colleges prepare many Californians for these “middle skill” occupations. Career education credential typically require less time but offer lower economic payoffs than bachelor’s degrees. However, credential holders do see a 20 percent increase in earnings. Wage gains vary considerably by program area and credential length. Returns to career education credentials range from virtually zero in some business and IT programs to more than 100 percent for associate degrees in health.

### HIGHER EDUCATION YIELDS HIGHER WAGES

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Wage Premium Relative to HS Graduates (%)</th>
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</thead>
<tbody>
<tr>
<td>No HS diploma</td>
<td>-22</td>
</tr>
<tr>
<td>Some college</td>
<td>20</td>
</tr>
<tr>
<td>Associate degree</td>
<td>26</td>
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<td>Bachelor’s degree only</td>
<td>60</td>
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<tr>
<td>Bachelor’s degree or higher</td>
<td>71</td>
</tr>
<tr>
<td>Advanced degree</td>
<td>89</td>
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**SOURCE:** Authors’ calculations based on 2017 American Community Survey one-year estimates.

**NOTES:** Full-time year-round workers ages 25 to 64. The wage premium is the percent difference in wages between college graduates (with at least a bachelor’s degree) and high school graduates. These estimates are regression-adjusted for age, race/ethnicity, gender, and citizenship. “Bachelor’s degree or higher” shows the wage premiums of both bachelor’s and advanced degrees.

Demographic trends pose challenges to increasing the supply of college graduates

Large numbers of well-educated Californians are retiring: every year, the number of new retirees with bachelor’s degrees is higher than the number of degrees awarded by the University of California. Meanwhile, a growing number of young Californians are part of groups that have long been underrepresented in higher education.
• The number of retirees in California has grown dramatically—and many have college degrees.
The total number of retirees grew from 3.8 million in 2008 to 5.2 million in 2018, by 38 percent—by contrast, the state’s overall population grew 8 percent. This rapid growth is a consequence of the aging baby boom, the very large cohort of people born between 1946 and 1964. This group is highly educated—the number of retirees with bachelor’s or graduate degrees increased by more than 700,000 between 2008 and 2018.

• Improving college access and completion among underrepresented groups is key.
Educational attainment has been rising among Latinos and African Americans, but not fast enough. Low-income, first-generation, Latino, and African American students—who make up most of the student population in the state’s public high schools—are less likely to finish high school, enroll in college, and graduate from college than their peers. For instance, among young adults born in California, 60 percent of Asian Americans and 40 percent of whites have at least a bachelor’s degree, compared to 21 percent of African Americans and 18 percent of Latinos.

• Highly educated immigrants are essential to California’s workforce.
Recent immigrants to California are now more likely than US-born Californians to hold at least a bachelor’s degree. While the overall number of recent immigrants fell by 21 percent between 2000 and 2017, the number of highly educated immigrants rose by 41 percent. In 2017, about half of recent immigrants had at least a bachelor’s degree—and three in ten members of the state’s highly educated workforce are recent immigrants. These changes in educational attainment coincide with shifts in recent immigrants’ countries of origin. China has displaced Mexico as the leading country of origin; India, the Philippines, and Vietnam round out the top five. In 2017, 48 percent of recent immigrants from China—and about 80 percent from India—had at least a bachelor’s degree.

Higher education institutions are committed to increasing the number of graduates
The state and its higher education institutions are making progress by increasing enrollment, graduation rates, and degrees awarded. These advances have been made possible at least partly because of renewed funding from the state.

• More students are graduating from CSU and UC than ever before.
Recent investments in higher education have led to sizable increases in enrollment at the state’s public universities. Along with concerted efforts to improve completion among students already in college, the number of degrees awarded by California’s colleges and universities has increased substantially. The number of bachelor’s degrees awarded at CSU and UC in 2017–18 was the highest ever (161,000), and the increase over the past few years (24,000) is the largest in at least two decades.

• Community colleges play a key role in increasing the number of bachelor’s degrees awarded.
The California Community College’s Vision for Success, a blueprint for improving student outcomes, sets ambitious goals for transfer rates to four-year universities. Those targets include a 35 percent increase in the number of transfer students at UC and CSU—from about 72,000 in 2015 to almost 100,000 by 2020. Because the student population at the community colleges reflects California’s economic and demographic diversity, improving transfer pathways will ensure that more low-income, first-generation, and other underrepresented students have access to a four-year degree.

• Private nonprofit colleges and universities are making important efforts.
California’s private nonprofit college system—which includes small liberal arts schools and large research universities—enrolls almost as many undergraduates as the University of California. Many colleges are seeking to increase enrollment and have developed protocols to increase transfers from California’s community colleges.

Looking ahead
The key to meeting future workforce needs and improving student outcomes in California is to make deliberate choices and take action today. Increasing college completion among underrepresented groups should be an important focus.

Align state education goals—and funding—with workforce needs. California has not adopted broad and widely accepted targets since it released the Master Plan for Higher Education in 1960. Workforce demand has changed substantially since then and will continue to evolve. If the state establishes a higher education coordinating body, one of its first priorities should be to establish new goals for higher education access and completion.
Improve completion rates at both two- and four-year institutions. A large share of California’s high school graduates attend college, but relatively few obtain four-year degrees. Even small improvements in transfer rates to four-year institutions and in college completion could substantially reduce the degree gap and improve educational outcomes among low-income and underrepresented students.

Provide students with information on the earnings potential of career pathways. College training that does not lead to a well-paying career does little to improve economic outcomes. Students need information and guidance as they make important choices. California’s public colleges have taken a big step in the right direction by providing easily accessible information on labor market outcomes (and success rates) across colleges and programs in the system.

Focus on increasing college readiness among K–12 students. Improving student achievement in high school and earlier—especially among low-income and disadvantaged students—can help lay the groundwork for success in college. This is a primary goal of the recently adopted Common Core curriculum in K–12 schools.