



Hans Johnson

EDUCATING CALIFORNIA

CHOICES FOR THE FUTURE



PPIC

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SHORTCHANGING EDUCATION?





Spending on education is the biggest-ticket item in the California state budget. Consequently, education funding is an obvious target when that budget must be cut. The current fiscal crisis has been no exception. School districts around the state are cutting jobs and programs. Recent proposed cuts in higher education funding have led both the California State University (CSU) system and the University of California (UC) to reduce admissions. Although increased investment alone will not solve all our educational challenges, cuts in education funding work against the state's long-term interests. California is already facing a "skills gap" that threatens its future economy. We need more—not less—support for education to narrow that gap, and more information about how to best target that support. Unless decisions and actions are taken soon to improve educational outcomes for Californians, the state's future economy and the prosperity of its residents will be compromised. The good news is that modest improvements could lead to substantial long-term gains.

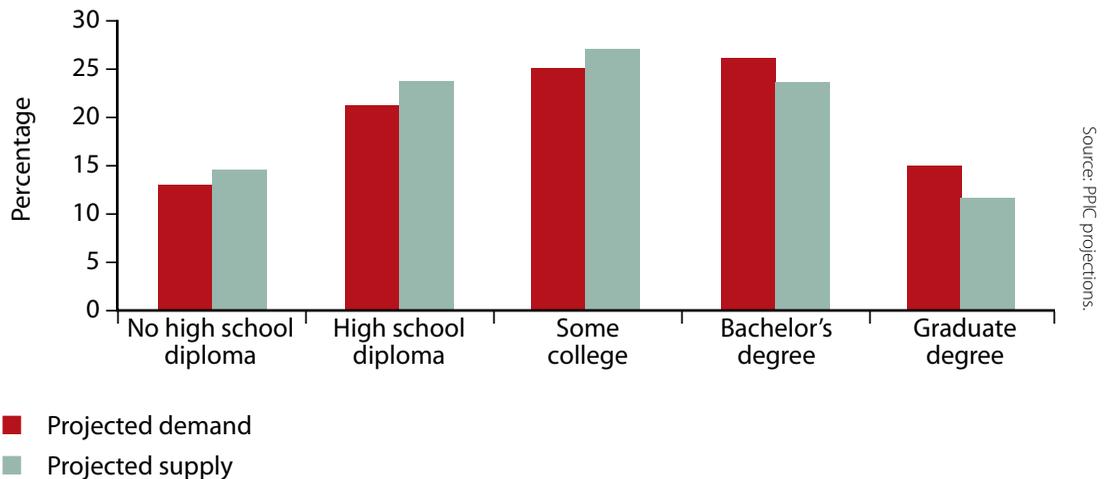
THE SKILLS GAP AND

WHY IT MATTERS



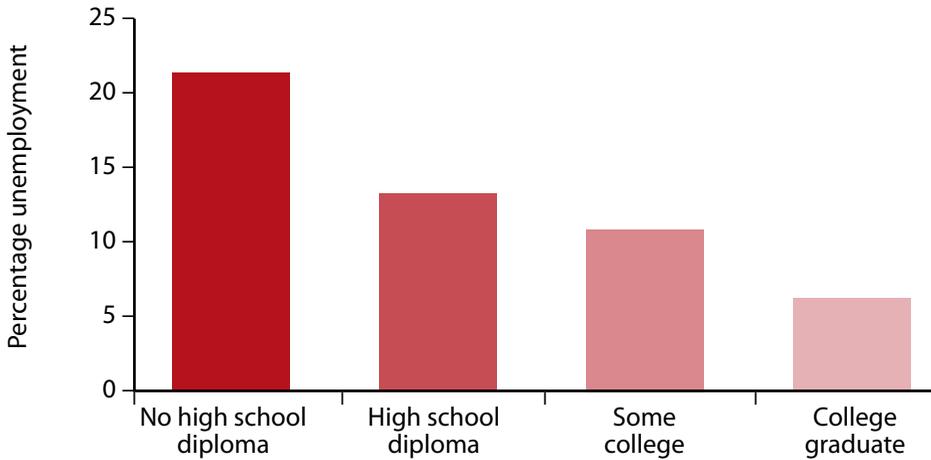
California's economy is becoming increasingly dependent on highly educated workers. But unless young adults' college-going and college graduation rates increase substantially, the supply of graduates is not likely to meet the demand. PPIC projects that by 2025, 41 percent of jobs will require at least a bachelor's degree—but only 35 percent of California adults will have college diplomas. To put it another way, if current trends persist, the state will face a shortfall of one million college graduates. Moreover, adults with a high school diploma or less will outnumber the jobs available to people with that level of education.

CALIFORNIA WILL NOT HAVE ENOUGH HIGHLY EDUCATED WORKERS BY 2025



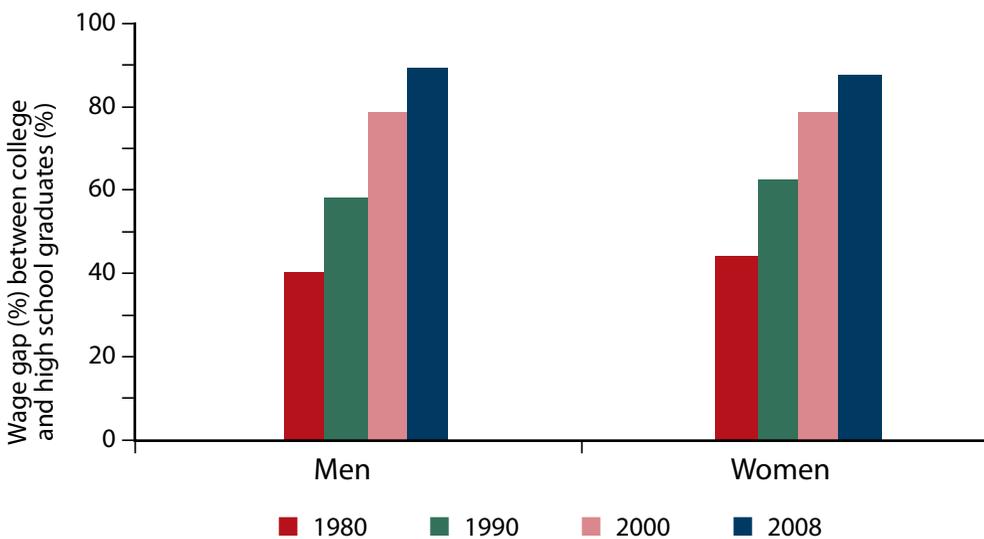
The gap between the demands of California's economy and the supply of college-educated workers poses a serious threat to the state's economic future. Over the past few decades, workers with a college degree have fared well in California's economy, but those with a high school diploma or less have fared poorly. During the current downturn, high school graduates are more than twice as likely as college graduates to be unemployed, and high school dropouts are faring even worse—one out of

UNEMPLOYMENT RATES ARE MUCH LOWER FOR COLLEGE GRADUATES



Source: PPIC tabulations of March 2009 Current Population Survey.

WAGES ARE HIGHER FOR CALIFORNIA COLLEGE GRADUATES, AND THE GAP IS WIDENING



Source: PPIC wage model based on 2000 census data and 2008 Current Population Survey.

every five is unemployed. Moreover, the difference in wages between a college graduate and a high school graduate has grown dramatically and now stands at record levels. College graduates in California earn almost twice as much per hour as high school graduates. As a result, income inequality has also reached record levels and is greater in California than in the rest of the nation. As the demand for higher-skilled workers increases, the employment prospects for Californians with low education levels will be even lower than they are now.

This wage gap will likely worsen if the skills gap grows, jeopardizing the state's well-being in other ways. Adults with less education not only earn less but they also work less and need more help from social services. Furthermore, if employers see that California does not have enough highly educated workers, they will be less likely to establish firms here—firms that could provide high-paying jobs to high-skilled workers. Fewer high-paying jobs mean less personal income tax revenue for the state, creating a revenue shortfall that will affect funding for critical items like schools and transportation.

As the demand for higher-skilled workers increases, the **employment prospects**

for Californians with low education levels will be **even lower** than they are now.





WHY DO WE HAVE A SKILLS GAP?



California faces a **skills gap** because policymakers, including the state's voters, have not made the tough decisions necessary to develop an **effective education** system.

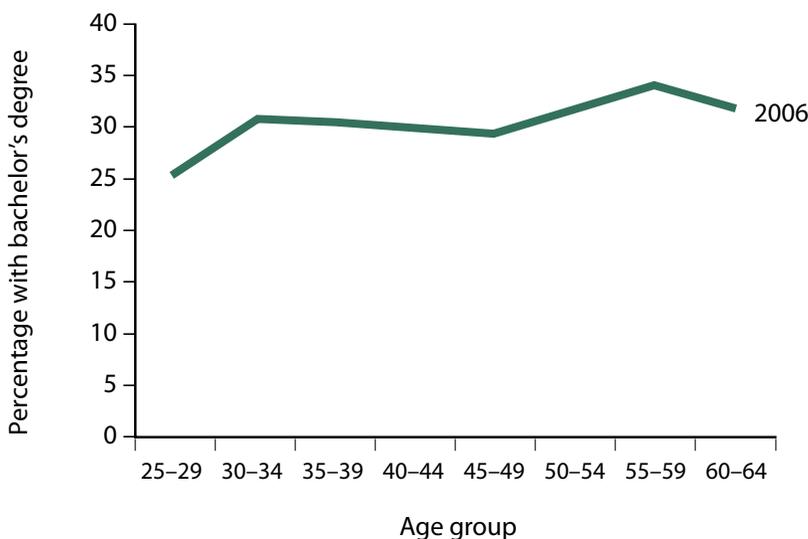
The skills gap in California arises not from fundamental changes in the trajectory of the state's economy but from significant demographic shifts. First, the baby boomers—born between 1946 and 1964—are a large, well-educated group that will be retiring in large numbers over the next couple of decades. This means that from 2005 to 2025, about three million college graduates in California will leave the workforce. This will be the first time that the United States and California have lost so many college graduates to retirement in such a short period.

Second, in the past, less-educated retirees were replaced by younger, better-educated workers just entering the workforce. But there will not be enough young adults with a college education to meet the increase in demand for highly educated workers after the baby boomers retire. In California, 35 percent of 55- to 59-year-olds are

college graduates, compared to only 26 percent of 25- to 29-year-olds. Further, increasing numbers of new workers will be Latino. Although California Latinos have made strong gains in education from generation to generation, those gains show up mainly in high school completion rates. U.S.-born Latinos attend college and graduate at far lower rates than other U.S.-born residents. At the other end of the educational spectrum, the number of working-age adults who are not high school graduates will decline—but there will be far more of them than will be needed in the workforce.

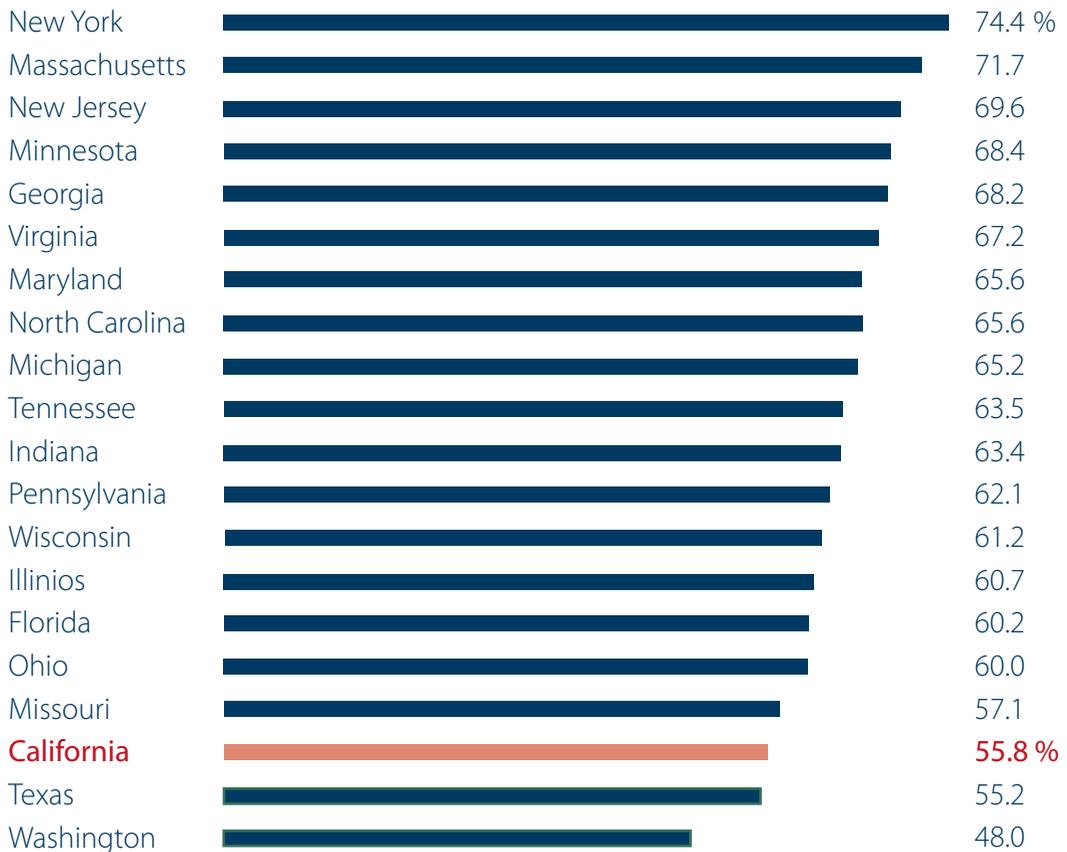
One in four California high school students fails to graduate. Some of these students eventually earn a GED, but most do not. Dropout rates are even higher among Latino students, with one in three failing to complete high school. Continued inflows of immigrants, some with low

COLLEGE EDUCATION IS HIGHEST AMONG ADULTS REACHING RETIREMENT AGE



Source: PPIC tabulations based on 1990 census data and 2006 American Community Survey.

CALIFORNIA'S COLLEGE-GOING RATES OF RECENT HIGH SCHOOL GRADUATES ARE LOW



Source: National Center for Higher Education Management System.

levels of education, will also add to the number of less-educated adults. Although population projections show some improvements in educational attainment, these improvements are slower than in the past and will not keep up with workforce demands.

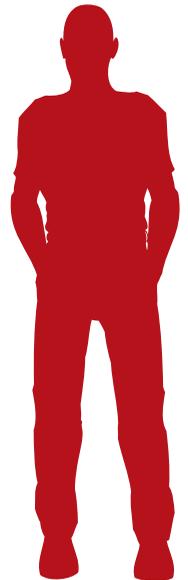
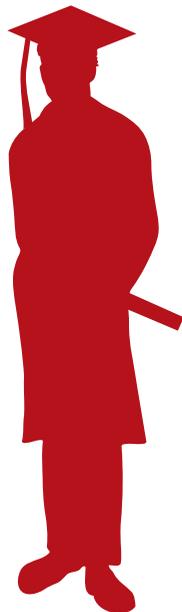
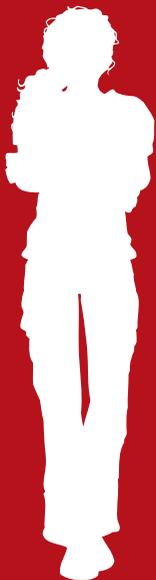
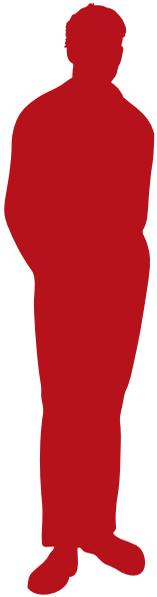
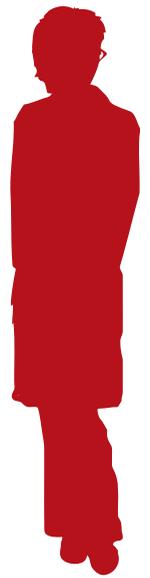
California is facing a skills gap in part because policymakers, including the state's voters, have not made the tough decisions necessary to develop an effective education system. By almost any accounting, California has fallen behind other states in K–12 funding—and students who do not get a good high school education are less likely to go to college. Among the 20 most populous states, California ranks 19th in the percentage

of high school graduates who enroll directly in a four-year college or university; 18th in the percentage who enroll in any college, including community colleges; and 18th in the ratio of bachelor's degrees awarded to high school graduates.

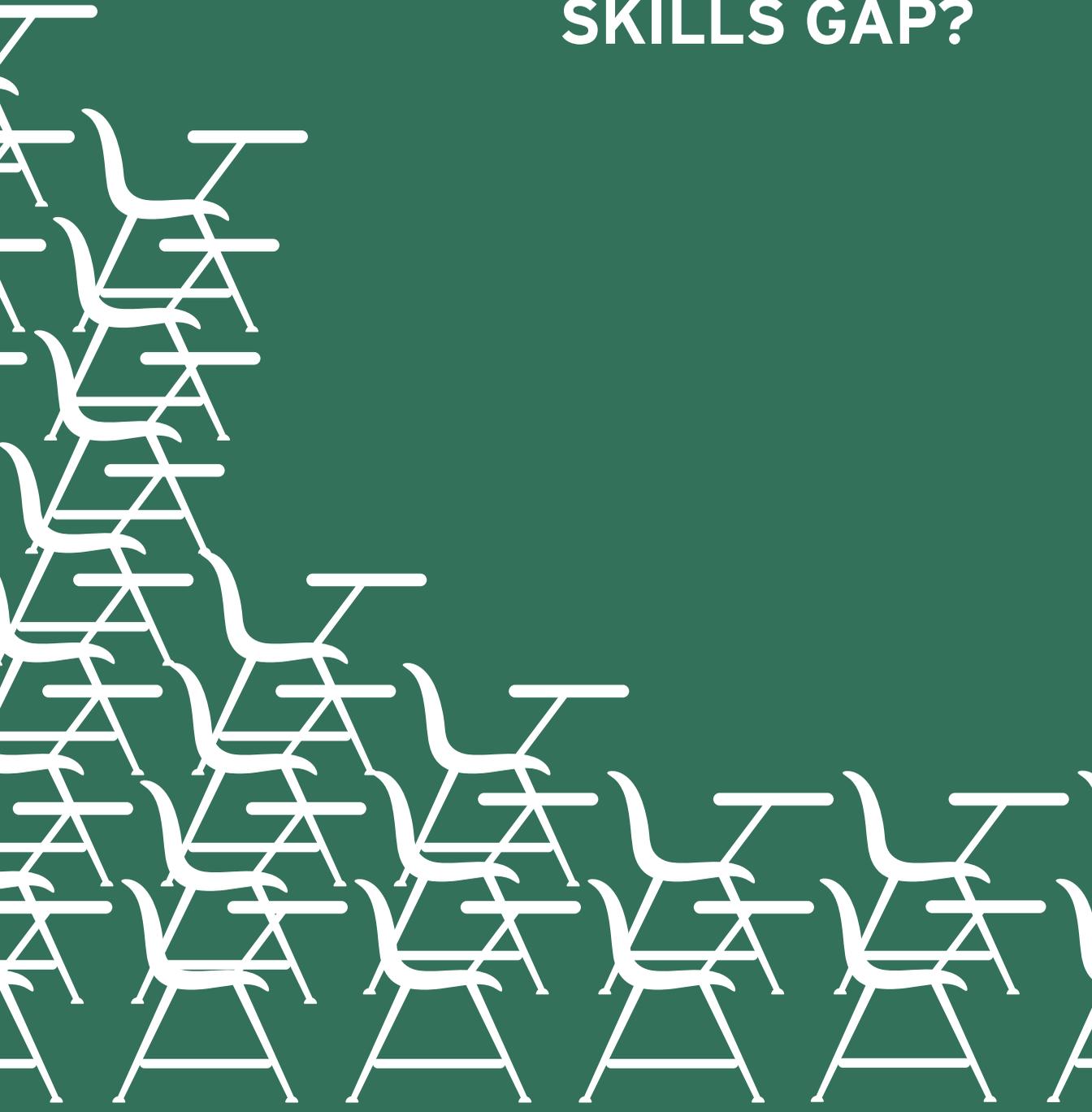
The state's commitment to funding higher education has also declined. In 1980, 17 percent of the state budget went to higher education. In 2007, education got only 10 percent. This is an especially important trend because higher education is largely a public undertaking in California. Private colleges and universities enroll less than 20 percent of students in the state; public institutions award 75 percent of all bachelor's degrees earned each year.



There will **not be enough** young adults with a college education **to meet the increase in demand** for highly educated workers after the baby boomers retire.



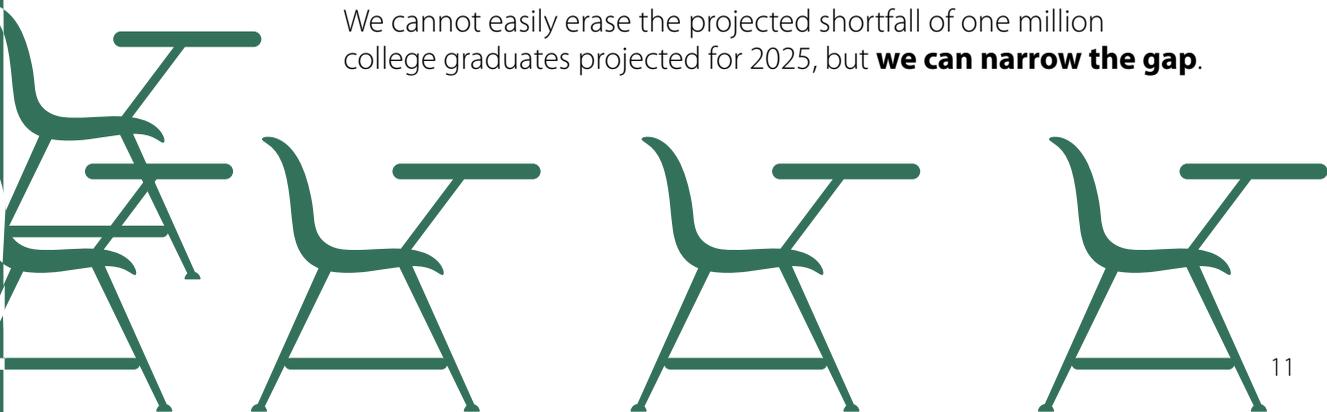
WHAT CAN WE DO ABOUT THE SKILLS GAP?



First, one potential source of help must be discounted. For years, California benefited from a substantial in-migration of skilled workers, consistently experiencing net inflows of college graduates from other states and net outflows of less-educated adults. For example, in 1980, two-thirds of the state's college graduates were born in other states or other countries. But those days are over. In an increasingly competitive global market, California has to compete with other states and other countries for highly educated workers. Since 2000, California has lost slightly more college graduates to other states than it has gained from those states. California does attract highly skilled workers from other countries, but not enough to meet the need.

Given these trends, can California possibly home-grow enough college graduates to close the skills gap? Currently, state public institutions award slightly more than 110,000 bachelor's degrees each year and private institutions award 40,000. To meet the projected demand by 2025, the state would need to immediately increase the number awarded by almost 60,000 per year—about 40 percent above current levels. This is a daunting challenge that is, in the short run, very unlikely to be met. It would involve not only improvements and expansions of the state's higher education systems but also greater investments in the state's K-12 system to slow the high school dropout rate and increases in the number of high school graduates who are equipped for college-level work.

We cannot easily erase the projected shortfall of one million college graduates projected for 2025, but **we can narrow the gap.**



We cannot easily erase the projected shortfall of one million college graduates projected for 2025, but we can narrow the gap. The state could add more than 500,000 new college graduates to the population by 2025 through relatively modest increases in three areas: the college-going rates of high school graduates, the transfer rates from community to four-year colleges, and degree-completion rates, primarily in the CSU system. Of course, the projected shortfall of highly educated workers is mirrored by the projected surplus of less-educated adults. California must work to improve K–12 outcomes in order to improve outcomes in higher education.

Increase the college-going rates of high school graduates. An obvious way to get more college graduates is to increase the number of students who go to college. This is certainly an area that can be improved: only 56 percent of California high school graduates go directly to college, compared to 62 percent nationally. Increasing California’s rate to match the national rate would lead to 20,000 additional college degrees awarded in 2025 (assuming current completion rates).

One impediment to increasing college-going rates is the high school dropout rate. The California Department of Education estimates that 24 percent of students drop out of high school. Decreasing that rate by half would add about 60,000 more high school graduates, on average, between now and 2025. Another major impediment is inadequate preparation for college: even students who do graduate are not always ready for college-level work. Increasing college-going rates would therefore require improvements in preparation, so that high school graduates can succeed at college-level work.

There are no simple solutions to these problems. A recent review of the state’s K–12 system concluded that “no one program or interven-

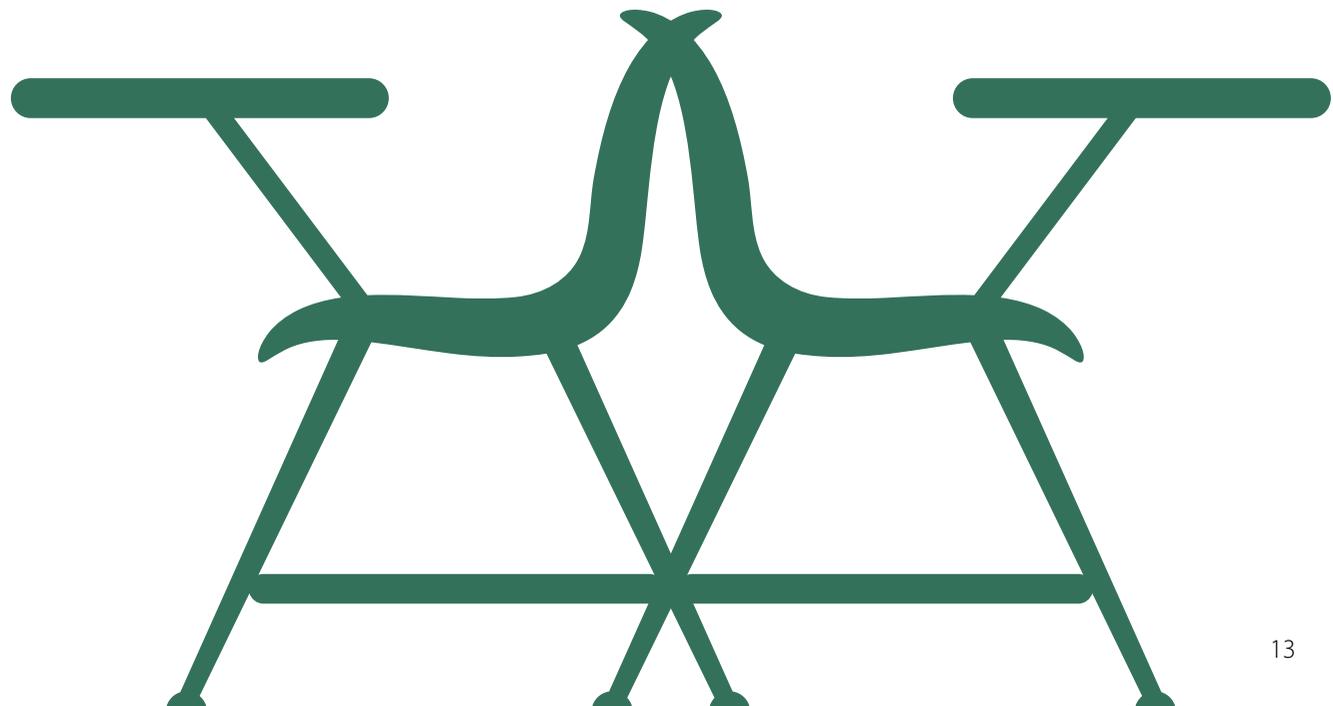
tion will fix the system.” Interventions in early grades seem to be more effective than later interventions. Certainly, the state’s complex K–12 financing and governance systems should better support state goals. And although funding alone will not improve outcomes, it is notable that the state lags behind many other large states and is below the national average in per-student expenditures. The programs that show promise in keeping children in schools include career technical education and early college commitment programs in which middle school students learn about college entrance requirements and funding opportunities, and commit to a rigorous set of courses in high school. Programs that help high school students assess their ability to do college-level work should help reduce the need for remedial classes in college. Unfortunately, the state lacks the information necessary to evaluate policy interventions. The new state student data system is promising, but it must be designed in a way that allows policymakers to identify the best ways to improve student outcomes.

Other impediments to college-going are information deficits and costs. Many California families have no college experience (this is especially true of immigrant families) and limited access to information about what it takes to prepare a child for college. And although tuition fees are relatively low in California, the full cost of attending college also includes living expenses, such as room and board. In a recent PPIC survey, more than half of adults and more than half of parents with children age 18 or younger stated that the expense of attending California’s public colleges and universities was a “big problem.” Almost three-fourths felt that students have to borrow too much to pay for their college educations.

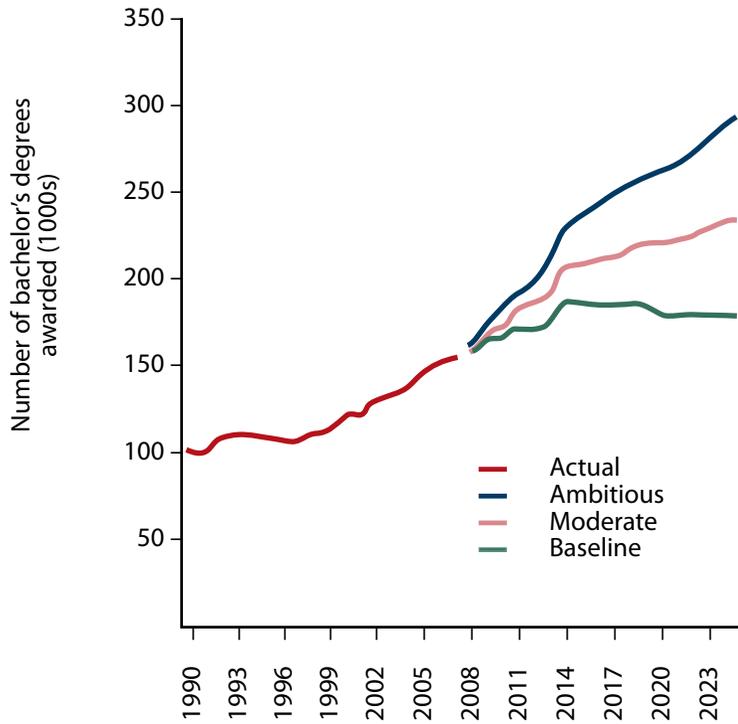
Increase community college transfer rates. Because more than 70 percent of California college students are in community colleges,

WHAT CAN WE DO TO NARROW THE SKILLS GAP?

SCENARIO	DESCRIPTION	NUMBER OF GRADUATES
Baseline	College enrollment and graduation rates stay the same as current levels.	Number of college graduates increases 30,000 per year by 2025 to accommodate a 20 percent increase in population.
Moderate increase	College enrollment, transfer, and graduation rates increase substantially. Direct enrollment rates from high school increase from 55% to 61%. Transfer rates increase by 22%. CSU graduation rates increase from about 50% to 62%.	Number of college graduates increases 30,000 per year over baseline levels to substantially narrow the gap.
Ambitious increase	College enrollment, transfer, and graduation rates completely close the gap between workforce demand and population supply. Direct enrollment rates from high school rise from 55% to 65%. Transfer rates increase by one-third. CSU graduation rates increase from about 50% to 69%.	Number of college graduates increases 60,000 over baseline levels to close the gap.



EVEN A MODEST EFFORT COULD SIGNIFICANTLY INCREASE THE NUMBER OF COLLEGE GRADUATES



Source: PPIC projections.



Transfer rates could be **improved** with more effective remedial programs, early and accurate assessments, and coordination of course requirements between community colleges and four-year universities.

increasing the number of transfers could significantly increase the number of college degrees awarded. According to the California Community College Chancellor's Office, 55 percent of all bachelor's degrees awarded at CSU in 2007 and 28 percent in the UC system were earned by community college transfer students. Most students who enter community college do not transfer to a four-year institution—only about 10 to 12 percent of an entering class do so. Once they do transfer, however, these students have very high completion rates. Consequently, increasing transfer rates could significantly increase the number of students who earn bachelor's degrees.

Community colleges serve many purposes, and large numbers of students enter with no intention of transferring to a four-year college. But there are many obstacles in the way of students who do intend to transfer. Many of these students are not academically prepared for college-level work. There is also a lack of course alignment between community colleges and four-year colleges. Transfer rates could be improved with more effective remedial programs, early and accurate assessments, and coordination of course requirements between community colleges and four-year universities. And the cost of attending a four-year college is an impediment to many.

Increase completion rates. Increasing completion rates, especially in the CSU system, could significantly narrow the skills gap. In 2007, the CSU and UC systems granted almost three of every four bachelor's degrees awarded in the state. The UC system enrolls far fewer undergraduate students than the CSU system (in 2007,

UC had less than half as many as CSU). However, the UC system awards about 60 percent as many bachelor's degrees. This outcome is primarily due to the substantially higher completion rates at UC. About four of every five UC students who enter as freshmen graduate within six years; only about half of CSU students do so.

In other words, graduation rates in the UC system are relatively high, but the lower graduation rates at CSU leave substantial room for improvement. If CSU graduation rates were to increase to three-fourths of the current UC levels (regardless of ethnic group or whether a student is a transfer) from 2009 to 2025, then the number of additional bachelor's degrees awarded would reach 145,000 in 2025, totaling about 400,000 over the entire period. The different completion rates at UC and CSU are at least partially explained by better prepared entering students and more resources at UC. Obstacles to completion at CSU schools include students' poor academic preparation and the financial burden of attending college.

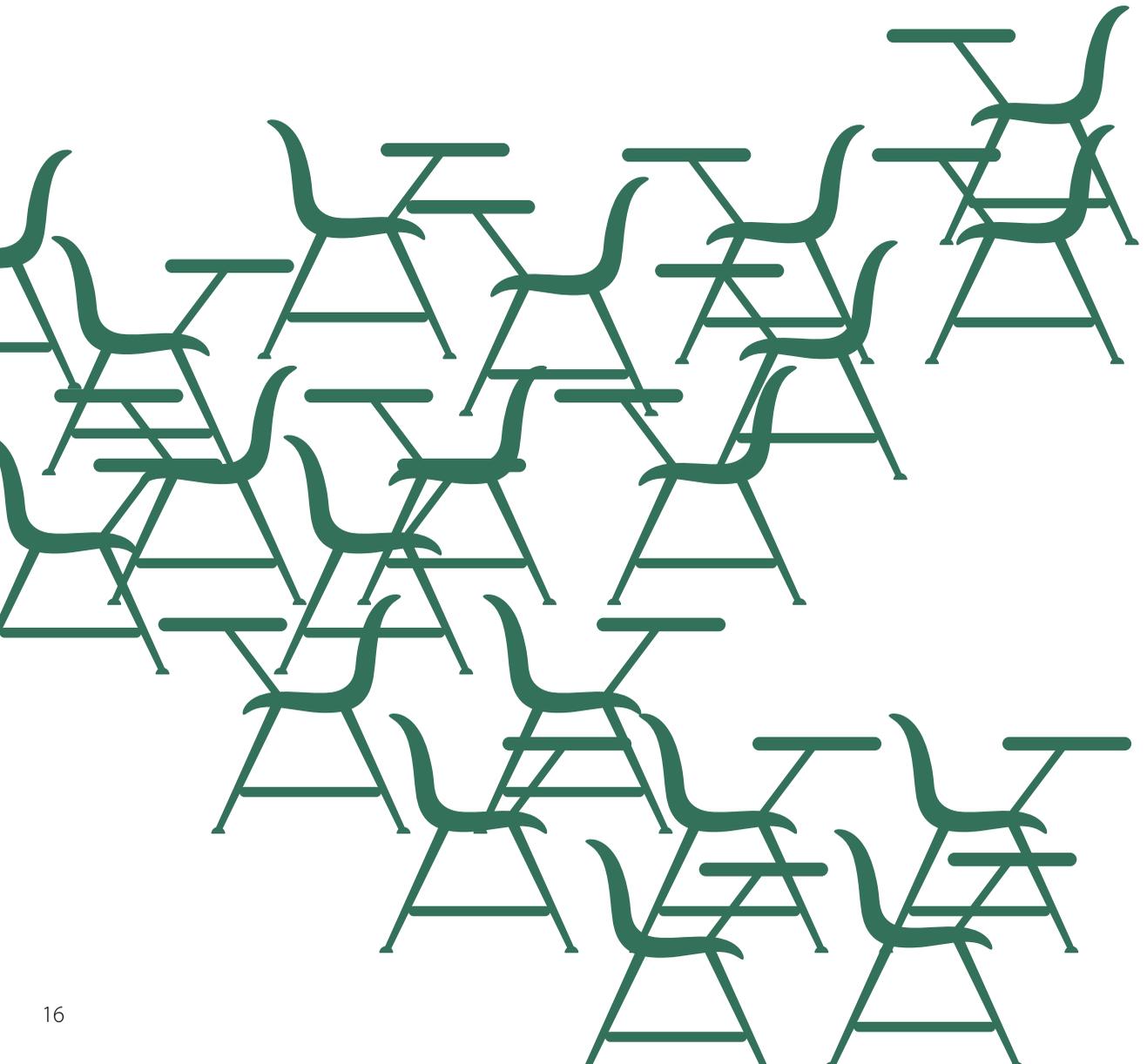
Get the biggest bang for the buck. In all three areas, the impediments to improvement and the options for overcoming those impediments are complex—and beyond the scope of this discussion. In this fiscally troubled time, however, state costs are a prime consideration. Increasing college enrollment is the most expensive pathway, requiring at least four years of expenditures to produce a new college graduate. The least expensive option, overall, is to improve the completion rates of students already in the four-year systems, primarily at CSU. It should also be noted that California's college fees are relatively low; increasing fees for higher-income students while

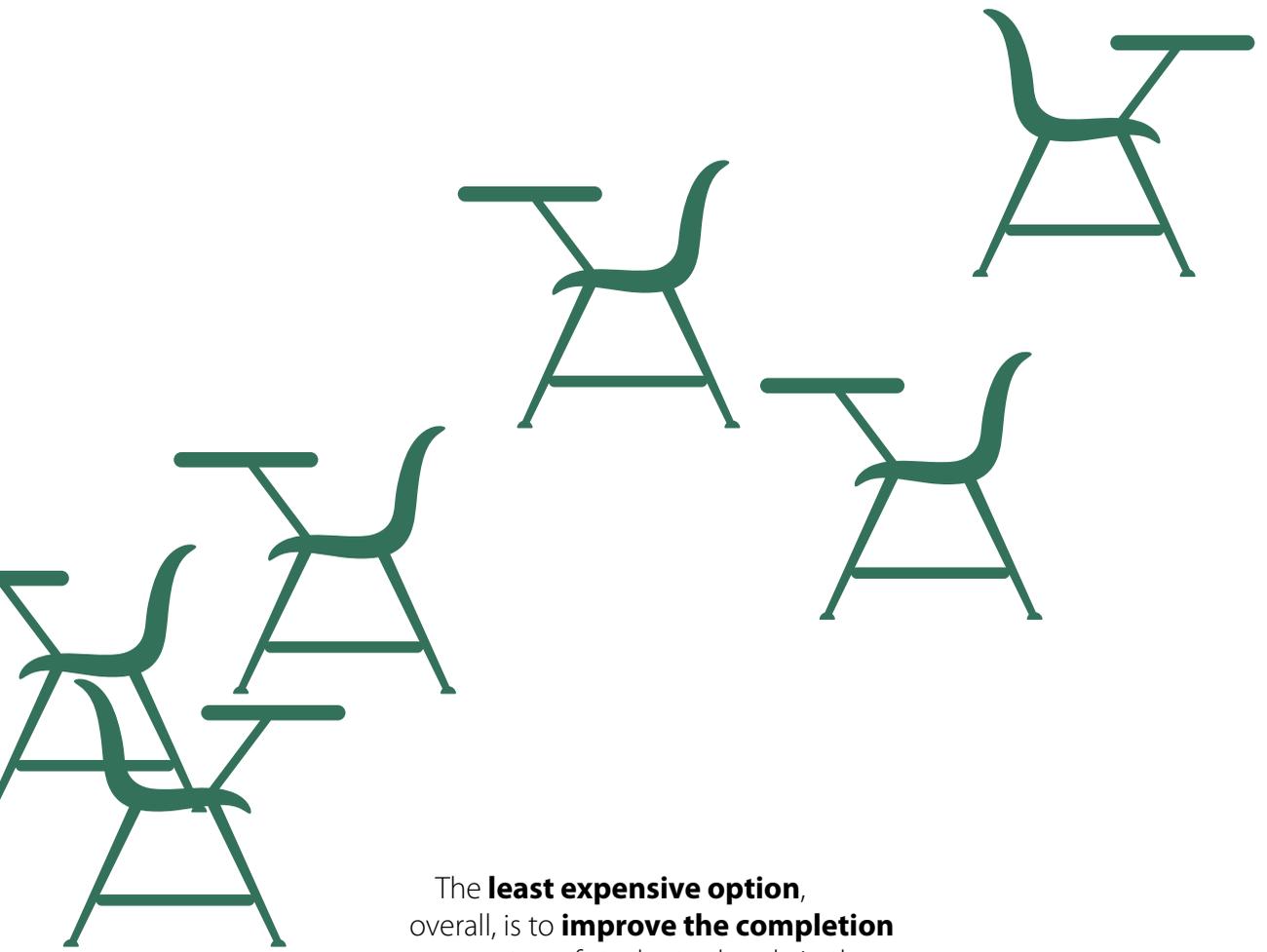
increasing aid for lower-income students could provide access to more students without requiring large expenditure increases by the state.

Improving completion rates is an attractive policy option for several other reasons. First, it involves students already enrolled in the state's public universities—they have already overcome all of the difficulties and obstacles that sometimes prevent high school and community college students from enrolling in the CSU and UC systems. Second, the state has already invested in these students by subsidizing their postsecondary education; with a bit more in-

vestment, the state can realize the benefits that come from having produced an adult with a bachelor's degree. This additional investment is presumably much lower than the costs associated with the other two pathways.

However, the size of the education skills gap, at both the low end and the high end of the education spectrum, means that the state cannot rely on only one approach. Reducing or eliminating the skills gap will require more high school graduates attending college, more students transferring, and higher completion rates. Moreover, the importance of improving





The **least expensive option**, overall, is to **improve the completion rates** of students already in the four-year systems, primarily at CSU.

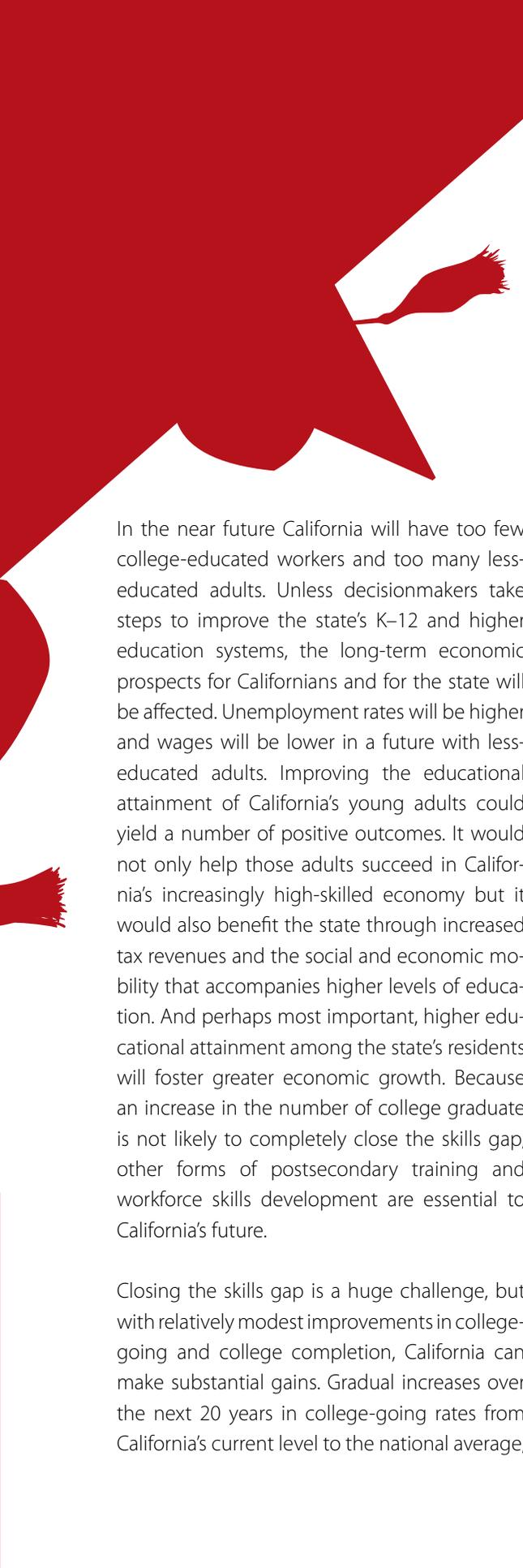
the state's K-12 system cannot be overstated. High school dropouts already face bleak labor market outcomes, and our projections suggest that employment opportunities for these young adults will only shrink further.

Although it would be difficult to completely close the skills gap and meet the demand for college-educated workers, other training programs might provide alternatives to a bachelor's degree. To take advantage of other training opportunities, California's high school graduates

must be equipped to succeed in some kind of postsecondary program. The state's community college system represents a tremendous resource that could help provide that training and help close the skills gap. Worker training, including career technical education (vocational education) programs offered at community colleges, could play an important role in helping students develop skills that employers would accept in lieu of a bachelor's degree. This kind of training, if done effectively, could be very cost effective.

Looking Ahead





In the near future California will have too few college-educated workers and too many less-educated adults. Unless decisionmakers take steps to improve the state's K-12 and higher education systems, the long-term economic prospects for Californians and for the state will be affected. Unemployment rates will be higher and wages will be lower in a future with less-educated adults. Improving the educational attainment of California's young adults could yield a number of positive outcomes. It would not only help those adults succeed in California's increasingly high-skilled economy but it would also benefit the state through increased tax revenues and the social and economic mobility that accompanies higher levels of education. And perhaps most important, higher educational attainment among the state's residents will foster greater economic growth. Because an increase in the number of college graduate is not likely to completely close the skills gap, other forms of postsecondary training and workforce skills development are essential to California's future.

Closing the skills gap is a huge challenge, but with relatively modest improvements in college-going and college completion, California can make substantial gains. Gradual increases over the next 20 years in college-going rates from California's current level to the national average,

a 20 percent improvement in transfer rates, and an improvement in completion rates at CSU so that they are about halfway between CSU's and UC's current levels would, together, reduce the skills gap by one-half by 2025. Such improvements in college attendance, transfer, and graduation are not without precedent. For example, at the national level, 61 percent of high school graduates in 2006 went directly to college. In California, some of the state's community colleges have transfer rates that are twice as high as others with similar student populations. And CSU has experienced even stronger increases in rates of graduation in the past. Because the skills gap is not likely to be completely closed by increasing the number of college graduates, other forms of postsecondary education, including two-year degrees and certificates offered at community colleges, could help satisfy some of the demand.

California policymakers have a vital role to play in ensuring the future prosperity of this state, and the state's K-12 system and three public higher education systems are central to that prosperity. Currently planned reductions in funding to the state's schools and colleges will only exacerbate the future skills gap. Without a major effort to improve high school outcomes as well as college attendance and graduation, California's economic and fiscal futures will be much less bright. State legislators and other policymakers must work together to plan and implement strategies that will strengthen and revitalize California's education system. Depending on how long and how deep the current recession is, projections of workforce requirements, effects on wages, and likely educational levels could change. Even so, reductions in funding currently planned for the state's schools and colleges are not in the state's long-term best interests. Shortchanging education for quick budget fixes is a short-sighted approach that could seriously undermine California's economic future.

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PPIC's extensive research on California's future can be found on our website at www.ca2025.org.

California 2025: Planning for a Better Future

Closing the Gap: Meeting California's Need for College Graduates

At Issue: Paying for Infrastructure

Today's Choices, Tomorrow's Changes

California's Future: In Your Hands

CA2025: It's Your Choice

CA2025: Taking on the Future

PPIC Statewide Surveys

At Issue: The State of California Voters

At Issue: California's Post-Partisan Future

At Issue: Legislative Reform

At Issue: California's Exclusive Electorate

Can California Import Enough College Graduates to Meet Workforce Needs?

Just the Facts:

Californians' Attitudes Toward the Future

California's Future Population

California's Future Economy

Education Facilities

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Transportation Systems

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