

Assessing the Impacts of AB 60:

California's Low Cost Auto Insurance Program & Uninsured Motorists

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Acknowledgements

As with any complex and multifaceted research effort, this study's success is due to the combined efforts of individuals across multiple organizations. The CSUS research team would like to thank all of those who made data collection and interpretation possible for this study.

- California Department of Insurance
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Institute for Social Research
California State University, Sacramento
6000 J Street | Sacramento, CA 95819

www.csus.edu/isr

Shannon Williams PhD, Executive Director
Andrew J. Potter PhD, Faculty Fellow
Arturo Baiocchi PhD, Faculty Fellow
Barbara Kerschner MA, Research Analyst

*revised 9/24/18

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EXECUTIVE SUMMARY

Assembly Bill (AB) 60 (Stats. 2013, Ch. 524) – the *Safe and Responsible Drivers Act* – came into effect on January 2015, authorizing the California Department of Motor Vehicles (DMV) to issue an original driver license to persons with undocumented legal status in the United States (i.e., undocumented immigrants).[1] Before AB 60, the DMV had estimated that 12 percent of all motorists in California were without a valid driver license[2] and during this same period, undocumented immigrants made up between six and seven percent of the state's total population.[3] AB 60 identified unlicensed driving as a major safety problem in California and a significant contributor to the percent of uninsured motorists in the state.[4]

Given the potential impacts of AB 60 to lower both the percentage of unlicensed and uninsured motorists, the California Department of Insurance (CDI) is interested in better understanding how the passage of AB 60 may have affected a number of key outcomes, including the number of driver licenses issued, the number of applicants to CDI's California Low Cost Auto (CLCA) insurance program, the percentage of uninsured motorists, including those involved in collisions and hit-and-run incidents. At the time of this study, AB 60 data was available only at the statewide level[5]; the following analyses use population statistics related to the 58 counties in California as a proxy for more granular data related to AB 60 motorists.

AB 60 Driver Licenses

To date, the California Department of Motor Vehicles (DMV) has issued over one million AB 60 licenses to undocumented residents of the state since the implementation of the law in 2015, representing approximately four percent of all driver licenses held in the state.[6] While undocumented immigrants make up close to seven percent of state's total residents, the percent of the undocumented population ranges widely at the county-level from less than one percent to nearly 13 percent of the population. AB 60 licensure data is not available at the county level; however, this study tested the hypothesis that counties with higher concentrations of undocumented immigrants would be disproportionately impacted

[1] http://www.leginfo.ca.gov/pub/13-14/bill/asm/ab_0051-0100/ab_60_bill_20130916_enrolled.htm
[2] California Research Bureau, California State Library. (2018). *AB 60 Driver's Licenses: A Mandated Review of Instances of Discrimination*. Sacramento, CA: Benjamin, T. Retrieved from https://www.library.ca.gov/Content/pdf/crb/reports/AB_60_Report_2018.pdf
[3] Public Policy Institute of California. (2017). *Undocumented Immigrants in California.* San Francisco, CA*:* Hayes, J. & Hill, L. Retrieved from http://www.ppic.org/publication/undocumented-immigrants-in-california
[4] DeYoung, D. J., Peck, R. C., & Helander, C. J. (1997). Estimating the exposure and fatal crash rates of suspended/revoked and unlicensed drivers in California. *Accident Analysis & Prevention*, *29* (1), 17-23.
[5] Due to privacy and federal considerations, individual-level data about AB 60 licensing or the issuance of AB 60 licenses were not available.
[6] https://www.dmv.ca.gov/portal/dmv/detail/pubs/newsrel/2018/2018_30

by AB 60. In fact, California counties with relatively large undocumented populations experienced a statistically significant increase in overall licenses issued after AB 60. After 2015, the analyses in this study show that counties had an average increase in all issued licenses by about 1.5 percent for every five percent of their population known to be undocumented.

California's Low Cost Auto Insurance Program

The California Low Cost Auto (CLCA) insurance program is another statewide effort to close the gap on uninsured motorists and assist income-eligible consumers gain access to auto insurance. Since its inception in 2000, the CLCA program has helped nearly 130,000 low-income Californians access affordable auto insurance. As of 2017, there were 16,749 active CLCA policies, a relatively modest proportion of all low-income Californians potentially eligible for the program. The number of applications to the insurance program has grown slightly since 2014; however, the evidence is inconsistent that this growth is associated with AB 60. Further analyses of these trends over time indicate that in the year prior to the implementation of AB 60 (2014), counties with more undocumented residents had slightly lower per capita CLCA applications than other counties (approximately one fewer applicant per 100,000 low-income motorists in the county). Because this model controls for the number of CLCA producers in the county as well as the proportion of low-income residents, this result suggests that undocumented status may in itself be a barrier to accessing the CLCA program. However, the model also indicates that these same counties were not associated with any significant changes in the rate of CLCA application submissions after AB 60. This suggests that while undocumented status may be a barrier to accessing the CLCA program, it is not clear that the passage of AB 60 has reduced this barrier on its own. CLCA applications from 2014-2017 show that approximately 11 percent of the applicants could have been newly licensed under AB 60, based upon their age and years licensed. Overall, this suggests that the majority of those AB 60 motorists who are insured have purchased market-rate auto insurance.

Impact of AB 60 on Uninsured Vehicles

The impacts of AB 60 on uninsured vehicles were measured by comparing change occurring after AB 60 was implemented and between counties with varying concentrations of undocumented residents. Across the state, the percentage of uninsured vehicles has increased by about 1.5 percent between 2013 and 2016.[7] However, the measured increase in uninsured vehicles was mitigated in those counties with a higher proportion of undocumented residents. The analysis found for each additional one percent of a county's residents who are undocumented, the post-2015 increase in the uninsured vehicle share was 0.09 percent lower than otherwise expected. Nonetheless, there is some evidence that AB 60 may have slowed this increase in counties with a high concentration of undocumented residents.

[7] California Department of Insurance, "Provisional Uninsured Vehicle Rates: 2013-2016." Data request 6/16/18.

Impact of AB 60 on Uninsured Motorists in Collisions

The impacts of AB 60 on the percent of uninsured motorists involved in collisions was analyzed by comparing changes occurring after AB 60 was implemented and between counties with varying concentrations of undocumented residents.[8] The analysis showed that the percent of collisions involving at least one uninsured motorist have risen steadily since 2014, from 12.2 percent to 18.0 percent in 2017. However, there was no significant difference between counties with higher populations of undocumented immigrants. A similar analysis was conducted using collision data to measure changes in the percent of incidents categorized as 'hit-and-runs'. Consistent with the previous finding, hit-and-run incidents have been increasing annually. However, there were no significant differences between counties, suggesting that AB 60 had no measureable effect on this trend. The annual trend of increased collisions may likely reflect a combination of other factors, including the increase in uninsured vehicles, and improvements/changes in the California Highway Patrol's tracking of uninsured motorists over time. An analysis of the same data indicated that AB 60 had no measurable impact on the share of accidents involving a hit-and-run.

Impacts of AB 60 were seen in those counties with more undocumented residents through a significant and accelerated increase in the overall issuance of driver licenses after its implementation. However, the extent to which AB 60 is subsequently impacting the percentage of uninsured motorists is inconclusive. As the multiple analyses above show, there has been an overall upward trend in the percent of uninsured motorists throughout the state, confirming other reports of this national trend.[9] In the analysis of uninsured vehicles, those counties with higher percentages of undocumented immigrants demonstrated a significant mitigating affect to this upward trend suggesting that AB 60 may be encouraging newly licensed motorists to seek auto insurance.

However, it is unclear to what extent the CLCA program was related to mitigating the trend towards increased uninsured motorists, given that there is no clear evidence that an increase of AB 60 motorists was associated with greater use of the program. In fact, motorists in counties with many undocumented residents continue to apply for the CLCA program at even lower rates than the overall eligible population, even after the passage of AB 60. This could be due to a variety of factors related to predominate demographics of these counties. For example, the perceived need and use of insurance products overall varies significantly by ethnic group and immigration status despite low cost options such as the CLCA program.[10] The home countries of many immigrant groups do not mandate auto insurance and may not be aware of the state requirement. Likewise, the process of applying for insurance through the CLCA

[8] Statewide Integrated Traffic Records System. California Highway Patrol. http://iswitrs.chp.ca.gov

[9] Corum, David. (October 2017) "One in Eight Drivers Uninsured." Insurance Research Council. Web. https://www.insurance-research.org/sites/default/files/downloads/UMNR1005.pdf.

[10] Sohn, H. (2017). Racial and ethnic disparities in health insurance coverage: dynamics of gaining and losing coverage over the life-course. Population research and policy review, 36(2), 181-201.

website may be an unintended deterrent for immigrant groups, in relation to fears about how the information may be used to identify their undocumented status.

Statewide there has been an increase in the number of hit-and-run accidents over the past four years - from 18 to 20 percent of all collisions - but there is no evidence that AB 60 mitigated the trend in counties with large numbers of undocumented residents. These findings contrast with those of a recently published study by Stanford researchers, which found that AB 60 decreased the share of hit-and-run accidents specifically. However, these researchers did similarly find AB 60 had no discernable impact on the overall number of collisions or the number of fatal collisions.[11] One notable difference in their study from the analysis below, is that their study used collision data from (2006-2015) while this study looked at a shorter, but more recent period (2013 – 2017). The authors attributed the reduction of hit-and-run incidents to AB 60's effect on "weakening the incentives" for undocumented motorists to flee the scene of an accident, such as a reduced likelihood of being reported to the federal Immigration and Customs Enforcement or having their car impounded. However, the climate for undocumented immigrants markedly changed in 2016, with the presidential election and new administration's focus on increased enforcement of federal immigration laws and a concerted effort towards identifying and deporting undocumented immigrants throughout the country (regardless of their driver license status).[12] These current events have possibly played a role in widening the gap between the undocumented motorists and access to the general and CLCA program insurance markets.

[11] Lueders, H., Hainmueller, J., & Lawrence, D. (2017). Providing driver's licenses to unauthorized immigrants in California improves traffic safety. Proceedings of the National Academy of Sciences, 201618991.

[12] Khouri, A., & Monhan, G. (2018, February 26). Visits by federal immigration authorities are spooking California businesses and workers. LA Times. Retrieved July 30, 2018, from http://www.latimes.com/business/la-fi-immigration-workplace-20180226-story.html

I. INTRODUCTION

Assembly Bill (AB) 60 (Stats. 2013, Ch. 524) – the *Safe and Responsible Drivers Act* – came into effect on January 2015, authorizing the California Department of Motor Vehicles (DMV) to issue an original driver license to persons with undocumented legal status in the United States (i.e., undocumented immigrants).[13] Before AB 60, the DMV had estimated that 12 percent of all motorists in California were without a valid driver license[14] and during this same period, undocumented immigrants made up between six and seven percent of the state's total population.[15] AB 60 identified unlicensed driving as a major safety problem in California and a significant contributor to the percent of uninsured motorists in the state.[16]

Given the potential impacts of AB 60 to lower both the percentage of unlicensed and uninsured motorists, the California Department of Insurance (CDI) is interested in better understanding how the passage of AB 60 may have affected a number of key outcomes, including the number of driver licenses issued, the number of applicants to CDI's California Low Cost Auto (CLCA) insurance program, the percentage of uninsured motorists, including those involved in collisions and hit-and-run incidents. At the time of this study, AB 60 data was available only by aggregated levels[17]; the following analyses use population statistics related to the 58 counties in California as a proxy for more granular data related to AB 60 motorists.

The first section of this report provides context for the passage and potential impacts of AB 60 by discussing the distribution of the undocumented immigrant population by county. Recent trends related to AB 60 licenses issued over the last three years are also presented as well the enrollment patterns observed in the CLCA insurance program during this same period. The second section of the report summarizes a set of time-series, fixed-effect, analyses that model the potential impacts of AB 60 with respect to the number of licenses issued, applications submitted to the CLCA program, and collision statistics. The final section of the report discusses the possible implications of the results of the analyses as well as identifies methodological limitations to this study.

[13] http://www.leginfo.ca.gov/pub/13-14/bill/asm/ab_0051-0100/ab_60_bill_20130916_enrolled.htm

[14] California Research Bureau, California State Library. (2018). *AB 60 Driver's Licenses: A Mandated Review of Instances of Discrimination*. Sacramento, CA: Benjamin, T. Retrieved from https://www.library.ca.gov/Content/pdf/crb/reports/AB_60_Report_2018.pdf

[15] Public Policy Institute of California. (2017). *Undocumented Immigrants in California.* San Francisco, CA*:* Hayes, J. & Hill, L. Retrieved from http://www.ppic.org/publication/undocumented-immigrants-in-california

[16] DeYoung, D. J., Peck, R. C., & Helander, C. J. (1997). Estimating the exposure and fatal crash rates of suspended/revoked and unlicensed drivers in California. *Accident Analysis & Prevention*, *29* (1), 17-23.

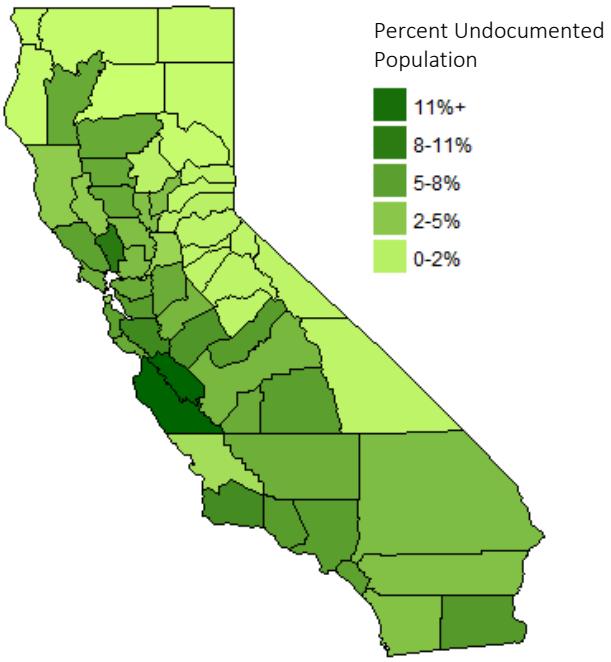
[17] Due to privacy and federal considerations, individual-level data about AB 60 licensing or the issuance of AB 60 licenses were not available.

II. AB 60 CONTEXT

Undocumented Population in California

Nearly seven percent (or 2.7 million) of California's 38.3 million residents are estimated to be undocumented immigrants.[18] Though this population estimate includes children under 16 (who are not eligible for a driver license), it serves as a relative measure of the AB 60 population by county. As Figure 1 shows, the estimated undocumented population varies significantly across the state, from a low of one percent to the high of 13 percent of county residents. Counties in the northern and eastern areas of the state are estimated to have lower immigrant populations (generally between 0%-2%) compared to other parts of the state. Counties in the Central Valley and along the coast (generally between 8%-11%) are estimated to have the highest immigrant populations. See Appendix B, Table 6 for estimates by county.

Figure 1 | Estimated Percent of Undocumented Immigrant Population, by County

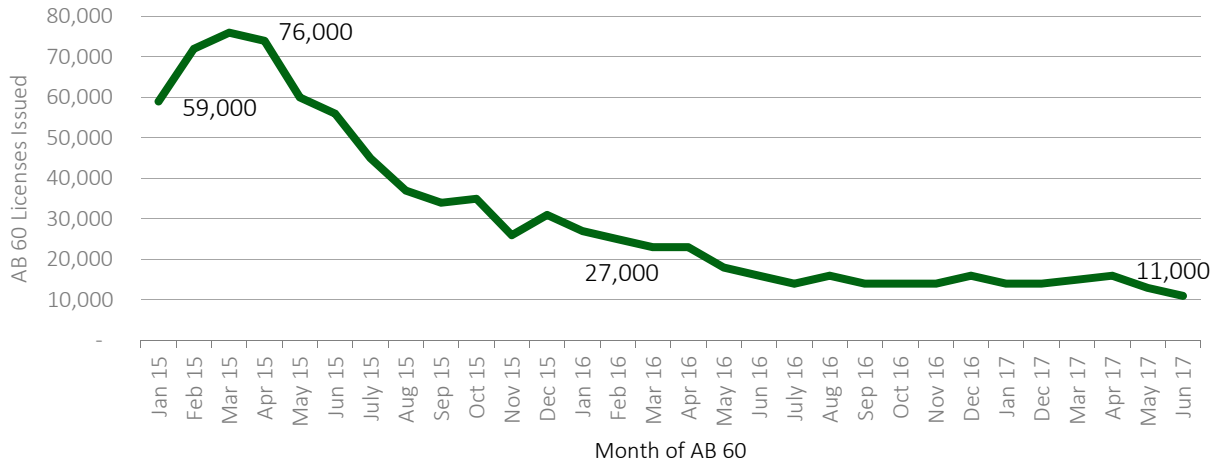


[18] Public Policy Institute of California. (2017). Undocumented Immigrants in California. San Francisco, CA: Hayes, J. & Hill, L. Retrieved fromhttp://www.ppic.org/publication/undocumented-immigrants-in-california/

AB 60 Licenses Issued Since 2015

Before it was enacted, the DMV predicted that AB 60 would result in an additional 1.4 million original driver license applicants over the first three years of its implementation. By June 2017, an average of almost one million (908,000) motorists in California were licensed under AB 60.[19] The majority of these licenses (about 605,000) were issued during the first twelve months of the implementation of AB 60. As Figure 2 shows, the first six months of AB 60 saw a surge in applications, which gradually began to level off in the subsequent months. In January 2015, the DMV issued 59,000 licenses, with a peak of 76,000 in April 2015. By January 2016, 27,000 AB 60 licenses were issued and as expected, the volume of licenses continued to decline as more of the eligible undocumented motorists became licensed. In the first half of 2017, the average number of issued AB 60 licenses dropped to 13,833 per month, with June 2017 having a low of 11,000 licenses.

Figure 2 | AB 60 Licenses Issued by Month, Statewide (Jan 2015 – Jun 2017)[20]



CDI's California Low Cost Auto Insurance Program

AB 60 was intended to reduce the incidence of uninsured motorists in the state, allowing undocumented immigrants to become licensed and therefore become eligible to purchase auto insurance (i.e., a motorist must be licensed to be insured). The CLCA insurance program[21] is a statewide effort to ensure that every motorist in California has access to auto insurance. Implemented in 2000 by the California Legislature, the CLCA program provides auto insurance for those individuals who cannot afford insurance in the voluntary

[19] California Research Bureau, California State Library. (2018). *AB 60 Driver's Licenses: A Mandated Review of Instances of Discrimination*. Sacramento, CA: Benjamin, T. Retrieved from https://www.library.ca.gov/Content/pdf/crb/reports/AB_60_Report_2018.pdf

[20] California Department of Motor Vehicles. (2017). *AB 60 Licenses Issued by Month: January 2015-June 2017.*

[21] The CLCA Program is administered by the California Automobile Assigned Risk Plan (CAARP). https://www.aipso.com/Plan-Sites/California-ARP

market. Low-income households typically spend a disproportionate amount of their annual income on auto insurance, and the cost of maintaining auto coverage is a contributing factor in the relatively high rate of uninsured motorists in California. The CLCA program provides "liability only" automobile insurance to drivers that meet the income eligibility and other program criteria. The CLCA program aims to make available low cost auto coverage for motorists who would not otherwise purchase it and to thereby reduce the proportion of uninsured motorists on the road. The CLCA program has assisted a total of 129,110 Californians to access affordable insurance since its implementation. At any one time, however, the number of active CLCA policies is relatively low compared to the 26.8 million licensed motorists in the state; for example, at the end of 2017, there were 16,749 active CLCA policies. Despite its modest reach in the state, the program continues to successfully target underserved motorists. Approximately 95 percent of the applicants assigned CLCA insurance policies in 2017 were uninsured motorists at the time of their application.[22]

CLCA Applicants

Between January 2014 and June 2017, almost 40,000 CLCA applications were completed through the CLCA program website.[23] The number of CLCA applications grew annually during this period, from 7,760 applications in 2014, rising to 8,154 in 2015, and dropping slightly in 2016 to 8,065. However, the most recent six months of data from 2017 suggest a rising trend in applications. Figure 3 shows these application trends by two-month increments across the 42-month period. March and April appear to be the most popular application months across the three years of data. The dotted line in the figure represents the trend line for average applications per month.

About a quarter (9,993 or 26%) of the 40,000 applications were duplicate applications submitted over the course of the time period. The remaining records represent 28,932 unique CLCA applicants, with the majority coming from individuals in households with an annual income below $30,000 (75%) and representing the only driver in their household (87%). Notably, nearly two-thirds (61%) of all applicants were older than 40 years age, while only 20 percent of applicants were 30 years old or younger.

[22] California Department of Insurance. (2018). Report to the Legislature & Consumer Education and Outreach Plan. Sacramento, CA: Dixon, C., & Simone, L. Retrieved from http://www.insurance.ca.gov/01-consumers/105-type/95-guides/01-auto/lca/upload/2018-CLCA-Legislative-Report.pdf

[23] The CLCA website can found here: www.mylowcostauto.com

Figure 3 | Number of CLCA applications between January 2014 to June 2017 (N = 38,925)

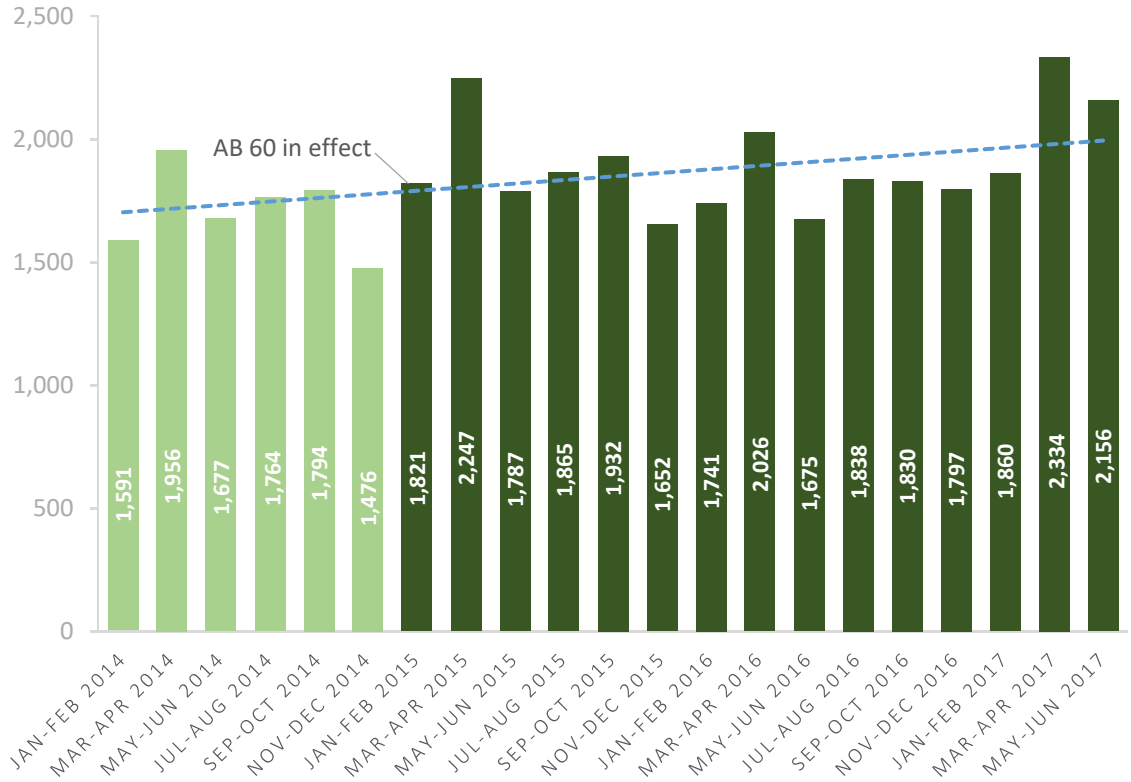
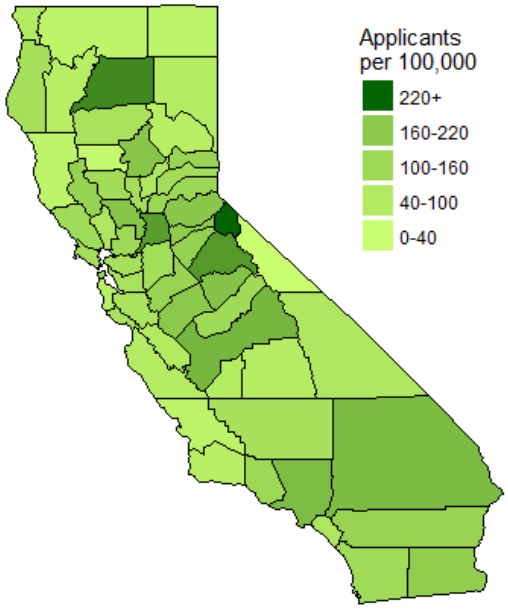


Figure 4 on the following page is a county map of CLCA applicants per 100,000 eligible, county residents estimated from the number of *potential applicants* based on age and household income.[24] While this methodology excludes consideration of other CLCA program eligibility requirements (e.g., applicants must be a "good driver" as defined by the California Insurance Code), these estimates provide a general picture of the reach of the program.

[24] The income eligibility for the CLCA program is a household income no greater than 250 percent of the federal poverty level. This translates into an income of $29,425 or less for a household of one, or $60,270 or less for a family of four in 2015. Therefore, individuals *potentially qualify* for the CLCA program based upon the number of people in their households and the total household income. Using data from US Census 2016 ACS, these potential populations were estimated given the distribution of age, income, and household size in each county.

Figure 4 | CLCA Applicants per 100,000 Eligible Residents, by County



Overall, applications to the CLCA program were distributed modestly throughout most of the state with an average of 212 applicants per 100,000 low-income residents, and varied widely across counties from a low of 36 applicants in Mono County to a high of 293 applicants per 100,000 residents in Fresno County. Los Angeles County, while having a slightly lower number of applicants per 100,000 residents than Fresno (271), represents over one-third (37.7%) of all CLCA applications from 2014-2017. Other counties with a significant proportion of CLCA applications are also located in the southern end of the state: San Bernardino County (7.9%), San Diego County (6.1%), and Orange County (4.1%). Sacramento County (7.1%) and Fresno County (4.2%) represent other northern counties with a significant proportion of CLCA applicants.

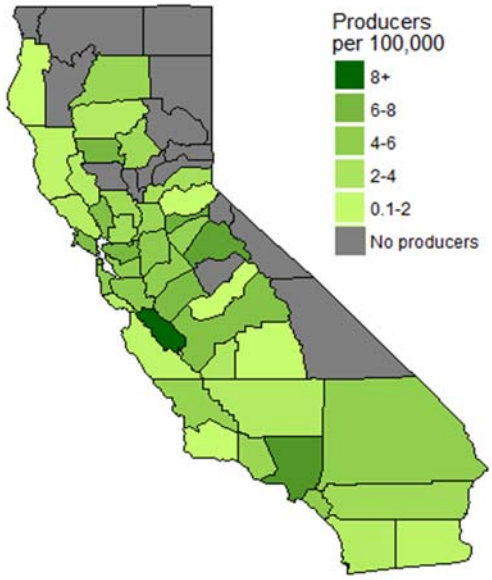
CLCA Producers and Locations

Producers are agents, brokers, and agencies who must gain certification through the California Automobile Assigned Risk Plan (CAARP) to participate in the CLCA program. Producers submit applications on behalf of their clients to CAARP, who in turn, assign CLCA applications to insurance companies. CDI reports that there were approximately 1,512 CAARP certified producers in 2017.[25] The majority of CLCA applications are submitted and processed through the Electronic Application Submission Interface (EASi).

[25] See Note 20.

Figure 5 maps how the distribution of producers receiving applications during January 2014 through June 2017 varied substantially across the counties of California. To control for differences in population sizes across communities, the per capita number of producers per 100,000 eligible residents was calculated for each county. Table 7 in Appendix B summarizes the estimated residents in each county eligible for the CLCA program, as well as the number of active CLCA producers and applications submitted in each county during this time. Statewide, there is an average of 5.4 CLCA producers per 100,000 residents. The concentration of producers overall mirrors the counties with large populations: Los Angeles County, for example, has 454 producers or 11.4 per 100,000 eligible residents. Counties with the highest number of producers per 100,000 residents include San Benito County (16.2), Contra Costa County (7.9), Orange County (6.3), and San Bernardino (5.2). More than a quarter of the counties (15 or 26%) in the state did not have a local producer assigned to a CLCA application during the 2014-2017 period.

Figure 5 | CLCA Producers per 100,000 Eligible Residents, by County



When correlating the distribution of active producers with the number of applications processed in each county, we found only a modest relationship between the number of producers and applications per 100,000 eligible residents. For example, while northern counties had the highest rate of applicants (generally over 200 per 100,000 low-income residents), they collectively have one of the lowest ratios of producers (between 0 and 4 per 100,000 low-income residents). In contrast, Bay Area counties have a relatively high number of producers (6 per 100,000 low-income residents) but the lowest rate of applicants (112 per 100,000). Although it is possible that the presence of many CLCA producers in an area could increase awareness of the program overall, the fact that most applications are submitted online may suggest that producers' location has less of an effect on applications than might otherwise be the case.

III. IMPACTS of AB 60

This section discusses analyses conducted to measure the impact of AB 60 on desired outcomes related to motorists in California. These analyses use available data to compare trends over time and between counties with varying concentrations of undocumented immigrants. Key outcomes of interest include:

- **Driver licenses issued**
- **CLCA applications submitted**
- **Percentage of uninsured vehicles**
- **Collisions involving uninsured motorists**
- **Hit-and-run accidents involving uninsured motorists**

The majority of the analyses use a fixed-effects regression, which relies on measuring the *change* in key outcomes over time. For example, the change in the number of driver licenses issued in each county is tracked from year-to-year, rather than comparing the differences between the actual numbers of licenses issued in different counties. This methodology controls for the expected variations among counties (for example, wealth and income, use of public transit) and other unobserved, county-level factors that might affect these trends.[26] Additional analyses were conducted with a sub-set of outcomes, including a non-fixed effect regression model as well as a general descriptive analysis of the data, to further explore the relationships between these outcomes. This strategy has been used in other studies measuring the impacts of AB 60 and essentially models whether there were significant changes within counties that have larger undocumented populations.[27] While counties may differ in many ways, the study hypothesizes that AB 60 impacts should be larger in counties with greater concentrations of undocumented immigrants.

Impact on Total Driver Licenses

The first analysis measures whether the passage of AB 60 had noticeable effects on the proportion of California residents with a driver license. AB 60 could demonstrate an impact in this model by showing that the increase in driver licenses across years post AB 60 (e.g., comparing pre-AB 60 year 2014, with post AB 60 years 2015, 2016, and 2017) was highest in those counties with more undocumented immigrants. Table 1 presents the fixed-effects estimates that model DMV data on all licenses outstanding

[26] More information about fixed-effects regression is found in Appendix A.

[27] Lueders, Hans, Jens Hainmueller, and Duncan Lawrence. 2017. "Providing driver licenses to unauthorized immigrants in California improves traffic safety." *Proceedings of the National Academy of Sciences of the United States of America* 114, no. 16: 4111-4116.

from 2013 to 2017 to assess these changes. The constant coefficient of the model (66.83%) can be interpreted as the baseline average for the proportion of residents in a county that had driver licenses in 2013 before the passage of AB 60. That is, on average 66.83 percent of a county's population was a licensed motorist pre AB 60. The model also estimates the underlying trend in licensed motorists for each subsequent year—according to the model there were *statistically significant*[28] increases in 2014, 2016, and 2017. Compared with 2013, counties throughout California saw an increase in the percentage of their overall populations with a driver license before (1.12% in 2014) and eventually after AB 60 was implemented (2.03% in 2016 and 2.52% in 2017). Any changes measured in 2015 were not statistically significant.

Table 1 also identifies the effect of AB 60 on these year-to-year changes by measuring the added differences in licensure expected from counties with relatively large undocumented populations. The analysis found a statistically significant relationship between driver licenses and undocumented populations within a county. According to our model for each one percent of a county's undocumented population, there is a measured 0.29 percent increase in licenses issued after AB 60. For example, undocumented immigrants make up 10 percent of Santa Clara County, which is 5 percent more than a typical county, so our model predicts that the county would experience an additional 1.45 percent increase in licenses (5 x 0.29% = 1.45% net increase), above and beyond the 2.52 percent increase found more generally for all counties in 2017.

Table 1 | Fixed-Effects Regression Analysis: Change in Percent of Licensed-Motorists, by County

Estimate	Percent of Licensed Motorists
Constant: Average % of county population with driver license before AB 60 (2013)	66.83% **
Annual Trend: Change in county population with driver license	
2014 (pre AB 60)	1.12% **
2015	1.22%
2016	2.03% **
2017	2.52% **
Effect of AB 60: Percent of undocumented residents in county	0.29% **

** Statistically significant to 99% confidence level.

[28] Asterisks (*) in the regression analysis tables correspond to statistically significant effects—meaning the effects are large enough for one to confidently dismiss the possibility that they are an artifact of random chance (i.e., statistical noise). Multiple asterisks denote greater levels of confidence that the estimates are not random variations of the data (e.g., *, **, and *** denote 95%, 99% and 99.9% levels of confidence, respectively).

Overall these results are consistent with previously reported research that found meaningful increases in driver licenses after AB 60 was enacted, concentrated in areas with large numbers of undocumented immigrants.[29] This finding also validates the approach of using the percent undocumented population in a county as a proxy to measure the impact of AB 60 on motorist outcomes in the state.

Impact on CLCA Applications

The next analysis measures whether the passage of AB 60 had noticeable effects on the number of CLCA applications. As more undocumented motorists were able to obtain licenses with AB 60, it is expected that there would be an increase in the number of applicants to the CLCA insurance program. AB 60 could demonstrate a significant impact in this model by showing a significant increase across years post-AB 60 (e.g., comparing pre-AB 60 year 2014, with subsequent years it was implemented) and by significant differences in the number of CLCA applications across counties with varying population demographics and CLCA producers.

The relationships between AB 60 and CLCA applications were assessed using a conventional regression model (i.e., without the use of fixed effects). This model compares counties with each other, and can be used in order to specifically assess the role that CLCA producers may have played in these trends.[30] This model used a number of control factors such as the proportion of the eligible population for the CLCA program (low-income individuals over the age of 18). It is very likely, for example, that counties with more CLCA eligible individuals would be associated with more CLCA applications over time.

Table 2 | Regression Analysis: Change in Number of CLCA Applicants per 100k County Residents

Estimate	Applicants per 100K total residents
Constant: Average per capita submissions (per 100K total residents) in 2014	15.2**
Annual Trend: Change in per capital submissions	
2015	2.0
2016	1.4
2017	-4.1
Effect: Active Producers per 1,000 county residents	0.3 *
Effect: Percentage of Residents who are…	
CLCA eligible	0.5 **
Undocumented	-1.4 **
Undocumented (Post-AB 60 only)	0.4

* Statistically significant to 95% confidence level. ** Statistically significant to 99% confidence level.

[29] See Note 24.

[30] The number of producers in each county did not vary widely over time, and therefore this variable could not be included in a fixed-effects regression model.

It was also important to include a variable for the percentage of undocumented residents within a county before and after the passage of AB 60, to control for possible barriers undocumented motorists uniquely face in obtaining insurance, including the CLCA program. In addition, changes between the baseline year (2014) and each subsequent year were included to identify underlying trends not related to the variables. The effects in Table 2 are displayed as additional CLCA applicants per 100,000 total residents.[31]

The constant of this model shows on average, 15.2 residents per 100,000 total county residents applied for CLCA in 2014. This finding is consistent with the previous observation that the CLCA program likely has a modest presence in most counties. In terms of annual trends, while there is an upward tendency in applications from 2014-2016 (with a drop in 2017), these changes are not statistically significant from year-to-year.[32] Looking at the effects that show significant positive changes, both the number of producers (0.3 more applicants per 100,000 residents) and the percentage of CLCA eligible residents (0.5 more applicants per 100,000 residents) in a county showed moderate effects.

In contrast, those counties with higher numbers of undocumented residents had a significantly lower number of CLCA applications before AB 60, after controlling for income-eligibility (-1.4). For each one percent of a county's undocumented population, the number of applicants was lower by 1.4 per 100,000 residents. This effect represents a substantial decrease for counties such as Santa Clara, with undocumented immigrants making up ten percent of its population. This is five percent higher than a typical county, for which the baseline average number of applicants in most counties was 15 applicants per 100,000. Accordingly, about seven fewer people per 100,000 applied for the CLCA program (5 x 1.4 = 7 fewer applicants on average) in Santa Clara County.

This measured effect is consistent with the assumption that before AB 60, the demand for CLCA insurance was lower in counties with more undocumented immigrants. However, this trend of substantially fewer CLCA applications in counties with larger undocumented populations *did not change* after AB 60. Counties with larger undocumented populations did not show a unique increase in CLCA applications over time. This suggests that while undocumented status historically was a barrier to accessing insurance, it is inconclusive if AB 60 has had direct impacts on the CLCA program. Undocumented motorists, for example, may continue to face language, cultural, or other barriers that discourage them from obtaining insurance, including coverage through the CLCA program.

[31] It should also be noted that *per 100,000 total residents* is a different per capita metric as used in the previous section (per 100,000 *eligible residents*). Total residents refer to all residents in a county irrespective of their potential eligibility to the CLCA program. This more expansive metric was used because eligibility to the program is already included in the model as a control variable. As discussed earlier, conventional regression requires that additional variables be included in the analysis to control for county-level factors that contribute to these trends, while fixed-effects models control for these variables automatically.
[32] Application data obtained from CAARP.

While it is not possible to directly identify CLCA applicants with AB 60 licenses, a maximum number of potential AB 60 holders applying to CLCA from 2015 through 2017 can be estimated based upon their length of licensure noted in their CLCA applications. A large percent of CLCA applicants (89%) report that they were licensed for at least three years, which means that these applicants would have received their license before AB 60 was enacted. Therefore, a maximum of 11 percent of the CLCA applicants (2,326 individuals) in 2015-2017 could potentially have an AB 60 license, and it is assumed that the actual number is lower.

Impact on Uninsured Vehicles

The impact of AB 60 on the percentage of uninsured vehicles by county is measured in the next analysis. As more undocumented motorists were able to obtain licenses with AB 60, it is hypothesized that there would be a reduction in the percent of uninsured vehicles on the road. AB 60 could demonstrate an impact in this model by showing a significant decrease effect across years post-AB 60 and by significant differences in those counties with higher concentrations of undocumented residents.

Table 3 | Fixed-Effects Regression Analysis: Percent of Uninsured Vehicles

Estimate	Percent of Uninsured Vehicle
Constant: Average percent of uninsured vehicles (2013)	10.87% **
Annual Trend: Change in percent of uninsured vehicles	
2014 (pre AB 60)	0.64% **
2015	1.37% **
2016	1.49% **
Effect: Percent of residents who are undocumented (Post-AB 60)	-0.09% **

** Statistically significant to 99% confidence level.

Based upon provisional uninsured vehicle rates by county[33] a fixed-effects regression approach was used to assess whether changes in counties' uninsured vehicle percentages are the result of AB 60, general time trends, or both. Note that Alpine, Shasta, and Tulare Counties are omitted from this analysis because of inconsistences in these county estimates.

[33] These CDI rates are calculated by comparing the actual number of insurance policies reported by insurers with the estimated number of non-commercial cars and trucks on the road. CDI calculates the latter by combining information on registered vehicles from the DMV and rates of unregistered vehicles from the CHP with information on commercial autos and trucks from the California Energy Commission (CEC). CDI researchers have emphasized that these rates are provisional, and are investigating the reasons for negative estimated uninsured rates in Shasta and Tulare Counties, and for rates between 61% and 78% in Alpine County.

In Table 3 above, the constant of this model shows the percent of uninsured vehicles in a county was on average 10.87 percent in 2013. The annual trend also shows statistically significant increases year-to-year; in 2014, counties saw an average increase of 0.64 percent in uninsured vehicles, 1.37 percent in 2015, and 1.49 percent in 2016. However, this trend is mitigated when measuring the effect of the percent of undocumented residents within a county (-0.09%). For each additional one percent of a county's undocumented residents, the post-2015 change in the uninsured rate is 0.09 percent *lower* than otherwise expected—meaning that the percent of uninsured vehicles in these counties still increased, but that increase is on average almost 0.1 percent less. For example, this model shows that a county with one percent more undocumented residents than the average county saw its rate of uninsured vehicles increase by a projected 1.4 percent between 2014 and 2016. In contrast, another county with 10 percent more undocumented residents than average saw an increase of only 0.59 percent (e.g., 1.49% - (10 x 0.09%) = 0.59% increase).

Impact on Collisions Involving Uninsured Motorists

The impact of AB 60 is next measured by looking at statewide traffic data – in particular the number of insured and uninsured parties involved in an automobile collision. As more undocumented motorists were able to obtain licenses with AB 60 (and subsequently auto insurance), it is hypothesized that there would be a reduction in the percent of collisions involving uninsured motorists. AB 60 could demonstrate an impact in this model, by showing a significant decrease effect across years post-AB 60 and by significant differences in those counties with high concentrations of undocumented residents.

Collision data is used in this model from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS)[34] for the years 2014-2017, which contains a number of details related to the type of incident recorded (e.g., time, location and type of collision) and characteristics of the different parties involved (including their insurance status). This model uses a fixed-effects regression as in the previous analyses. Table 4 below shows a constant of 12.22 percent of all collisions within a county involved an uninsured motorist in 2014. The annual trend rises steadily year-to-year, with an increase of 3.14 percent in 2015, 5.32 percent in 2016, and 5.85 percent in 2017 for the percent of collisions involving at least one uninsured motorist. Looking at the effect of undocumented immigrants in a county, the model showed no effects (0.0%).

[34] Statewide Integrated Traffic Records System. California Highway Patrol. http://iswitrs.chp.ca.gov

Table 4 | Fixed Effects Regression: Impact on Percent of Collisions Involving an Uninsured Motorist

Estimate	Percent of Collisions with Uninsured Motorist
Constant: Average percent of collisions involving an uninsured motorist (2014)	12.22%**
Annual Trend: Average percent change in collisions	
2015	3.41%**
2016	5.32%**
2017	5.85%**
Effect: Percent of residents who are undocumented (Post-AB 60)	0.00%

** Statistically significant to 99% confidence level.

This finding may reflect, in part, limits of the data to capture these trends accurately.[35] The SWITRS database includes an increasing number of collisions every year, and fewer incomplete records for which a party's insurance information is missing. This could reflect system improvements in accurately capture this information over time; while a positive development, this presents a potential complication for a time-series analysis. The date and year fields are also inconsistent for a large number of collisions. Over 30 percent of all SWITRS collision records were removed due to inconsistent dates and/or missing insurance information. Subsequent results may be in fact measuring the improvement of data collection over time rather than changes in driver dynamics.

Impact on Hit-and-Run Incidents

The last model measures the impacts of AB 60 on the incidence of hit-and-run accidents in the state. As more undocumented motorists were able to obtain licenses with AB 60 (and subsequently auto insurance), it is hypothesized that there should be a reduction in the percent of hit-and-run accidents. The lack of auto insurance is a significant factor in motorists leaving the scene of an accident. AB 60 could demonstrate an impact in this model, by showing a significant decrease effect across years post-AB 60 and by significant differences in those counties with higher concentrations of undocumented residents.

A fixed-effects regression approach used in this model shows a constant of 13.24 percent of incidents in a county had someone leaving the scene of the accident in 2014 (Table 5). Looking at the annual trend, there are steady and significant increases in hit-and-run, with 0.78 percent in 2015, 1.10 percent in 2016,

[35] It should be noted that there are substantial data integrity issues with the SWITRS data on which these analyses are based. Specifically, the date field and the year field do not match in a substantial number of collisions – over 30% in some years. The results presented here depend somewhat on whether those collisions are dropped, assigned to a year based on the year field, or assigned to a year based on the date field. Regardless of these decisions, however, there is upward trend from 2014-2017 in the percent of collisions involving one or more uninsured motorists.

and 1.25 percent in 2017. However, when looking at the impact of undocumented residents in a county, there are no significant differences in those counties with more undocumented residents. Therefore, AB 60 does not appear to have an impact on hit-and-run incidents in this model.

Table 5 | Fixed-Effects Regression: Impact on Hit-and-Run Incidents

Estimate	Percent of Hit-and-Run Incidents
Constant: Average percent of collisions involving a hit-and-run (2014)	13.24% **
Annual Trend: Average percent change in hit-and-run collisions	
2015	0.78% **
2016	1.10% **
2017	1.25% **
Effect: Percentage of Residents Who Are Undocumented (Post-AB 60)	0.00%

** Statistically significant to 99% confidence level.

IV. SUMMARY OF FINDINGS

As of the end of June 2017, there have been 908,000 AB 60 driver licenses issued in California representing approximately four percent of all licensed motorists in the state. The analyses above found that, for each additional one percent of a county's population that is undocumented, the increase in licenses issued after AB 60 is 0.29 percent higher.

The number of CLCA applications has grown slightly since 2014, with March and April consistently having the largest intake over the years. The CLCA program remains very small and there is considerable geographic variation in the share of the population applying for CLCA insurance, ranging from 7 to 46 applications per 100,000 low-income residents, with even more extreme results in very small counties. Counties' rates of CLCA applications were associated with several factors, including a larger number of producers, a higher rate of age- and income-eligibility, and a lower proportion of undocumented residents. A maximum of 2,326 (11%) of all CLCA applications from 2014-2017 could have been from drivers newly licensed under AB 60.

On average, the proportion of uninsured vehicles in a county has increased by about 1.5 percent between 2013 and 2016. AB 60 has slowed this increase in uninsured vehicles in counties with higher concentrations of undocumented residents. For each additional one percent of a county's residents who are undocumented, the post-2015 increase in the uninsured vehicle rate has been 0.09 percent lower than otherwise expected. However, the share of collisions involving at least one uninsured motorist has risen steadily since 2014, and AB 60 had no moderating effect on that trend.

As in the case of hit-and-runs accidents, trends were similar in counties with many undocumented residents as well as those with few undocumented residents, suggesting that AB 60 had no measurable impact on these types incidents.

This study seeks to understand the impacts of AB 60 by measuring the relative impacts on counties with a high percentage of undocumented residents. While California is home to the largest population of undocumented immigrants in the United States, their numbers are dwarfed by the total number of motorists in the state. This makes discerning the effects of AB 60 at the aggregate level especially challenging.

Impacts of AB 60 are seen in those counties with more undocumented residents through a significant and accelerated increase in the overall issuance of driver licenses after its implementation. However, the extent to which AB 60 is subsequently affecting the percentage of uninsured vehicles and motorists is inconclusive. As the multiple analyses above show, there has been an overall upward trend in the percent of uninsured motorists throughout the state, confirming other reports of this national trend.[36] In the analysis of *uninsured vehicles*, those counties with higher percentages of undocumented immigrants

[36] See Note 8.

demonstrated a significant mitigating affect to this upward trend suggesting that AB 60 may be encouraging newly licensed drivers to seek auto insurance.

However, it is unclear to what extent the CLCA program was related to these slower increases in uninsured vehicles, given that there is no clear evidence that an increase of AB 60 licenses was associated with greater use of the program. In fact, motorists in counties with higher proportions of undocumented residents continue to apply for the CLCA program at lower rates than the overall eligible population, even after the passage of AB 60. This could be due to a variety of factors related to the demographics of these counties. For example, the perceived need and use of insurance products overall varies significantly by ethnic group and immigration status[37] despite low cost options such as the CLCA program. The home countries of many immigrant groups do not mandate auto insurance and immigrants may not be aware of the state requirement. Likewise, applying for insurance such as the CLCA website may be an unintended deterrent for immigrant groups, in relation to fears about how the information could be used to identify their undocumented status.

Statewide, there has been an increase in the number of hit-and-run accidents over the past four years - from 18 to 20 percent of all collisions - but there is no evidence that AB 60 eased the trend in counties with large numbers of undocumented residents. These findings contrast with those of another study, which found that AB 60 decreased the share of hit-and-run accidents specifically; however, these researchers also found no discernable impact on the overall number of collisions or the number of fatal collisions.[38]

The study's authors attributed the reduction of hit-and-run incidents to AB 60's effect on "weakening the incentives" for undocumented motorists to flee the scene of an accident, such as a reduced likelihood of being reported to the federal Immigration and Customs Enforcement or having their car impounded. However, the climate for undocumented immigrants markedly changed in 2016, with the presidential election and new administration's focus on increased enforcement of federal immigration laws and a concerted effort towards identifying and deporting undocumented immigrants throughout the country (regardless of their driver license status).[39] These current events have possibly played a role in widening the gap between the undocumented motorists and access to the general and CLCA program insurance markets.

[37] Sohn, H. (2017). Racial and ethnic disparities in health insurance coverage: dynamics of gaining and losing coverage over the life-course. Population research and policy review, 36(2), 181-201.
[38] See Note 24.
[39] Khouri, A., & Monhan, G. (2018, February 26). Visits by federal immigration authorities are spooking California businesses and workers. LA Times. Retrieved July 30, 2018, from http://www.latimes.com/business/la-fi-immigration-workplace-20180226-story.html

APPENDIX A | Methodology

Two-Way Fixed Effects Regression

A two-way fixed effects regression was used to test several important impacts of AB 60. This methodology examines only the change in outcomes of interest (e.g., share of the population with a driver license in Table 1, uninsured vehicle rates in Table 3, percent of collisions involving an uninsured motorist in Table 4, and percent of collisions involving a hit-and-run in Table 5) within counties, rather than comparing counties with each other. As used in this report, the fixed effects regression approach is a way to test the effect of AB 60, which most directly impacted counties with a larger share of undocumented residents. To predict a county's share of residents with a driver license in a given year, two main independent variables were used: the estimated undocumented population in a county, and the year the data was collected. The fixed-effects model was then:

$$License\ Rate = \alpha + \gamma * Undoc * PostAB60 + \eta * Year$$

Of most interest, is the estimate of γ, which is the estimated effect of a one percent higher undocumented population effect on the ***change in*** the share of the population with a driver license in 2015 and later. This can be interpreted as a measure of the effect of AB 60, assuming that no other simultaneous change affected percentages of licensed motorists in undocumented counties beginning in 2015. By examining only the changes in licensed driver percentages within counties, this method controls for all factors that do not change over time within counties, including factors that cannot be measured, and also controls for underlying statewide time trends (represented by η).

An important caveat is that control variables cannot be included in this two-way fixed effects model, unless the values change over time within counties. For example, undocumented residents are presumably less likely than legal residents to participate in the CLCA program, but they only have a single measure of the undocumented population for the years included in this study. For this reason, the regression was conducted without using two-way fixed effects. This allows the consideration of the effects of other variables (e.g., CLCA producer density) that did not experience a sharp change similar to the enactment of a new law.

Mean-Centered Variables

In all two-way fixed-effects regressions, the constant represents the average value of the outcome variable in the baseline year. In Table 2 the values of independent variables were mean-centered to achieve the same result. Rather than using the values of each independent variable in the regression, the variable's mean was subtracted from the value for each observation before conducting the regression. Then, the average county's density of CLCA applicants is the density obtained by setting all variables to zero in the following equation. This leaves only the constant, so the constant is the average county's CLCA application density in the baseline year (2014).

$$CLCA\ Applicants = \alpha + \beta * Elig + \gamma * Undoc + \delta * Undoc * PostAB60 + \eta * Year$$

APPENDIX B | County-Level Data Tables

Table 6 | Percent of Estimated Undocumented Population, by County[40]

County	Total Pop.	Undoc Pop.	Percent Undoc.	County	Total Pop.	Undoc Pop.	Percent Undoc.
Alameda	1,582,936	129,500	8.2%	Orange	3,113,649	247,500	7.9%
Alpine	1,127	18	1.6%	Placer	365,822	7,000	1.9%
Amador	36,635	589	1.6%	Plumas	18,899	215	1.1%
Butte	221,768	4,000	1.8%	Riverside	2,291,406	124,000	5.4%
Calaveras	44,667	718	1.6%	Sacramento	1,459,474	56,500	3.9%
Colusa	21,336	1,530	7.2%	San Benito	57,370	8,323	12.8%
Contra Costa	1,095,310	77,500	7.1%	San Bernardino	2,086,732	118,000	5.7%
Del Norte	27,830	317	1.1%	San Diego	3,216,522	170,500	5.3%
El Dorado	181,618	3,000	1.7%	San Francisco	841,270	35,000	4.2%
Fresno	953,787	58,000	6.1%	San Joaquin	703,747	49,000	7.0%
Glenn	27,866	1,998	7.2%	San Luis Obispo	275,973	9,000	3.3%
Humboldt	134,444	1,500	1.1%	San Mateo	750,345	59,500	7.9%
Imperial	177,267	15,000	8.5%	Santa Barbara	435,980	41,500	9.5%
Inyo	18,377	295	1.6%	Santa Clara	1,870,935	183,500	9.8%
Kern	864,014	58,500	6.8%	Santa Cruz	269,395	19,500	7.2%
Kings	150,675	10,500	7.0%	Shasta	178,445	1,500	0.8%
Lake	63,855	2,960	4.6%	Sierra	3,030	45	1.5%
Lassen	32,135	366	1.1%	Siskiyou	43,543	496	1.1%
Los Angeles	10,018,604	814,000	8.1%	Solano	424,384	24,000	5.7%
Madera	151,819	12,500	8.2%	Sonoma	495,007	38,500	7.8%
Marin	258,856	17,500	6.8%	Stanislaus	524,625	32,500	6.2%
Mariposa	17,820	286	1.6%	Sutter	94,702	5,078	5.4%
Mendocino	87,164	4,040	4.6%	Tehama	62,916	4,510	7.2%
Merced	262,712	23,000	8.8%	Trinity	13,422	962	7.2%
Modoc	9,154	104	1.1%	Tulare	453,663	36,500	8.0%
Mono	13,997	225	1.6%	Tuolumne	54,018	868	1.6%
Monterey	428,382	54,677	12.8%	Ventura	840,175	69,000	8.2%
Napa	139,978	15,500	11.10%	Yolo	206,650	11,500	5.6%
Nevada	97,992	1,455	1.50%	Yuba	73,159	3,922	5.4%
				STATE	38,347,383	2,667,000	7.0%

[40] Public Policy Institute of California. (2017). Undocumented Immigrants in California. San Francisco, CA: Hayes, J. & Hill, L. Retrieved fromhttp://www.ppic.org/publication/undocumented-immigrants-in-california/

Table 7 | CLCA Eligible Population, Applicants, and Producers, by County (2014-2017)

County	CLCA Eligible Population		CLCA Applicants			CLCA Producers		
	#	% Total	#	% Total App.	Per 100k	#	% Total App.	Per 100k
Alameda	465,427	37.6%	639	2.2%	137	28	3.0%	6
Alpine	491	54.0%	3	0.0%	611	-	-	-
Amador	11,495	41.9%	25	0.1%	217	1	0.1%	8.7
Butte	102,550	58.9%	246	0.9%	240	5	0.5%	4.9
Calaveras	17,537	48.1%	35	0.1%	200	1	0.1%	5.7
Colusa	8,269	54.1%	13	0.0%	157	-	-	-
Contra Costa	290,575	34.5%	416	1.4%	143	23	2.4%	7.9
Del Norte	10,978	59.8%	12	0.0%	109	-	-	-
El Dorado	53,257	37.1%	125	0.4%	235	1	0.1%	1.9
Fresno	415,025	61.7%	1,218	4.2%	293	29	3.1%	7
Glenn	12,552	62.4%	7	0.0%	56	1	0.1%	8
Humboldt	63,440	59.8%	93	0.3%	147	1	0.1%	1.6
Imperial	77,680	66.1%	163	0.6%	210	2	0.2%	2.6
Inyo	6,733	47.8%	8	0.0%	119	-	-	-
Kern	348,145	59.3%	487	1.7%	140	12	1.3%	3.4
Kings	55,108	59.8%	57	0.2%	103	2	0.2%	3.6
Lake	31,730	63.0%	61	0.2%	192	1	0.1%	3.2
Lassen	7,827	46.4%	8	0.0%	102	-	-	-
Los Angeles	4,024,542	52.7%	10,911	37.7%	271	452	47.9%	11.2
Madera	64,100	62.2%	105	0.4%	164	1	0.1%	1.6
Marin	55,014	27.4%	83	0.3%	151	4	0.4%	7.3
Mariposa	7,161	49.2%	18	0.1%	251	-	-	-
Mendocino	39,238	58.3%	29	0.1%	74	1	0.1%	2.5
Merced	117,838	65.5%	267	0.9%	227	9	1.0%	7.6
Modoc	4,131	59.0%	3	0.0%	73	-	-	-
Mono	5,626	50.4%	2	0.0%	36	-	-	-
Monterey	162,039	54.1%	165	0.6%	102	4	0.4%	2.5
Napa	41,596	38.9%	51	0.2%	123	3	0.3%	7.2
Nevada	34,625	43.1%	54	0.2%	156	-	-	-
Orange	977,593	41.0%	1,192	4.1%	122	59	6.3%	6.0
Placer	93,806	33.1%	165	0.6%	176	4	0.4%	4.3
Plumas	7,383	48.2%	7	0.0%	95	-	-	-
Riverside	892,013	52.9%	1,698	5.9%	190	43	4.6%	4.8
Sacramento	545,348	49.4%	2,118	7.3%	388	29	3.1%	5.3
San Benito	18,528	43.9%	20	0.1%	108	3	0.3%	16.2
San Bernardino	827,537	55.7%	2,286	7.9%	276	49	5.2%	5.9
San Diego	1,101,773	44.9%	1,769	6.1%	161	35	3.7%	3.2
San Francisco	268,656	37.1%	481	1.7%	179	21	2.2%	7.8
San Joaquin	274,380	54.3%	422	1.5%	154	17	1.8%	6.2
San Luis Obispo	90,979	42.8%	70	0.2%	77	5	0.5%	5.5
San Mateo	178,393	30.3%	172	0.6%	96	11	1.2%	6.2
Santa Barbara	160,670	49.6%	148	0.5%	92	3	0.3%	1.9
Santa Clara	459,984	32.3%	622	2.2%	135	29	3.1%	6.3
Santa Cruz	90,362	43.7%	125	0.4%	138	3	0.3%	3.3
Shasta	75,928	54.8%	354	1.2%	466	4	0.4%	5.3
Sierra	1,078	43.5%	2	0.0%	186	-	-	-
Siskiyou	21,047	60.8%	16	0.1%	76	-	-	-

County	CLCA Eligible Population		CLCA Applicants			CLCA Producers		
	#	% Total	#	% Total App.	Per 100k	#	% Total App.	Per 100k
Solano	131,308	40.8%	220	0.8%	168	6	0.6%	4.6
Sonoma	160,838	41.2%	259	0.9%	161	5	0.5%	3.1
Stanislaus	217,236	56.9%	412	1.4%	190	13	1.4%	6
Sutter	38,735	55.7%	59	0.2%	152	-	-	-
Tehama	29,012	61.2%	40	0.1%	138	1	0.1%	3.4
Trinity	6,290	58.8%	6	0.0%	95	-	-	-
Tulare	206,235	66.9%	208	0.7%	101	4	0.4%	1.9
Tuolumne	20,262	48.6%	82	0.3%	405	2	0.2%	9.9
Ventura	251,231	39.8%	430	1.5%	171	13	1.4%	5.2
Yolo	82,838	52.8%	201	0.7%	243	4	0.4%	4.8
Yuba	31,863	60.9%	38	0.1%	119	-	-	-
STATE	13,796,035	50.3%	28, 926	100%	211	944	100%	5.4

Table 8 | Number of Drivers Licenses Issued by County, DMV Data

County	2014	2015	2016	2017
Alameda	1,059,286	1,094,481	1,119,625	1,138,348
Alpine	920	922	972	1,008
Amador	28,786	29,227	29,745	30,118
Butte	157,687	160,335	162,437	164,222
Calaveras	37,026	37,637	38,222	38,632
Colusa	13,626	14,590	14,876	15,054
Contra Costa	755,180	782,851	802,249	818,400
Del Norte	17,222	17,474	17,663	17,867
El Dorado	144,386	146,980	149,240	151,816
Fresno	537,082	561,764	575,729	588,753
Glenn	18,820	19,443	19,830	20,166
Humboldt	95,794	96,686	97,712	98,869
Imperial	112,056	114,054	116,404	119,048
Inyo	14,364	14,627	14,584	14,730
Kern	485,156	505,458	515,026	523,289
Kings	72,314	75,281	76,870	78,374
Lake	46,623	47,290	47,890	48,503
Lassen	18,518	18,618	18,815	18,992
Los Angeles	6,219,707	6,450,325	6,591,324	6,692,352
Madera	81,086	85,687	87,513	89,145
Marin	191,216	195,838	198,011	199,582
Mariposa	14,505	14,531	14,509	14,585
Mendocino	64,087	65,644	66,677	67,299
Merced	142,713	150,029	154,363	158,206
Modoc	6,341	6,351	6,346	6,422
Mono	8,993	9,400	9,542	9,621
Monterey	241,153	285,588	266,098	271,357
Napa	95,421	99,625	101,244	102,468
Nevada	80,973	82,126	83,302	84,628
Orange	2,145,701	2,223,795	2,274,825	2,314,558
Placer	276,954	283,952	290,674	297,678
Plumas	16,145	16,140	16,228	16,426
Riverside	1,414,616	1,474,494	1,519,434	1,561,701
Sacramento	959,392	989,415	1,011,925	1,034,580
San Benito	37,311	39,490	40,765	41,942
San Bernardino	1,286,457	1,336,506	1,370,722	1,400,666
San Diego	2,236,803	2,294,808	2,337,416	2,376,318
San Francisco	568,210	579,941	588,228	596,361
San Joaquin	425,135	447,042	460,498	473,011
San Luis Obispo	197,948	203,518	206,040	208,255
San Mateo	523,691	541,792	551,310	558,633
Santa Barbara	273,203	288,552	294,094	297,801
Santa Clara	1,298,336	1,348,359	1,377,701	1,399,017
Santa Cruz	183,035	189,167	192,290	194,061
Shasta	136,811	137,603	138,548	139,115
Sierra	2,433	2,453	2,456	2,471
Siskiyou	34,730	35,208	35,976	36,147
Solano	284,305	295,385	302,677	309,044
Sonoma	346,384	358,809	364,837	368,667
Stanislaus	325,642	339,629	347,728	354,290

County	2014	2015	2016	2017
Sutter	62,546	64,522	65,808	67,125
Tehama	40,730	41,584	42,038	42,744
Trinity	10,438	10,388	10,289	10,216
Tulare	237,727	251,679	258,559	264,114
Tuolumne	40,768	41,071	41,512	42,090
Ventura	574,545	597,748	608,734	614,486
Yolo	129,684	134,046	136,852	139,231
Yuba	45,242	46,792	48,089	49,092

SACRAMENTO STATE

Redefine the Possible