## California's Health Coverage Gains to Erode Without Further State Action

## Projections from California Simulation of Insurance Markets (CalSIM) model

November 2018

Miranda Dietz
Laurel Lucia
Dylan H. Roby
Ken Jacobs
Petra W. Rasmussen
Xiao Chen
Dave Graham-Squire
Greg Watson
Ian Perry
Gerald F. Kominski
University of California, Berkeley, Center for Labor Research and Education, and University of California, Los Angeles, Center for Health Policy Research

## I. Executive Summary

California's successful implementation of the Affordable Care Act (ACA) resulted in historic increases in health insurance coverage. Over one million Californians have subsidized insurance through Covered California, the state's ACA marketplace. The state's Medicaid program (Medi-Cal) now covers approximately one out of three Californians, millions more than prior to the ACA.

Despite this success, 10.4 percent of non-elderly Californians (those under age 65) lacked insurance in 2016. Without state action to protect and build upon these coverage gains, we project that the uninsurance rate could grow to 11.7 percent in 2020, or approximately 4.02 million people, and to 12.9 percent in 2023 , or 4.4 million people. These rates are based on a definition of insurance that excludes restricted-scope Medi-Cal for undocumented Californians.

Exhibit 1: Uninsurance rate among non-elderly
Californians


Note: Uninsurance rate includes individuals assumed to have restricted-scope Medi-Cal benefits. Sources: California Health Interview Survey 2012 and 2016. UCLA-UC Berkeley CalSIM version 2.2.

The federal law zeroing out the ACA individual mandate penalty beginning in 2019 will result in lower individual market and Medi-Cal enrollment, but significant uncertainty exists about how much enrollment will decline in California. Using our California Simulation of Insurance Markets (CaISIM) microsimulation model and a range of assumptions about the extent to which the penalty influences enrollment decisions, we project that between 150,000 and 450,000 more Californians will be uninsured in 2020, growing to between 490,000 and 790,000 more uninsured in 2023, compared to the projected number if the ACA penalty had been maintained. The most substantial enrollment changes will occur in the individual market, where we project enrollment will decline by 10.1 percent in 2020 and 14.4 percent in 2023.

Undocumented Californians will continue to make up the largest group of uninsured, and many other Californians who are eligible for coverage-including Medi-Cal, insurance through Covered California, and employer coverage-will also lack insurance. Some Californians will not enroll in Medi-Cal despite being eligible because they are not aware of their eligibility, have difficulty enrolling, or have other reasons for remaining unenrolled. Some individuals eligible for employer coverage or insurance through Covered California, with or without ACA subsidies, will not enroll due to affordability concerns, rising costs, lack of knowledge of subsidies, or other reasons.

## Exhibit 2: Non-elderly Californians projected to lack insurance, 2020 and 2023



Source: UCLA-UC Berkeley CalSIM version 2.2

Uninsured Californians are projected to be disproportionately Latino (65 percent) and low income ( 52 percent at or below twice the Federal Poverty Level) in 2020. More than two-thirds of adults projected to lack insurance are working ( 69 percent), a rate similar to that in the overall population (73 percent).

The uninsurance rate will vary regionally from a projected 9.9 percent in the Bay Area to 13.9 percent in Los Angeles County in 2020. Variation in uninsurance rates reflect differences in population characteristics, such as immigration status and income, healthcare premiums, and employers' rates of offering coverage.

To protect the progress made under the ACA in expanding health coverage and to reduce the remaining coverage gaps, the state could expand Medi-Cal to all low-income residents regardless of immigration status, provide state subsidies to improve affordability of individual market premiums and out-of-pocket costs, implement a state individual mandate, and continue to support and strengthen outreach and enrollment efforts, among other strategies. As federal decisions threaten to reverse health coverage gains around the country, these policies would help to ensure that California continues to build on its successes and drive toward its goal of achieving universal health coverage.

# II. Historic Gains, Federal Threats, and an Uncertain Future 


#### Abstract

California has worked hard to make the Affordable Care Act (ACA) a success. With careful planning for implementation, millions have gained coverage-and millions have kept coverage because of shrewd decisions to protect California from federal attempts to undermine the ACA.


- The California Health Interview Survey (CHIS) reports that the uninsurance rate among non-elderly Californians fell from 16.3 percent in 2012 (before the ACA coverage expansions were implemented) to 8.5 percent in 2016 (after new enrollment in the Medi-Cal expansion and subsidized insurance through Covered California leveled off). ${ }^{1}$
- Using a definition of insurance that excludes restricted-scope Medi-Cal for undocumented Californians, the uninsurance rate among non-elderly Californians fell from 17.6 percent in 2012 to 10.4 percent in 2016, or 3.55 million uninsured. We use this definition of insurance in CalSIM modeling and throughout this report.


## Why Uninsurance Estimates Vary

The definition of insurance: In CaISIM, we define insurance coverage as policies that, at a minimum, cover a full range of high-cost medical events, in keeping with the definitions of private and public coverage used by the Congressional Budget Office. ${ }^{2}$ This definition excludes restricted-scope Medi-Cal coverage, the only type of Medi-Cal benefit available to low-income, undocumented adults in California. (CaISIM counts undocumented children reporting Medi-Cal as insured beginning in 2016, when eligibility for full-scope Medi-Cal was expanded to all low-income children using state funds.)

Restricted-scope Medi-Cal covers emergency and pregnancyrelated services using state and federal funds and state-funded long-term care when needed. Doctor visits, hospital care, prescription drugs, and other basic health services are not covered unless they are necessary for the treatment of an emergency medical condition or the enrollee is pregnant. Covered services do not include, for example, most of the care needed by someone with cancer.

Survey-based estimates of uninsurance-for example, the Census and the California Health Interview Survey (CHIS)generally rely on self-reported insurance status without making adjustments for scope of coverage. ${ }^{3}$ Since some undocumented adults report having Medicaid coverage, these survey-based estimates have therefore estimated fewer than 3 million uninsured in California in 2016, whereas CaISIM
estimates are based on 3.55 million uninsured in 2016 (see Appendix C for details).

Focus on non-elderly: Uninsurance rate estimates often include the 5.25 million Californians age 65 and over, almost all of whom are covered through Medicare. ${ }^{4}$ This report focuses on Californians under age 65 who have a higher rate of uninsurance.

## Latest CaISIM estimates rely on more recent survey

data: An August 2016 publication, "Preliminary CaISIM v 2.0 Regional Remaining Uninsured Projections," showed a range of 2.62 million to 3.56 million uninsured statewide in 2017, with a preferred estimate of 3.05 million. ${ }^{5}$ That publication provided a range of estimates because reasonable variations in assumptions had considerable impact on our results. Those prior projections were made based on the best available data at that time: 2014 survey data on the uninsured and 2016 administrative data on enrollment in Medi-Cal and Covered California. CaISIM 2.2 uses more recent survey data that better reflect the longer-term post-ACA trends. Specifically, CalSIM 2.2 estimates are based on 3.55 million uninsured in 2016, which falls at the upper end of the range of uninsured projections provided in the prior report. (Prior projections use the same definition of insurance that we use in this report, counting undocumented adults reporting Medi-Cal as uninsured.)

## California's Efforts to Stay the Course in Effectively Implementing the ACA

Prior to the ACA, low-income adults without dependent children were not eligible for Medi-Cal coverage; low-to-moderate income Californians and those with pre-existing conditions were often priced out of the individual market. The ACA made it illegal to charge different prices based on health status or refuse to cover people with pre-existing conditions, allowed states to expand Medicaid, and provided subsidies that would allow people with low-to-moderate income and without employer-offered health insurance to purchase insurance themselves on the individual market. Today, most non-elderly Californians get their health insurance through an employer, as they did prior to the ACA. However, the ACA greatly improved access to health insurance for people who lack access to an employer offer of coverage, as well as during times of transition, like the loss of a job, a drop in income, or other changes in family circumstances.

The state's Medicaid program (Medi-Cal) now covers approximately one out of three Californians, millions more than prior to the ACA. ${ }^{6}$ In the midst of federal debates about support for Medicaid, California has maintained its commitment to its Medi-Cal program, including the ACA optional expansion under which 3.47 million Californians have enrolled in full-scope benefits. ${ }^{7}$ While other states have adopted or proposed new limits to Medicaid eligibility, California enacted a law in 2018 that prohibits the Department of Health Care Services from imposing work requirements or other requirements as a condition for Medi-Cal eligibility. ${ }^{8}$ In 2016, California expanded Medi-Cal eligibility to all low-income children regardless of immigration status, adding to the eligibility groups already offered full benefits using state funds, such as Lawful Permanent Resident adults who received a green card within the last five years and immigrants with Deferred Action for Childhood Arrivals (DACA) status.

In 2016, the individual market covered 2.3 million people, approximately half of whom receive financial assistance to make premiums and/or out-of-pocket costs more affordable. ${ }^{9}$ Covered California, the state-based health insurance marketplace created under the Affordable Care Act, has played an active role in standardizing benefit designs to simplify choices and enable access to most outpatient care with a copayment rather than a deductible. Covered California also negotiates directly with insurers to keep price increases down. ${ }^{10}$

California has also taken steps toward ensuring a stable individual market in response to recent federal health policy changes. For example, in 2017, California quickly developed a plan for addressing federal defunding of subsidies to reduce copayments and deductibles in a way that maintains reduced out-of-pocket costs for the lowest-income consumers while protecting all individual market enrollees from premium increases, and California's response to the federal changes served as a model for other states. California has maintained a three-month open enrollment period, twice as long as the open enrollment period in the 39 states that rely on the Federal Marketplace. Covered California spending on ACA marketing and outreach was projected to be 10 times greater than federal government spending in 39 states in 2018. ${ }^{11}$ With the goal of maintaining stability in the individual and small group markets, California enacted laws in 2018 that ban the sale of short-term health plans ${ }^{12}$ and limit association health plans, ${ }^{13}$ in response to federal rules that expanded options for those types of plans.

## An Uncertain Future

Despite this progress, unless the state takes further action, enrollment in California could fall as a result of one federal health policy change: the zeroing out of the ACA individual mandate penalty for individuals lacking insurance beginning in 2019. We project this policy change will result in 490,000 to 790,000 more uninsured Californians in 2023. This federal policy reduces the incentive to shop for and sign up for coverage, and as relatively healthier individuals drop out of the individual market, premiums will increase, which will further reduce enrollment.

The zeroing out of the individual mandate penalty is the clearest example of a change affecting the number of uninsured that is already slated to occur. However, the future of Californians' health coverage is subject to even broader uncertainty given a range of possible policy and economic changes. For example, proposed changes to federal rules defining which immigrants are deemed a "public charge" could result in a chilling effect on enrollment in Medi-Cal among eligible individuals in immigrant families, as discussed later in this report. Likewise, an economic recession could result in a growing number of uninsured Californians. On the positive side, California policymakers have expressed a strong interest in considering proposals to achieve universal coverage in the state, such as by expanding Medi-Cal to all low-income individuals regardless of immigration status or extending state premium and out-of-pocket subsidies to make private insurance more affordable. Proposed federal and state policies like these and potential economic changes have not been modeled for this report.

In this report, we focus on non-elderly Californians who we project to be uninsured in 2020 and 2023, by which time we anticipate the full effect of zeroing out the individual mandate penalty will be evident. Our estimates rely on CalSIM, the California Simulation of Insurance Markets, a microsimulation model that projects insurance take-up among Californians and offer of insurance by California firms, accounting for a range of decision-making factors, including the presence or absence of an individual mandate penalty.

We start by discussing the impact of zeroing out the individual mandate penalty, as well as other trends over time. We then provide the estimated number of Californians projected to be uninsured in 2020 and 2023, broken down by eligibility category, demographics, and region. Finally, we discuss policy implications.

## III. Fewer Californians Enroll in Medi-Cal and Individual Market Without Penalty

As a result of zeroing out the individual mandate penalty, we project between 150,000 and 450,000 fewer Californians will enroll in coverage in 2020, growing to between 490,000 and 790,000 fewer in 2023 (Exhibit 3).

Research on the effect the penalty has had on enrollment is inconclusive, in large part because the mandate went into effect at the same time as subsidies were introduced, Medicaid was expanded in many states, and other changes also occurred. ${ }^{18}$ Additionally, the reaction to the removal of the individual mandate penalty is currently unknown, and there are no examples of a similar policy occurrence in this direction that provides evidence to guide modeling decisions. As a result of this uncertainty, we model a high and low range of the mandate's effect on individuals' enrollment decisions (see Appendix D for more details). However, the range of uncertainty is even wider than shown in these estimates. ${ }^{19}$

## Reduced Incentive to Seek Coverage with Zero Penalty

We model the effects of zeroing out the mandate as phasing in over time. Many Americans are not yet aware that the individual mandate penalty has been zeroed out, ${ }^{20}$ but more may become aware of this change in law over time. The penalty is assessed at tax time, and while the penalty is zero starting in the 2019 tax year, uninsured taxpayers may still owe a penalty when they file their 2018 taxes early in the 2019 calendar year. In addition, the IRS will still require taxpayers to report each year whether or not they had minimum essential coverage, reinforcing that the requirement to have coverage is still in place, even though there is no penalty for not meeting that requirement. However, as Californians become aware that they owe no penalty for not having minimum essential coverage, some who are currently choosing to buy coverage may decide to risk going uninsured. ${ }^{21}$

In addition to the mandate penalty influencing the decisions of those currently buying coverage individually, the mandate has provided an extra incentive for people to shop for coverage in the event of losing their existing health insurance or otherwise experiencing a change in circumstances. Without this extra incentive, some people are likely to forgo shopping for coverage. To the extent that the mandate works in this way, the effect of zeroing out the penalty will not be immediate but will be felt only as people experience life transitions and cycle in and out of coverage over time.

We estimate that the vast majority of the effect will be evident by five years out, or 2023. However, the effects of zeroing out the mandate may be fully evident even sooner than that.

## Effect on Individual Market

Zeroing out the penalty is expected to have the most significant impact on individual market enrollment, with a decline of 10.1 percent in 2020 and 14.4 percent in 2023 (Exhibit 3). Zeroing out the penalty will reduce the incentive to shop and enroll in the individual market, particularly among healthier individuals, leading to a worse risk mix and an increase in individual market premiums. CalSIM estimates a premium increase of 8 percent to 10 percent and reduced
enrollment due to this price increase. Our estimates are in line with the literature on how demand for insurance changes as a result of price changes. ${ }^{22}$ We project the combined effect of zeroing the penalty and the increase in premiums to be between 210,000 and 320,000 fewer individual market enrollees in California in 2020 and between 280,000 and 440,000 fewer in 2023. We project that the subsidized exchange will lose 90,000 enrollees by 2020 and 150,000 by 2023, as well as larger changes in the unsubsidized market: approximately 170,000 fewer enrolled in the individual market without subsidies by 2020 and 220,000 fewer by 2023 (Exhibit 4).

## Effect on Medi-Cal

Although most of the Medi-Cal eligible uninsured are already exempt from paying the penalty due to low income or because they lack an offer of affordable private insurance, many may not be aware of the exemptions. ${ }^{23}$ For these individuals and for the few who are not exempt, the individual mandate penalty created an incentive to find out what coverage they were eligible for and enroll. It is hard to distinguish the "welcome-mat" effect of streamlined enrollment and increased awareness of insurance options from the effect the individual mandate had on Medi-Cal eligible individuals. However, research on Massachusetts state health reform found that after the state individual mandate was implemented, Medicaid take-up among parents who were already eligible increased, and they concluded that the mandate is one contributing factor to increased Medicaid enrollment. ${ }^{24}$ Without the mandate, we project that Medi-Cal enrollment will decline by 60,000 to 290,000 in 2020 and by 290,000 to 410,000 in 2023 (Exhibit 4), equivalent to a 2 - to 4 -percent Medi-Cal enrollment reduction among non-elderly Californians in those years (Exhibit 3).

Exhibit 3: Percent change in enrollment due to zero individual mandate penalty, Californians age 0-64, 2020 and 2023


[^0]Exhibit 4: Enrollment change due to zero individual mandate penalty, Californians age 0-64, 2020 and 2023

|  | 2020 | 2023 |
| :---: | :---: | :---: |
| Individual Market | $\begin{gathered} \mathbf{- 2 6 0 , 0 0 0} \\ (-320,000 \text { to }-210,000) \end{gathered}$ | $\begin{gathered} -370,000 \\ (-440,000 \text { to }-280,000) \end{gathered}$ |
| subsidy eligible | $\begin{gathered} -90,000 \\ (-130,000 \text { to }-50,000) \end{gathered}$ | $\begin{gathered} -150,000 \\ (-200,000 \text { to }-90,000) \end{gathered}$ |
| not subsidy eligible | $\begin{gathered} -170,000 \\ (-190,00 \text { to }-160,000) \end{gathered}$ | $\begin{gathered} -220,000 \\ (-240,00 \text { to }-190,000) \end{gathered}$ |
| Medi-Cal | $\begin{gathered} -170,000 \\ (-290,000 \text { to }-60,000) \end{gathered}$ | $\begin{gathered} -\mathbf{3 5 0 , 0 0 0} \\ (-410,000 \text { to }-290,000) \end{gathered}$ |
| Employer-Sponsored Insurance | $\begin{gathered} +\mathbf{1 3 0 , 0 0 0} \\ (+110,000 \text { to }+150,000) \end{gathered}$ | $\begin{gathered} +60,000 \\ (+40,000 \text { to }+70,000) \end{gathered}$ |
| Uninsured (Total) | $\begin{gathered} \mathbf{+ 3 0 0 , 0 0 0} \\ (+150,000 \text { to }+450,000) \end{gathered}$ | $\begin{gathered} +640,000 \\ (+490,000 \text { to }+790,000) \end{gathered}$ |

Source: UCLA-UC Berkeley CaISIM version 2.2

## Effect on Employer-Sponsored Insurance

We project enrollment in employer-sponsored insurance will increase slightly after the penalty is zeroed out. When premiums in the individual market increase as result of the worse risk mix, employers are slightly more likely to offer coverage resulting in a net increase in those covered by employer-sponsored insurance. However, this projected increase in enrollment is very small in relationship to the size of the employer-sponsored insurance market-an increase of less than 1 percent.

In sum, the number of uninsured Californians is projected to increase by 8.1 percent in 2020 and 16.9 percent in 2023 as a result of zeroing out the individual mandate penalty, with the largest effects projected to be in the individual market.

## IV. Growth in Population, Premiums, and Minimum Wage Factor into Number of Uninsured

While we project the zeroing out of the penalty to be the biggest driver of the increase in the number of uninsured, our modeling suggests that the number of uninsured would increase by approximately 250,000 from 2016 to 2023 even without the zeroing out of the individual mandate. A portion of this increase is due simply to population growth over that time. In
addition, we assume that medical costs increase faster than inflation, resulting in more uninsured over time. CalSIM does not project macroeconomic changes like recessions, but we do model scheduled increases in minimum wage. The state minimum wage increased from $\$ 8$ to $\$ 9$ per hour in July 2014 and will reach $\$ 15$ per hour statewide in 2023 or sooner in certain cities and counties. ${ }^{25}$ As a result of increasing wages, both for those earning minimum wage and those earning slightly more than minimum wage, some workers and their families will transition from being Medi-Cal eligible and paying no premium to being required to pay a premium and out-of-pocket costs on the individual market; they may become uninsured as a result of this transition.

## V. More Than 4 Million Uninsured Californians in 2020 and Beyond

Without a change in policy, in 2020, there will be 4.02 million uninsured Californians under age 65 (with a range of 3.90 million to 4.15 million). In 2023, between 4.34 and 4.55 million Californians under age 65 are projected to be uninsured, with a midpoint estimate of 4.44 million (Exhibit 2). This range is dependent on how much effect zeroing out the mandate has on enrollment. These projections are equivalent to a non-elderly uninsured rate of 11.7 percent in 2020 and 12.9 percent in 2023, which would represent a retreat from the uninsurance rate of 10.4 percent in 2016 but would still show progress compared to the uninsurance rate of 17.6 percent in 2012 (Exhibit 1), prior to the ACA coverage expansions.

Overall, 87 percent of uninsured Californians are projected to be in good, very good, or excellent health in 2020, a very similar share to that of the non-elderly population in general ( 86 percent). Most uninsured adults are working (69 percent), a rate similar to that in the overall population (73 percent). In addition, some of the uninsured adults who are not working have working spouses. Nonetheless, those who are uninsured do differ from the rest of the population in important ways: in 2020, they are projected to be disproportionately Latino ( 65 percent), male (56 percent), and low income ( 52 percent at or below twice the Federal Poverty Level [FPL]). The demographic distributions of the uninsured are projected to be similar in 2023 (Appendix A).

## Largest Group of Uninsured Californians Are Undocumented, Many Other Uninsured Are Eligible for Coverage

CalSIM allows us to characterize the uninsured population based on their eligibility for various coverage options, as shown in Exhibit 2. (Estimates for 2020 are shown in the headings below.)

Undocumented and uninsured: $\mathbf{1 . 4 8}$ million. As is the case today, these Californians are projected to comprise the largest group of uninsured in the state in 2020. Undocumented adults are not eligible for full-scope Medi-Cal coverage regardless of income ${ }^{26}$ and are not eligible to purchase coverage through Covered California with or without subsidies. Some undocumented residents purchase coverage in the individual market directly from insurers, though that option is out of reach for most due to cost. While undocumented workers tend to be employed in jobs and industries that have lower rates of offering coverage, some undocumented residents have coverage through their employer or a family member's employer. The group of undocumented and uninsured Californians in CaISIM is projected to be disproportionately Latino (more
than 90 percent) and concentrated in the 30-49 year age range ( 62 percent, see Exhibit 5). Undocumented Californians are predominantly low income: in 2015-2016, approximately two-thirds ( 65 percent) of undocumented adults had income at or below 138 -percent FPL, the eligibility threshold for Medi-Cal, according to analysis using the CHIS. ${ }^{27}$ Low-income undocumented children who are eligible for Medi-Cal but not enrolled are categorized in the next group.

Eligible for Medi-Cal but uninsured: 900,000. This includes citizens and qualified immigrant adults up to 138-percent FPL (or \$16,750 for a single individual) and children age 18 and under in families at or below 266-percent FPL ( $\$ 55,270$ for a family of three) regardless of immigration status. We project that in 2020, approximately 170,000 more Californians would enroll in Medi-Cal if the individual mandate penalty were maintained. Others who are eligible for Medi-Cal are projected to lack insurance because they may not realize they are eligible, may be in the process of enrolling, or do not try to enroll for other reasons. Those eligible for Medi-Cal can enroll at any time of year, unlike those eligible for individual market coverage who can only enroll during the annual open enrollment period or if they experience a qualifying life event. Even without an individual mandate penalty, close to 90 percent of those eligible for Medi-Cal are projected to enroll.

The uninsured who are Medi-Cal eligible are estimated to be disproportionately Latino (58 percent, compared to 40 percent of the overall California population in 2020). Approximately one-third of uninsured Californians who are Medi-Cal eligible are projected to be children age 18 and under in 2020. This age group accounts for approximately half of all Medi-Cal non-elderly enrollees, reflecting the fact that Medi-Cal eligibility extends up to 266-percent FPL for this age group and that families with children are more likely to have low income than households without children. Those age 19-29 are projected to make up another significant share of the uninsured eligible for Medi-Cal (38 percent, see Exhibit 5), reflective of lower average incomes among young adults.

For some Medi-Cal-eligible Californians in immigrant families, fear of negative immigra-tion-related consequences for themselves or family members may deter enrollment. A draft rule proposed by the U.S. Department of Homeland Security in October 2018 would allow participation or the potential for participation in Medi-Cal and other public programs to be taken into account when certain immigrants apply for green cards. If finalized, this rule change is anticipated to have a chilling effect on Medi-Cal enrollment, ${ }^{28}$ which could further increase the number of uninsured eligible for Medi-Cal. However, this potential policy change is not modeled in these estimates.

Eligible for subsidies through Covered California but uninsured: 520,000. These are citizens and lawfully present immigrants with income at or below 400-percent FPL, or \$48,560 for a single individual or $\$ 83,120$ for a family of three. This group includes a small number of people (30,000 in 2020) who have an unaffordable offer of employer-sponsored insurance and are therefore eligible for ACA subsidies. In spite of the premium and cost-sharing subsidies provided under the ACA, some Californians struggle to afford premium and out-of-pocket costs. Among uninsured Californians in the subsidy-eligible income range, cost was the top reason reported for lacking insurance in 2014 through 2016, according to the CHIS. ${ }^{29}$

Among those eligible for subsidies who lack insurance, 70 percent are estimated to have income in the 200- to 400-percent FPL range, and 30 percent are projected to have income below 200-percent FPL in 2020 (Exhibit 6). Uninsured Californians eligible for subsidies are also projected to be disproportionately Latino (54 percent) and male (57 percent). Almost three out of four ( 73 percent) are age 19-49, though that age range accounts for only about half of the overall non-elderly population in 2020 (Exhibit 5).

Not eligible for subsidies due to higher income, no offer of employer coverage, and uninsured: 500,000. For uninsured Californians with income above 400-percent FPL, cost was the top reason reported for lacking insurance in 2014 through 2016. ${ }^{30}$ Among this group, 45 percent are projected to have income in the 401- to 600-percent FPL range, and 55 percent are projected to have income above 600-percent FPL in 2020 (Exhibit 6). Approximately one in three (38 percent) of this group are projected to be age 50-64, despite this age group being only 22 percent of the overall non-elderly population in 2020 (Exhibit 5). Although the ACA limited how much individual market premiums can vary based on age, premiums still increase with age, and without subsidies, older adults can face premium costs that exceed 20 percent of income, in addition to a $\$ 6,300$ deductible. ${ }^{31}$ This group is also especially vulnerable to rising underlying healthcare costs because they bear the full cost of premium growth.

Eligible for employer coverage but uninsured: 610,000. These Californians are projected to lack insurance despite being eligible for employer-sponsored coverage that is deemed "affordable" under the ACA in 2020. ${ }^{32}$ Although this group is offered employer-sponsored insurance that meets the ACA standards for affordability and could also purchase insurance through Covered California without subsidies, many in this category have reported that they did not enroll due to cost. Nationally, the most common reason for declining employersponsored insurance among individuals who are eligible for it and not covered by another plan is that it is "too expensive." ${ }^{33}$ As underlying healthcare costs have grown rapidly, workers' premium contributions and out-of-pocket costs have grown faster than workers' earnings. ${ }^{34}$ This uninsured group is projected to make up a substantial fraction of the uninsured in 2020 (15 percent). But the size of this group should also be considered in context: more than 95 percent of those who are eligible for employer coverage are projected to be enrolled in some form of insurance.

This group looks very similar to the overall non-elderly population of California in terms of age and race/ethnicity. However, they are concentrated among the 139- to 400-percent FPL income range ( 54 percent, compared to 39 percent of the general non-elderly population in California in 2020, Exhibit 6). This group earns too much to qualify for Medi-Cal but may still face significant challenges affording their contribution to premiums for employer coverage.

[^1]ACA Definition of an "Affordable" Offer of Employer-Sponsored Insurance
family income. Family members in this position are described as caught in the "family glitch." Many families affected by the glitch take up the employer offer anyway, though some remain uninsured. ${ }^{35}$ Most of the Californians projected to lack insurance despite having an employer offer have a self-only or family offer that costs less than 9.56 percent of income, while the remainder are caught in the family glitch.

Exhibit 5. California non-elderly uninsured by eligibility category and age group, 2020 midpoint estimate


Source: UCLA-UC Berkeley CaISIM version 2.2
Note: The undocumented category includes adults of all income levels and children age 18 and under in households with income above the Medi-Cal eligibility threshold.

Exhibit 6. California non-elderly uninsured by eligibility category and income, 2020 midpoint estimate


Source: UCLA-UC Berkeley CaISIM version 2.2
Note: Excludes undocumented immigrants who are not eligible for subsidies or to purchase coverage through Covered California, and uninsured individuals eligible for Medi-Cal.

## Uninsurance Rates and Eligibility of Uninsured Vary by Region

CalSIM also produces estimates for eight geographic regions that represent either a Covered California rating region or a combination of rating regions (see Appendix B for details). The uninsurance rate will vary by region from a projected 9.9 percent in the Greater Bay Area to 13.9 percent in Los Angeles County in 2020. We estimate that Los Angeles County-home to 26 percent of the state's non-elderly population-will account for a disproportionate share of Californians who are undocumented and uninsured ( 36 percent) or eligible for subsidized coverage through Covered California ( 35 percent) in 2020. In contrast, in 2020 the greater Bay Area-home to 19 percent of the state's population age 0-64-will account for a disproportionate share of the uninsured above 400-percent FPL ( 26 percent) and only 10 percent and 12 percent of the Medi-Cal- and subsidy-eligible uninsured populations, respectively (Appendix B). Regional variation in insurance rates and eligibility among those uninsured reflects regional differences in the share of the population that is undocumented, income distribution (for example, more people at or above 400-percent FPL in the Bay Area), healthcare premiums, and employers' rates of offering coverage.

## VI. State Could Take Steps to Protect ACA Progress and Close Coverage Gaps Further

While coverage rates have increased significantly in California under the ACA, 3.55 million Californians continue to lack insurance, and without further state action after the individual mandate penalty is zeroed out, the number uninsured could grow to approximately 4.02 million in 2020 and 4.44 million in 2023.

The potential erosion of coverage gains under the ACA comes at a time when California policymakers have shown a commitment to achieving universal health care. In 2018, the legislature enacted and Governor Jerry Brown signed Assembly Bill 1810, which stated that "health care is a human right and it is in the public interest that all Californians have access to health care." The law established a Council on Health Care Delivery Systems to develop a plan for advancing progress toward "a healthcare delivery system that provides coverage and access through a unified financing system for all Californians" with the final plan required to be submitted to the legislature and governor by October 1, 2021. ${ }^{36}$

As California considers approaches to fundamentally redesigning our healthcare delivery system, there are steps that the state could take in the near term to ensure that the progress made under the ACA does not erode and to continue to move closer to universal coverage in this state. A number of proposals to achieve this goal were considered by the legislature in 2018 and passed by committees, laying the groundwork for future policy debates in 2019 and beyond. ${ }^{37}$

To address the largest group of uninsured in the state, California could consider expanding
Medi-Cal to all low-income California adults regardless of immigration status, as the state has already done for children. Approximately one million low-income adults are already enrolled in restricted-scope Medi-Cal, which covers emergency and pregnancy-related services using federal and state funding and state-funded long-term care when needed. ${ }^{38}$ These adults could
be automatically transitioned to full-scope Medi-Cal upon enactment, as was done for children under Senate Bill 75 (2015), ensuring a substantial reduction in the uninsured. County programs that provide access to non-emergency health services to low-income residents regardless of immigration status-through programs like My Health LA and Healthy San Francisco-are important for undocumented residents of those counties. ${ }^{39}$ However, benefits and eligibility criteria vary greatly across the approximately 47 out of 58 counties that as of 2016, had programs providing access to at least some preventive and primary care for undocumented residents. All of the programs only cover care provided in a designated network within the county. A statewide expansion of Medi-Cal would reduce disparities across counties and provide access to a wider range of health services than currently covered in many county programs. ${ }^{40}$

Although the vast majority of those eligible for Medi-Cal are enrolled, efforts to promote Medi-Cal enrollment among all eligible individuals could help to ensure an even higher level of take-up. Initiatives to ensure that Medi-Cal-eligible individuals participating in other public programs are enrolled in coverage could reduce the number of uninsured in this category. Funding for outreach and enrollment assistance, especially for hard-to-reach populations, is important for maintaining and growing Medi-Cal take-up. Efforts to provide support and information to immigrant families is especially critical in the current climate of fear about immigration enforcement, and the need for such efforts will increase further if the proposed federal rule to expand the definition of public charge is finalized. In addition, supporting a smooth enrollment process will help to ensure that all eligible applicants are enrolled in coverage. ${ }^{41}$

California's individual market has been relatively stable under the ACA, but the zeroing out of the individual mandate in 2019 has sharpened the imperative to ensure continued stability and high enrollment in that market. To maintain current enrollment levels in the individual market, California could consider implementing a state-level individual mandate, a policy that Massachusetts has had since 2006, and that New Jersey and the District of Columbia enacted in 2018. California could increase enrollment and improve affordability for those already eligible for ACA subsidies by providing state subsidies to reduce premiums and out-of-pocket costs for those with income at or below 400-percent FPL, as Massachusetts and Vermont have done for individuals with income at or below 300-percent FPL. ${ }^{42}$ California could cap the amount that Californians with income above 400-percent FPL pay for individual market premiums as a percentage of income by providing state premium subsidies. ${ }^{43}$ California's strong investment in marketing and enrollment assistance efforts will continue to be needed and strengthened as Californians churn into eligibility for individual market coverage as their circumstances change. These options are not mutually exclusive and would have the strongest effect on enrollment if implemented in combination.

The federal government has the broadest set of options available for improving affordability of employer-sponsored insurance-for example, setting further limits on workers' contributions to premium and out-of-pocket costs, building on the protections established under the ACA. (States are pre-empted from regulating self-insured employer-sponsored insurance plans under the Employee Retirement Income Security Act of 1974, or ERISA.) At the state level, one option for addressing affordability for a subset of the uninsured who are offered employer-sponsored insurance may be to "fix the family glitch" by using state funds to provide ACA-equivalent premium and cost-sharing subsidies to spouses and children who are eligible for family coverage that costs more than 9.56 percent of household income. ${ }^{44}$ State policies designed
to slow the rate of healthcare cost growth or reduce healthcare costs while also improving quality would likewise help to ensure stable enrollment among Californians eligible for employer coverage or insurance through Covered California.

While the zeroing out of the individual mandate threatens to erode the historic coverage gains California has made under the ACA, the state could adopt and invest in policies that would not only help protect the lower uninsurance rate achieved in recent years, but could also move the state even closer to universal coverage than today.

## Appendix A: Demographics

A1. Demographics of the uninsured in California, 2020 and 2023 midpoint estimate

|  | 2020 |  | 2023 |  | Distribution <br> Among CA <br> Population <br> Age 0-64 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All Uninsured | \% of Uninsured | All Uninsured | \% of Uninsured |  |
| Total | 4,020,000 | 100\% | 4,440,000 | 100\% | 100\% |
| Race \& Ethnicity |  |  |  |  |  |
| Latino | 2,610,000 | 65\% | 2,780,000 | 63\% | 40\% |
| Asian, not Latino | 310,000 | 8\% | 350,000 | 8\% | 13\% |
| African American, not Latino | 130,000 | 3\% | 150,000 | 3\% | 6\% |
| White, not Latino | 920,000 | 23\% | 1,080,000 | 24\% | 39\% |
| Other, multiracial, not Latino | 60,000 | 1\% | 80,000 | 2\% | 3\% |
| Income |  |  |  |  |  |
| 200\% FPL or less | 2,080,000 | 52\% | 2,220,000 | 50\% | 36\% |
| 201-400\% FPL | 1,020,000 | 25\% | 1,160,000 | 26\% | 27\% |
| 401-600\% FPL | 460,000 | 12\% | 530,000 | 12\% | 17\% |
| 601+\% FPL | 450,000 | 11\% | 530,000 | 12\% | 20\% |
| Gender |  |  |  |  |  |
| Female | 1,780,000 | 44\% | 1,970,000 | 44\% | 50\% |
| Male | 2,240,000 | 56\% | 2,470,000 | 56\% | 50\% |
| Age |  |  |  |  |  |
| 0-18 years | 590,000 | 15\% | 670,000 | 15\% | 29\% |
| 19-29 years | 1,120,000 | 28\% | 1,250,000 | 28\% | 18\% |
| 30-49 years | 1,680,000 | 42\% | 1,810,000 | 41\% | 30\% |
| 50-64 years | 620,000 | 15\% | 720,000 | 16\% | 22\% |
| Work Status |  |  |  |  |  |
| Age 19-64, working | 2,360,000 | 69\% | 2,600,000 | 69\% | 73\% |
| Age 19-64, not working | 1,070,000 | 31\% | 1,180,000 | 31\% | 27\% |
| Self-Reported Health Status |  |  |  |  |  |
| Excellent, very good, or good | 3,500,000 | 87\% | 3,870,000 | 87\% | 86\% |
| Fair or poor | 520,000 | 13\% | 570,000 | 13\% | 14\% |

[^2]
## Appendix B: Regional Tables

## B1. Regional definitions

| Covered <br> CA Rating <br> Regions | Description | Counties |
| :--- | :--- | :--- |
| 1,3 |  <br> Sacramento Valley | Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, <br> Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, <br> Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, <br> Tehama, Trinity, Tuolumne, Yolo, and Yuba |
| $2,4,5,6,7,8$ | Greater Bay Area | Alameda, Contra Costa, Marin, Napa, San Mateo, San Francisco, <br> Santa Clara, Solano, and Sonoma |
| 9,12 | Central Coast | Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, <br> and Ventura |
| $10,11,13,14$ | San Joaquin, <br> Central Valley, <br> Eastern, Kern | Fresno, Imperial, Inyo, Kern, Kings, Madera, Merced, Mariposa, <br> Mono, San Joaquin, Stanislaus, and Tulare |
| 15,16 | Los Angeles | Los Angeles |
| 17 | Inland Empire | Riverside and San Bernardino |
| 18 | Orange | Orange |
| 19 | San Diego | San Diego |

B2. Projected uninsured Californians under age 65, by region, midpoint estimate, 2020

|  | Uninsured | Total <br> Population | Portion of <br> Region's <br> Population <br> Uninsured | Portion of State <br> Uninsured <br> Within Region |
| :--- | :---: | :---: | :---: | :---: |
|  <br> Sacramento Valley | 320,000 | $3,060,000$ | $10.4 \%$ | $7.9 \%$ |
| Greater Bay Area | 660,000 | $6,660,000$ | $9.9 \%$ | $16.4 \%$ |
| Central Coast | 230,000 | $2,000,000$ | $11.7 \%$ | $5.8 \%$ |
| San Joaquin, Central <br> Valley, Eastern, Kern | 440,000 | $4,020,000$ | $11.0 \%$ | $11.0 \%$ |
| Los Angeles | $1,230,000$ | $8,840,000$ | $13.9 \%$ | $30.6 \%$ |
| Inland Empire | 490,000 | $4,040,000$ | $12.2 \%$ | $12.3 \%$ |
| Orange | $2,720,000$ | $11.2 \%$ | $7.6 \%$ |  |
| San Diego | 440,000 | $2,870,000$ | $11.9 \%$ | $8.5 \%$ |
| Total | $34,200,000$ | $11.7 \%$ | $100.0 \%$ |  |

Source: UCLA-UC Berkeley CaISIM version 2.2

B3. Projected uninsured Californians under age 65, by region, midpoint estimate, 2023

|  | Uninsured | Total <br> Population | Portion of <br> Region's <br> Population <br> Uninsured | Portion of State <br> Uninsured <br> Within region |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  <br> Sacramento Valley | 360,000 | $3,090,000$ | $11.7 \%$ | $8.2 \%$ |
| Greater Bay Area | 730,000 | $6,720,000$ | $10.9 \%$ | $16.5 \%$ |
| Central Coast | 260,000 | $2,000,000$ | $12.9 \%$ | $5.8 \%$ |
| San Joaquin, Central <br> Valley, Eastern, Kern | 510,000 | $4,120,000$ | $12.5 \%$ | $11.6 \%$ |
| Los Angeles | $1,290,000$ | $8,780,000$ | $14.7 \%$ | $29.1 \%$ |
| Inland Empire | 560,000 | $4,130,000$ | $13.6 \%$ | $12.7 \%$ |
| Orange | 340,000 | $2,710,000$ | $12.5 \%$ | $7.6 \%$ |
| San Diego | 380,000 | $2,880,000$ | $13.1 \%$ | $8.5 \%$ |
| Total | $4,430,000$ | $34,420,000$ | $12.9 \%$ | $100.0 \%$ |

Source: UCLA-UC Berkeley CaISIM version 2.2

B4. Projected uninsured Californians under age 65, by region and eligibility category, midpoint estimate, 2020

|  | Undocumented <br> Uninsured | Eligible for <br> Medi-Cal <br> Subsidies <br> Through <br> Covered CA | Non-Subsidy- <br> Eligible Due <br> to Income, <br> Without an Offer <br> of Employer <br> Coverage | Non-Subsidy- <br> Eligible, with <br> an Offer of <br> Employer <br> Coverage |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  <br> Sacramento Valley | 70,000 | 110,000 | 50,000 | 40,000 | 50,000 |
| Greater Bay Area | 250,000 | 90,000 | 60,000 | 130,000 | 120,000 |
| Central Coast | 100,000 | 50,000 | 20,000 | 30,000 | 40,000 |
| San Joaquin, Central <br> Valley, Eastern, Kern | 170,000 | 110,000 | 50,000 | 40,000 | 70,000 |
| Los Angeles | 530,000 | 250,000 | 180,000 | 100,000 | 170,000 |
| Inland Empire | 150,000 | 140,000 | 80,000 | 50,000 | 70,000 |
| Orange | 100,000 | 70,000 | 30,000 | 50,000 | 40,000 |
| San Diego | 100,000 | 80,000 | 50,000 | 60,000 | 50,000 |
| Total | $1,480,000$ | 900,000 | 520,000 | 500,000 | 610,000 |

Source: UCLA-UC Berkeley CaISIM version 2.2

B5. Projected uninsured Californians under age 65, by region and eligibility category, midpoint estimate, 2023

|  | Undocumented <br> Uninsured | Eligible for <br> Medi-Cal <br> Eligible for <br> Subsidies <br> Through <br> Covered CA | Non-Subsidy- <br> Eligible Due <br> to Income, <br> Without an Offer <br> of Employer <br> Coverage | Non-Subsidy- <br> Eligible, with <br> an Offer of <br> Employer <br> Coverage |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  <br> Sacramento Valley | 70,000 | 120,000 | 60,000 | 50,000 | 60,000 |
| Greater Bay Area | 260,000 | 110,000 | 60,000 | 160,000 | 140,000 |
| Central Coast | 100,000 | 60,000 | 30,000 | 40,000 | 40,000 |
| San Joaquin, Central <br> Valley, Eastern, Kern | 180,000 | 150,000 | 70,000 | 40,000 | 80,000 |
| Los Angeles | 150,000 | 280,000 | 190,000 | 110,000 | 170,000 |
| Inland Empire | 160,000 | 110,000 | 60,000 | 80,000 |  |
| Orange | 100,000 | 90,000 | 40,000 | 60,000 | 50,000 |
| San Diego | 110,000 | 100,000 | 60,000 | 60,000 | 60,000 |
| Total | $1,060,000$ | 610,000 | 590,000 | 680,000 |  |

Source: UCLA-UC Berkeley CalSIM version 2.2

## Appendix C: Defining Insurance

CaISIM estimates of the uninsured rely on a definition of public insurance that in keeping with the definition used by the Congressional Budget Office, "does not include people who receive only partial Medicaid benefits-such as women who receive only family planning services or unauthorized immigrants who receive only emergency services." ${ }^{45}$ Undocumented California adults often report having Medi-Cal to the California Health Interview Survey (CHIS) and other surveys. These undocumented adults are presumed to have restricted-scope Medi-Cal because they are not eligible for full-scope Medi-Cal except in limited circumstances such as those with Deferred Action for Childhood Arrivals (DACA) status. ${ }^{46}$ (No data are available on the exact number of Californians with DACA enrolled in Medi-Cal, however the available enrollment data ${ }^{47}$ suggest that full-scope enrollees with DACA likely make up a small percentage of undocumented, low-income adults.) CalSIM considers all undocumented adults who report having Medi-Cal as uninsured. Undocumented children reporting Medi-Cal are considered insured beginning in 2016, when the state expanded eligibility to full-scope Medi-Cal to all low-income children regardless of immigration status.

Restricted-scope Medi-Cal covers emergency and pregnancy-related services using state and federal funds and state-funded long-term care when needed. ${ }^{48}$ Doctor visits, hospital care, prescription drugs, and other basic health services are not covered, unless they are necessary for the treatment of an emergency medical condition or the enrollee is pregnant. Covered services do not include, for example, most care someone with cancer needs.

Household surveys are a key source of information on the uninsurance rate, and our CalSIM model relies on and is calibrated to results from the 2016 CHIS estimates of the uninsured by eligibility group. Estimates from the 2017 CHIS have been released but have not yet been incorporated into our model.

Using a model developed by Nadereh Pourat of UCLA to predict the undocumented status of survey respondents based on their demographic characteristics, the CHIS identifies those who are likely to be undocumented. Approximately 700,000 undocumented adults reported having Medi-Cal in 2016. This figure is lower than the administrative total of approximately one million undocumented Californians enrolled in restricted scope Medi-Cal in 2016. ${ }^{49}$ Some undocumented individuals with Medi-Cal may report being uninsured rather than having Medi-Cal, and survey totals for Medicaid are always lower than administrative totals, in large part because many people who are recorded as having Medicaid in administrative data fail to report it to surveys.

Using our definition of uninsured, the 2.8 million respondents reported as uninsured in the CHIS ${ }^{50}$ increases by 700,000 , resulting in an estimate of 3.5 million uninsured in 2016. Our CalSIM projections for 2020 and beyond are thus based on 3.55 million uninsured in 2016, including 1.46 million undocumented and uninsured residents and 2.09 million uninsured who are eligible for Medi-Cal or for insurance through Covered California.

The Congressional Budget Office defines private insurance as comprehensive major medical coverage. No adjustments are made in CalSIM to the number of Californians reporting private insurance because the vast majority of Californians with private insurance have coverage that meets that definition as a result of a combination of federal and state policies, such as the essential health benefits requirements under the ACA that apply to individual market and small group insurance and the state law that California has enacted to ban short-term health plans.

## Appendix D: Individual Mandate Details and Modeling

## Modeling Methodology and Data Sources

The California Simulation of Insurance Markets (CaISIM) is a microsimulation model that predicts health insurance coverage of non-elderly individuals in California and firms' decisions to offer coverage in response to policy change, most notably the Affordable Care Act (ACA). The model relies on data from the Medical Expenditure Panel Survey (MEPS) about individuals and their health expenditures. Workers are assigned to firms, with characteristics based on the California Employer Health Benefit Survey and data from the state Employment Development Department. The data set of individuals (with their attendant demographic characteristics, nested in both families and, where appropriate, firms) is reweighted to look like the California population on key attributes, based on the California Health Interview Survey (CHIS). This CalSIM input data set enables us to estimate eligibility more precisely than survey results alone by looking at immigration status, income, employer offer of coverage, and affordability of that offer under various policies.

CalSIM 2.2 uses a utility model to predict reaction to insurance coverage options available to Californians via employers, Medi-Cal, the subsidized and unsubsidized individual market, and other public insurers or coverage programs. The CaISIM utility model takes into account several factors: 1) predicted healthcare expenditures and out-of-pocket costs; 2) predicted health insurance premiums based upon actual Covered California individual market premiums or applicable employer-sponsored insurance benchmarks; 3) the individual mandate penalty; and 4) a measure of risk aversion. Results are also calibrated to actual insurance take-up, based on a combination of 2016 administrative data and 2016 CHIS data.

CaISIM 2.2 includes California-specific elements. It uses regional Covered California premiums across the individual market, and, for subsidized enrollees only, applies the premium surcharge added to Silver plans to address federal defunding of subsidies to reduce copayments and deductibles. The model includes minimum wage increases in California, both statewide and locally, and includes the expansion of Medi-Cal coverage to low-income undocumented children in 2016.

CalSIM provides point-in-time estimates of coverage and does not model churn. We cannot distinguish between those in the individual market enrolled in Covered California and those enrolled in the off-exchange individual market. Finally, CalSIM does not model external shocks such as recessions, which could have a significant impact on the number of uninsured Californians.

## Additional detail on CalSIM methods is available at www.calsim.org.

## Individual Mandate Modeling

In the case of this report, the focus on the uninsured required assumptions related to the individual mandate's ability to draw people into the insurance market or public programs and estimated the impact of the removal of the individual mandate due to the Tax Cut and Jobs Act of 2017. The individual mandate to purchase insurance or face a penalty was zeroed out by this legislation, effective January 1, 2019. Because the effective date is in the future, our
estimates attempt to address the interplay between the mandate penalty, tax credits for low- to middle-income individuals to purchase insurance, knowledge of the individual mandate, and likelihood of foregoing insurance once already insured simply due to the removal of the penalty.

In our modeling of an individual's decision to purchase health insurance, we include two factors associated with the individual mandate: a specific penalty amount, which is related to the dollar value of the penalty a specific person would actually face; and a constant amount, which represents the generalized effect of the mandate and affects everyone, regardless of the exact amount of the penalty that person would face or whether that person qualifies for an exemption (with the exception of the undocumented, for whom we do not factor in this constant amount). This constant amount can be thought of as the psychological impact of the existence of an individual mandate penalty, regardless of whether one actually is subject to the penalty. The specific penalty amount varies by person and is zero for individuals predicted to be exempt from the mandate and varies for those who are subject to the mandate based upon their income. Consistent with other research, the psychological or generalized effect of the mandate is relatively more important in our model than the specific penalty amount. ${ }^{51}$

In the case of the impact of zeroing the individual mandate penalty itself but still requiring individuals to report health insurance status to satisfy the individual mandate that remains in federal law (despite a $\$ 0$ penalty beginning January 1, 2019), we immediately zero out the specific penalty amount and phase out the constant amount (representing the psychological effect) over five years, from 2019 to 2023. In addition, we include an increase in premiums due to removal of the individual mandate that phases in over two years.

A national microsimulation modeling effort, the RAND Compare model, considered specific elements of the psychological effect of the mandate, including inertia, desire to comply, and confusion around the mandate. ${ }^{52}$ The RAND Compare model similarly uses a penalty amount to mimic the psychological effect of the mandate, inertia, and desire to comply with the mandate. RAND estimated that the individual mandate penalty removal would result in between 2.8 million to 13 million people losing coverage in 2020 nationwide, which equates to a 344,000 to 1.6 million decrease in California, if simply adjusted for the population of California as a share of the U.S. population.

California-specific estimates include a Harvard survey of individual market enrollees in which 18 percent of current enrollees indicated they would not have purchased coverage if the penalty had not existed-the equivalent of 378,000 fewer enrollees in the individual market. ${ }^{53}$ State estimates from the Urban Institute's microsimulation model are that the lack of an individual mandate penalty would result in 823,000 more uninsured in California in 2022: 353,000 fewer in the individual market, 360,000 fewer in Medicaid, and 110,000 fewer in employer-sponsored insurance. ${ }^{54}$ Our projections are broadly consistent with these other estimates.

## Acknowledgements

We are grateful to the California Health Care Foundation, The California Wellness Foundation, and The California Endowment for their support of this report. We thank Covered California for their support of the development and maintenance of the CalSIM model. We would like to thank Amy Adams, Beth Capell, and Jen Flory for their review of this report. The authors of this report appreciate their CalSIM team members, past and present, at UC Berkeley and UCLA for their contributions to this research, especially Jason Zhang, Jonathan Lin, Carter Wu, and Jack Needleman. We appreciate Nadereh Pourat's contribution to the analysis of the undocumented population, which is critical to the CalSIM model and this report. Thanks to Deborah Meacham and Jenifer MacGillvary for their help in preparation of the report.

## About the Authors

Miranda Dietz, MPP, is a Research and Policy Associate at the University of California, Berkeley, Center for Labor Research and Education. Laurel Lucia, MPP, is Director of the Health Care Program at the UC Berkeley Center for Labor Research and Education. Dylan H. Roby, PhD, is an Associate Professor at the University of Maryland School of Public Health, and a Faculty Associate at the University of California, Los Angeles, Center for Health Policy Research.
Ken Jacobs is Chair of the UC Berkeley Center for Labor Research and Education. Petra W. Rasmussen, MPH, is a Graduate Student Researcher at the UCLA Center for Health Policy Research. Xiao Chen, PhD, is Associate Director of the Health Economics and Evaluation Program at the UCLA Center for Health Policy Research. Dave Graham-Squire, PhD, is a Statistician at the UC Berkeley Center for Labor Research and Education. Greg Watson, MS, is a Statistical Programmer at the UCLA Center for Health Policy Research. Ian Perry, MPP, is a Research and Policy Associate at the UC Berkeley Center for Labor Research and Education. Gerald F. Kominski, PhD, is Professor of Health Policy and Management, UCLA Fielding School of Public Health, and Senior Fellow, UCLA Center for Health Policy Research.

## Endnotes

1 Tara Becker, "ACA Reduces Racial/Ethnic Disparities in Health Coverage" (California Health Care Foundation, October 31, 2018), https://www.chcf.org/publication/aca-reduces-dis-parities-health-coverage/. The uninsurance rate for all ages, including those age 65 and over, is lower-7.4 percent in 2016, according to the CHIS.

2 Jared Maeda, "How Does CBO Define and Estimate Health Insurance Coverage for People Under Age 65? | Congressional Budget Office," Congressional Budget Office, December 20, 2016, https://www.cbo.gov/publication/52352\#2.

3 Becker, "ACA Reduces Racial/Ethnic Disparities in Health Coverage."
4 "California Health Interview Survey," 2016, http://ask.chis.ucla.edu.
5 Miranda Dietz et al., "Preliminary Regional Remaining Uninsured 2017 Data Book, California Simulation of Insurance Markets (CaISIM) Version 2.0" (UCLA Center for Health Policy Research and UC Berkeley Center for Labor Research and Education, August 11, 2016), http:// laborcenter.berkeley.edu/preliminary-regional-data-book-2017/.

6 Research and Analytic Studies Division, "Medi-Cal's Optional Adult ACA Expansion Population—October 2016" (California Department of Health Care Services, March 2017), https:// www.dhcs.ca.gov/dataandstats/statistics/Documents/Expansion_Adults_201610_ADA.pdf.

7 Research and Analytic Studies Division, "Medi-Cal Monthly Enrollment Fast Facts" (California Department of Health Care Services, May 2018), https://www.dhcs.ca.gov/dataandstats/ statistics/Documents/Fast_Facts_May_2018_ADA.pdf.
$8 \quad$ California Senate Bill 1108 (2018).
9 Enrolled based on Covered California, "Active Member Profile," June 2016, https://hbex. coveredca.com/data-research/; Katherine Wilson, "California Health Insurers Hold on to Previous ACA Gains," California Health Care Foundation (blog), July 13, 2017, https://www.chcf.org/blog/ california-health-insurers-hold-on-to-previous-aca-gains/.

10 Al Bingham, Michael Cohen, and John Bertko, "National vs. California Comparison: Detailed Data Help Explain The Risk Differences Which Drive Covered California's Success," Health Affairs Blog (blog), July 11, 2018, https://www.healthaffairs.org/do/10.1377/ hblog20180710.459445/full/.

11 Peter Lee et al., "Marketing Matters: Lessons From California to Promote Stability and Lower Costs in National and State Individual Insurance Markets" (Covered California, September 2017), https://hbex.coveredca.com/data-research/library/coveredca_marketing_matters_9-17.pdf.

12 California Senate Bill 910 (2018).
13 California Senate Bill 1375 (2018).
14 Jack Hadley, "Sicker and Poorer-the Consequences of Being Uninsured: A Review of the Research on the Relationship between Health Insurance, Medical Care Use, Health, Work, and Income," Medical Care Research and Review: MCRR 60, no. 2 Suppl (June 2003): 3S-75S;
discussion 76S-112S, https://doi.org/10.1177/1077558703254101; J. Michael McWilliams, "Health Consequences of Uninsurance among Adults in the United States: Recent Evidence and Implications," The Milbank Quarterly 87, no. 2 (June 2009): 443-94, https://doi.org/10.1111/ j.1468-0009.2009.00564.x; Benjamin D. Sommers, Atul A. Gawande, and Katherine Baicker, "Health Insurance Coverage and Health—what the Recent Evidence Tells Us," New England Journal of Medicine 377 (August 10, 2917): 586-93.

15 Bhashkar Mazumder and Sarah Miller, "The Effects of the Massachusetts Health Reform on Household Financial Distress," American Economic Journal: Economic Policy 8, no. 3 (August 2016): 284-313, https://doi.org/10.1257/pol.20150045; Kao-Ping Chua and Benjamin D. Sommers, "Changes in Health and Medical Spending among Young Adults under Health Reform," JAMA 311, no. 23 (June 18, 2014): 2437-39, https://doi.org/10.1001/jama.2014.2202; Amy Finkelstein et al., "The Oregon Health Insurance Experiment: Evidence from the First Year*," The Quarterly Journal of Economics 127, no. 3 (August 1, 2012): 1057-1106, https://doi.org/10.1093/ qje/qjs020; Katherine Baicker et al., "The Oregon Experiment—Effects of Medicaid on Clinical Outcomes," New England Journal of Medicine 368, no. 18 (May 2, 2013): 1713-22, https://doi. org/10.1056/NEJMsa1212321; Benjamin D. Sommers, Katherine Baicker, and Arnold M. Epstein, "Mortality and Access to Care among Adults after State Medicaid Expansions," New England Journal of Medicine 367, no. 11 (September 13, 2012): 1025-34, https://doi.org/10.1056/NEJMsa1202099.

16 Héctor E. Alcalá et al., "Impact of the Affordable Care Act on Health Care Access and Utilization Among Latinos," Journal of the American Board of Family Medicine: JABFM 30, no. 1 (02 2017): 52-62, https://doi.org/10.3122/jabfm.2017.01.160208; Adele Shartzer, Sharon K. Long, and Nathaniel Anderson, "Access To Care And Affordability Have Improved Following Affordable Care Act Implementation; Problems Remain," Health Affairs 35, no. 1 (January 1, 2016): 161-68, https://doi.org/10.1377/hlthaff.2015.0755; Ausmita Ghosh, Kosali Simon, and Benjamin D Sommers, "The Effect of State Medicaid Expansions on Prescription Drug Use: Evidence from the Affordable Care Act," Working Paper (National Bureau of Economic Research, January 2017), https://doi.org/10.3386/w23044; Hefei Wen, Benjamin G. Druss, and Janet R. Cummings, "Effect of Medicaid Expansions on Health Insurance Coverage and Access to Care among Low-Income Adults with Behavioral Health Conditions," Health Services Research 50, no. 6 (December 2015): 1787-1809, https://doi.org/10.1111/1475-6773.12411; Tyler N. A. Winkelman and Virginia W. Chang, "Medicaid Expansion, Mental Health, and Access to Care among Childless Adults with and without Chronic Conditions," Journal of General Internal Medicine 33, no. 3 (March 2018): 376-83, https://doi.org/10.1007/s11606-017-4217-5; Benjamin D. Sommers et al., "Changes in Utilization and Health Among Low-Income Adults After Medicaid Expansion or Expanded Private Insurance," JAMA Internal Medicine 176, no. 10 (October 1, 2016): 1501-9, https://doi. org/10.1001/jamainternmed.2016.4419.

17 P. Franks and K. Fiscella, "Primary Care Physicians and Specialists as Personal Physicians. Health Care Expenditures and Mortality Experience," The Journal of Family Practice 47, no. 2 (August 1998): 105-9; Barbara Starfield, Leiyu Shi, and James Macinko, "Contribution of Primary Care to Health Systems and Health," The Milbank Quarterly 83, no. 3 (2005): 457-502, https://doi. org/10.1111/j.1468-0009.2005.00409.x no. 2 (August 1998

18 Molly Frean, Jonathan Gruber, and Benjamin D. Sommers, "Disentangling the ACA's Coverage Effects—Lessons for Policymakers," New England Journal of Medicine 375, no. 17 (October 27, 2016): 1605-8, https://doi.org/10.1056/NEJMp1609016.

19 Christine Eibner and Sarah Nowak, "The Effect of Eliminating the Individual Mandate Penalty and the Role of Behavioral Factors" (Commonwealth Fund, July 11, 2018), https://www. commonwealthfund.org/publications/fund-reports/2018/jul/eliminating-individual-man-date-penalty-behavioral-factors; Matthew Fiedler, "How Did the ACA's Individual Mandate Affect Insurance Coverage? Evidence from Coverage Decisions by Higher Income People" (USC-Brookings Schaeffer Initiative for Health Policy, May 31, 2018), https://www.brookings.edu/research/ how-did-the-acas-individual-mandate-affect-insurance-coverage-evidence-from-coverage-deci-sions-by-higher-income-people/.July 11, 2018

20 Kaiser Family Foundation, "Poll: Survey of the Non-Group Market Finds Most Say the Individual Mandate Was Not a Major Reason They Got Coverage in 2018, And Most Plan to Continue Buying Insurance Despite Recent Repeal of the Mandate Penalty," The Henry J. Kaiser Family Foundation, April 3, 2018, https://www.kff.org/health-reform/press-release/poll-most-non-group-enrollees-plan-to-buy-insurance-despite-repeal-of-individual-mandate-penalty/.

21 A study of California individual market enrollees indicates that 18 percent of individual market enrollees are likely to stop purchasing coverage without the mandate penalty. For more details, see discussion of the Harvard survey in Appendix D.

22 Evan Saltzman, "Demand for Health Insurance: Evidence from the California and Washington ACA Marketplaces," Wharton Health Care Management, Working Paper, January 1, 2017, https://repository.upenn.edu/hcmg_papers/11.

23 Jason A. Levitis, "State Individual Mandates" (USC-Brookings Schaeffer Initiative for Health Policy, October 2018), https://www.brookings.edu/wp-content/uploads/2018/10/Levi-tis_State-Individual-Mandates_10.29.18.pdf

24 Julie Sonier, Michel H. Boudreaux, and Lynn A. Blewett, "Medicaid 'Welcome-Mat' Effect Of Affordable Care Act Implementation Could Be Substantial," Health Affairs 32, no. 7 (July 1, 2013): 1319-25, https://doi.org/10.1377/hlthaff.2013.0360.

25 UC Berkeley Labor Center, "Inventory of US City and County Minimum Wage Ordinances," Center for Labor Research and Education, June 20, 2018, http://laborcenter.berkeley.edu/ minimum-wage-living-wage-resources/inventory-of-us-city-and-county-minimum-wage-ordinances/.

26 However, California offers full-scope Medi-Cal to young adults with Deferred Action for Childhood Arrivals using state funds.

27 Nadereh Pourat, "Six Facts About Undocumented Californians" (California Health Care Foundation, June 6, 2018), https://www.chcf.org/publication/six-facts-about-undocumented-californians/.

28 Ninez Ponze, Laurel Lucia, and Tia Shimada, "How Proposed Changes to the 'Public Charge' Rule Will Affect Health, Hunger and the Economy in California" (November 7, 2018), http://healthpolicy.ucla.edu/newsroom/Documents/2018/public-charge-seminar-slides-nov2018. pdf.

29 CHIS 2014-2016.
30 CHIS 2014-2016.

31 Ken Jacobs and Laurel Lucia, "Universal Health Care: Lessons From San Francisco," Health Affairs 37, no. 9 (September 1, 2018): 1375-82, https://doi.org/10.1377/hlthaff.2018.0432.

32 Some of the uninsured who are Medi-Cal eligible but uninsured also have an offer of employer coverage; we count these among the Medi-Cal eligible. No single data source provides information on how much workers or households pay for employer-sponsored insurance as a share of family income. Two of CaISIM's core input datasets, the Medical Expenditure Panel Survey and the CHIS, identify workers with an employer offer who are uninsured, including their associated demographic characteristics and family members. Data on firms and required employee contribution come from the California Employer Health Benefit Survey (CEHBS). We match workers to firms based on whether the firm offered coverage and the share of workers who take up that coverage. We adjust our input data to make sure that the distribution on key characteristics, including worker firm size, matches the California population. Matching workers to firms in this way enables us to estimate household premium contribution for employer-sponsored insurance as a share of family income.

33 Joelle Abramowitz and Brett O'Hara, "New Estimates of Offer and Take-Up of Employ-er-Sponsored Insurance," Medical Care Research and Review 74, no. 5 (October 1, 2017): 595-612, https://doi.org/10.1177/1077558716654630.

34 Gary Claxton et al., "2018 Employer Health Benefits Survey" (Kaiser Family Foundation, October 3, 2018), https://www.kff.org/health-costs/report/2018-employer-health-benefits-survey/.

35 Matthew Buettgens, Lisa Dubay, and Genevieve M. Kenney, "Marketplace Subsidies: Changing The 'Family Glitch' Reduces Family Health Spending But Increases Government Costs," Health Affairs 35, no. 7 (July 1, 2016): 1167-75, https://doi.org/10.1377/hlthaff.2015.1491.

36 California Assembly Bill 1810 (2018).
37 Insure the Uninsured Project, "California Strategies: Covering California's Remaining Uninsured and Improving Affordability," October 2018, http://www.itup.org/wp-content/uploads/2018/10/ITUP_CAStrategies_Oct2018.pdf.

38 Research and Analytic Studies Division, "Medi-Cal Monthly Enrollment Fast Facts."
39 Denisse Rojas and Miranda Dietz, "Providing-Health-Care-to-Undocumented-Residents. Pdf" (UC Berkeley Center for Labor Research and Education, October 4, 2016), http://laborcenter. berkeley.edu/pdf/2016/Providing-Health-Care-to-Undocumented-Residents.pdf.

40 Jacobs and Lucia, "Universal Health Care."
41 Marissa Raymond-Flesch et al., "Lessons from the Medi-Cal Expansion Frontlines: Supporting County Eligibility Workers and Certified Enrollment Counselors to Achieve 'No Wrong Door'" (UCSF Philip R. Lee Institute for Health Policy Studies and UC Berkeley Center for Labor Research and Education, October 2015), http://laborcenter.berkeley.edu/pdf/2015/me-di-cal-frontlines.pdf.

42 Laurel Lucia and Ken Jacobs, "Towards Universal Health Coverage: California Policy Options for Improving Individual Market Affordability and Enrollment" (University of California Berkeley: Center for Labor Research and Education, March 5, 2018), http://laborcenter.berkeley. edu/ca-policy-options-individual-market-affordability/.

Lucia and Jacobs.
44 Lucia and Jacobs.
45 Maeda, "How Does CBO Define and Estimate Health Insurance Coverage for People Under Age 65? | Congressional Budget Office."

46 California Department of Health Care Services, "Deferred Action for Childhood Arrivals FAQ," accessed November 15, 2018, https://www.dhcs.ca.gov/formsandpubs/publications/Pag-es/Deferred-Action-for-Childhood-Arrivals-FAQ.aspx.

47 Research and Analytic Studies Division, "Medi-Cal's Non-Citizen Population: A Brief Overview of Eligibility, Coverage, Funding, and Enrollment" (California Department of Health Care Services, October 2015), https://www.dhcs.ca.gov/dataandstats/statistics/Documents/noncitizen_brief_ADAfinal.pdf.

48 California Department of Health Care Services, "Medi-Cal Eligibility and Covered California—Frequently Asked Questions 2014," 2014, https://www.dhcs.ca.gov/services/medi-cal/ eligibility/Pages/Medi-CalFAQs2014b.aspx

49 Research and Analytic Studies Division, "Medi-Cal Monthly Enrollment Fast Facts."
50 CHIS 2016.
51 Frean, Gruber, and Sommers, "Disentangling the ACA's Coverage Effects-Lessons for Policymakers."

52 Eibner and Nowak, "The Effect of Eliminating the Individual Mandate Penalty and the Role of Behavioral Factors."

53 John Hsu et al., "Eliminating The Individual Mandate Penalty In California: Harmful But Non-Fatal Changes In Enrollment And Premiums," Health Affairs Blog (blog), March 1, 2018, https://www.healthaffairs.org/do/10.1377/hblog20180223.551552/full/.

54 Linda J. Blumberg, Matthew Buettgens, and John Holahan, "How Would State-Based Individual Mandates Affect Health Insurance Coverage and Premium Costs?" (Urban Institute, July 19, 2018), https://www.urban.org/research/publication/how-would-state-based-individual-man-dates-affect-health-insurance-coverage-and-premium-costs.

Center for Labor Research and Education
University of California, Berkeley
2521 Channing Way
Berkeley, CA 94720-5555
(510) 642-0323
laborcenter.berkeley.edu

## UC BERKELEY

## IABOR

 CHNTHRUCLA Center for Health
Policy Research
University of California, Los Angeles
10960 Wilshire Blvd, Suite 1550
Los Angeles, CA 90024
(310) 794-0909
healthpolicy.ucla.edu
UCLA CENTER FOR HEALTH POLICY RESEARCH

## UC Berkeley Center for Labor Research and Education

The Center for Labor Research and Education (Labor Center) is a public service project of the UC Berkeley Institute for Research on Labor and Employment that links academic resources with working people. Since 1964, the Labor Center has produced research, trainings, and curricula that deepen understanding of employment conditions and develop diverse new generations of leaders.

## UCLA Center for Health Policy Research

The UCLA Center for Health Policy Research is one of the nation's leading health policy research centers and the premier source of health policy information for California. The Center improves the public's health through highquality, objective, and evidence-based research and data that informs effective policymaking. The Center is the home of the California Health Interview Survey (CHIS) and is part of the UCLA Fielding School of Public Health.

The analyses, interpretations, conclusions, and views expressed in this report are those of the authors and do not necessarily represent the UC Berkeley Institute for Research on Labor and Employment, the UC Berkeley Center for Labor Research and Education, the UCLA Center for Health Policy Research, the Regents of the University of California, or collaborating organizations or funders.


[^0]:    Source: UCLA-UC Berkeley CaISIM version 2.2

[^1]:    Under the ACA, an offer of employer-sponsored insurance is considered affordable for the worker if the required contribution to premiums for the lowest cost plan offered by the employer is less than 9.56 percent of family income in 2018. For those offered coverage through a family member's employer, as long as the offer is "affordable" for self-only individual coverage for the worker, family coverage is also considered "affordable," even if it requires a premium contribution of more than 9.56 percent of

[^2]:    Source: UCLA-UC Berkeley CaISIM version 2.2

