

CALIFORNIA'S FUTURE

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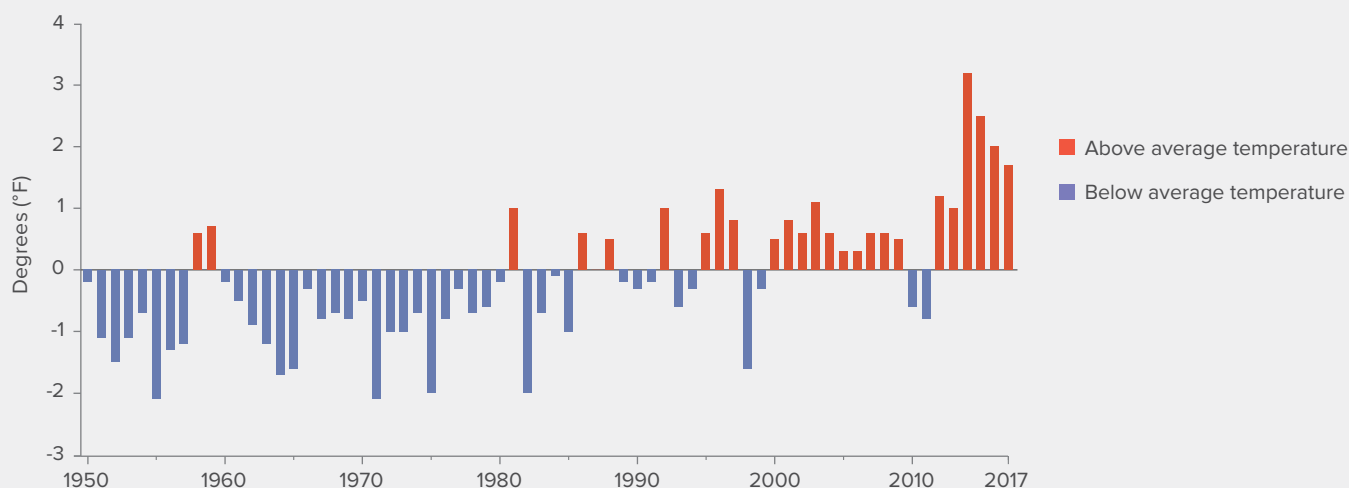
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Climate change threatens California's future

Global emissions of greenhouse gases (GHGs) are raising air and water temperatures as well as sea levels, with serious consequences for California. The state has recently experienced record-high temperatures, and warming is expected to continue over the century. The sea level is predicted to rise 12 to 55 inches by 2100 in California's most populated coastal regions, and the frequency of extreme events such as droughts, heat waves, wildfires, and floods is expected to increase. Higher temperatures result in more precipitation falling as rain (and less as snow), which will increase both the frequency and magnitude of flooding and diminish water reserves in the Sierra snowpack. Even if all GHG emissions ceased today, some of these changes would be unavoidable because the climate system changes slowly.

CALIFORNIA IS GETTING WARMER



SOURCE: National Oceanic and Atmospheric Administration.

NOTES: The figure shows degrees above or below the average statewide temperature (58.3°F) from 1981 to 2000. The 2017 value is an estimate—based on the average monthly temperature of January to October 2017, departing from the average temperature for the same months in the 1981–2000 period (60.6°F).

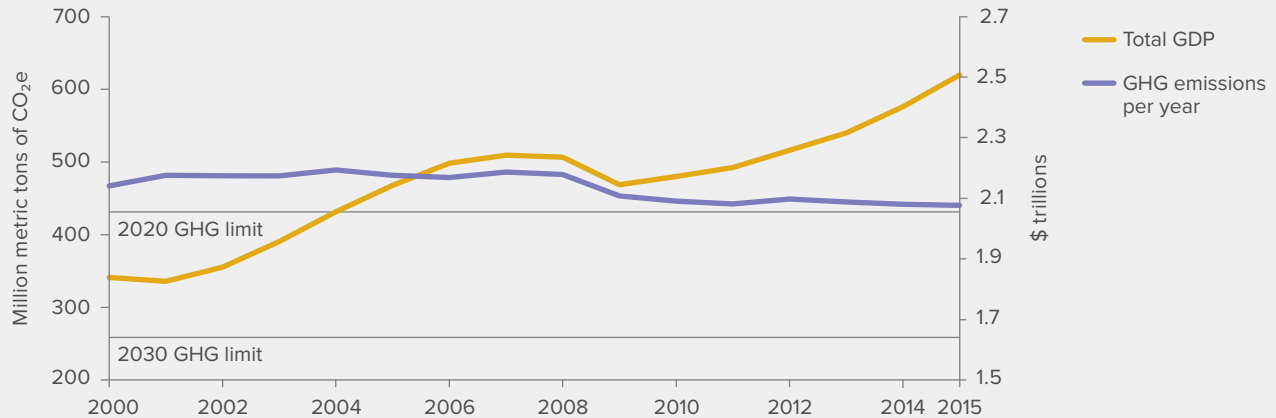
In the face of these threats, California has emerged as a leader in global efforts to reduce GHG emissions. In 2006, California enacted Assembly Bill (AB) 32, the Global Warming Solutions Act, which requires the state to reduce GHG emissions to 1990 levels by 2020. In 2016, the enactment of Senate Bill (SB) 32 extended this commitment by raising the emission reduction target to 40 percent below 1990 levels by 2030. And an executive order calls for GHG emissions to be reduced to 80 percent below 1990 levels by 2050. The July 2017 PPIC Statewide Survey found that two in three Californians favor the state's emission reduction goals.

Reductions of this magnitude are needed on a global scale to stabilize the earth's climate. California faces a twofold policy challenge: finding cost-effective ways to reduce GHG emissions and preparing for the climate changes that are expected even if emissions are reduced.

California is using a multifaceted approach to reduce emissions

According to the California Air Resources Board (CARB), which is responsible for implementing the Global Warming Solutions Act, California is on track to meet the 2020 emissions target. CARB recently updated its Scoping Plan to establish a framework for meeting the 2030 target. Laws enacted in 2015, 2016, and 2017 take steps in this direction. The initial Scoping Plan, adopted in late 2008, was the first comprehensive plan of its kind within the United States (and one of the first such plans internationally).

CALIFORNIA'S ECONOMY IS GROWING DESPITE REDUCTIONS IN GHG EMISSIONS



SOURCES: California Air Resources Board (emissions) and US Bureau of Economic Analysis (GDP).

NOTES: Gross domestic product (GDP) is expressed in 2016 dollars. GHG emissions are in millions of metric tons of CO₂ equivalent (CO₂e), a measure used to compare the relative contribution to global warming of various greenhouse gases. The CO₂e of CO₂ is 1, while the CO₂e of methane is 25.

- **Reducing transportation emissions is key.**

Although transportation emissions have been reduced by 10 percent since the early 2000s, this sector is still California's largest GHG source (39% in 2015). Policies to reduce GHGs include low-carbon fuel standards that aim to lower the carbon intensity of fuels by 10 percent by 2020; a plan to add 1.5 million zero emission vehicles—or electric vehicles—to roadways by 2025; SB 375, which would reduce vehicle miles traveled by integrating land-use and transportation investments; and a plan to reduce emissions from public transit and freight vehicles.

- **The state is increasing its reliance on cleaner energy.**

California's Renewables Portfolio Standard requires power utilities to provide 33 percent of total electricity from renewable energy sources by 2020. In 2015, SB 350 raised this target to 50 percent by 2030. The state is on track to meet the 2020 goal—more than 25 percent of electricity came from renewable sources in 2016—but achieving the goal for 2030 will require additional shifts away from natural gas as a power source.

- **A statewide cap-and-trade program brings flexibility to efforts to reduce GHG emissions.**

California was the first state to enact a GHG cap-and-trade program. Adopted in 2011, the program was recently extended to 2030. By allowing businesses to trade emissions permits, cap and trade allows market forces to help determine the cost of reducing emissions. Permit auctions now cover 85 percent of the state's GHG emissions. The auctions began in 2012 with electric utilities and large industrial emitters; transportation and heating fuels were added in 2015.

- **New policies target methane and other potent GHGs.**

Short-lived hydrofluorocarbons (HFCs)—methane, black carbon, and most fluorinated gases—are powerful climate-warming gases and harmful air pollutants. Together, they account for more than 13 percent of all GHG emissions, with methane the largest source at 9 percent. SB 1383 (enacted in 2016) mandates cutting methane and HFCs by 40 percent and black carbon by 50 percent below 2013 levels by 2030, following a strategy proposed by CARB. The proposal could significantly affect California's dairy industry, which is responsible for more than half of the state's total methane emissions.

- **Forests, farms, and wetlands provide opportunities to capture and store carbon.**

Carbon dioxide can be removed from the atmosphere by plants and stored in vegetation or in soils. The state is developing a strategy to align traditional environmental and economic benefits of natural and working lands with potential carbon storage, using integrated land-use approaches.

California needs to prepare for the effects of climate change

California is ahead of other states in developing information on the effects of climate change, but more work is needed to prepare for these changes.

SEA LEVEL RISE THREATENS THE BAY AREA



SOURCES: Map from San Francisco Bay Conservation and Development Commission; inundation data from N. Knowles, "Potential Inundation Due to Rising Sea Levels in the San Francisco Bay Region" (California Climate Change Center, 2009).

NOTE: The map illustrates the potential inundation with 16 inches and 55 inches of sea level rise, toward the upper end of the range expected by 2050 and 2100, respectively.

- **The effects of climate change are already evident.**

The mountain snowpack is melting earlier; the spring 2015 snowpack was the lowest on record. Average annual temperatures are rising and wildfires are increasing. Warming and more severe droughts are threatening some plants and animals with extinction.

- **Air quality will worsen and extreme events will increase.**

Rising temperatures will increase the intensity and spread of smog, likely requiring additional pollution controls to meet air quality standards. An increase in extreme events—heat waves, wildfires, and floods—will also threaten public health and challenge the state's health care and emergency preparedness systems.

- **Sea level rise threatens coastal infrastructure, homes, and habitat.**

The Pacific Institute found that 55 inches of sea level rise (near the higher end of projections for 2100) will put almost half a million residents at high risk of flooding and threaten critical infrastructure, including airports, power plants, sewage treatment plants, and 3,500 miles of roads. Risk prevention plans that also protect coastal ecosystems are needed.

- **Water management faces challenges.**

The shrinking mountain snowpack reduces water storage and increases the risk of Central Valley flooding. Rainfall variability is also expected to increase, leading to more-intense droughts and floods. Sea level rise and floods increase risks to the Sacramento–San Joaquin Delta's fragile levees, which are important for the state's water supply. The 2017 crisis at Oroville Dam highlighted the risks from aging infrastructure, designed to function in a past climate.

- **Agriculture will have to adapt to changing conditions.**

Reduced water supply reliability and higher temperatures will pose challenges for crop management. Research on heat- and drought-tolerant crops and tools such as localized climate information can help farmers adapt.

- **Native biodiversity is under threat.**

Climate change places an added burden on many plants and animals. As temperatures rise, many species will need to migrate to more hospitable areas, but development patterns could hinder this movement. During the latest drought, hot, dry conditions—similar to those expected in future droughts—put 18 native fish species at high risk of extinction.

- **Readiness to cope is variable.**

Water and electric utilities have begun to factor climate change into their long-range planning strategies, the state has developed an adaptation strategy for its agencies, and some local and regional governments are developing adaptation plans. But in areas such as ecosystem management and flood control, institutional and legal frameworks are ill-equipped to prepare for change.

- **The state is providing online adaptation tools for local governments.**

Cal-Adapt, the California Adaptation Planning Guide, and the California Local Energy Assurance Planning Tool can help local governments understand their vulnerabilities and prepare for change.

- **Californians support action to address climate change effects.**

In the July 2017 PPIC Statewide Survey, 72 percent of Californians supported the goal of cutting emissions to 40 percent below 1990 levels by 2030. Residents favor efforts to reduce warming even though most expect them to increase gas prices.

Looking ahead

California is on track to meet its emission reduction goals for 2020 and has begun to take actions to meet the more ambitious goals for 2030 and beyond. But California only produces about 1 percent of global emissions. Recent federal policy shifts on

energy and climate change are heightening uncertainty in the international arena, and even if efforts such as the 2015 Paris Agreement prove successful, California must prepare for some inevitable effects of climate change.

Achieve near-term greenhouse emission reductions. Large reductions are needed soon to avoid the most severe effects of climate change.

Undertake some “no regret” measures now to reduce the effects of climate change. For example, considering climate change in current land-use planning could facilitate migrations of species. Limiting development in flood-risk areas will avoid future costs.

Review adaptation plans for critical infrastructure. Incidents like the Oroville Dam crisis in early 2017 highlight the importance of assessing the impact of a changing climate on critical infrastructure. For infrastructure such as dams and power plants, response plans and funds for upgrades are required to protect public safety and maintain reliable services.

Spend cap-and-trade revenues in priority areas. Cap-and-trade auctions have made large sums available for programs to reduce GHG emissions. As of August 2017, roughly \$800 million is available from previous auctions, and revenues for 2017–18 are expected to reach \$2.5 to \$3 billion. Some of these funds are earmarked for programs in economically disadvantaged areas. Other priorities should include innovative projects with limited access to other funding, such as improving forest management to store carbon and helping dairies transform methane into electricity with bio-digesters.

Continue to play a leadership role. California’s new GHG emissions targets for 2030 reinforce the state’s commitment to combating climate change and encourage other governments to take action. California can also help lead global efforts by sharing information on successful innovations to reduce emissions.

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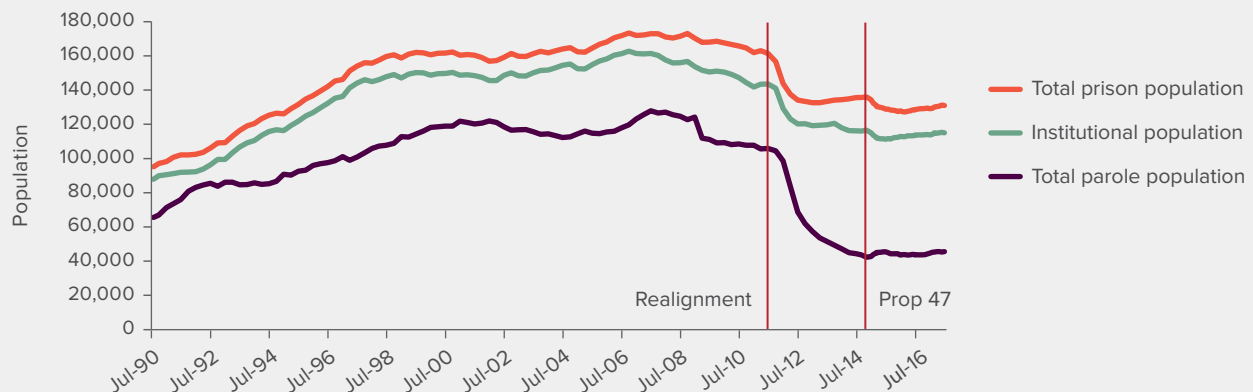
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California has reversed its long-term incarceration trend

California has reversed a decades-long trend of explosive growth in the state prison population that led to severe overcrowding. The population has dropped dramatically since the state enacted public safety realignment in 2011, after the US Supreme Court upheld a federal mandate to ease prison overcrowding. Realignment shifted responsibility for many non-serious, non-violent, and non-sexual offenders to county jail and probation systems. The reform cut the prison population by about 27,400 in its first year, while increasing the jail population. Two voter initiatives further trimmed the prison population and/or eased jail crowding: Proposition 36 (2012) revised California's three-strikes law and Proposition 47 (2014) reclassified some drug and property felonies as misdemeanors. Altogether, these reforms have reduced the prison population by about 42,300 inmates (or 24%) from its peak in 2006 and significantly lessened the state's overall reliance on incarceration.

Statewide violent and property crime rates are roughly where they were when California began implementing these reforms. However, corrections spending remains high, as do rearrest and reconviction rates. Ongoing equity issues need attention. And, as county jail systems continue to adjust to their new responsibilities, identifying and implementing cost-effective programming and services should be a high priority.

CALIFORNIA'S PRISON AND PAROLE POPULATIONS HAVE DECLINED SUBSTANTIALLY



SOURCE: California Department of Corrections and Rehabilitation (CDCR) monthly population reports.

NOTE: "Institutional" refers to the population in CDCR adult institutions in California, excluding inmates in fire camps, community correctional facilities, and facilities outside California.

California relies less on incarceration but spends more on corrections than other states

- **California has 34 state prisons but also houses inmates in other facilities.**

By July 2017, the prison population was roughly 131,000, including 115,000 in California Department of Corrections and Rehabilitation (CDCR) facilities—this group is known as the institutional prison population. Another 4,400 inmates were in private facilities in Arizona and Mississippi; about 6,600 were in "contract beds" in public and private facilities in California; and about 3,800 were in fire camps. Since the passage of Proposition 47 in November 2014, the out-of-state population has decreased by 4,300 inmates, while the in-state contract-bed population has risen by around 160 inmates.

- **Parole violators no longer go back to prison, but rearrest and reconviction rates remain high.**

Under realignment, most California parole violators can no longer be returned to state prison. As a result, the two-year return-to-prison rate for released offenders has dropped from around 55 percent to slightly below 17 percent. But the two-year rearrest rate is 69 percent, similar to the pre-realignment level. The two-year reconviction rate

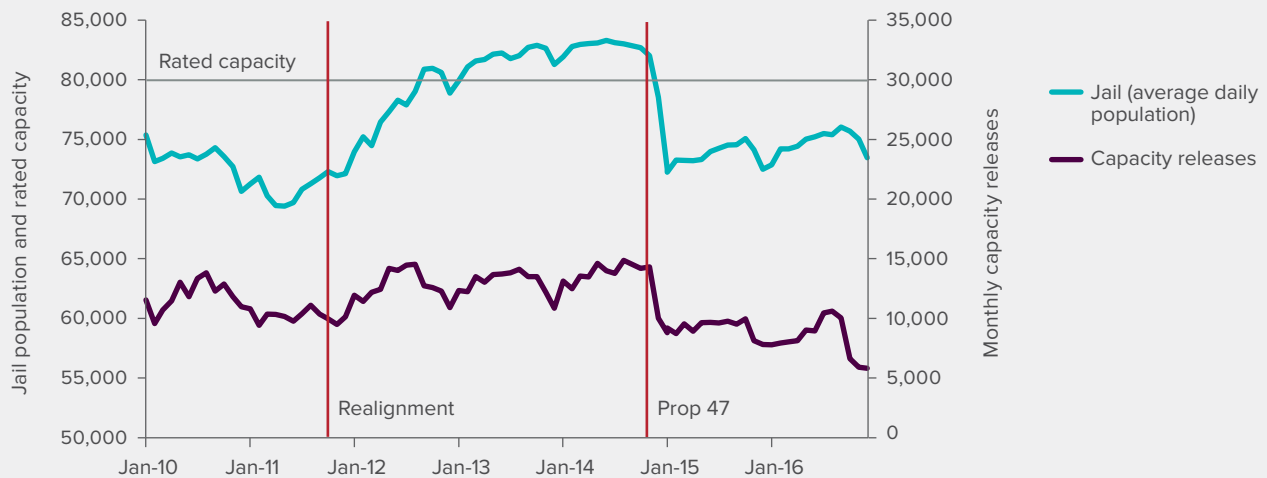
of 42 percent is about 5 percentage points higher than before realignment, but this may simply reflect the prosecution of offenses that in the past would have been processed administratively.

- **County probation departments now supervise a large number of offenders released from prison.**
In 2016, about half of all inmates released from state prison (16,865) went to county probation—known as Post-Release Community Supervision—instead of state parole (17,003). By July 2017, the parole population was 45,500—a dramatic drop from 104,800 in September 2011, and a decrease of almost 57 percent.
- **California is less reliant on imprisonment than many other states, but its corrections budget is the nation's largest.**
Between 2006 and July 2017, California's prison incarceration rate dropped 30 percent, from 475 inmates per 100,000 residents to 334; this is well below the 2015 national average of 402. In 2015, the most recent year of comparable data, California had the highest corrections spending as a share of total state expenditures. The state's General Fund corrections budget (about \$9.9 billion) was almost three times that of Texas, the second-highest spender; in fact, California spent \$1.3 billion more than Texas, New York, and Florida combined.

Proposition 47 reduced jail population pressure, but challenges remain

- **The jail population grew under realignment but declined after Proposition 47 passed.**
The jail population grew from 71,800 to 82,000 during the first three years of realignment. After Proposition 47 passed in 2014, the jail population dropped to about 73,500; it is below the statewide capacity of around 80,000 for the first time since March 2012. In addition, county sheriffs are using alternatives such as electronic monitoring, day reporting centers, community service, and alternative work programs. Nevertheless, some counties continue to release inmates due to overcapacity. In December 2016, almost 6,000 inmates were released early.

PROPOSITION 47 LOWERED THE COUNTY JAIL POPULATION AND THE NUMBER OF CAPACITY RELEASES



SOURCE: Board of State and Community Corrections (BSCC) monthly Jail Profile Survey.

NOTE: As of December 2016, the BSCC sets the statewide rated jail capacity at nearly 80,000 inmates.

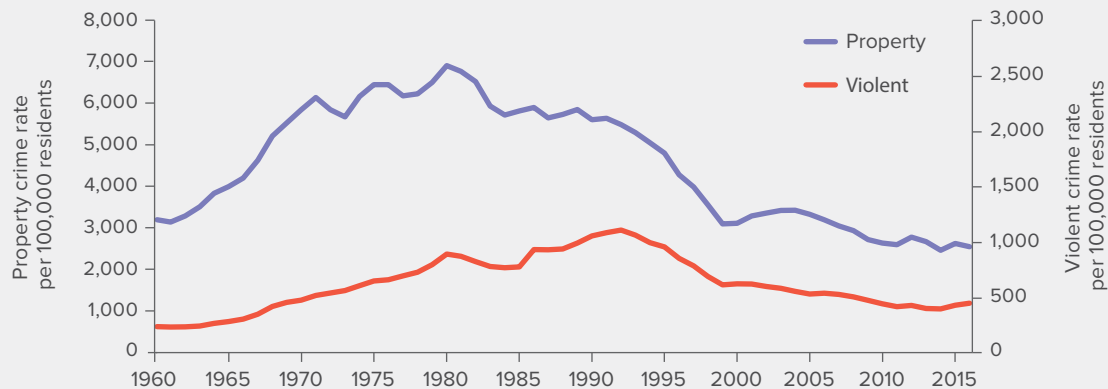
- **Longer jail sentences present challenges.**
Now that many offenders are serving long sentences in jail, counties are providing reentry and health services in facilities that were not designed to hold long-term inmates. The difficulties are especially acute in older facilities. To address these challenges, the state has earmarked \$2.5 billion for county jail construction, funding more than 16,000 jail beds over the next decade.
- **Sheriffs are expanding reentry services and programs.**
Counties are introducing or expanding inmate need assessments as well as mental health and substance abuse services, cognitive behavioral treatment, and employment and housing programs. Money not spent on state prisons in the wake of Proposition 47 is likely to go toward increasing evidence-based programming to reduce recidivism and overall incarceration. The state savings (\$67 million in 2016–17 and \$46 million in 2017–18) will be redirected to local mental health and substance abuse programs, K–12 education, and services for victims of crime.

Crime rates have fluctuated slightly but remain near historic lows

- **California's violent crime rate is historically low, but it increased in 2015 and 2016.**

After rising slightly in 2012, California's violent crime rate dropped in 2013 and 2014, reaching a 47-year low of 393 violent crimes per 100,000 residents. But the violent crime rate increased over the next two years, to 444 per 100,000 residents in 2016. California's violent crime rate ranked 15th nationwide and was higher than the national rate of 386 per 100,000 residents. In 2016, 60 percent of California's reported violent crimes were aggravated assaults, 31 percent were robberies, 8 percent were rapes, and 1 percent were homicides.

CALIFORNIA'S VIOLENT AND PROPERTY CRIME RATES ARE STILL AT HISTORIC LOWS



SOURCE: Author calculation based on FBI Uniform Crime Report 1960–2002 and the California Department of Justice's Criminal Justice Statistics Center, California Crimes and Clearances Files, 2003–16.

NOTES: Violent crime includes homicide, rape, robbery, and aggravated assault. Property crime includes burglary, motor vehicle theft, and larceny theft (including non-felonious larceny theft).

- **The property crime rate is close to an historic low.**

After increasing in 2015, California's property crime rate decreased by 3.3 percent in 2016, to 2,545 per 100,000 residents, about 3.5 percent above its 50-year low in 2014. California's property crime rate was above the national rate (2,450 per 100,000 residents) and ranked 27th among all states. Of all reported property crimes in California in 2016, 64 percent were larceny thefts, 19 percent were burglaries, and 17 percent were auto thefts.

- **Realignment's impact on crime was limited to auto thefts.**

There is no evidence that realignment affected violent crime, but auto thefts rose as a result of the reform. While California's property crime rate in 2013 and 2014 was in line with rates in comparable states, its auto theft rate remained higher. Compared to 2010, the year prior to the implementation of any of California's significant criminal justice reforms, the violent crime rate went up slightly, by 1.1 percent, while the property crime rate was down by 3.2 percent. The effects of post-realignment reforms, including Proposition 47, remain unknown.

Looking ahead

Changes to California's corrections system have succeeded in many ways. Prison and jail overcrowding has decreased over the past few years and the state has not experienced a significant increase in the crime rate. But corrections spending continues to grow and is now at an historic high. Identifying and implementing cost-effective programming and services to help inmates reenter their communities should be a high priority, as recidivism rates remain high. Racial disparities in the criminal justice system and tensions between law enforcement and minority communities also need to be addressed.

Address high recidivism rates. Evidence-based programming and services are essential to decrease reoffending and foster successful community reentry. Reducing recidivism would benefit both offenders and communities, and could also reduce corrections expenditures. Proposition 57 (2016), which authorizes CDCR to expand sentence-shortening credits for inmate rehabilitative or educational achievements, aims to help inmates prepare for reentry into the community.

Assess county jail needs and practices. Proposition 47 relieved statewide jail population pressure, but counties are still adjusting to new responsibilities. The completion of new facilities over the next five years will help many counties provide programming and services. Monitoring jail population changes, population management, and post-release outcomes will be critical to understanding the long-term effects of realignment and Proposition 47. Changes to bail and pretrial release systems could further relieve population pressure, decrease local corrections costs, and address ongoing racial disparities.

Analyze crime rates. At pre-realignment incarceration levels, putting offenders behind bars was not a cost-effective way to prevent crime. When incarceration rates are lower, however, reductions in prison and jail populations can put upward pressure on crime rates. Although violent and property crime rates are still at historically low levels, it is essential to watch them closely in the context of California's substantial reduction of its incarcerated population.

Examine issues of equity in policing and sentencing. The March 2017 PPIC Statewide Survey finds that only 29 percent of respondents—and only 6 percent of African Americans—feel that whites and non-whites are treated equally in the criminal justice system. California should determine at what points in the process and in what forms inequities occur.

Address tensions from increased federal immigration enforcement. The January 2017 PPIC Statewide Survey shows that 85 percent of Californians support allowing undocumented immigrants to stay legally; it also finds that many are concerned about negative effects of increased federal immigration enforcement. Changing federal immigration enforcement presents a destabilizing element to immigrant communities and the economy and poses additional challenges to local law enforcement. While the recently signed California Sanctuary State Bill (SB 54) may address some of the disruptive impact, counties and cities should look for ways to increase communication and cooperation between law enforcement and immigrant communities to ease tension, improve relationships, and enhance public safety.

Ensure access to data and support ongoing research and evaluation. It will be difficult to assess the impact of California's recent criminal justice reforms without extensive monitoring and evaluation. The state should ensure that the relevant data are collected and made available for research and evaluation. The state could decide to fund evaluation, either requiring or incentivizing counties to collect relevant data. Rigorous evaluation of state and county practices would also help identify and implement effective strategies to reduce recidivism.

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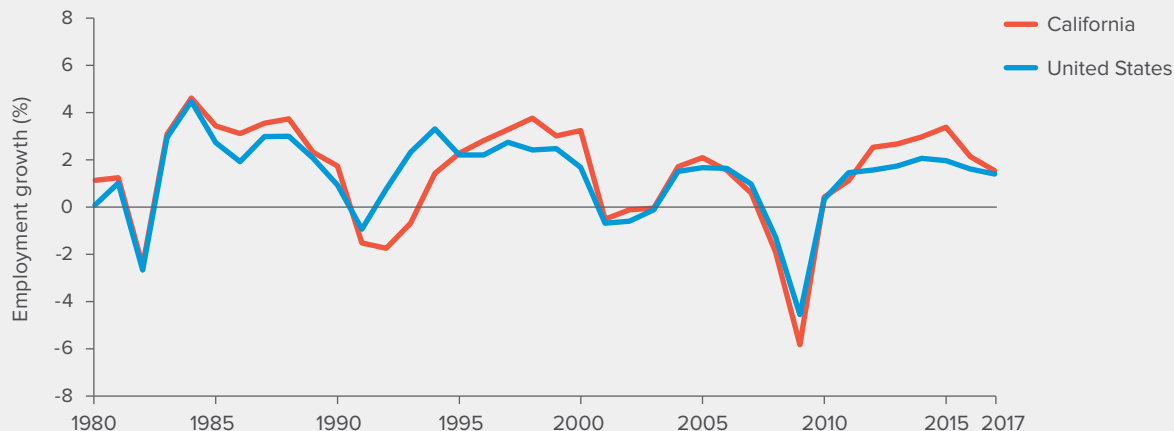
California's economy is strong, but persistent disparities could affect long-term growth

By many measures, California's economy is performing well. The statewide unemployment rate is at a long-term low. Jobs have been growing for more consecutive years than is typical. Construction and major service industries—at both the high- and less-skilled levels—are projected to continue to drive job growth over the next decade. These job market improvements are reflected in family incomes, which have picked up substantially over the past few years.

Although major labor market indicators are outperforming pre-recession levels, many Californians still struggle with unemployment and stagnant wages. This mixed picture is reflected in Californians' views of the economy. According to the September 2017 PPIC Statewide Survey, 40 percent of Californians expect economic bad times over the next year, while 51 percent predict good times.

Recent trends are an important gauge, but historical patterns are still the best guide to California's economic future. Booms, busts, and recoveries take place in the context of long-term trends. Major sectoral shifts—such as the transition from manufacturing to services—can occur over decades.

EIGHT YEARS OF STATEWIDE JOB GROWTH ADD UP TO ONE OF THE LONGEST EXPANSIONS IN RECENT HISTORY



SOURCE: US Bureau of Labor Statistics.

NOTE: Annual change in nonfarm employment, not seasonally adjusted, October to October.

California's labor market continues to improve

The California economy generally keeps pace with the US economy. Higher unemployment is explained by the state's younger and faster-growing labor force, and the higher costs of doing business in California are typically offset by the state's economic strengths. And both are likely to remain prominent features of the state's economy.

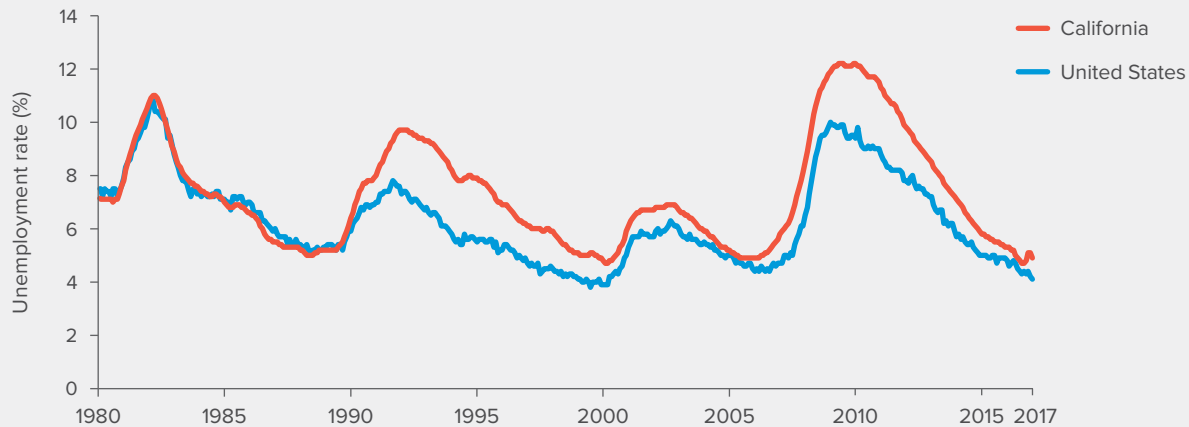
- **California has experienced five years of stronger-than-average job growth.**

California's employment growth—the broadest measure of economic performance—tends to follow the nation's job-growth rate very closely: over the past 30 years, job growth has averaged about 1.3 percent annually in both California and the nation. But for the past five years, California's 2.5 percent job growth has been stronger than the 1.8 percent growth in the United States. Both the state and the nation experienced job growth in 2017, for the eighth year in a row. Historically, this kind of sustained growth has not lasted much longer than that. Job growth in California slowed in 2017, bringing our rate into closer alignment with the US rate.

- **Unemployment is nearing historic lows.**

In October 2017, California's unemployment rate was 4.9 percent, slightly above the 4.1 percent national rate. The state's jobless rate is essentially as low as it has been at any point since 1980 (it vacillates slightly from month to month). California's unemployment rate has been higher than the national rate for more than 20 years—even when the state's employment growth surpassed the national rate during the recent recovery and the technology boom of the late 1990s. Although this may seem paradoxical, it makes sense in the context of population growth. California's population grows at a faster rate, which fuels faster-than-average expansion of the state's labor force. The result is a persistently higher unemployment rate, which narrows—as it has over the past few years—only when California job growth exceeds that of the United States for several years in a row.

UNEMPLOYMENT IS AT A LONG-TERM LOW IN CALIFORNIA



SOURCE: US Bureau of Labor Statistics.

NOTE: Monthly unemployment rate, seasonally adjusted.

- **California is a high-cost, high-benefit state.**

California workers, on average, earn 11 percent more than the national average—even after differences in the mix of workers, occupations, and industries are accounted for. But the state's output per worker is 14 percent above the national average. This higher productivity fully offsets higher average wages. All of California's neighbors—Nevada, Oregon, and Arizona—have lower wages and lower output per worker. Businesses in California face higher costs but also enjoy many advantages: in addition to higher productivity, they benefit from the skill level of the workforce, the availability of capital, and the amenities that make California an attractive place to live. The state's long-term competitiveness is tied to maintaining some of these advantages. Key challenges include ensuring that the workforce has adequate or exceptional skills and addressing the high cost of living (which has worsened in recent years).

Underlying economic conditions remain uneven

- **Many Californians remain underemployed—or out of the labor force.**

California's low unemployment rate does not tell the whole story. The state has more than 800,000 unemployed workers and more than 700,000 people who have dropped out of the labor force but would like to work. California's labor force participation rate (the share of the population working or looking for work) is at a 40-year low. This is partly due to baby boomer retirements, but it also reflects a persistent disconnection from the labor market. Job growth has brought back some who left the workforce during the recession. But 4.4 percent of workers are underemployed: that is, they are working part-time when they would rather be working full-time. Altogether, 10.1 percent of workers are either unemployed, underemployed, or discouraged (meaning they would like to work but have dropped out of the labor force). This rate is more than twice as high as the official unemployment rate. And, while it is lower than it was during the recession, it remains above pre-recession levels.

- **Income inequality is high by historical standards—even though family incomes have risen.**

Uneven recovery across segments of the labor market—both before and after the Great Recession—has increasingly polarized the income distribution. The top 10 percent of families in California earn about 12 times as much as the

bottom 10 percent, doubling the gap between high- and low-income families since 1980. After growing sluggishly over the past decade, family incomes rose almost 4 percent from 2015 to 2016; the median family in California earned about \$77,000. California’s median family income is higher than the nationwide median of \$71,000.

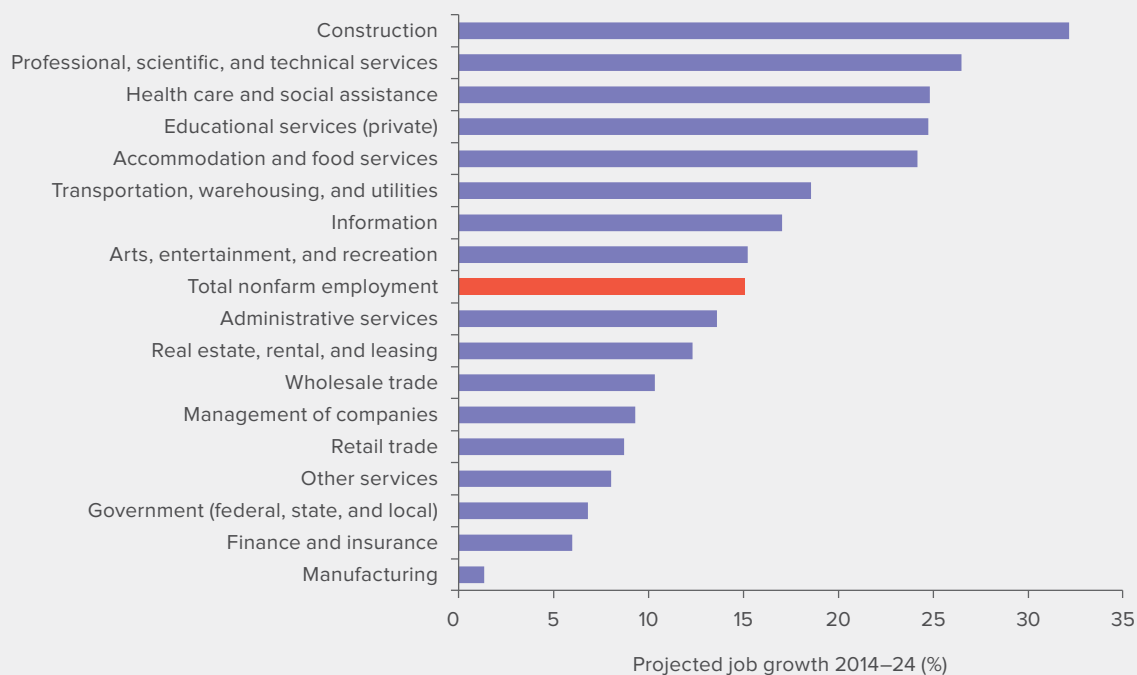
- **Regional economic differences are persistent.**

Unemployment tends to be higher in inland and far northern California than in the urban coastal parts of the state. As of October 2017, unemployment rates were lowest in the Bay Area as well as San Diego and Orange Counties (ranging from 2.5% to 3.7%). Rates elsewhere are typically a few points higher, and only three counties (Colusa, Tulare, and Imperial) had rates above 8 percent, a marked improvement since the recession, when unemployment differences were more dramatic. Higher inland rates are attributable to both a faster-growing workforce and the mix of jobs and industries in those areas. Low housing costs continue to fuel the growth of the inland workforce: the working-age populations of the Central Valley and Inland Empire are expected to grow more than 20 percent between 2015 and 2030, while the projected rate in the rest of the state is only 6 percent.

- **Strong job growth in construction and services will continue, while manufacturing will stagnate.**

Recent employment growth has been led by construction, accommodation and food services, health care, and “other” services; these industries created 60 percent of the new jobs in California between October 2016 and October 2017. Local governments also contributed substantially to job growth, adding about as many new jobs as did the accommodation and food services sector. These industries are likely to continue leading growth through 2024. By contrast, manufacturing employment is projected to continue its sluggish growth pattern: its job-creation rate is expected to be only 1.3 percent by 2024. The professional services industry, which tends to employ college graduates and offers high wages, is likely to grow as fast as the accommodation and food services industry, where lower-wage work predominates. If this long-term trend of increasing disparity in employment opportunities continues, California’s income distribution will remain skewed.

CONSTRUCTION AND SERVICE INDUSTRIES ARE PROJECTED TO LEAD JOB GROWTH THROUGH 2024



SOURCE: California Employment Development Department.

NOTE: Employment growth projections for nonfarm industries only.

Looking ahead

California’s long-term economic trends are positive, but they are also creating policy challenges. Effective policies require accurate assessments of California’s economic performance, a balanced view of the state’s competitiveness, and a realistic sense of the state’s strengths and weaknesses.

Pursue policies to build a skilled workforce and spur economic growth. Continuing California's strong job growth is the first step in creating broad-based economic opportunities. Because the state economy demands a highly skilled workforce, education plays a crucial role in helping California remain economically competitive. Since highly educated workers fare better in boom-and-bust cycles, promoting education is also an important strategy for addressing inequality and ensuring economic opportunity across the income spectrum. State leaders can take actions to ensure more Californians earn college degrees as well as career technical credentials that lead to in-demand middle-skill jobs.

Recognize that typical labor market indicators often mask challenges. Though statewide economic indicators are a useful gauge of overall performance, economic policy should reflect the breadth and diversity of the state's economy—which features a mix of industries and a wide range of occupations and workers. Strong job growth and low unemployment statewide are positive signals, but long-term economic vitality depends on the quality of jobs created and the competitiveness of all regions of the state.

Address barriers to work. A smaller share of California's population is participating in the labor force than at any time in the past four decades. The aging population is a factor—and it raises concerns of its own. But the state must also focus on the substantial share of the population that is disconnected from work or underemployed. Boosting skills and addressing barriers such as transportation and child care are key to improving economic well-being and maximizing the potential of California's workforce.

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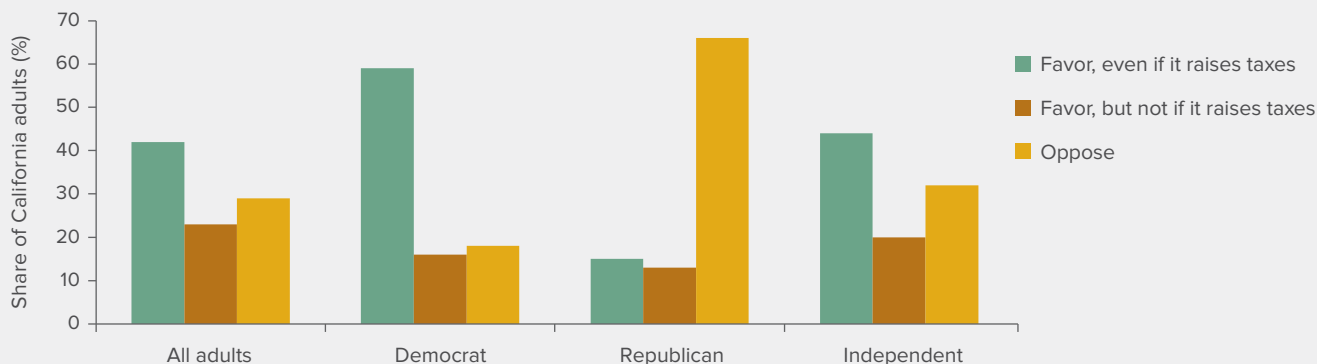
PUBLIC POLICY
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Uncertainty about federal health policy has California exploring state options

California has seen dramatic declines in the number of uninsured residents since 2014, when major coverage expansions under the Affordable Care Act (ACA) were implemented. About 93 percent of Californians now have health insurance coverage, up from 82.5 percent in 2013; this translates to about 5 million fewer uninsured state residents. Medi-Cal, the state's Medicaid program, is responsible for much of the coverage gain, while Covered California, the state's insurance marketplace, continues to see robust enrollment.

The state's expansion of health coverage faces an uncertain future. The president and congressional Republicans have pledged to dismantle the ACA and to fundamentally alter the Medicaid program. A rollback of federal funding would substantially reduce California's ability to continue its current level of coverage. With federal policy still uncertain, the state has been exploring options for maintaining current coverage levels and expanding health insurance to all Californians. Recently, the legislature proposed a state single-payer health system as an option for achieving universal coverage. The plan lacks important details—including how it would be financed. There is support for such a plan, but opinions may shift once details on funding are introduced, particularly since there is a large partisan divide.

MOST SUPPORT A STATE SINGLE-PAYER HEALTH PLAN, BUT THERE IS A PARTISAN DIVIDE



SOURCE: PPIC Statewide Survey, May 2017.

Most uninsured Californians live in low-income households

- Expanding coverage to those who remain uninsured could be challenging.**

Despite coverage gains, about 2.8 million Californians lacked health insurance in 2016. Absent a single-payer system, achieving universal coverage may require innovative strategies, since many who remain uninsured are not connected to traditional enrollment conduits such as employers and/or are not eligible for public insurance programs due to their immigration status. Almost two-thirds (65%) of those who are uninsured are Latino, and about 45 percent are noncitizens. About 40 percent worked full-time throughout 2016, and another 33 percent worked part-time, but nearly 30 percent were not in the labor force. More than half of uninsured Californians live in low-income households, with earnings under 200 percent of the federal poverty line (about \$48,000 for a family of four).
- The health care safety net will continue to be essential.**

Uninsured residents often rely on California's health care safety net for medical services. Beyond offering care to the uninsured, traditional safety net providers such as community clinics and county public hospitals serve as key access points for Medi-Cal patients, particularly for inpatient and specialty care. California's public hospital system, in counties where it exists, is also a critical component of the state's emergency medical system, as well as its provision of trauma care and capacity to train physicians. Whether or not the state moves toward universal coverage, it will be important to preserve the long-standing role of the health care safety net in providing care to California's diverse low-income communities.

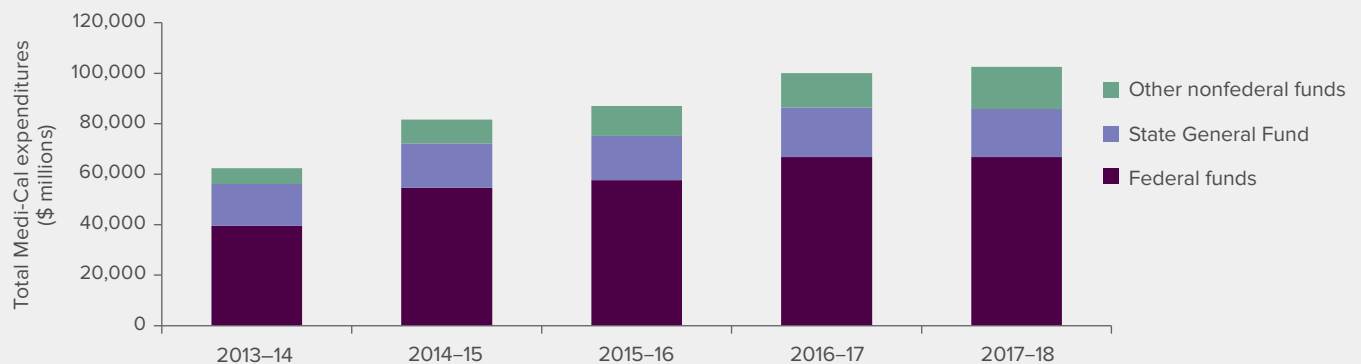
Medi-Cal covers more than one-third of all Californians

Medi-Cal, which provides comprehensive health insurance to low-income people, is the linchpin of the ACA's expansion of coverage in California. Under the ACA, the state has expanded Medi-Cal to cover low-income adults who do not have a qualifying disability or responsibility for a dependent child. The federal government currently covers 94 percent of the cost of this newly eligible group of about 3.8 million adults. However, recent federal health care proposals include dramatic cuts to Medicaid funding.

- **The federal government provides two-thirds of total Medi-Cal funding.**

Enrollment growth has increased program costs, which are projected to be more than \$100 billion in 2017–18. The federal government is expected to contribute two-thirds of total program funding (about \$69 billion). But nearly \$20 billion will be covered by the state General Fund. Even in the absence of major federal funding cuts, Medi-Cal is the second-largest General Fund expenditure, behind K–12 education.

IN RECENT YEARS, THE SHARE OF FEDERAL FUNDS SUPPORTING THE MEDI-CAL PROGRAM HAS GROWN



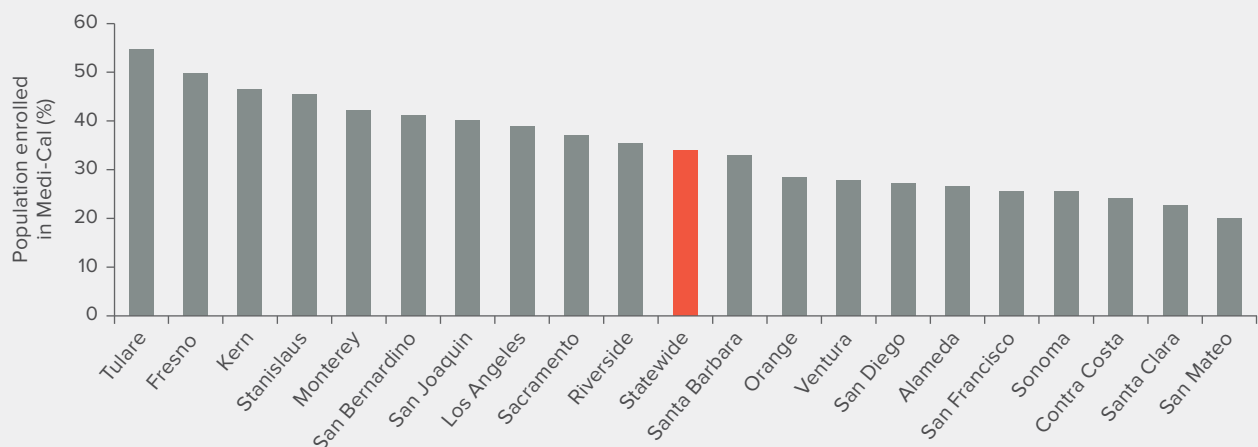
SOURCE: California Department of Health Care Services, Medi-Cal Local Assistance Estimates.

NOTE: Other nonfederal funds include provider fees and transfers from local governments.

- **Medi-Cal provides health insurance to more than 13 million Californians.**

Since the Medi-Cal program expanded in 2014, enrollment has increased nearly 60 percent. Medi-Cal currently serves about 13.5 million Californians—more than a third of the state's population. In some counties, half of all residents are enrolled in the Medi-Cal program.

MEDI-CAL PROVIDES COVERAGE TO HALF OF ALL RESIDENTS OF SOME LARGE COUNTIES



SOURCES: California Department of Health Care Services, Research and Analytic Studies Division, Medi-Cal Certified Eligibles, Summary Pivot Table, Most Recent 48 Months, August 2017. California Department of Finance E-1 Population Estimates for Cities, Counties, and the State with Annual Percent Change.

NOTE: The share of residents enrolled in Medi-Cal is calculated using the average total Medi-Cal certified eligibles from the first five months of 2017 and the total population for January 2017 from the Department of Finance.

Covered California has maintained its enrollment levels and its roster of health plans

Covered California allows individuals and small businesses to shop for and enroll in health plans. Enrollment has remained steady, and all 11 health insurance companies that offered coverage in 2017 will continue to participate in the marketplace in 2018.

- **Covered California relies heavily on federal subsidies.**

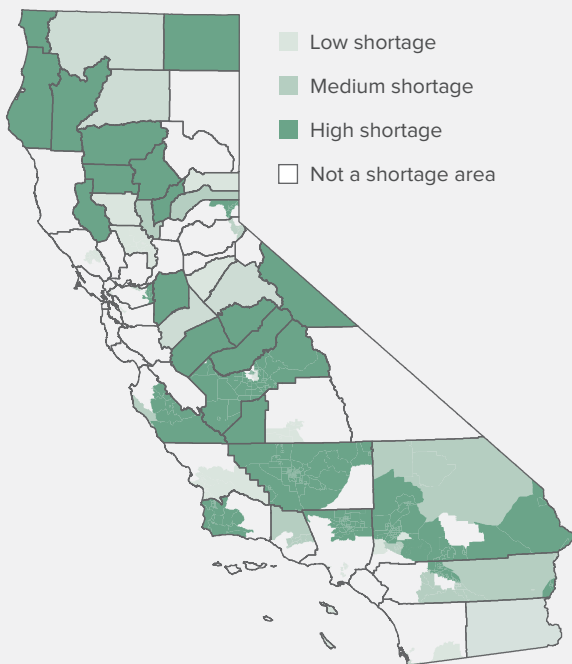
Nearly 1.2 million (85%) of Covered California enrollees receive federal subsidies to help cover the cost of monthly insurance premiums. These subsidies average \$346 per month. In addition to premium assistance, nearly half (48%) of Covered California enrollees also benefit from cost-sharing reductions that lower out-of-pocket costs such as co-payments and deductibles. These reductions are designed to prevent low-income individuals (with incomes that are 100% to 250% of the federal poverty line) from delaying care because of the cost. Federal proposals—including the elimination of cost-sharing reductions or repeal of the individual mandate (the requirement that nearly all US residents have comprehensive insurance coverage or pay a tax penalty)—could increase premiums significantly.

- **Coverage costs have been growing in recent years.**

Covered California has seen increasing premium costs in the past two years. This is partly due to federal actions to dismantle the ACA but also because providing care to enrollees has been costlier than expected. Covered California has implemented sound policies that have allowed it to maintain its selection of health plans and enrollment levels, but it is difficult to see how it can maintain its current size and scope if federal funding is cut.

Health care access, quality, and results are uneven across the state

MANY AREAS FACE SHORTAGES OF MENTAL HEALTH PROVIDERS



SOURCE: US Department of Health and Human Services, Health Resources and Services Administration, Data Warehouse.

NOTES: Health professional shortage areas (HPSAs) can be defined as entire counties or groups of census tracts. Mental health HPSAs are based on a psychiatrist-to-population ratio of 1:30,000. Scores are based on a number of different criteria including provider-to-population ratios, percent of population in poverty, and travel distance to nearest source of care. The higher the score, the greater the shortage. In the map above, low-shortage areas have a score of 5–12, medium-shortage areas have a score of 13–15, and high-shortage areas have a score of 16–20. HPSA designation updated through October 2017.

- **Health can be assessed in a variety of ways.**

Health can be measured by looking at health status, access to and quality of care, personal behavior, and social and physical environments. According to most of these measures, there are significant differences among socioeconomic, racial, ethnic, and regional groups.

- **Several regions in California are experiencing shortages of health providers.**

Many Californians live in areas where the supply of health care providers is not adequate to ensure access to care. The federal government has developed criteria to designate certain geographic areas, populations, or health care facilities as health professional shortage areas (HPSAs), which confer access to certain federal programs and benefits. For example, HPSAs designating a shortage of mental health providers are located throughout California but are especially prevalent in the Central Valley and northern regions of the state.

Looking ahead

The Affordable Care Act brought widespread changes to health care coverage and delivery in California. These reforms now face an uncertain future under the current federal administration.

Uninsured Californians. California's uninsured rate in 2016 reached an historic low of 7.3 percent—indicating that almost 5 million fewer people lack health insurance than just a few years ago. If the federal government reduces its level of financial support for Medi-Cal and/or coverage purchased through Covered California, many people who gained coverage under the ACA will likely be unable to afford health insurance.

Medi-Cal program. The possibility of large federal funding cuts raises many questions for the Medi-Cal program. If the federal government shifts to a capped funding system, states may gain more flexibility in program administration, eligibility, and benefits. In this scenario, budgetary issues would be a major concern, but it would also be important to consider the importance of the program to provide health services to some of California's most vulnerable residents.

Covered California. Health plans and hospital systems played a substantive role in the development and implementation of the ACA. As key health care purchasers and providers, they will undoubtedly be involved in future discussions. Covered California invested heavily in technology and infrastructure to create a robust marketplace.

Health care safety net. Now more than ever, policymakers must monitor the effectiveness and financial condition of the state's health care safety net to ensure that its providers—including public hospital systems, emergency departments, primary care clinics, and comprehensive health centers—can continue to provide care to all Californians.

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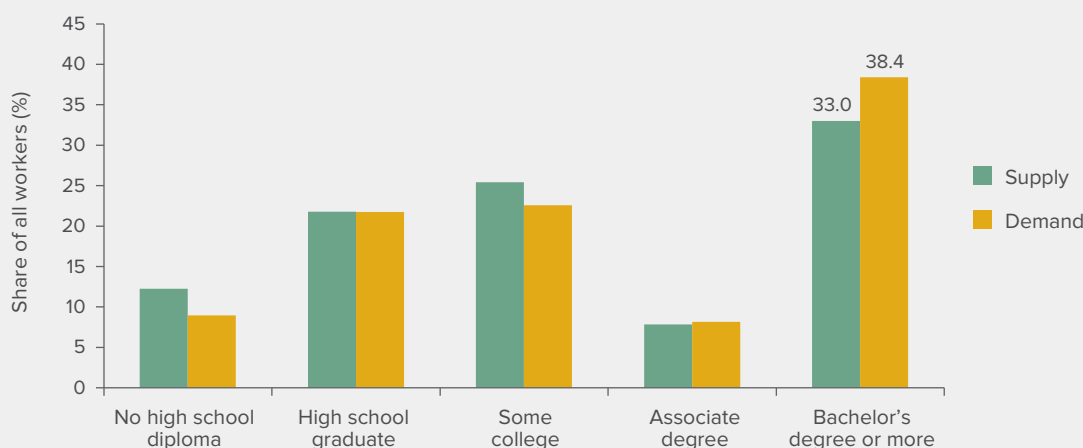
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California is facing a shortfall of college-educated workers

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.

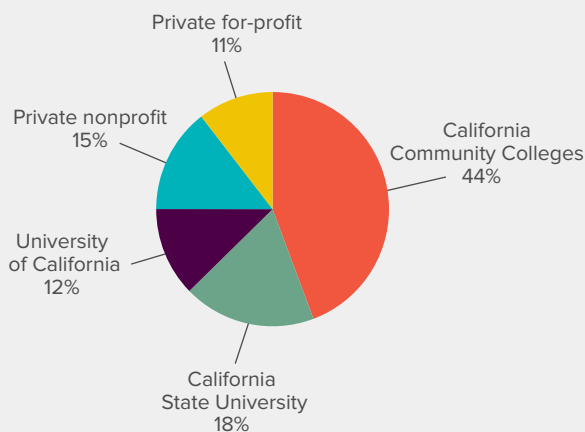
Californians are keenly aware of the importance of higher education. According to the April 2017 PPIC Statewide Survey, about eight in ten California parents hope their children will earn at least a bachelor's degree. But Californians are worried about affordability. The November 2017 PPIC Statewide 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.

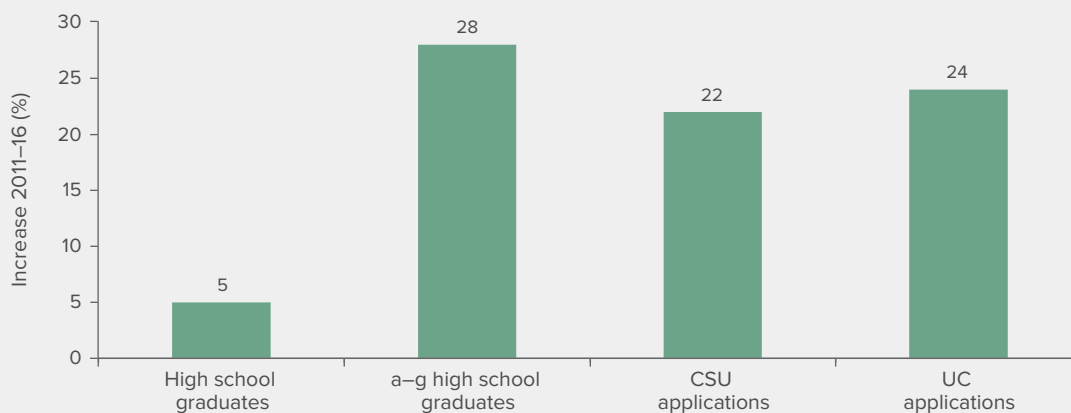
- Higher education is largely a public endeavor in California.

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.

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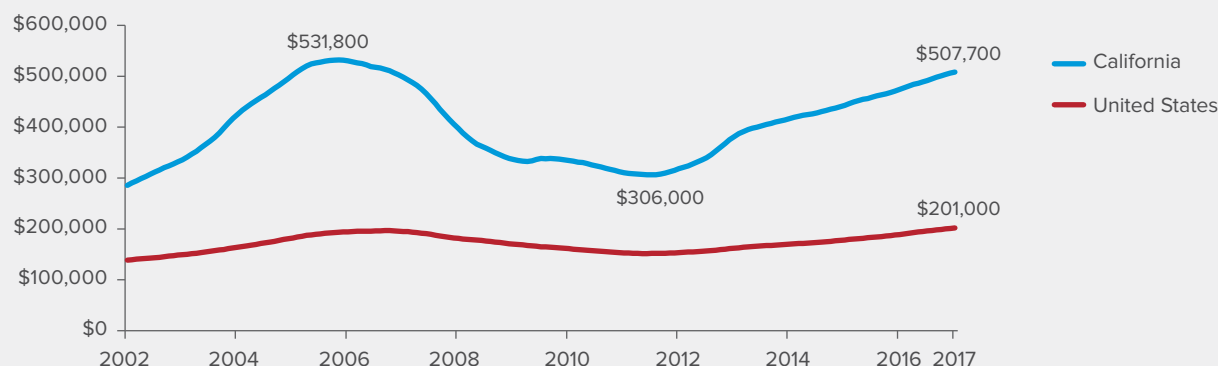
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California's housing challenges continue

California home values and rents remain the most expensive in the nation, and they continue to rise. As of August 2017, median home values climbed 7.1 percent over the year to reach \$507,700. Rents have also increased sharply, driven by exceptionally strong demand. New housing construction is increasing at a slow and steady pace but remains well below pre-recession levels and far short of demand.

Gains in home values have been uneven across the state, but high rents and rising prices place housing out of reach for many—leading in some cases to homelessness. The state's affordability problem has been aggravated by slow growth in household income. According to the PPIC Statewide Survey (May and September 2017), 47 percent of Californians—including 61 percent of renters—say housing costs are a financial strain on themselves and their families. The rising cost of housing has emerged as a threat to the state's future economy and the well-being of its citizens, pushing the debate over housing to the center of state and local politics.

MEDIAN HOME VALUES: BOOM, BUST, AND RECOVERY



SOURCE: Zillow.

NOTE: Values in nominal dollars from January 2002 to August 2017.

Housing values keep rising, but the pace is uneven

- **California home values have increased substantially since the housing bust.**

The state's median home value is up 66 percent from its low in 2012; at \$507,700, it is within 5 percent of the previous peak in 2006. In five Bay Area counties (San Francisco followed by San Mateo, Santa Clara, Alameda, and Marin) and in San Diego and Los Angeles Counties, values are now above previous highs. Over the past six years, some of the sharpest gains have occurred in counties that had the worst busts, including 113 percent in San Joaquin, 92 percent in Sacramento, 84 percent in San Bernardino, and 74 percent in Riverside. But values in those counties are still 13 to 22 percent below their peaks. In 15 counties, mostly in the San Joaquin Valley and the Central Sierra, prices remain more than 20 percent below their peaks.

- **Foreclosures have dropped to their lowest level in years.**

California's total foreclosure activity (which includes foreclosure starts, scheduled foreclosure auctions, and bank repossessions) declined about 80 percent from August 2012 to August 2017. Foreclosure starts are at about 6.6 percent of their 58,858 peak in May 2009 and are below pre-crisis levels.

- **New construction permits are increasing.**

Low vacancy rates, rising prices, and low interest rates are boosting housing starts. New residential construction permits are set to exceed 100,000 in 2017—up from 33,000 in 2009 but still far below the 200,000 units permitted

annually from 2003 to 2005. Fueled by strong rental demand, multifamily residential permits began to show robust gains in 2010; however, the pace slowed considerably over the past couple of years. Meanwhile, construction jobs are growing faster than employment in most other sectors.

MEDIAN HOUSING VALUES HAVE RISEN IN CALIFORNIA'S 15 MOST POPULOUS COUNTIES

	Peak (2006 or 2007)	Low (2011 or 2012)	Current (August 2017)	Peak to current	Low to current
Alameda	\$629,600	\$403,500	\$782,900	24%	94%
Contra Costa	\$615,000	\$308,200	\$575,400	-6%	87%
Fresno	\$293,800	\$135,400	\$226,300	-23%	67%
Kern	\$270,800	\$120,300	\$194,700	-28%	62%
Los Angeles	\$560,100	\$354,300	\$572,900	2%	62%
Orange	\$708,800	\$454,400	\$689,800	-3%	52%
Riverside	\$424,900	\$199,800	\$347,300	-18%	74%
Sacramento	\$385,900	\$175,400	\$336,600	-13%	92%
San Bernardino	\$379,000	\$169,900	\$313,000	-17%	84%
San Diego	\$543,600	\$347,000	\$552,400	2%	59%
San Francisco	\$830,700	\$658,400	\$1,234,800	49%	88%
San Joaquin	\$411,100	\$151,400	\$322,300	-22%	113%
San Mateo	\$816,300	\$599,400	\$1,199,300	47%	100%
Santa Clara	\$751,700	\$569,400	\$1,057,600	41%	86%
Ventura	\$632,200	\$376,900	\$566,700	-10%	50%
California	\$531,800	\$306,000	\$507,700	-5%	66%

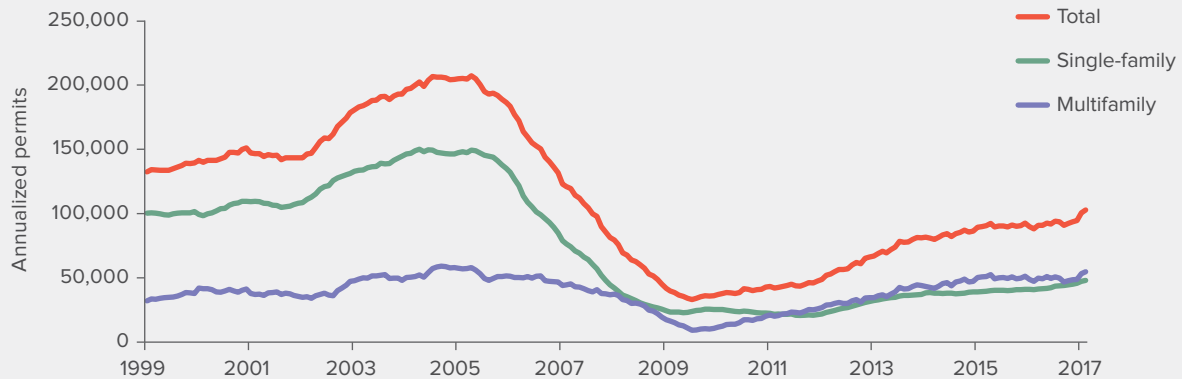
SOURCE: Zillow.

NOTES: In nominal dollars. For most counties, the pre-recession peak occurred in 2006 or 2007, and the low in 2011 or 2012.

Housing remains expensive for most people

- Californians spend disproportionate shares of their income on housing.**
 Among homeowners with mortgages, median monthly housing costs are 47 percent higher in California than nationwide. California renters pay 40 percent above the nationwide median. Yet California's median household income is only 18 percent higher than the nationwide median. This means that the share of Californians with excessive housing costs is quite high: 30 percent of mortgaged homeowners and 46 percent of renters spend more than 35 percent of their total household income on housing, compared with 21 percent and 40 percent, respectively, nationwide.
- Housing is especially unaffordable in coastal areas, where two-thirds of Californians live.**
 In the second quarter of 2017, nine of the nation's ten least affordable major metropolitan areas (with populations of 500,000 or more) were in California. The San Francisco metropolitan area (San Francisco, San Mateo, and Marin Counties) was the least affordable major market; the Los Angeles, Orange County, San Jose, Santa Rosa, Ventura, San Diego, Oakland, and Stockton metropolitan areas were also in the top ten. In most of these areas, fewer than one-fifth of households could afford a median-priced home. The metropolitan areas of Salinas (Monterey County), Santa Cruz–Watsonville, Napa, and San Luis Obispo–Paso Robles were the nation's least affordable smaller housing markets.
- Inland home prices are lower.**
 Despite price increases, housing is relatively affordable in many California inland areas. In the Redding, Bakersfield, and Chico metropolitan areas, families earning the area's median income could afford more than 55 percent of homes sold in the second quarter of 2017. In Sacramento and the Inland Empire, 38 percent and 35 percent of homes sold were affordable to families at the median income.

NEW HOME CONSTRUCTION PERMITS ARE ALMOST BACK TO 2007 LEVELS



SOURCE: US Census Bureau, Building Permits Database.

NOTE: July 1998 to July 2017.

- **Rents are high and rising.**

California has six of the nation's eleven most expensive large metropolitan rental markets: San Francisco is number one, followed by San Jose, Oakland, Orange County, San Diego, and Los Angeles. Since 2015, rents have increased more than 40 percent in the San Francisco, San Jose, and Oakland metropolitan areas. Estimated median rent for a two-bedroom apartment ranges from \$1,798 in Los Angeles to \$3,377 in San Francisco.

- **Vacancies are low.**

Low vacancy rates have contributed to the tightness of the rental market. In 2016, California's homeowner residential vacancy rate was 1.3 percent compared to 1.8 percent nationwide. Meanwhile, the rental vacancy rate was 3.3 percent, 2 percentage points lower than in 2010 and far below the 5.9 percent nationwide rate.

- **Homeownership rates have fallen.**

Over the past decade, homeownership rates, already much lower in California than in the rest of the nation, declined more sharply: to 53.6 percent of occupied units in 2016 (from 58.6% in 2004), compared with 64.3 percent in the rest of the country. Owner-occupied units fell by about 133,500, while rented units increased by more than 877,000. Much of the increase in rental units has occurred among formerly owned single-family detached housing units. California and national homeownership rates are the lowest in more than a dozen years.

- **Homelessness is widespread.**

The US Department of Housing and Urban Development estimates that on a single night in January 2016, about 118,000 individuals in California were homeless—21 percent of the national total. Only 34 percent of California's homeless are in shelters or other residential programs—the lowest rate in the nation. The largest number of homeless people live in Los Angeles County, but homelessness affects most counties, even small and rural ones.

Looking ahead

As the state's population grows, housing demand continues to increase. California needs short- and long-term policies that improve housing affordability and remove unnecessary barriers to expanding supply, while meeting environmental goals. State efforts must interact with local land-use and zoning policies; this means that addressing California housing problems will take many years of sustained work and cooperation between state and local officials.

State and local land-use policies should encourage more housing. California's tight housing market reflects not only a scarcity of developable land but also an array of policy choices and regulations. Promotion of commercial development, such as tax incentives for businesses that relocate, should be balanced by policies that encourage new housing. Restrictive zoning and planning regulations can depress housing supply and increase housing costs. In 2017, the state legislature passed a series of bills to incentivize housing production by promoting higher density, speedier regulatory permitting, streamlined housing approvals, and the zoning of land for housing. For the first time, local jurisdictions could face substantial penalties, including litigation, for failing to plan adequately for future housing needs.

State and local authorities should boost the supply of affordable housing. Historically, the state has funded affordable housing programs through the sale of general obligations bonds and from redevelopment funds. But California has not passed a general housing bond since 2006, when Proposition 1C provided \$2.85 billion, and redevelopment agencies were dissolved during the recession. In 2017, the governor signed the Building Homes and Jobs Act, which imposes a \$75 fee on real estate transaction documents, excluding commercial and residential real estate sales, to provide ongoing funding for affordable housing. The legislature and governor also agreed to a \$4 billion general obligation bond for affordable housing programs, subject to approval by voters in November 2018. According to the PPIC Statewide Survey (May and September 2017), strong majorities favor an affordable housing bond; fewer support a real estate transaction fee.

California should expand housing options for homeless individuals and families. Reducing homelessness in California requires coordinated investments, policies, and programs at the federal, state, and local levels, as well as collaboration across sectors (housing, health, and social services). In 2016, the governor signed legislation requiring state agencies and departments that provide services to the homeless or those at risk of homelessness to incorporate core components of the Housing First model. This approach prioritizes getting homeless people into housing and providing services as needed.

Balancing environmental goals with housing development will be a challenge. California has passed legislation to encourage local land-use planning that reduces driving—and lowers harmful emissions. The goal is to coordinate new housing development with current and planned transportation networks. Infill (new construction in built-up areas) is one way to achieve this goal, but there is a trade-off. In the past, much of California's most affordable new housing was built on vacant land at the edge of urbanized areas. Infill development tends to be more expensive and usually produces fewer units. Identifying water sources for new development is also an issue in some parts of the state.

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California looks ahead to the next phase of reform

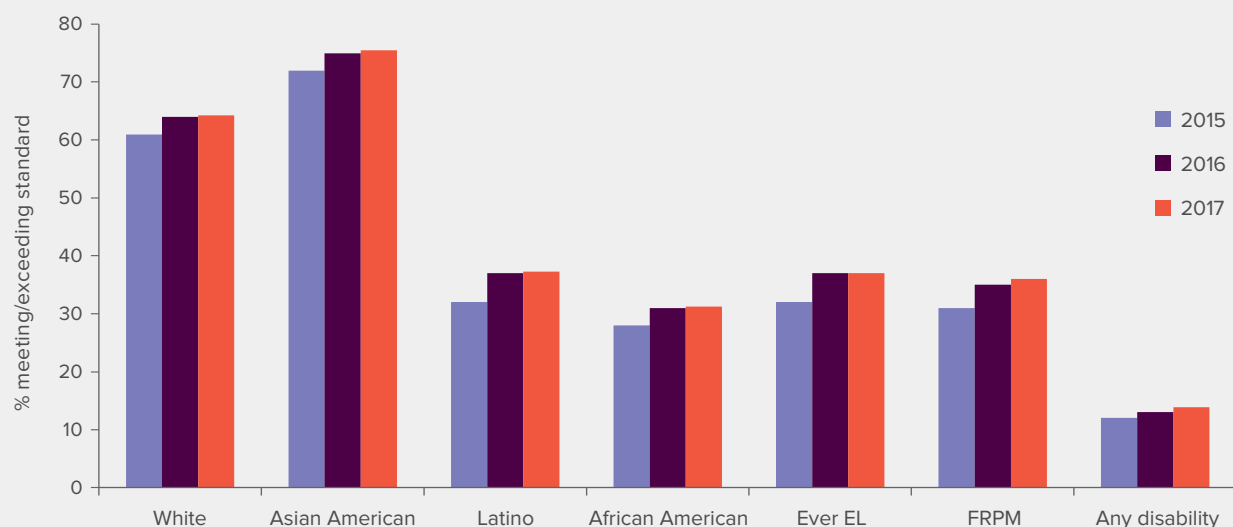
California educates more than 6 million children in its K–12 public schools. More than half of these students are economically disadvantaged. Almost a quarter are English Learners (ELs), compared with fewer than one in ten nationwide. In order to better serve its student population, the state has enacted several reforms in recent years—and state funding for K–12 education has increased for six consecutive years. In 2010, California adopted the Common Core State Standards (CCSS) in math and English, and students began taking new standards-aligned tests—the Smarter Balanced assessments—in 2015. In addition, the state has mostly finished implementing the Local Control Funding Formula (LCFF). The LCFF was enacted in 2013 to simplify school finance, increase funding for high-need (low-income, EL, and foster youth) students, and revamp school accountability.

With a new governor on the horizon, there are questions about how K–12 education will evolve. The state could continue giving school districts broad flexibility in using state funds to meet local needs and priorities, or it could make targeted spending programs common once more. For instance, the new governor will contemplate refinements or additions to the LCFF to help districts shrink the achievement gap in California. There are also looming questions about how the Trump administration's immigration policies will impact the school environment, as well as the degree of latitude states will have in implementing the new federal education act, known as the Every Student Succeeds Act (ESSA).

State testing shows little change in student performance

With multiple years of test results, it is now possible to evaluate early implementation of the Common Core standards. The persistence of long-standing gaps between overall performance and the test scores of high-need students is a major challenge for educators and policymakers.

THE SHARE OF STUDENTS MEETING STATE ENGLISH STANDARDS HAS RISEN SLIGHTLY SINCE 2015



SOURCES: 2014–15, 2015–16, and 2016–17 Smarter Balanced assessments.

NOTES: Ever EL refers to English Learner (EL) and reclassified EL students. Ever EL for 2014–15 and 2015–16 is a weighted average of EL and reclassified EL test scores; for 2016–17 it is reported. FRPM refers to students who qualify for free or reduced-price meals.

- **There was little growth in test scores from 2016 to 2017.**

The share of students meeting or exceeding the English standards held steady at 49 percent, and the share meeting or exceeding the math standards grew by just 1 percentage point, to 38 percent. The share of students meeting standards for both English and math has increased by 5 percentage points since 2015.

- **Older students generally perform better in English but do worse in math.**

Sixty percent of 11th graders met the English standard, compared with 44 percent of 3rd graders. But only 32 percent of 11th graders met the math standard, compared with 47 percent of 3rd graders. This pattern has held for all three years of Smarter Balanced assessments.

- **There are stark differences across racial/ethnic and other student groups.**

White and Asian American students met state standards at relatively high percentages (64% and 76%, respectively, in English), but fewer than 40 percent of all other race/ethnic groups, high-need students, and students with disabilities did so.

- **The road ahead is long for high-need students.**

Economically disadvantaged students gained 5 percentage points in English and 4 percentage points in math since the first assessments in 2015. Results are similar for students who were ever English Learners (that is, current and reclassified English Learners). The gap is narrowing between students overall and these high-need students, but only slightly. Some state policymakers question whether it is realistic to expect schools to close achievement gaps completely, while others continue to draft legislation to increase accountability for districts and schools.

Long-term funding for K–12 education remains a concern

- **The LCFF is almost fully implemented.**

The LCFF is a uniform funding formula that is more transparent, simple, and equitable than the previous system. It has two components: a general grant that varies by grade level and compensatory grants that vary by the share of high-need students. Because the LCFF boosts funding significantly, the formula is being phased in over eight years; the goal is to reach full funding levels by 2020–21. In 2017–18, the state budget is providing 96 percent of the full LCFF funding level.

- **Special education funding lags behind growth in the number of students served.**

A recent special education task force report called for the integration of special and general education to serve students more effectively. However, special education is not currently part of the LCFF, and integration is complicated by funding and administrative issues. State special education funding, for instance, is not tied to changes in the number and types of disabilities districts must address; this has led to a significant gap between appropriations and need over the past decade. In addition, districts have less autonomy in allocating special education funding than they do with LCFF appropriations.

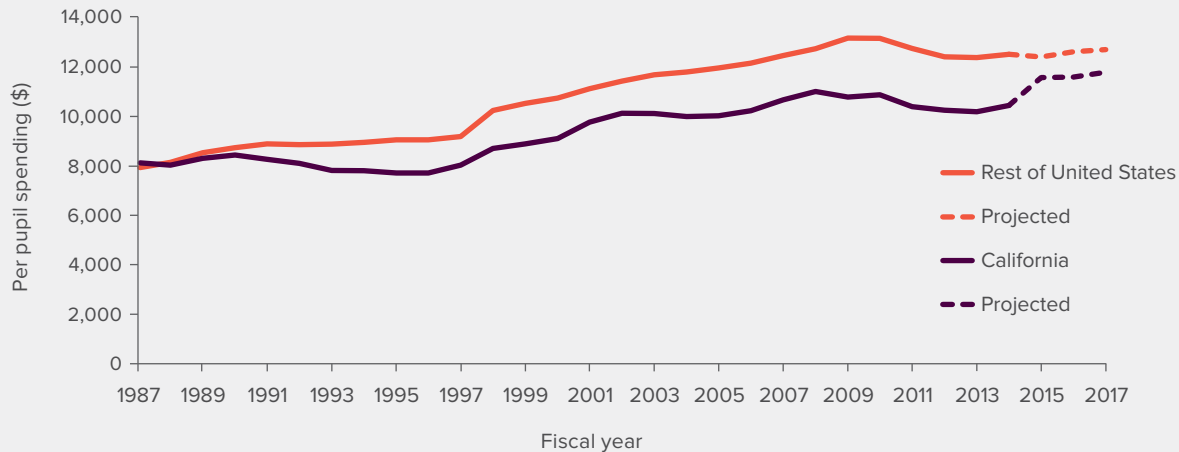
- **School funding has increased, but future revenues may not keep up with costs.**

K–12 funding has increased an average of 3 percent in each of the past three years. These increases have outpaced the general rate of inflation, so the state has been able to make progress toward full LCFF funding. However, school district costs for retirement benefits are slated to increase substantially in the next few years, and declining enrollment is eroding revenues in many districts. These pressures plus increases in employee salaries and other costs make it likely that the moderate funding increases of the past few years will not be enough to prevent spending cuts in many districts.

- **The adequacy of per pupil funding remains a key issue.**

California has long spent less per pupil than other states, and funding cuts to education were steeper here during the recession. Current data shows that California's K–12 spending averages \$11,777 per student, about \$800 (6.3%) less than the national average. Several studies have concluded that this level of funding is insufficient to prepare all students to meet the state's academic standards. Similarly, the April 2017 PPIC Statewide Survey finds that almost two-thirds of Californians think that funding levels for K–12 schools are inadequate.

FUNDING FOR CALIFORNIA SCHOOLS HAS IMPROVED BUT MAY STILL BE INADEQUATE



SOURCES: National Center for Education Statistics; National Education Association.

NOTES: Inflation-adjusted spending in 2017 dollars, not adjusted for cost differences across states. The dashed lines represent National Education Association estimated spending since government data are not available. From 1986–87 through 1996–97, per pupil spending is total current expenditures divided by total students. After 1996–97, per pupil spending is total current expenditures divided by average daily attendance.

Looking ahead

California’s public education policies have changed significantly in the past decade, and there are many questions about how they will continue to evolve. There are challenges and opportunities in several areas.

Aligning state and federal accountability. The California State Board of Education has replaced the previous accountability measure (the Academic Performance Index) with multiple indicators of school and student outcomes. The new system categorizes schools and districts as low-performing when they lag behind on several of the state’s success indicators—including test scores, EL progress, graduation rates, student suspension rates, and college and career readiness. However, this approach conflicts with ESSA, which requires states to combine indicators into a single index. The Trump administration has not yet indicated how it will interpret ESSA, so it remains unclear whether the state’s model will receive federal approval.

Fully implementing new education standards. Seven years into Common Core implementation, the state has made progress in some areas, but more work is needed. The State Board of Education recently adopted the Next Generation Science Standards (2013) and approved the new Science Framework (2016). The new science standards emphasize a deep understanding of concepts and engagement in scientific thinking. A new assessment—the California Science Test—was piloted in 2017 and will be fully implemented in 2019. These new standards create opportunities and challenges for schools and districts, which are at various stages of rolling them out. It will be important to monitor implementation and assess how districts are doing.

The “return” of bilingual education and protecting the children of immigrants. The passage of Proposition 58 in November 2016 made it easier for parents to request and for school districts to offer bilingual education to EL students. But there are concerns about how the Trump administration’s federal immigration policy could impact the school environment. While very few students are undocumented, it is estimated that 12 percent have at least one parent in the United States without proper documentation. The April 2017 PPIC Statewide Survey found that strong majorities of California voters (73%) and public school parents (81%) think that schools should be required to keep the immigration status of their students and families confidential.

Completing the state’s educational data system and making it accessible to educators. California collects large amounts of data and has made considerable progress in building an educational data system. Unfortunately, there are no plans to complete the system. Furthermore, educators do not have access to most of the data, and K–12 and higher education data are not linked. By connecting these systems and developing reports for local educators, the state could generate a better return on its public education investments.

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California is charting its own political course

In the past year, California—a frequent challenger of federal policies in the past—has opposed many of the Trump administration’s policies, both in court and through state-level action. The PPIC Statewide Survey has found that Californians, who tend to have different policy preferences than adults nationwide, continue to be supportive of the state acting on its own in many areas—from climate change to immigration to health care.

Unlike many other states, California recently implemented reforms aimed at expanding its electorate. Other recent reforms—a new redistricting commission, a radically open “top two” primary, and a relaxation of term limits—may be having a moderating effect in the state legislature. However, the state legislature is still polarized, and California has been moving toward the sort of one-party dominance that carries a risk of lower accountability, particularly for decisions not in the public spotlight. And, although making registration and voting easier is an important step, it will take aggressive outreach to get more people to the polls.

The state is Democratic but not necessarily liberal

- **California has become a solidly Democratic state.**

For many years, California voted slightly Republican in statewide elections. But that began to change in the 1980s. Today, California is one of the most Democratic states at all levels of government. This shift to the Democratic Party has been especially pronounced in the San Francisco Bay Area and Los Angeles County.

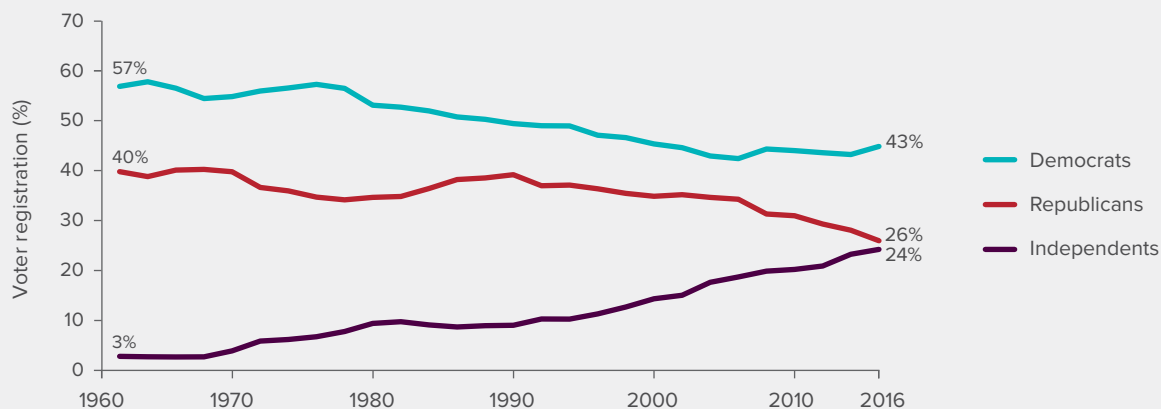
- **Californians are not necessarily liberal.**

While Californians are clearly Democratic, only the Bay Area is strongly liberal on both social issues, such as abortion and gay marriage, and fiscal issues, such as taxes and spending. Even Los Angeles County—with its high levels of support for Democratic candidates—is only modestly liberal in most areas.

- **Independents are the fastest-growing group of registered voters and are politically diverse.**

The share of voters registered as independents, also known as decline-to-state or no party preference, has grown 20 percentage points since the 1960s, while the share of major-party registrants has declined. However, about 60 percent of independents say they lean toward one party or the other and vote reliably that way. In almost every part of the state, these leaners are more likely to tilt Democratic than Republican.

INDEPENDENT VOTER REGISTRATION HAS GROWN DRAMATICALLY



SOURCE: California Secretary of State. Numbers come from the last registration report before each fall statewide election.

- **Most Californians support state action on climate change, immigration, and health care.**

A solid majority of Californians (66% in July 2017) support policies to address global warming independent of the federal government; majorities have supported state action since 2005. Similarly, two in three Californians (65% in January 2017) favor independent state action to protect the legal rights of undocumented immigrants; a strong, bipartisan majority (78% in September 2017) also favor the federal DACA (Deferred Action for Childhood Arrivals) program. Two in three Californians (65%) favor a state single-payer health insurance program (May 2017). And, as Republicans in Congress were attempting to repeal the Affordable Care Act, favorable opinions of the 2010 reform reached record highs in California: 58 percent held generally favorable opinions in September 2017. By contrast, fewer than half of adults nationwide held favorable views (46% favorable, 44% unfavorable), according to a recent Kaiser Family Foundation poll.

California's electorate lags behind other states

- **California's voter participation has fallen below the national average.**

As recently as the 1990s, turnout among eligible voters in California was higher than the average for the rest of the country. Over the past 15 years, presidential election turnout in California has actually climbed slightly in absolute terms. But compared to other states, turnout in both presidential and gubernatorial races has dropped to the point that it matches or falls below levels elsewhere.

- **California voters are more likely than nonvoters to be older, better educated, and white.**

Compared with Californians who do not vote, California voters are older, more affluent, better educated, more likely to own homes and to have been born in the United States, and disproportionately white. They also tend to hold more conservative views on the size and scope of state government.

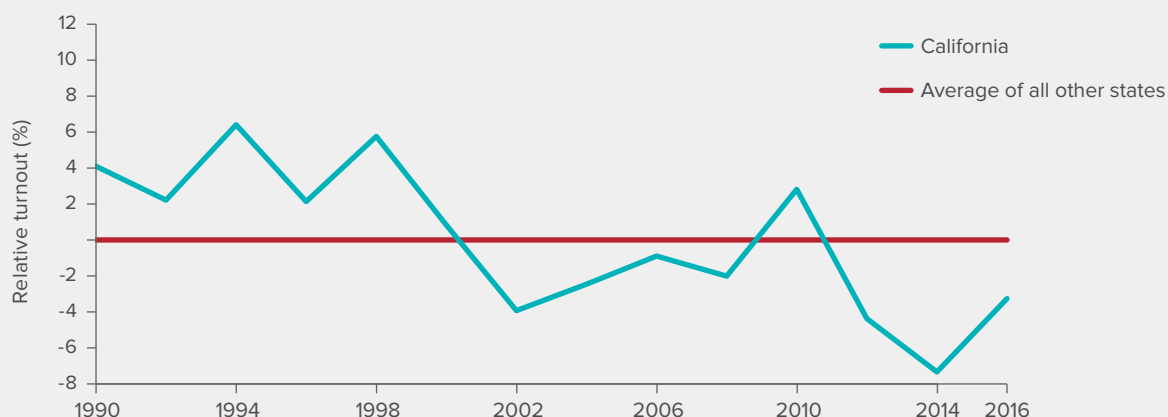
- **The below-average turnout stems mostly from lower voter registration ...**

Over the past 25 years, registered voters in California have turned out at higher rates than in the rest of the country. But fewer Californians are registering to vote compared with other states. As a result, California's voter registration rate is below the national average. This is partly because registration is too big a hurdle for some. But it also reflects a lack of engagement among California's Latino and Asian American communities in particular. As these communities grow to be a larger share of the voting-eligible electorate, their lower registration rates pull down the overall registration levels in the state.

- **... but increasing voter registration will not single-handedly solve the turnout problem.**

California has been experimenting with a number of reforms to increase the registration rate, including a fully online registration process, an automated system that seeks to register by default anyone acquiring or updating a driver's license, and a conditional registration system that will allow residents to register and vote after the official registration deadline has passed. Research on these reforms in California and elsewhere suggests registration rates may increase substantially, but aggressive outreach will be required to get these new registrants to cast a ballot.

CALIFORNIA'S VOTER TURNOUT IS DECLINING COMPARED WITH ALL OTHER STATES



SOURCE: United States Elections Project.

NOTE: Trend line shows California's turnout rate relative to the rest of the country.

California's legislature remains unusually polarized

- **California has one of the most polarized legislatures in the country.**

The best evidence, from the Measuring American Legislatures project, suggests that the legislative parties are much further apart in California than in the US Congress or in most other states. The only state with a wider gap is Colorado, where legislative polarization has been increasing rapidly in recent years. California's polarization has often stymied efforts to pass key legislation—especially state budgets—when a higher threshold for passage required a bipartisan coalition.

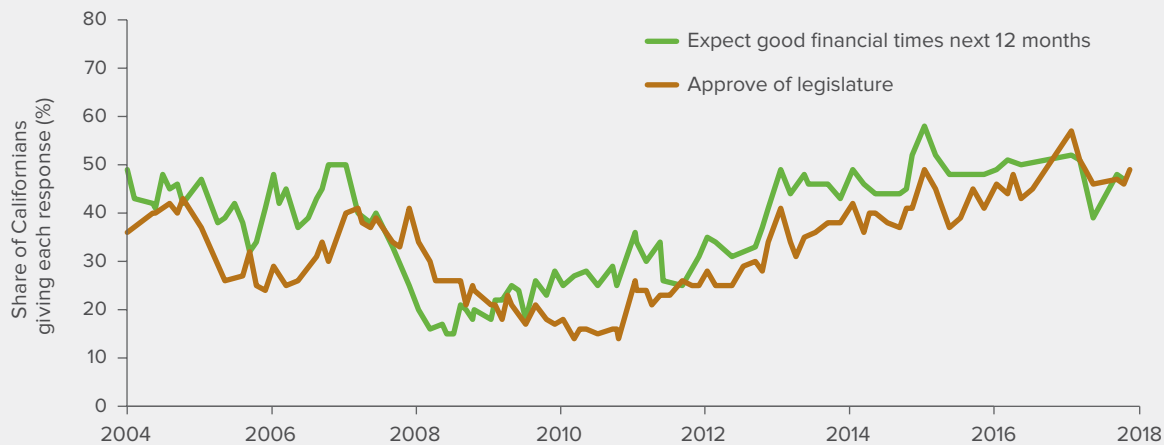
- **The state recently implemented a flurry of reforms to address legislative dysfunction.**

In the past decade, California has adopted a number of reforms: an independent commission to draw legislative and congressional districts; a relaxation of legislative term limits; a lower vote threshold for budget passage; and an open primary system that allows any voter to cast a ballot for any candidate, regardless of party. In the wake of these changes, there are signs that the Democratic legislative caucus has become more moderate. The redistricting, term limit, and primary reforms appear to have contributed roughly equally to this change. The move to a simple majority for budget passage has ended the fiscal stalemates that had become a regular feature of California's legislative process, at the cost of what amounts to the exclusion of Republicans from the process.

- **Approval of the legislature has recovered.**

Public approval of the legislature hit new lows during the Great Recession, as state leaders fought over budget cuts. Since 2010, approval has climbed steadily and reached new highs. The improving economy probably accounts for most of this change. Approval of the legislature has long tended to move in sync with views on the economy, and the connection has been especially strong since Jerry Brown became governor in 2011.

APPROVAL OF LEGISLATURE STRONGLY TIED TO ECONOMY



SOURCE: PPIC Statewide Survey time trends.

NOTES: Question wording for "Expect good financial times next 12 months": "Turning to economic conditions in California, do you think that during the next 12 months we will have good times financially or bad times?" Question wording for "Approve of legislature": "Overall, do you approve or disapprove of the way that the California Legislature is handling its job?"

Looking ahead

California is growing more racially and ethnically diverse. The share of independent voters has risen tremendously and will probably continue to grow. California will probably continue to pursue its own goals in many policy areas, leading to more friction between the state and the federal government. At the same time, one-party dominance carries a risk of lower accountability, particularly for decisions made behind the scenes. Given these realities, the state should take steps to foster a robust and representative democracy.

Make voting as simple—and voter outreach as aggressive—as possible. It is notoriously difficult to increase turnout beyond the people who are already inclined to show up, but it still makes sense to make it as easy to vote as possible. California has now made the registration process the simplest of almost any state, placing renewed attention on getting

registrants to cast a ballot. To facilitate voting, the state has recently permitted counties to use the Colorado model, in which every voter is mailed a ballot and a handful of official vote centers replace traditional polling places. Beyond these reforms, there needs to be an ongoing and aggressive effort to get every voter to take part in every election, with special emphasis on those least likely to participate.

Eliminate differential treatment of independents and party members. Voters registered without a party preference are already on track to become a plurality of the electorate, and the new automated registration law may greatly accelerate that trend. These voters are already allowed full participation in every congressional and legislative primary election under the state's new top-two primary law. But they should also be granted full access to presidential primaries and internal party decision making. Otherwise, the number of voters making these decisions will continue to shrink.

Maintain a relatively decentralized governance structure. Under Governor Brown, state policy has shifted decision making to the local level: corrections realignment, the new school funding formula, and proposals to lower thresholds for passing school parcel taxes are three examples. Surveys have long shown that the public has a preference for local government. Bringing decisions to the local level might continue to lower the stakes in Sacramento and increase public satisfaction with the political process. This could be especially important now that the state government is arguably growing more powerful and influential as it becomes a focal point of resistance to Trump administration policies. Maintaining some level of decentralization can encourage parts of the state that disagree with the dominant Democratic Party perspective to feel invested in the state's political system.

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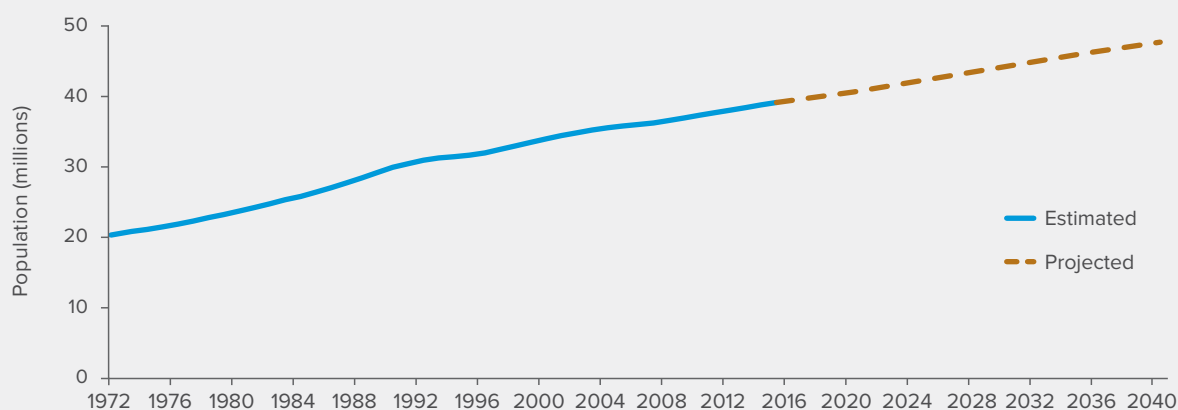
Even slow growth will put pressure on infrastructure and public services

California has long been known for and even defined by tremendous population growth. No other developed region of similar size anywhere in the world has sustained so much growth over such a long period. Equally remarkable has been the population's increasing diversity. California is home to large groups of immigrants from more than 60 countries, and no race or ethnic group constitutes a majority of the state's population.

In the early 21st century, growth has slowed. Growth rates have averaged less than 1 percent in each of the past 10 years, making this the slowest-growing period in state history. Even so, the number of people added to the state's population has been substantial—on average 330,000 new residents each year between 2011 and 2017. The California Department of Finance's most recent estimate, places the state's population at 39.5 million as of January 2017.

California will continue to gain millions of new residents in each of the next two decades, increasing demand in all areas of infrastructure and public services—including education, transportation, housing, water, health, and welfare.

CALIFORNIA'S POPULATION WILL CONTINUE TO GROW



SOURCE: California Department of Finance projections, 2016 series.

NOTE: Population as of July of each year.

As growth continues, regional and racial/ethnic populations will shift

- **Population gains are projected to continue.**

By 2030, California's population is projected to reach 44 million. Annual growth rates are expected to be 0.8 percent, similar to growth experienced in the first decade of this century. Even so, average annual increases between now and 2030 will exceed 333,000—equivalent to adding the population of a city the size of Santa Ana each year.

- **Migration will account for a small share of growth.**

Before 1990, most of California's population growth came from migration, primarily from the rest of the United States. Since 1990, most of the state's growth has resulted from natural increase—that is, the excess of births over deaths. Over the past 10 years, gains from international migration have been partially offset by domestic migration losses. Population projections suggest this pattern will continue, with almost all of the state's population growth expected to come from natural increase.

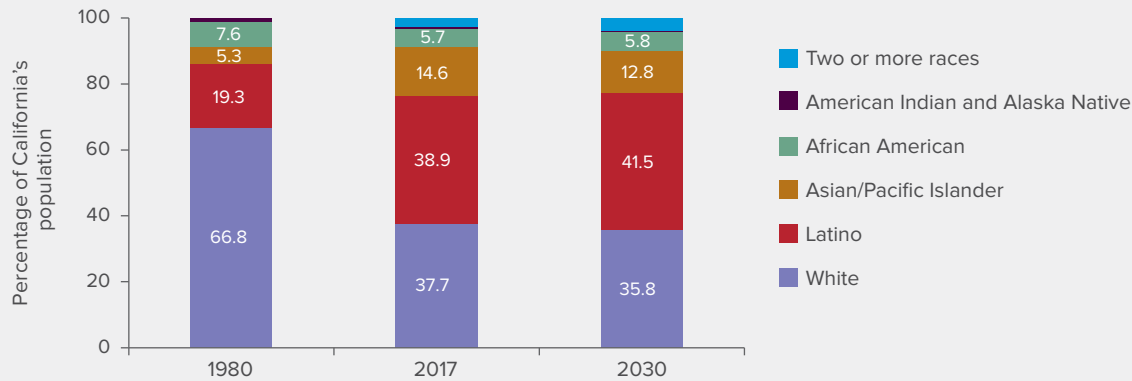
- **Inland areas will grow at higher rates.**

The inland areas of California have experienced faster growth rates than the coastal areas for many decades, but coastal counties are still home to most of the state's population. That pattern is projected to continue, with the Inland Empire, the San Joaquin Valley, and Greater Sacramento projected to grow faster than other areas of the state.

- **Latinos have surpassed whites as the state's largest ethnic group.**

No ethnic group represents a majority of California's population. In 2015, Latinos replaced non-Hispanic whites as the state's largest ethnic group. By 2030, 41.5 percent of the state's population will be Latino and 35.8 percent will be white. Latinos already make up 52 percent of children age 17 and younger.

LATINOS HAVE BECOME CALIFORNIA'S LARGEST ETHNIC GROUP



SOURCES: 1980 Census; Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States, States, and Counties: April 1, 2010, to July 1, 2016; and California Department of Finance projections.

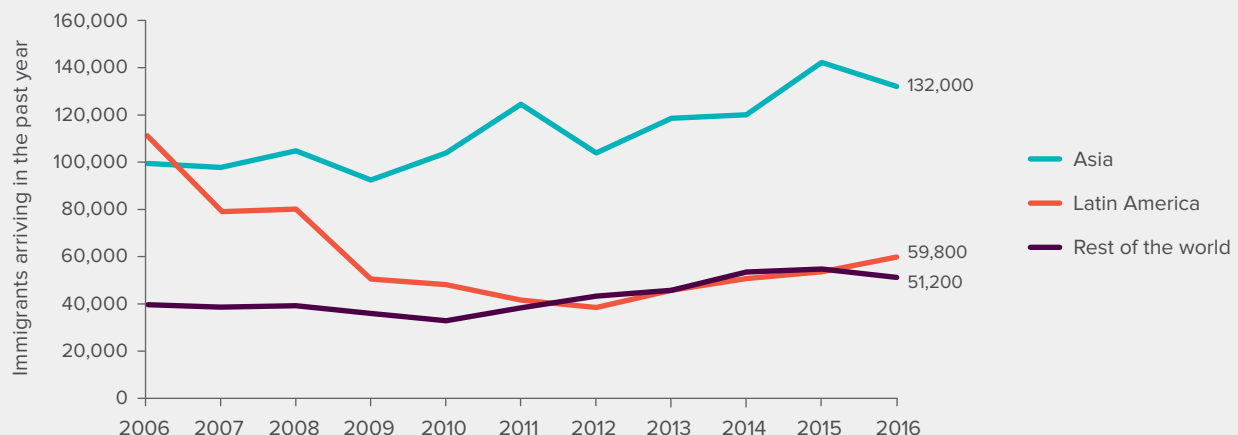
- **Three-quarters of California immigrants are legal residents of the United States.**

California is home to more than 10 million immigrants—about one in four of the foreign-born population nationwide. In 2016, the most current year of data, 27 percent of California's population was foreign born, about twice the US percentage. The vast majority of immigrants in California are legal residents of the United States. In fact, half of California's immigrants are naturalized US citizens, and another 26 percent have green cards, visas, or some other legal status. Still, more than 2 million undocumented immigrants live in California—nearly a quarter of the national total and more than 6 percent of the state's population. Projections suggest that the share of immigrants in the state's population will remain at its present level.

- **Immigration from Latin America has slowed, while immigration from Asia has increased.**

In 2006, Asia replaced Latin America as the leading source of new immigrants. In 2015, almost three times as many immigrants arrived from Asia as from Latin America, and China replaced Mexico as the leading country of origin. For many decades before 2006, the majority of immigrants arriving in California were from Latin America.

ASIA HAS SURPASSED LATIN AMERICA AS THE LEADING SOURCE OF NEW IMMIGRANTS



SOURCE: American Community Survey.

- **Immigrants from Asia tend to be highly educated.**

About 60 percent of newly arrived immigrants from Asia age 25 to 64 have at least a bachelor's degree, compared with 30 percent of newly arrived immigrants from Latin America and 35 percent of Californians born in the United States. Immigrants from India are the most likely to be highly educated (85% have earned at least a bachelor's degree).

California's population is aging

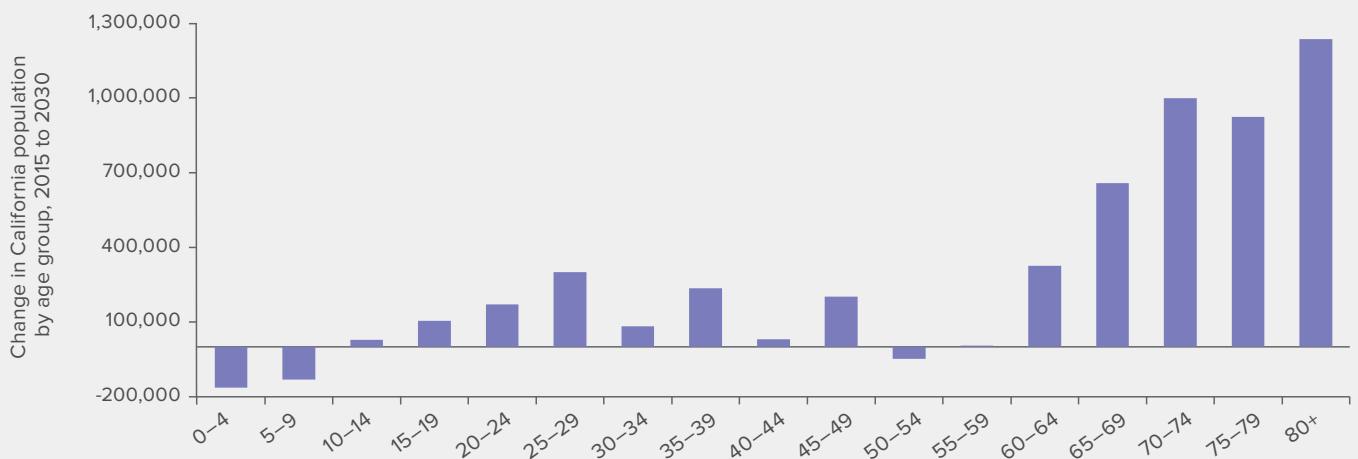
- **Large numbers of Californians are reaching retirement age.**

Even though California has the seventh-youngest population in the country, its population is aging rapidly. In 2016, 13.6 percent of Californians were age 65 and older, compared with only 9 percent in 1970. By 2030, that share will grow to 19 percent. The total number of adults age 65 and older is projected to grow from 5.3 million in 2016 to 9.1 million in 2030.

- **By 2030, no ethnic group will compose a majority of the senior population.**

The number of seniors in every major racial/ethnic group will increase by 2030. Whites—projected to grow by 52.7 percent (1,637,000 people) between 2016 and 2030—will remain the largest group of seniors. However, the most dramatic growth will occur among nonwhite populations, especially Latinos (118%, or 1,242,000 people) and Asians (61%, or 504,000 people). The African American senior population will increase by 89.9 percent, or 251,000 people.

CALIFORNIA'S POPULATION IS AGING



SOURCE: California Department of Finance projections.

- **The number of children will increase very slowly.**

From the 2015–16 to the 2025–26 school years, the number of children enrolled in public schools is projected to decrease by 2.6 percent, according to the California Department of Finance. This is a consequence of slight declines in birth rates and small increases in the number of women of childbearing age (age 15 to 44). In the 1990s, by contrast, the number of school-age children grew more than 20 percent.

Looking ahead

The state's growing, changing population will put pressure on infrastructure and public services and on the state's economy. There are several key areas to watch.

Health and human services. Meeting the needs of a large, rapidly growing senior population poses challenges. For example, although they are not the largest group of Medi-Cal enrollees (the share of children enrolled is far larger), senior adults account for a much higher share of expenditures: annual costs per enrollee are at least five times higher for adults older than 50 than for children. Finding alternatives to nursing home care, which is especially expensive, will be critical.

Housing. California's largest population group is young adults in their 20s. In the 2030s, these young adults will be 35 to 44 years old; this is the age range when adults typically get married, start families, and establish their own households. As a result, housing demand will rise.

Schools. The slow growth in the number of school-age children is likely to lead to further increases in per student aid as the state budget grows. Demand for higher education should remain strong as improvements in graduation rates boost the number of students graduating from high school and a greater share of students complete a college preparatory curriculum.

Immigration reform. Immigrants are integral to California's workforce. Moreover, they now make up a substantial share of the state's highly educated workers: today, three of every ten highly educated workers in California are immigrants. PPIC has projected that California faces a workforce skills gap and needs to increase the number of adults with bachelor's degrees by an additional 1.1 million to meet workplace demands by 2030. These projections assume that the state will continue to attract substantial numbers of highly educated immigrants from abroad. Restrictions on the flow of those immigrants could exacerbate the workforce skills gap—and cause significant damage to the state's economy.

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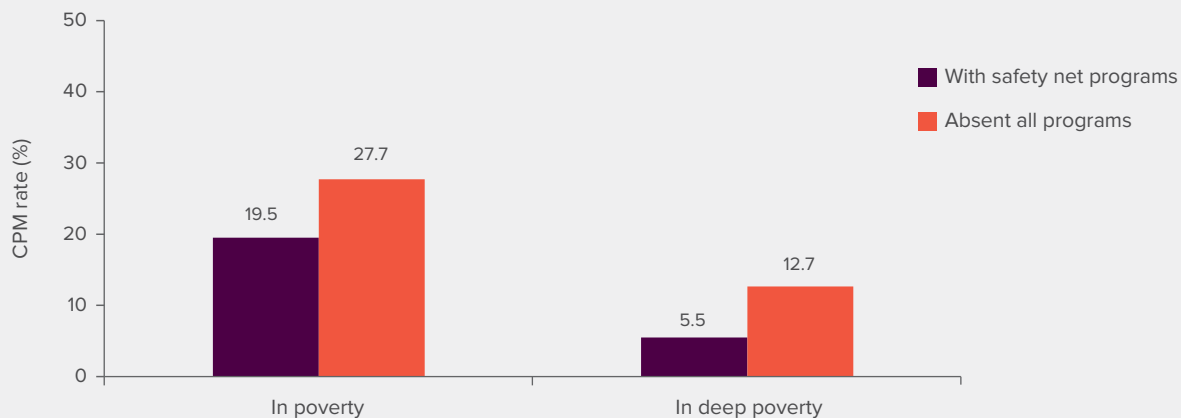
The social safety net assists millions of Californians

California's social safety net is designed to help people in economic need. It has several other short- and long-term goals, such as increasing employment, safeguarding adequate access to food, and improving children's well-being. Safety net assistance takes a number of forms, including cash grants, nutritional support, housing assistance, and tax credits. The largest programs help millions of Californians each year. For example, in 2016–17, an average of 1.09 million state residents received monthly support from CalWORKs, California's cash assistance program for families with children. And an average of 4.15 million Californians received a monthly food benefit from CalFresh, popularly known as food stamps or EBT. Safety net programs substantially moderate poverty, particularly among children. PPIC research finds that while 21.6 percent of California children lived in poverty in 2015, 36 percent would have been poor had it not been for safety net programs.

In 2016, California made a commitment to raise the statewide minimum wage to \$15 an hour by 2022. The first incremental increase—to \$10 or \$10.50, depending on employer size—occurred in January 2017. California also expanded eligibility for the state Earned Income Tax Credit (EITC), which has been available since 2015 to tax filers with very low earnings. As of 2017, earnings from self-employment count toward EITC eligibility and those who earn up to the annual equivalent of the state's full-time minimum wage can get at least a small credit.

Since most families have at least some income from employment, these changes promise to ease economic need—as long as California's economy continues to expand. After several years of statewide economic expansion, both the CalWORKs and the CalFresh caseloads have fallen substantially—a sign that family budgets are improving. But California must deal with the recurring challenge of reinforcing the safety net during economic downturns, when economic need increases and the state budget shrinks. The state also faces continuing uncertainty about the federal role in safety net programs.

THE SOCIAL SAFETY NET MODERATES POVERTY



SOURCE: 2015 California Poverty Measure (CPM) estimates. The CPM is a collaborative effort between researchers at PPIC and the Stanford Center on Poverty and Inequality.

NOTES: Figure shows estimates for all persons. Unlike official poverty rates, CPM rates factor large-scale safety net programs into family resources and incorporate regionally varying cost-of-living adjustments. The bars show 2015 CPM poverty rates and deep poverty rates without safety net resources including CalFresh, school meals, WIC (Special Supplemental Nutrition Program for Women, Infants, and Children), the state and federal Earned Income Tax Credits, the Child Tax Credit, CalWORKs, General Assistance, Supplemental Security Income, and federal rental assistance. Poverty denotes combined resources that fall short of the CPM threshold, which averaged \$30,256 statewide in 2015 for a family of four. Deep poverty denotes combined resources that are less than half of the CPM threshold.

State, local, and federal governments work together to deliver major safety net programs

Major safety net programs come in several different forms. CalWORKs and General Assistance provide cash grants. The EITC and the Child Tax Credit reduce tax obligations and typically mean tax refunds. CalFresh, school meals, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) offer nutritional support. Public housing and voucher programs help people afford housing. These programs have different kinds of eligibility, funding, and oversight.

- **Federal funds are essential to California's safety net.**

The federal government is involved in nearly all safety net programs—and most are underwritten mainly at the federal level. For example, CalFresh benefits are mostly covered by federal funds and the allocation is not capped. In contrast, federal funding for CalWORKs covers only about half of total program costs and the amount is fixed. At the same time, the state has far more latitude in spending CalWORKs dollars than it has with CalFresh expenditures. Across all programs, changes to regulations and funding at the federal level have potentially large consequences for the state.

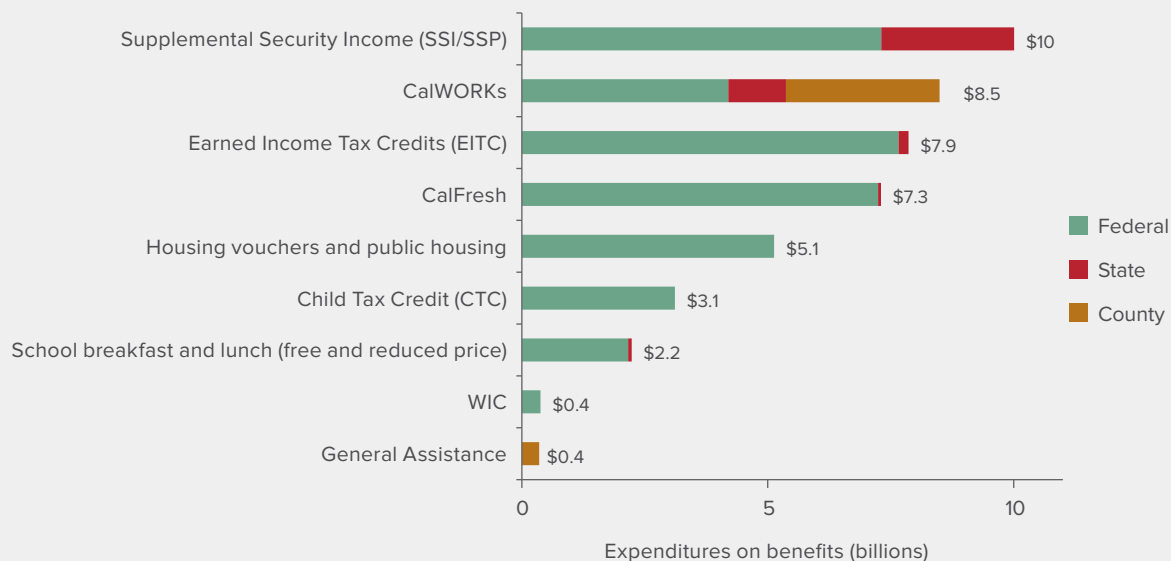
- **The state and counties play key roles.**

The state covers a share of costs that varies by program. It also typically provides oversight and shapes program rules to the extent allowed by federal law. The state has long augmented SSI payments and extended CalWORKs and CalFresh benefits to legal immigrants who are ineligible at the federal level. The state also augments school meal payments by a small amount. The counties administer programs; they also underwrite General Assistance benefits and cover a portion of CalWORKs and some administrative costs.

- **Other local agencies and nonprofits also contribute, adding to the social safety net's complexity.**

Local housing authorities obtain federal grants to administer subsidized housing schemes. Schools and school districts enroll students in free or low-cost meal programs. Local WIC agencies provide pregnant women and mothers with nutrition education and vouchers to purchase specified foods for themselves and for their infants and young children. Nonprofits help families find subsidized child care. And each of California's 58 counties has a First 5 program dedicated to improving the lives of children age 5 and under, with funding from Proposition 10 tobacco revenues.

THE LARGEST SHARE OF PROGRAM FUNDING IS FEDERAL



SOURCES: California Department of Education; California Franchise Tax Board; California Department of Social Services; US Department of Agriculture Food and Nutrition Service; Internal Revenue Service; US Department of Housing and Urban Development.

NOTES: CalFresh state benefits, CalWORKs, SSI/SSP, and General Assistance amounts for state fiscal year 2016–17; CalFresh federal benefits, school meals, and WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) amounts for federal fiscal year 2016; housing subsidies statistics for 2016; EITC and CTC (refundable portion only) benefits for the 2015 tax year. State and federal EITCs are combined. State CalWORKs and CalFresh expenditures include amounts for the Cash Assistance Program for Immigrants (CAPI) and the California Food Assistance Program (CFAP). County CalWORKs expenditures include the special fund amount provided to counties by the state pursuant to 1991 realignment and Assembly Bill 85 (2013). School breakfast and lunch expenditures include reimbursements for free, reduced-price, and paid meals.

Poverty—and the role of the safety net—varies dramatically across the state

- **Poverty is especially variable at the local level.**

Child poverty ranges between 11.8 percent and 29.8 percent (2013–15 average) across the state’s counties, according to the California Poverty Measure. At the local level—across areas with populations of about 100,000—young child poverty ranges far more: from 4 percent to 68 percent (2011–14 average).

- **The safety net’s impact is biggest in the state’s inland and northern regions.**

Social safety net programs play a substantial role across the state in lowering poverty, but their relative importance in family budgets is highest in inland and northern parts of the state. Among programs, the federal and state EITC (combined) and CalFresh have the largest roles.

- **Economic inequality would be 40 percent higher without the social safety net.**

Incomes are increasingly polarized in California. Measuring family incomes near the top (90th percentile) of the spectrum and comparing them to family incomes near the bottom (10th percentile) yields an income ratio of about 12 to 1. PPIC research finds that adding in resources from social safety net programs reduces the gap between high and low incomes by a substantial 40 percent (data from 2012–13). For those near the bottom of the spectrum, SSI/SSP, CalFresh and other nutrition programs, and federal housing assistance play the largest roles.

The 2017–18 state budget includes modest increases for several programs

- **Much of the additional funding benefits children.**

Starting in the 2017 tax year, an expansion of state EITC eligibility to include self-employment income and allow full-time minimum-wage workers to claim small credits is projected to cost \$140 million. EITC credits are higher for taxpayers with dependent children. The state is also helping working families by providing an additional \$166 million in funding to expand child care eligibility, add full-day state preschool slots, and increase provider reimbursement rates.

- **A range of new state laws seek to increase the pace of housing development.**

The governor signed 15 measures aimed at increasing the supply of housing by injecting state funds generated from a new fee and placing a \$4 billion housing bond on the November 2018 ballot. Other changes include new provisions to laws that already require localities to plan for needed housing and measures that aim to smooth the path to construction of affordable housing in particular.

Looking ahead

Amid continued uncertainty about the federal role in most programs, California has been augmenting and updating its social safety net. To the extent that this safety net supports work and offers assistance when and where it is needed the most, it has the potential not just to lessen poverty but also to improve economic mobility.

Staying in sync with the economy. Because jobs are a key source of income for families in and out of poverty, current economic growth is reducing the need for assistance among many vulnerable Californians. Both the CalWORKs and the CalFresh caseloads fell substantially from 2016 to 2017 (by 9% and 7.7%, respectively)—in clear contrast to the increases in enrollment seen during and after the last recession. But these programs need to have the budgetary and administrative capacity to grow when unemployment ticks up, so they are ready to serve as a buffer against extreme economic need.

Supporting work. Policymakers continue to show an interest in boosting the work-focused safety net. Recent statewide policies such as the EITC and minimum-wage increases are having varying effects on family income and employment. Because the challenges are different in high-cost and low-cost areas of the state, additional attention to solutions tailored to diverse parts of the state could be beneficial.

Expanding access to affordable child care. Child care is a major expense for families with infants and preschool-age children—and an important support for working parents. But only a fraction of income-eligible families are receiving subsidies for child care or preschool. This has prompted state officials to consider expanding or restructuring state-funded child care programs. Policymakers are also exploring ways to balance the program goals of supporting working parents and promoting child development.

Moderating California's cost of living. The high cost of living, especially in urban and coastal areas, means that the bar for meeting basic needs is higher for most Californians than it is for residents of many other states. Because housing drives the cost of living, it will be important to monitor the extent to which recent changes aimed at increasing housing, including affordable housing, are moderating costs.

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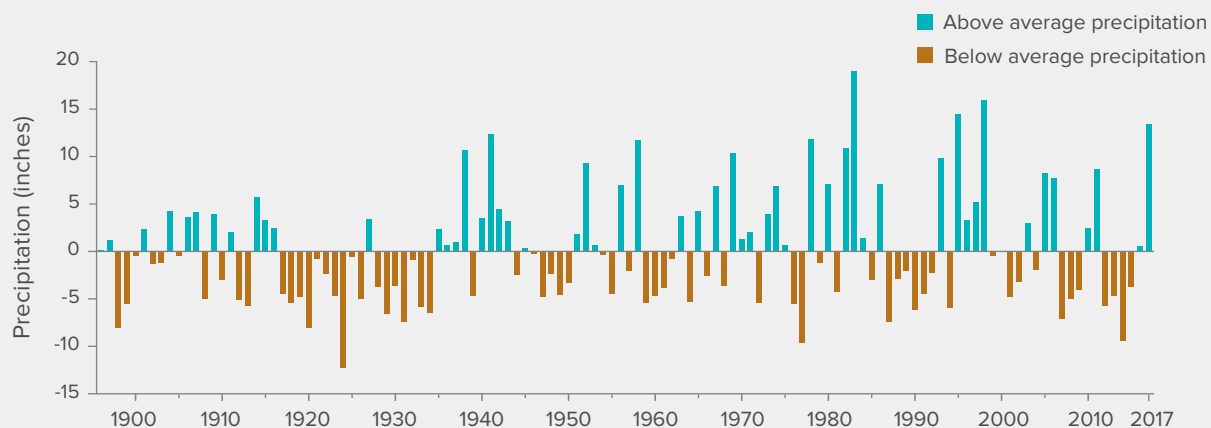
California faces growing water management challenges

Water management in California has always been challenging. The state's variable climate is marked by long droughts and severe floods, with stark regional differences in water availability and demand. California has adapted by building a vast network of storage and conveyance facilities to deliver water from the wetter parts of the state to population and farming centers in the Bay Area, the San Joaquin Valley, and Southern California.

The Sacramento–San Joaquin Delta is a fragile link in the state's water supply network, and a plan to address supply reliability, known as California WaterFix, faces many hurdles. California's extensive network of dams is aging. Agricultural demand is becoming less flexible, as farmers are increasing tree crops (especially nuts), which must be watered every year. Conflicts are growing between human water use and water needed to support fish and other wildlife. And the latest cycle of droughts and floods provides a glimpse of an uncertain future under climate change.

California's water management challenges are complex, but they can be addressed. Solutions will involve difficult and sometimes costly trade-offs, as well as contentious legal and political changes.

CALIFORNIA'S VARIABLE CLIMATE LEADS TO DROUGHTS AND FLOODS



SOURCE: Western Regional Climate Center.

NOTES: Bars show number of inches above or below the long-term California statewide average precipitation (21.43 inches) based on water year (October–September) since 1896. The 2017 bar is based on data through July and author estimates for the remaining two months based on 2016 values.

Climate extremes reveal strengths and weaknesses in California's water systems

The 2012–16 drought set records for lowest river flows, smallest snowpack, and highest average temperatures. In 2017, the state experienced near-record levels of precipitation that filled reservoirs, stressed dams and other flood infrastructure, caused landslides, and added fuel—in the form of new growth of brush and small trees—to fire-prone landscapes. These extremes provide a “stress test” for California, with key lessons for the future.

- Managing demand and investing in diversified water supplies pays dividends during drought.**
 At the height of the drought, California's cities and suburbs reduced water use by nearly 25 percent. Yet the drought did not significantly affect the state's economy. This is because in most urban and suburban areas—responsible for 98 percent of the state's gross domestic product—savings came from reducing less-essential uses, such as landscape watering. These areas also benefited from significant past investments to improve and diversify supplies.
- Wet years create opportunities for recharging groundwater, California's main drought reserve.**
 During droughts, farmers rely heavily on groundwater to make up for reduced surface water. However, unsustainable groundwater withdrawals are making this resource less reliable and causing other problems, including sinking lands (which damage infrastructure) and reduced river flows (which harm aquatic habitat). The 2014 Sustainable

Groundwater Management Act requires local water users to manage their basins sustainably over time. Increased basin recharge efforts will be a key part of this work; the 2017 rains highlighted both the opportunities and the constraints that must be overcome to do this more effectively. Obstacles include permitting challenges, infrastructure constraints, and a lack of incentive programs to encourage farmers to recharge shared aquifers.

- **Drought increases hardships for poor rural communities as well as for ecosystems.**
Some small, poor, rural communities lost drinking water supplies as their wells went dry during the recent drought. Many of these communities also have contaminated well water. Low river flows and high water temperatures pushed 18 fish species close to extinction, including most salmon runs. Shrinking wetlands threaten waterbirds. Severe wildfires threaten public safety and the long-term health of the state's conifer forests.
- **California's aging dams are under stress.**
Half of California's dams are more than 50 years old, and all were designed to function in past climate conditions. A crisis in early 2017 at the Oroville Dam—which led to the evacuation of nearly 200,000 downstream residents—has spurred new efforts to evaluate dam safety and develop emergency action plans for other reservoirs across the state. Some improvements can be funded under Proposition 1, which authorized \$395 million for flood management in 2014; the legislature allocated an additional \$111 million in the 2017 budget.

California has only just begun to address extreme flood risks

One in five Californians live in areas with significant flood risk, and most are not insured. Flood risks are expected to grow due to sea level rise and increasing storm intensity. Although the state has recently increased investments in flood control infrastructure, more efforts are needed to keep development out of harm's way.

- **Local governments and residents need incentives to limit flood risk exposure.**
Federal flood insurance regulations only restrict new development in areas of extreme flood risk (susceptible to a "100-year flood"). State legislation from 2007 requires that local governments within the Central Valley provide double that level of protection for new homes, but the weaker federal standards still apply elsewhere. Neither federal nor state policies adequately account for increasing risks from climate change and sea level rise.
- **Local governments also need to consider future conditions when approving new development.**
State law requires cities and counties to consider sea level rise and climate change in hazard mitigation planning. But they are not required to reduce development in areas likely to be at higher risk in the future.

Instability in the Sacramento–San Joaquin Delta is a major challenge

The Delta supplies water to more than 25 million people and 3 million acres of farmland in the Bay Area, the San Joaquin Valley, and Southern California. Sea level rise and earthquakes threaten levees that protect water quality and Delta farms. Water management to help declining native fishes—many are endangered species—disrupts water exports. The current system relies on moving water through channels to pumps in the southern Delta. California WaterFix calls for constructing two tunnels to tap the Sacramento River and move the water under the Delta to the pumps.

- **A strategic decision is needed on Delta exports.**
The next year will be critical for the Delta's future. The state will decide whether to go forward with WaterFix—a decision that will, in turn, help determine the way forward for ecosystems and levees. WaterFix would improve the reliability and quality of export water and provide flexibility in managing water for the environment. The plan is costly and entails many uncertainties, but failing to resolve the Delta's problems will also be costly. If the state decides to not go forward—whether as a matter of policy or as a result of litigation—it will need to develop another management plan for the Delta that mitigates the continued decline in water supply reliability and quality, levee integrity, and ecosystem health.

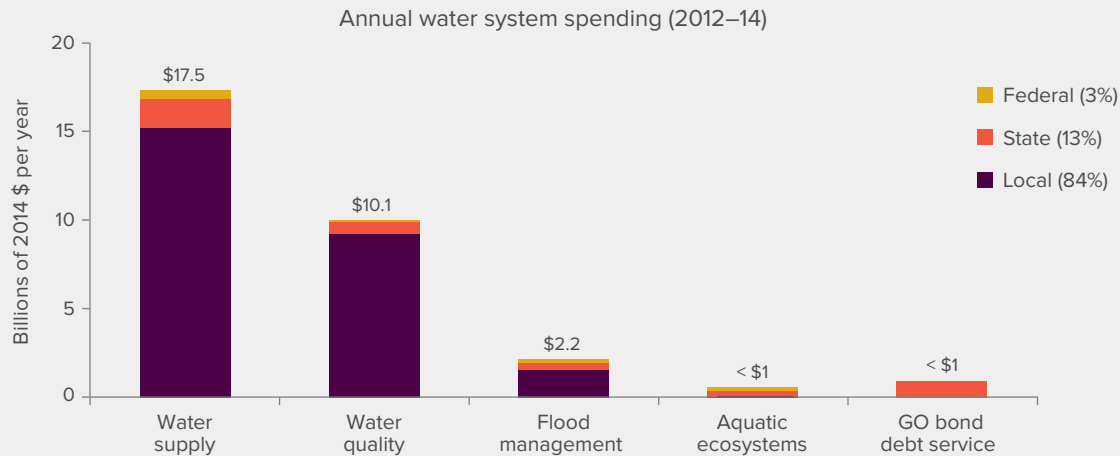
Californians must decide how to fill funding gaps

Local agencies raise most of the \$30-plus billion spent annually in the state's water sector, and urban water and wastewater agencies are doing reasonably well at covering service costs. But the state faces critical funding gaps in five "orphan" areas: the provision of safe, affordable drinking water to small, disadvantaged communities; flood protection; management of stormwater and other polluted runoff; aquatic ecosystem management; and integrated water management.

- **California needs to move beyond bonds.**

Californians pay for the vast majority of water system expenditures through their monthly water and wastewater bills, but since 2000 the sector has been relying more heavily on state general obligation bonds. These bonds—reimbursed with general tax dollars—have helped local water agencies fund some innovative projects. California voters passed a \$7.5 billion water bond in November 2014 and will vote on another \$4 billion bond in June 2018. But even if this new bond passes, other funds are needed to address critical gaps.

LOCAL AGENCIES RAISE MOST OF THE MONEY SPENT ON THE WATER SECTOR



SOURCE: Updated from Ellen Hanak et al., *Paying for Water in California* (PPIC, 2014).

NOTES: The figure reports average spending for 2012–14. GO bond = general obligation bond. Local expenditures are net of grants from higher levels of government. The water quality category includes management of wastewater and approximately \$500 million for polluted stormwater and other runoff.

- **Legal constraints are an obstacle to sustainable local funding.**

Three constitutional reforms approved by voters since the late 1970s—Propositions 13, 218, and 26—have severely limited the ability of local agencies to raise funds for some essential programs and services. Legal uncertainty also threatens funding reliability for water and wastewater agencies. Minor changes could better align the state’s water pricing and funding laws with the goals of modern water management.

California must improve management of aquatic ecosystems

The demand for environmental water, healthy watersheds, and clean beaches has been increasing and is likely to grow. And the latest drought highlighted major challenges in meeting some environmental goals.

- **The state needs to arrest the decline in native fishes.**

Populations of native fish species—important indicators of freshwater ecosystem health—are declining across California, despite several decades of well-intentioned efforts. These declines lead to tighter and costlier restrictions on water supply, wastewater, and flood management projects, heightening conflicts among water management goals.

- **Ecosystem-based approaches can help.**

Environmental management is often siloed: agencies and projects address particular issues in specific locations—water quality, wetlands, flows, habitat—and there is no overarching plan for improving ecological conditions. Coordinated, flexible approaches that improve environmental performance for entire watersheds would protect native species much more effectively—and help California allocate its dollars (and environmental water) more efficiently.

Looking ahead

California has the tools to secure a safe and reliable water supply, improve the health of wetlands and rivers, and reduce flood risks. Water managers have made significant progress toward these goals. But the challenges are increasing with population growth and climate change. Increased momentum toward policy reform—coupled with new investments—is essential to the state’s future. Some changes will be politically difficult. Several issues require sustained attention.

Dam safety and flood risk exposure. California will need to modernize some dams and rethink how to operate dams and other flood infrastructure in response to a changing climate. To reduce risks to new development, floodplain mapping should account for climate change and increasing flood risks.

Drought preparation. California should learn from the latest drought so that it will be better prepared for the next one. The state must improve its management of water rights, water transfers, ecosystems, and interagency coordination.

The Delta. If the state moves ahead with WaterFix, it must address uncertainties about governance, financing, benefits for the environment, and mitigation for Delta residents and landowners. The alternatives include scaling down the current project's size or developing a new plan to address declining water supply reliability from the Delta.

Ecosystem protection. California needs a more comprehensive and coordinated approach to support aquatic ecosystems and the native species that depend on them.

Groundwater management. The new groundwater law is likely to improve management of most basins in California. But implementation will be challenging, especially for agricultural regions that rely heavily on unsustainable groundwater withdrawals. As water users develop their sustainability plans, state support for building solid and transparent water accounting systems and the removal of constraints on groundwater recharge are top priorities.

Funding. Legal reforms are needed to enable local and state agencies to fill funding gaps for drinking water quality, flood protection, stormwater management, aquatic habitat, conservation, and integrated water management.

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