UC Berkeley

Technical Report

Title

California Traffic Safety Survey 2021: Data Analysis and Comparison with 2010-2020 Survey Data Results

Permalink

https://escholarship.org/uc/item/9qn4q75x

Authors

Ewald, Katrin Wasserman, Lisa

Publication Date

2021-07-01



CALIFORNIA TRAFFIC SAFETY SURVEY 2021

DATA ANALYSIS AND COMPARISON WITH 2010-2020 SURVEY DATA RESULTS

Conducted on Behalf of

The California Office of Traffic Safety
The Safe Transportation Research and Education Center
University of California, Berkeley

June 2021

TABLE OF CONTENTS

| SUMMARY OF FINDINGS | 2 |
|--|----|
| OVERVIEW OF 2021 STUDY | 7 |
| SURVEY DATA ANALYSIS AND COMPARISON WITH PREVIOUS YEARS | 7 |
| Data Weights | 8 |
| Analysis Notes | 8 |
| Region Variable | 9 |
| Respondent Demographics | 11 |
| Safety Concerns (Q2) | 12 |
| Safety Concerns (Q2) by California Region | 14 |
| Safety Concerns (Q2) by Age | 14 |
| Behavioral Changes due to COVID-19 (COVID): Coding Categories | 15 |
| Behavioral Changes due to COVID-19 (COVID) by California Region | 16 |
| Behavioral Changes due to COVID-19 (COVID) by Age | 17 |
| Most Serious Distraction (Q3): Coding Categories | 17 |
| Most Serious Distraction (Q3) by Survey Wave | 18 |
| Most Serious Distraction (Q3) by Region | 19 |
| Using electronic device while driving (Q4) by Region and Wave | 20 |
| Driving Mistake Due to Cell Phone Use (Q5) by Wave | 20 |
| Near Crash Due to Other Driver Talking/Texting on a Cell Phone (Q6) by Wave | 21 |
| Likelihood of Being Ticketed for Hand-Held Phone Use or Texting (Q7) by Wave | 21 |
| Recall of "Go Safely California" (Q8a) by Region and Wave | 22 |
| Recall of "Drive Sober or Get Pulled Over" (Q8b) by Region and Wave | 22 |
| Recall of "Slow the Fast Down" Campaign (Q8c) by Region | 23 |
| Recall of "DUI Doesn't Just Mean Booze" (Q8d) by Region and Wave | 23 |
| Recall of "Put Your Phone Down, Just Drive" (Q8e) by Region and Wave | 24 |
| Safety Campaign Source of Recall (Q8a-e) | 24 |
| Intoxicated Driving (Q9) by Wave | 25 |
| Intoxicated Driving (Q9) by Region | 25 |
| Use of Alternative Ride Services When Drinking (Q10) by Region and Wave | 26 |
| Designated Sober Driver (Q11) by Region and Wave | 27 |
| Recall of Sobriety/DUI Checkpoints in Past 6 Months (Q12) by Wave | 28 |
| Recall of Sobriety/DUI Checkpoints in Past 6 Months (Q12) by Region | 28 |
| Awareness of DUI (Q13) by Region and Wave | 29 |

| Likelihood of Getting Arrested for Driving Impaired (Q14) by Region and Wave | 29 |
|--|----|
| Perception of Marijuana Impairing Driving Functions (Q15) by Region and Wave | 30 |
| Perception of DUI of Drugs, Legal and Illegal (Q16) by Region and Wave | 30 |
| Safety of Driving 10 Miles Over the Speed Limit on Freeways (Q17) by Region and Wave | 31 |
| Safety of Driving 5 Miles Over the Speed Limit on Residential Streets (Q18) by Region and Wave | 31 |
| Chance of Being Ticketed for Driving Over Speed Limit (Q19) by Region and Wave | 32 |
| Perception of driverless vehicles and road safety (Q20) by Region and Wave | 32 |
| Sharing roads with driverless vehicles (Q21) by Region and Wave | 33 |
| Perception of Legality for Bikes on Roadways (Q22) by Region and Wave | 33 |
| Level of Comfort Sharing Road with Bicyclists with Bike Lanes (Q23) by Region and Wave | 34 |
| Sharing Road with Bicyclists without Bike Lane (Q24) by Region and Wave | 35 |
| Safety Problems Experienced as Pedestrian or Bicyclist (Q25): Coding Categories | 35 |
| Safety Problems Experienced as Pedestrian or Bicyclist (Q25) by Region and Wave | 37 |
| Safety Problems Experienced as Driver around Pedestrians and Bicyclists (Q26) | 38 |
| Safety Problems Experienced as Driver around Pedestrians and Bicyclists (Q26) by Region & Wave | 39 |

SUMMARY OF FINDINGS

Biggest Safety Concern (Q2)

"Distracted Driving because of TEXTING" was the biggest safety concern for 74.3% of surveyed drivers of the online panel, followed by "Speeding and Aggressive Driving" and "Drunk Driving", mentioned by 73.8% and 68.7% respectively (Table Q2_2).

Behavioral Changes due to COVID-19 (COVID)

"Aggressive Driving / Road Rage" was the most frequently given response in Southern and Central California regions, whereas in Northern California, "Have Not Noticed Any Changes" was the biggest behavioral change noticed in the past year (Table COVID_2).

Most Serious Distraction (Q3)

Consistent with prior data collection waves, in 2021, "Texting or Checking Phone While Driving" was reported as the most serious distraction by 69.7% of respondents (Table Q3 2).

Using Electronic Device While Driving (Q4)

Similar to previous waves, one-third of respondents (33.8%) indicated that they "Regularly" or "Sometimes" used an electronic wireless device while driving in the past 30 days, while two-thirds stated they "Rarely" or "Never" did (Table Q4).

Driving Mistake Due to Cell Phone Use (Q5)

The majority (59.8%) of respondents indicated they have never made a driving mistake while using a cell phone, a 4.5% significant decrease from 2020 (Table Q5).

Near Crash Due to Talking/Texting (Q6)

More than half (51.9%) of drivers in 2021 indicate that they have been hit or nearly hit by a driver who was talking or texting on a cell phone, which is similar to the 2020 data (Table Q6).

Recall of Traffic Safety Outreach Campaigns (Q8a-Q8e)

Similar to prior waves of data collection, the outreach campaign with the highest recall rate was "Drive Sober or Get Pulled Over", with more than half of the surveyed drivers having seen or heard the campaign (Tables Q8a-Q8e). The 5.2% increase in recall of the "Go Safely California" campaign and the 3.5% increase of "DUI Doesn't Just Mean Booze" compared to 2020 are significant.

| | Recall Rate |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Campaign | 2021 | 2020 | 2019 | 2018 | 2017 |
| "Go Safely California" | 35.4% | 30.2% | 16.4% | - | |
| "Drive Sober or Get Pulled Over" | 50.2% | 50.3% | 34.8% | 42.5% | 38.4% |
| "Slow the Fast Down" | 19.1% | | | | |
| "DUI Doesn't Just Mean Booze" | 45.0% | 41.5% | 30.1% | 43.0% | 29.3% |
| "Put Your Phone Down, Just Drive" | 33.0% | 30.4% | 17.1% | 29.4% | |

Alcohol-Impaired Driving (Q9)

The number of surveyed drivers who reported driving after having too much to drink in the past six months was similar to the previous year, an increase of 1.4% over 2020 (Table Q9 1).

Use of Ride Services (Q10)

More than half (52.7%) of respondents reported they have not used ride services when drinking in the past six months, similar to the previous year's responses (Table Q10).

Designated Sober Driver (Q11)

In 2021, 32.6% of respondents reported "Always" using a designated driver in the past six months, while 39.6% reported "Never" using one. Comparisons among regions and with the previous year's data did not show any significant differences (Table Q11).

Recall of Sobriety Checkpoints (Q12)

More than half (51.0%) of respondents have seen or heard about police sobriety or DUI checkpoints in the past 6 months; this 4.5% decrease compared to 2020 was significant (Table Q12_1). Additionally, there was a significant regional difference in recall, with Central California drivers having e a higher recall rate than Northern California drivers (Table Q12_2).

Likelihood of Arrest for Impaired Driving (Q14)

Overall, 78.8% of California drivers believed it to be "Very Likely" or "Somewhat Likely" to be arrested for driving impaired (Table Q14).

Marijuana Impairing Driving Functions (Q15)

In 2021, 77.0% of respondents believed marijuana can impair driving functions, compared to 80.1% in 2020 (Table Q15).

Safety of Driving 10 MPH Over Speed Limit (Q17)

Between 2020 and 2021 there was a significant 3.1% reduction in the number of respondents who believe it is safe to drive 10 miles over the speed limit on freeways (Table Q17).

Safety of Driving 5 MPH Over Speed Limit (Q18)

The majority (51.7%) of respondents believe it is unsafe to drive 5 miles over the speed limit on residential streets, with a comparable distribution between regions (Table Q18).

Chances of Being Ticketed for Speeding (Q19)

Over two-thirds of drivers (68.4%) believe it is "Very Likely" or "Somewhat Likely" to get a ticket for driving over the speed limit, similar to the previous year's results (Table Q19).

Driverless Vehicles and Road Safety (Q20)

48.3% of respondents reported they did not believe driverless vehicles will make roadways safer, a 2.2% increase from 2020 (Table Q20).

Sharing Road with Driverless Vehicle (Q21)

The majority (58.1%) of drivers were "Somewhat Uncomfortable" or "Very Uncomfortable" sharing the road with driverless vehicles, which is similar to the 2020 distribution of responses for this measure. There was a significant regional difference in 2021; Central California drivers were the most likely to say they are "Very Uncomfortable" and Northern California drivers are most likely to say they are "Very Comfortable" (Table Q21).

Legality of Bicyclists on Roadways (Q22)

When asked whether they believe it is legal to ride bicycles on roadways, 62.2% of surveyed drivers in 2021 believed so, compared to 63.0% of the 2020 respondents, without significant change (Table Q22).

Sharing Road with Bicyclists (Q23)

72.0% of drivers were "Very Comfortable" or "Somewhat Comfortable" sharing the road with bicyclists in bike lanes, with a similar distribution among regions and consistent with the previous year's data (Table Q23).

OVERVIEW OF 2021 STUDY

The 2021 California Traffic Safety Study was conducted with an online panel of California drivers, as in the prior year of data collection. While in previous years, data was collected via in-person intercepts, the 2020 wave transitioned to an online, self-administered survey, a mode that was continued in 2021 to avoid in-person contact in light of the ongoing COVID-19 pandemic. This report describes the findings of the 2021 Traffic Safety data, with a comparison to previous years of data, which include opinions on traffic safety, distracted driving, bicycle and pedestrian interactions, and other driving behaviors from a representative sample of California drivers.

The online survey panelists were provided by MSG, a commercial sample and panel vendor. Participants were forwarded to an online survey portal programmed and managed by E&W. Eligibility criteria for participation included a valid California driver's license and being 18 year or older. Quotas were specified for age groups and gender to align the 2021 survey with previous waves of the Traffic Safety Study and to achieve a representative cross-section of pre-screened and qualified respondents.

Survey participation was anonymous, and a total of 2,801 responses were collected in May of 2021.

SURVEY DATA ANALYSIS AND COMPARISON WITH PREVIOUS YEARS

Since the 2020 and 2021 waves of data collection were both conducted online, a more direct comparison of results between these waves was possible. However, comparisons to waves before 2020 should also recognize the potential impact of the different data collection modes as well as the unique circumstances of the COVID-19 pandemic. For example, previous intercept surveys included measures administered by field staff who recorded the responses from a set of options that were not read to the respondent. The corresponding online survey measures, however, presented all the response options to the respondent, which facilitated a greater number of responses than previous years. Furthermore, 2020/2021 responses were likely affected by changes in travel behavior due to the pandemic.

2,801 drivers
participated in the
survey, resulting in
an overall confidence
interval of +/- 1.85,
at a confidence level
of 95%.

In this report, the statistically significant differences in 2021 findings as compared to the previous year are highlighted in the 2021 data column, and the statistically significant differences within regions are highlighted in the respective region column. Every effort has been made to match the 2021 sample with previous waves by age, gender and geographic region, to minimize the effects of sample differences between data collection years.

Since the number of valid responses differs by question, the total number of responses reported varies by table. These totals reflect variations in the number of valid answers respondents provided for each measure, excluding all "Don't know" and "Prefer not to answer" responses. In addition, due to skip patterns programmed in the survey, some questions were not shown to all respondents. The rounding of percentages resulted in some percentages not always adding up to the exact value of 100.0%.

Data Weights

As with the 2020 panel data analysis, a calculated population weight based on age group and gender was applied to the collected data. These applied weights resulted in only minor adjustments to the data; since the 2021 panel data was collected with more detailed age and gender quotas, the sample distribution was much closer to the most recent Census data for Californians age 18 and over (see Table Weights by Age and Gender).

Table Weights by Age and Gender. Census data, survey results and proportional weight calculation

| | Census | Data* | Data* Survey Data Weights Survey | | ey Data Weights | | | |
|--------------|--------|--------|----------------------------------|--------|-----------------|--------|-------|--------|
| Age Range | Male | Female | Male | Female | Male | Female | Male | Female |
| 18-24 | 51.5% | 48.5% | 55.1% | 44.9% | 0.93 | 1.08 | 51.4% | 48.6% |
| 25-34 | 51.6% | 48.4% | 48.9% | 51.1% | 1.06 | 0.95 | 51.7% | 48.3% |
| 35-44 | 50.5% | 49.5% | 55.1% | 44.9% | 0.92 | .10 | 50.6% | 49.4% |
| 45-54 | 49.8% | 50.2% | 44.2% | 55.8% | 1.13 | 0.90 | 49.8% | 50.2% |
| 55-70 | 48.2% | 51.8% | 49.8% | 50.2% | 0.97 | 1.03 | 48.4% | 51.6% |
| 71 + | 43.2% | 56.8% | 51.3% | 48.7% | 0.84 | 1.17 | 42.9% | 57.1% |
| Total | 49.3% | 50.7% | 50.7% | 49.3% | 0.97 | 1.03 | 50.1% | 49.9% |

^{*}Source: Census.gov: ACS DEMOGRAPHIC AND HOUSING ESTIMATES 2019 American Community Survey

The population weights for gender were calculated based on the proportional weight calculation formula in the Table Weights Formula.

Table Weights Formula. Proportional weight calculation formula

$$W_p = \frac{\text{Percent of Population}}{\text{Percent of Respondents}} = \frac{P_i}{R_{lotal}}$$

Analysis Notes

The California Traffic Safety Study 2021 used a convenience sample of a commercially available online panel, similar to the 2020 data collection wave. The analysis outlined in the 2021 report is based on a sample size similar to previous years' data collection.

Because the 2020 and 2021 survey were both conducted online, and, thus, were comparable data collection modes, tests for significance were calculated and will be noted where applicable.

For multiple choice questions, a respondent could give more than one answer. The listed "Percent of cases" column is calculated from the total number respondents who answered a question. The resulting percentage is more than 100.0% and reflects the percentage of respondents who selected the answer, not the percentage of total answers given, which would add up to 100.0%.

- The findings are reported weighted, with the data weights applied as outlined in Table Weights by Age and Gender.
- The significances outlined refer to a two-tailed probability with the resulting value of "z" and a p value indicating the difference between the listed (and assumed independent) proportion of drivers interviewed per wave. Where applicable, the significant differences calculated were adjusted for pairwise comparisons using the Bonferroni correction. Significant findings in table cells are highlighted in orange.
- The survey version used was the same as the 2020 survey instrument, with the addition of one question and minor updates to the answer choices for two other questions.

Region Variable

The 58 California counties were included in the online survey, and segmented into three regions: "Northern California," "Central California," and "Southern California," comparable to previous waves (Table R1).

Table R1. Three geographic region definitions by county

| Northern Calif | ornia | | | |
|----------------|-----------|-----------|---------------|---------|
| Alameda | El Dorado | Mendocino | Sacramento | Solano |
| Alpine | Glenn | Modoc | San Francisco | Sonoma |
| Amador | Humboldt | Mono | San Mateo | Sutter |
| Butte | Inyo | Napa | Santa Clara | Tehama |
| Colusa | Lake | Nevada | Shasta | Trinity |
| Contra Costa | Lassen | Placer | Sierra | Yolo |
| Del Norte | Marin | Plumas | Siskiyou | Yuba |

| Central Califo | rnia | Southern California | | |
|----------------|----------------|---------------------|----------------|---------|
| Calaveras | Merced | Santa Cruz | Imperial | Ventura |
| Fresno | Monterey | Stanislaus | Los Angeles | |
| Kern | San Benito | Tulare | Orange | |
| Kings | San Joaquin | Tuolumne | Riverside | |
| Madera | San Luis Obisp | 00 | San Bernardino | |
| Mariposa | Santa Barbara | | San Diego | |

For the 2021 survey, data was collected from 54 counties, with Table R2 showing the number of completed surveys by county.

| County | Northern California | Total | County | Central California | Total | County |
|-----------------|------------------------|-------|-----------------|-----------------------|-------|-------------------|
| Alameda | 112 | 4.0% | Calaveras | 9 | 0.3% | Imperial |
| Alpine | 3 | 0.1% | Fresno | 75 | 2.7% | Los Angeles |
| Amador | 4 | 0.1% | Kern | 50 | 1.8% | Orange |
| Butte | 18 | 0.6% | Kings | 9 | 0.3% | Riverside |
| Colusa | 3 | 0.1% | Madera | 7 | 0.2% | San Bernardino |
| Contra Costa | 80 | 2.9% | Merced | 17 | 0.6% | San Diego |
| Del Norte | 11 | 0.4% | Monterey | 22 | 0.8% | Ventura |
| El Dorado | 23 | 0.8% | San Benito | 8 | 0.3% | Total |
| Glenn | 3 | 0.1% | San Joaquin | 49 | 1.7% | % of total |
| Humboldt | 14 | 0.5% | San Luis Obispo | 23 | 0.8% | |
| Inyo | 2 | 0.1% | Santa Barbara | 17 | 0.6% | 1 |
| Lake | 9 | 0.3% | Santa Cruz | 11 | 0.4% | 1 |
| Lassen | 3 | 0.1% | Stanislaus | 32 | 1.1% | 1 |
| Marin | 10 | 0.4% | Tulare | 21 | 0.7% | 1 |
| Mendocino | 3 | 0.1% | Tuolumne | 1 | 0.0% | |
| Mono | 3 | 0.1% | Total | 351 | | _ |
| Napa | 6 | 0.2% | % of total | 12.5% | | |
| Nevada | 8 | 0.3% | | | | |
| Placer | 27 | 1.0% | | | | |
| Plumas | 2 | 0.1% | | | | |
| Sacramento | 140 | 5.0% | | | | |
| San Francisco | 74 | 2.6% | | | | |
| San Mateo | 35 | 1.2% | | | | |
| Santa Clara | 103 | 3.7% | | | | |
| Shasta | 14 | 0.5% | | | | |
| Siskiyou | 2 | 0.1% | | | | |
| Solano | 27 | 1.0% | | | | |
| Sonoma | 18 | 0.6% | | | | |
| Sutter | 6 | 0.2% | | | | |
| Tahana | 3 | 0.1% | | | | |
| Tehama | 3 | 0.170 | | | | |

11

787

28.1%

0.4%

Yuba

Total

% of total

Southern

California 8

829

256

144

126

238

62

1,663

59.4%

Total

0.3%

29.6%

9.1%

5.1%

4.5%

8.5%

2.2%

The unweighted absolute totals and weighted percent of online completed surveys by California region are outlined in Table R3, with the majority of completed weighted surveys (1,663, 59.3%) from Southern California drivers, which corresponds to previous years of data collection.

Table R3. Completed surveys by region and year

| Region | Number of Completes | Percent | Weighted Percent | 2020 Percent | 2019 Percent |
|---------------------|------------------------|---------|---------------------|-----------------|-----------------|
| Northern California | 787 | 28.1% | 28.1% | 29.5% | 32.6% |
| Central California | 351 | 12.5% | 12.6% | 12.7% | 12.6% |
| Southern California | 1,663 | 59.4% | 59.3% | 57.8% | 54.9% |
| Total | 2,801 | 100.0% | 100.0% | 100.0% | 100.0% |

Respondent Demographics

The weighted respondent age and gender distributions by California region are outlined in Table D1, showing a slightly higher percentage of respondents from the 18–24-year-old range (both male and female), as compared to the 2020 age distribution.

Table D1. Age and gender distribution by geographic regions and year comparison

| Table D1. Ag | | | | | | | |
|--------------|-------|------------|------------|------------|--------|--------|--------|
| Gender | Age | Northern | Central | Southern | Total | 2020 | 2019 |
| Gender | Group | California | California | California | Total | Total | Total |
| Male | 18-24 | 15.5% | 18.0% | 20.4% | 18.7% | 10.7% | 11.9% |
| | 25-34 | 22.6% | 32.3% | 17.5% | 20.7% | 23.1% | 25.0% |
| | 35-44 | 21.1% | 19.8% | 21.1% | 21.0% | 23.6% | 25.6% |
| | 45-54 | 20.1% | 15.0% | 19.7% | 19.2% | 25.1% | 19.8% |
| | 55-70 | 16.5% | 13.2% | 17.6% | 16.7% | 14.6% | 14.8% |
| | 71 or | 4.2% | 1.8% | 3.7% | 3.6% | 2.9% | 3.0% |
| Total | | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Female | 18-24 | 16.8% | 16.8% | 18.3% | 17.7% | 10.1% | 17.1% |
| | 25-34 | 20.0% | 18.9% | 19.4% | 19.5% | 21.7% | 25.3% |
| | 35-44 | 19.2% | 23.2% | 20.6% | 20.6% | 23.3% | 19.3% |
| | 45-54 | 18.7% | 20.0% | 19.6% | 19.4% | 25.2% | 19.9% |
| | 55-70 | 21.3% | 17.3% | 16.5% | 17.9% | 15.9% | 15.5% |
| | 71 or | 3.9% | 3.8% | 5.5% | 4.9% | 3.9% | 2.9% |
| Total | | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

The distribution of respondent gender by region is shown in Table D2 with a distribution similar to previous years of data collection (not shown).

Table D2. Gender distribution by geographic regions

| Gender | Northern California | Central California | Southern California | Total |
|--------|------------------------|-----------------------|------------------------|--------|
| Male | 51.8% | 47.4% | 49.8% | 50.1% |
| Female | 48.2% | 52.6% | 50.2% | 49.9% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Safety Concerns (Q2)

Respondents were asked to identify the biggest safety concerns on California roadways. The provided multiple-choice options are listed in Table Q2_1, with additionally coded open-ended responses highlighted in blue.

Table Q2_1. "In your opinion, what are the biggest safety problems on California roadways?"

| 3 _ / / / / / / / / / / / / / / / / / / | |
|--|-----------------------------------|
| Drunk Driving | Congestion on Roadways |
| Speeding/Aggressive Driving | Construction on Roadways |
| Distracted Driving because of TALKING | Unlicensed/Uninsured Drivers |
| Distracted Driving because of TEXTING | Trash/Debris |
| Internal Car Distractions (passengers, eating, | Not Signaling Lane Change/Merging |
| grooming, adjusting radio/stereo) | Vehicles |
| Bad Road Surfaces | Running Red Lights & Stop Signs |
| Not Wearing Seatbelts | Infrastructure Issues |
| Drugged Driving | Perceived Driving Skills |
| Other (un-coded) | |

The multi-choice question on the biggest safety problems on California roadways resulted in 10,799 answers. The most frequently cited safety problem was "Distracted Driving because of Texting," with 18.9% of total responses and 74.3% of all respondents indicating this concern. The second most frequent response was "Speeding and Aggressive Driving," with 18.8% of all responses and selected by 73.8% of respondents, followed by "Drunk Driving", with 17.5% of responses and 68.7% of respondents (Table Q2_2).

Table Q2_2. Frequencies of Q2 by percent of answers and percent of drivers

| Q2 all answers combined | Count | % of Answers | % of Drivers |
|--|--------|-----------------|--------------|
| Distracted Driving because of TEXTING | 2,041 | 18.9% | 74.3% |
| Speeding/Aggressive Driving | 2,029 | 18.8% | 73.8% |
| Drunk Driving | 1,888 | 17.5% | 68.7% |
| Drugged Driving | 1,210 | 11.2% | 44.0% |
| Bad Road Surfaces | 1,179 | 10.9% | 42.9% |
| Distracted Driving because of TALKING | 973 | 9.0% | 35.4% |
| Internal Car Distractions (passengers, eating, grooming, adjusting radio/stereo) | 700 | 6.5% | 25.5% |
| Not Wearing Seatbelts | 699 | 6.5% | 25.4% |
| All Other Responses Combined | 80 | 0.7% | 2.90% |
| Total | 10,799 | 100.0% | 392.9% |

The biggest safety problem on California roadways compared to previous years is shown in Table Q2_3. The three most frequently mentioned responses in 2021 ("Distracted Driving because of Texting", "Speeding and Aggressive Driving," and "Drunk Driving") corresponds to the previous year's data, and resembles the results from previous waves.

Table Q2_3. Frequencies of top six responses to Q2 by percent of answers provided and by year of data collection

| Q2 all answers combined | % answers 2021 | % answers 2020 | % answers 2019 | % answers 2018 | % answers 2017 | % answers 2016 | % answers 2015 | % answers 2014 | % answers 2013 | % answers 2012 | % answers 2011 | % answers 2010 |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Distracted Driving because of Texting | 18.9% | 19.8% | 19.4% | 16.9% | 14.7% | 18.2% | 16.1% | 21.2% | 20.3% | 17.1% | 18.5% | 9.9% |
| Speeding/Aggressive Driving | 18.8% | 19.1% | 20.3% | 19.4% | 27.7% | 19.2% | 18.1% | 20.2% | 14.3% | 15.6% | 17.6% | 18.2% |
| Drunk Driving | 17.5% | 17.9% | 9.2% | 6.5% | 22.9% | 5.6% | 6.6% | 6.2% | 5.7% | 4.3% | 12.6% | 7.9% |
| Drugged Driving | 11.2% | 10.6% | 1.8% | 1.3% | 1.5% | | | | | | | |
| Bad Road Surfaces | 10.9% | 10.5% | 11.0% | 15.3% | 3.8% | 12.2% | 13.0% | 10.4% | 9.2% | 11.4% | 11.6% | 11.6% |
| Distracted Driving because of Talking | 9.0% | 9.0% | 15.7% | 14.2% | 11.9% | 13.8% | 11.7% | 18.0% | 16.0% | 18.3% | 20.3% | 15.8% |
| All other responses combined | 13.7% | 13.1% | 22.6% | 26.4% | 17.5% | 31.0% | 34.5% | 24.0% | 34.5% | 33.3% | 19.4% | 36.6% |
| Total responses | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Safety Concerns (Q2) by California Region

The crosstabulations of the biggest safety concerns by region are outlined in Table Q2_4, with respondents from Northern California and Southern California most frequently indicating "Distracted Driving because of texting," while Central California respondents most frequently citing "Speeding/Aggressive Driving" as the biggest safety problem.

Table Q2 4. Frequencies of top five safety concerns by region

| Q2 by Region | Northern California | Central California | Southern California |
|---------------------------------------|------------------------|-----------------------|------------------------|
| Distracted Driving because of TEXTING | 18.5% | 17.6% | 19.3% |
| Speeding/Aggressive Driving | 18.3% | 18.8% | 19.0% |
| Drunk Driving | 17.5% | 17.7% | 17.4% |
| Drugged Driving | 11.1% | 11.2% | 11.2% |
| Bad Road Surfaces | 11.7% | 12.6% | 10.2% |
| All other responses combined | 22.9% | 22.1% | 22.9% |
| Total | 100.0% | 100.0% | 100.0% |

Safety Concerns (Q2) by Age

The five most frequently stated safety concerns by age are shown in Table Q2_5, with a similar pattern of distribution across all age groups.

Table Q2 5. Cross-tabulation of top five safety concerns by age group

| Q2 by Age | 18-24 | 25-34 | 35-44 | 45-54 | 55-70 | 71 or older |
|---------------------------------------|--------|--------|--------|--------|--------|----------------|
| Distracted Driving because of TEXTING | 17.2% | 18.1% | 18.7% | 20.1% | 20.4% | 19.3% |
| Speeding/Aggressive Driving | 18.3% | 18.5% | 18.7% | 20.3% | 18.5% | 17.8% |
| Drunk Driving | 19.6% | 18.3% | 17.7% | 16.0% | 16.1% | 16.4% |
| Drugged Driving | 13.2% | 10.0% | 11.0% | 10.6% | 11.5% | 10.6% |
| Bad Road Surfaces | 9.1% | 11.4% | 11.4% | 12.1% | 10.6% | 9.7% |
| All other responses combined | 22.6% | 23.7% | 22.5% | 20.9% | 22.9% | 26.2% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Behavioral Changes due to COVID-19 (COVID): Coding Categories

In the 2021 wave of data collection, a survey item was added to the online questionnaire to ascertain respondents' perception of other drivers' behaviors since the onset of the COVID-19 pandemic in 2020, asking them to indicate the biggest change they have noticed. Respondents were able to select from a list of answering choices and could enter any additional changes not listed as an open-ended response. Table COVID_1 outlines the answer choices provided, along with additional coding categories based on the open-ended responses (highlighted in blue).

Table COVID_1. "Since the onset of the COVID-19 pandemic, what is the biggest change in behaviors you have noticed from drivers" with additional code categories

| Speeding | Fewer Drivers |
|---------------------------------------|------------------------------------|
| Impaired Driving | General Poor/Inconsiderate Driving |
| Not Wearing Seatbelts | Running Red Lights/Not Signaling |
| Distracted driving because of Talking | Mask Wearing |
| and/or Texting | Wask Wearing |
| Aggressive Driving / road rage | |
| Have not noticed any changes | |
| Other (Uncoded) | |

Behavioral Changes due to COVID-19 (COVID) by California Region

Table COVID_2 shows the distribution of answers by California region. "Aggressive Driving/Road Rage" was the most frequently given response in all three regions except Northern California, where "Have Not Noticed Any Changes" was cited as frequently as "Aggressive Driving/Road Rage" as the biggest change in driving behavior.

Table COVID_2. "Since the onset of the COVID-19 pandemic, what is the biggest change in behaviors you have noticed from drivers" by region

| COVID by Region | Northern California | Central California | Southern California | Total 2021 |
|--|------------------------|-----------------------|------------------------|---------------|
| Aggressive Driving/Road Rage | 24.5% | 28.8% | 26.9% | 26.5% |
| Have Not Noticed Any Changes | 24.5% | 25.9% | 23.1% | 23.8% |
| Speeding | 23.1% | 17.9% | 26.0% | 24.2% |
| Distracted Driving because of Talking and/or Texting | 17.7% | 17.6% | 15.5% | 16.4% |
| Impaired Driving | 6.6% | 5.8% | 5.3% | 5.7% |
| Not Wearing Seatbelts | 1.7% | 2.0% | 1.8% | 1.8% |
| Fewer Drivers | 0.9% | 0.9% | 0.5% | 0.6% |
| General Poor/Inconsiderate Driving | 0.6% | 0.6% | 0.2% | 0.4% |
| Other | 0.3% | 0.0% | 0.4% | 0.3% |
| Running Red Lights/Not Signaling | 0.1% | 0.3% | 0.2% | 0.2% |
| Mask Wearing | 0.0% | 0.3% | 0.1% | 0.1% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Behavioral Changes due to COVID-19 (COVID) by Age

Drivers aged 45-54 were most likely to identify "Aggressive Driving/Road Rage" as the biggest change in behavior since the onset of the COVID-19 pandemic, as shown in Table COVID-3. Conversely, 35–44-year-olds most frequently cited "Speeding" as the biggest change.

Table COVID 3. "Since the onset of the COVID-19 pandemic, what is the biggest change in behaviors you have noticed from drivers" by age

| COVID by Age | 18-24 | 25-34 | 35-44 | 45-54 | 55-70 | 71 or older |
|--|--------|--------|--------|--------|--------|----------------|
| Aggressing Driving/Road Rage | 25.5% | 25.3% | 26.2% | 28.6% | 27.1% | 25.2% |
| Speeding | 23.9% | 20.8% | 27.2% | 25.2% | 23.2% | 26.9% |
| Have Not Noticed Any Changes | 21.7% | 24.8% | 20.6% | 23.7% | 27.3% | 31.1% |
| Distracted Driving because of Talking and/or Texting | 15.5% | 16.7% | 17.3% | 15.8% | 17.0% | 13.4% |
| Impaired Driving | 7.2% | 8.1% | 6.1% | 4.3% | 3.3% | 1.7% |
| Not Wearing Seatbelts | 5.4% | 2.3% | 1.2% | 0.4% | 0.0% | 0.0% |
| General Poor/Inconsiderate Driving | 0.4% | 0.7% | 0.3% | 0.6% | 0.0% | 0.0% |
| Fewer Drivers | 0.2% | 0.5% | 0.5% | 0.9% | 1.0% | 0.8% |
| Mask Wearing | 0.2% | 0.2% | 0.0% | 0.0% | 0.2% | 0.0% |
| Other | 0.0% | 0.4% | 0.5% | 0.2% | 0.2% | 0.8% |
| Running Red Lights/Not Signaling | 0.0% | 0.2% | 0.0% | 0.4% | 0.6% | 0.0% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Most Serious Distraction (Q3): Coding Categories

Respondents were asked what they perceive as the most serious distraction for drivers. Respondents were only able to select one answer choice, but had the option to provide an open-ended response if none of the provided categories accurately represented their opinion. Table Q3_1 shows the provided answer choices, with the additional coding categories based on open-ended answers highlighted in blue.

Note: minor revisions were made to some answer categories in the 2021 wave of data collection.

Table Q3_1. "In your opinion, what is the MOST serious distraction for drivers" with additional code categories

| Talking on phone (handheld or hands-free) while driving | Car Crashes causing Rubbernecking | Age/Gender/Ethnicity of Other Drivers |
|---|--------------------------------------|---------------------------------------|
| Texting or Checking Phone While Driving | Dashboard Screens/Navigation Systems | Drunk Drivers |
| Passengers in Car | Roadside Billboards | Drivers Distracted/Inattentive |
| Eating While Driving | Other | Construction on Roadways |

Most Serious Distraction (Q3) by Survey Wave

As in previous years of data collection, respondents in 2021 most often indicated "Texting or checking phone while driving" as the biggest distraction for drivers. "Texting or checking phone while driving" has been the most frequently given response for this measure since 2013, with Table Q3_2 showing the distribution of 2021 answers, compared to previous years (the most frequently cited distraction per survey wave is highlighted).

Note: Some of the answering choices provided were phrased slightly different in the 2021 survey iteration; the minor wording changes of the response choices are outlined below the table.

Table Q3 2. Frequencies of Q3 by survey year

| Q3 | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 | Total 2014 | Total 2013 | Total 2012 | Total 2011 | Total 2010 |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Texting or Checking Phone While | 7 | 7 | 7 | 7 | 7 | T 2 | 7 | T 2 | T 2 | T 2 | T 2 | 7 |
| Driving* | 69.7% | 68.5% | 46.7% | 44.5% | 50.8% | 44.1% | 39.0% | 51.8% | 47.9% | 37.2% | 27.6% | 12.7% |
| Talking on Phone While Driving | 17.2% | 17.4% | 23.1% | 32.2% | 31.9% | 33.5% | 22.2% | 29.5% | 33.4% | 42.8% | 56.0% | 61.9% |
| Car Crashes causing Rubbernecking*** | 5.0% | 6.4% | 6.2% | 5.3% | 1.4% | 1.7% | 1.6% | 1.3% | 1.4% | 2.9% | 1.9% | 1.9% |
| Eating While Driving | 2.5% | 1.7% | 2.4% | 0.5% | 1.3% | 0.6% | 1.5% | 1.8% | 0.5% | 0.8% | 1.2% | 1.9% |
| Passengers in Car | 2.4% | 1.2% | 4.1% | 2.3% | 1.7% | 0.6% | 1.2% | 2.0% | 1.5% | 1.4% | 1.8% | 3.3% |
| Dashboard/Navigation Systems** | 1.5% | 1.7% | 2.5% | 0.8% | 1.3% | 1.7% | 0.7% | 0.9% | 0.4% | 0.5% | 0.5% | 0.2% |
| Roadside Billboards | 1.0% | 1.5% | 2.3% | 1.7% | 1.2% | 1.5% | 2.6% | 0.9% | 1.8% | 1.9% | 1.3% | 2.1% |
| All other responses combined | 0.7% | 1.6% | 12.7% | 12.7% | 10.4% | 16.3% | 31.2% | 11.8% | 13.1% | 12.5% | 9.7% | 16.0% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

^{*&}quot;Texting while driving" in 2020 survey

^{**&}quot;GPS/Navigation System" in 2020 survey

^{***&}quot;Car Crashes/Vehicle Issues" in 2020 survey

Most Serious Distraction (Q3) by Region

In 2021, respondents across all three California regions most commonly indicated "Texting or Checking Phone While Driving" as the most serious distraction for drivers, with a comparable distribution of responses overall (Table Q3_3).

Table Q3 3. Frequencies of Q3 by California region

| Q3 by region | Northern California | Central California | Southern California |
|---|------------------------|-----------------------|------------------------|
| Texting or Checking Phone While Driving | 66.6% | 68.2% | 71.4% |
| Talking on Phone While Driving | 19.7% | 15.8% | 16.3% |
| Car Crashes causing Rubbernecking | 5.9% | 5.7% | 4.4% |
| Eating While Driving | 2.4% | 2.3% | 2.5% |
| Passengers in Car | 2.8% | 3.7% | 1.9% |
| Dashboard/Navigation Systems | 1.0% | 1.7% | 1.7% |
| Roadside Billboards | 1.0% | 0.6% | 1.1% |
| All Other Responses Combined | 0.6% | 2.0% | 0.7% |
| Total | 100.0% | 100.0% | 100.0% |

Using electronic device while driving (Q4) by Region and Wave

Similar to previous waves, about one-third of 2021 respondents (33.8%) indicated that they "Regularly" or "Sometimes" used an electronic wireless device while driving in the past 30 days, while about two-thirds stated they "Rarely" or "Never" did. The differences between California regions are not significant and are similarly distributed for both 2020 and 2021 online survey administrations, but the answers are significantly different compared to the in-person data collected in 2019 and might be the result of the data collection mode (p<0.01, Table Q4).

Table Q4. "How often in the past 30 days have you used an electronic wireless device, like a cell phone when driving?" by region and year

| Q4 by Region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 |
|-----------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|
| Dogularly | 114 | 42 | 267 | 423 | 428 | 458 | 443 |
| Regularly | 14.6% | 12.1% | 16.2% | 15.2% | 15.1% | 35.4% | 32.0% |
| Comotimos | 140 | 68 | 310 | 518 | 528 | 380 | 295 |
| Sometimes | 17.9% | 19.5% | 18.8% | 18.6% | 18.6% | 29.4% | 21.3% |
| Darahi | 221 | 106 | 465 | 792 | 872 | 268 | 298 |
| Rarely | 28.3% | 30.5% | 28.2% | 28.5% | 30.7% | 20.7% | 21.5% |
| Nover | 306 | 132 | 608 | 1,046 | 1,015 | 188 | 348 |
| Never | 39.2% | 37.9% | 36.8% | 37.6% | 35.7% | 14.5% | 25.1% |
| Total | 781 | 348 | 1,650 | 2,779 | 2,843 | 1,294 | 1,384 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Driving Mistake Due to Cell Phone Use (Q5) by Wave

Respondents were asked whether they have ever made a driving mistake while talking or texting on a cell phone. The majority (59.8%) of respondents indicated they have not, as shown in Table Q5. The 4.5% decrease in drivers reporting mistakes from 2020 is significant (p<0.01).

Table Q5. "Have you EVER made a driving mistake while talking OR texting on a cell phone?" by year

| Q5 by | Total |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| year | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| Voc | 1,108 | 1,263 | 665 | 634 | 670 | 550 | 744 | 858 | 866 | 827 | 802 | 766 |
| Yes | 40.2% | 44.7% | 51.3% | 46.0% | 49.3% | 43.9% | 39.4% | 47.1% | 45.0% | 44.6% | 45.8% | 46.5% |
| No | 1,648 | 1,561 | 632 | 743 | 690 | 704 | 1,143 | 965 | 1,060 | 1,027 | 951 | 883 |
| No | 59.8% | 55.3% | 48.7% | 54.0% | 50.7% | 56.1% | 60.6% | 52.9% | 55.0% | 55.4% | 54.2% | 53.5% |
| Total | 2,756 | 2,824 | 1,297 | 1,377 | 1,360 | 1,254 | 1,887 | 1,823 | 1,926 | 1,854 | 1,753 | 1,649 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Near Crash Due to Other Driver Talking/Texting on a Cell Phone (Q6) by Wave

More than half (51.9%) of respondents in 2021 indicate that they have been hit or nearly hit by a driver who was talking or texting on a cell phone, which is similar to the 2020 data collection (Table Q6).

Table Q6. "Have you ever been hit or nearly hit by a driver who was talking or texting on a cell phone?" by year

| Q6 by | Total |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| year | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| Vac | 1,434 | 1,466 | 739 | 852 | 827 | 685 | 1,117 | 1,098 | 421 | 1,067 | 1,038 | 912 |
| Yes | 51.9% | 51.7% | 57.9% | 62.3% | 61.0% | 54.6% | 59.6% | 61.2% | 59.5% | 60.1% | 60.1% | 57.5% |
| Na | 1,330 | 1,371 | 538 | 515 | 528 | 570 | 756 | 697 | 286 | 708 | 689 | 673 |
| No | 48.1% | 48.3% | 42.1 | 37.7% | 39.0% | 45.4% | 40.4% | 38.8% | 40.5% | 39.9% | 39.9% | 42.5% |
| Total | 2,764 | 2,837 | 1,277 | 1,367 | 1,355 | 1,255 | 1,873 | 1,795 | 707 | 1,775 | 1,727 | 1,585 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Likelihood of Being Ticketed for Hand-Held Phone Use or Texting (Q7) by Wave

In each wave of data collection, respondents are asked about their perception of the likelihood of being ticketed for using a hand-held cell phone or texting while driving. Table Q7 shows the 2021 distribution, compared to previous waves. The distribution of answers is almost identical to the 2020 survey panel responses.

Table Q7. "What do you think is the likelihood of being ticketed for hand-held cell phone use or texting?" by year

| | Total |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Q7 by year | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
| Vorutikoly | 643 | 679 | 269 | 314 | 287 | 272 | 444 | 424 | 493 | 368 |
| Very Likely | 23.2% | 23.9% | 21.0% | 23.0% | 21.2% | 21.5% | 23.4% | 23.4% | 26.3% | 20.1% |
| Somewhat | 760 | 792 | 288 | 344 | 277 | 265 | 459 | 416 | 599 | 570 |
| Likely | 27.4% | 27.9% | 22.4% | 25.1% | 20.4% | 21.0% | 24.2% | 23.0% | 31.9% | 31.2% |
| Neither Likely | 378 | 391 | 228 | 168 | 197 | 150 | 218 | 210 | 131 | 154 |
| or Unlikely | 13.6% | 13.8% | 17.8% | 12.3% | 14.5% | 11.9% | 11.5% | 11.6% | 7.0% | 8.4% |
| Somewhat | 444 | 425 | 261 | 250 | 262 | 256 | 361 | 376 | 306 | 356 |
| Unlikely | 16.0% | 15.0% | 20.3% | 18.3% | 19.3% | 20.3% | 19.1% | 20.8% | 16.3% | 19.5% |
| Many Halikalı | 552 | 555 | 238 | 292 | 333 | 320 | 412 | 385 | 349 | 379 |
| Very Unlikely | 19.9% | 19.5% | 18.5% | 21.3% | 24.6% | 25.3% | 21.8% | 21.3% | 18.6% | 20.7% |
| Total | 2,778 | 2,841 | 1,284 | 1,395 | 1,356 | 1,263 | 1,894 | 1,811 | 1,878 | 1,827 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Recall of "Go Safely California" (Q8a) by Region and Wave

Respondents are asked each wave whether they have heard of various California Office of Traffic Safety campaigns. In 2021, 35.4% of drivers recalled seeing or hearing the campaign "Go Safely California", with the highest recall in Southern California compared to the other two regions and a similar distribution overall among regions. Compared to 2020, when 30.2% reported seeing or hearing the campaign, the 5.2% increase in recall is significant (p<0.01, Table Q8a).

Table Q8a. "In the past 6 months, do you recall: Go Safely California?" by region and year

| Q8a by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|
| Yes | 220 | 94 | 526 | 840 | 744 | 207 |
| 165 | 33.5% | 31.4% | 37.0% | 35.4% | 30.2% | 16.4% |
| No | 436 | 205 | 894 | 1,535 | 1,716 | 1052 |
| INO | 66.5% | 68.6% | 63.0% | 64.6% | 69.8% | 83.6% |
| Total | 656 | 299 | 1,420 | 2,375 | 2,460 | 1,259 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Recall of "Drive Sober or Get Pulled Over" (Q8b) by Region and Wave

The second safety campaign, "Drive Sober or Get Pulled Over" was recalled by over half (50.2%) of all respondents, with a comparable distribution across regions and consistent with the 2020 survey results (Table Q8b).

Table Q8b. "In the past 6 months, do you recall: Drive Sober or Get Pulled Over?" by region and year

| Och by region | Northern | Central | Southern | Total | Total | Total | Total | Total | Total |
|---------------|---------------|------------|------------|--------|--------|--------|--------|--------|--------|
| Q8b by region | California | California | California | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 |
| Voc | 347 | 167 | 743 | 1,257 | 1,306 | 439 | 577 | 518 | 515 |
| Yes | 49.2% | 52.5% | 50.2% | 50.2% | 50.3% | 34.8% | 42.5% | 38.4% | 40.8% |
| No | 359 | 151 | 737 | 1,247 | 1,292 | 821 | 781 | 830 | 747 |
| No | 50.8% | 47.5% | 49.8% | 49.8% | 49.7% | 65.2% | 57.5% | 61.6% | 59.2% |
| Total | 706 100.0% | 318 | 1,480 | 2,504 | 2,598 | 1,260 | 1,358 | 1,348 | 1,262 |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Recall of "Slow the Fast Down" Campaign (Q8c) by Region

"Slow the Fast Down", the third safety campaign and new addition to the 2021 survey, had the highest recall among Southern California respondents, with 20.1% reporting seeing or hearing the campaign, but without significant differences in responses overall among regions (Table Q8c).

Table Q8c. "In the past 6 months, do you recall: "Slow the Fast Down?" by region and year

| Q8c by region | Northern California | Central California | Southern California | Total 2021 |
|---------------|------------------------|-----------------------|------------------------|---------------|
| Voc | 132 | 49 | 298 | 479 |
| Yes | 18.7% | 15.6% | 20.1% | 19.1% |
| No | 575 | 266 | 1,182 | 2,023 |
| No | 81.3% | 84.4% | 79.9% | 80.9% |
| Total | 707 | 315 | 1,480 | 2,502 |
| IUlai | 100.0% | 100.0% | 100.0% | 100.0% |

Recall of "DUI Doesn't Just Mean Booze" (Q8d) by Region and Wave

The fourth safety campaign, "DUI Doesn't Just Mean Booze" was recalled by 45.0% of respondents in 2021, a 3.5% slightly significant increase from the previous year's results (p<0.05, Table Q8d).

Table Q8d. "In the past 6 months, do you recall: DUI Doesn't Just Mean Booze" by region and year

| Q8d by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|
| Vos | 321 | 138 | 675 | 1,134 | 1,091 | 376 | 585 | 394 |
| Yes | 45.3% | 43.0% | 45.3% | 45.0% | 41.5% | 30.1% | 43.0% | 29.3% |
| No | 338 | 183 | 816 | 1,387 | 1,535 | 874 | 775 | 950 |
| No | 54.7% | 57.0% | 54.7% | 55.0% | 58.5% | 69.9% | 57.0% | 70.7% |
| Total | 709 | 321 | 1,491 | 2,521 | 2,626 | 1,250 | 1,360 | 1,344 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Recall of "Put Your Phone Down, Just Drive" (Q8e) by Region and Wave

The final safety campaign surveyed was "Put your Phone Down, Just Drive", where approximately one-third of respondents (33.0%) indicated they recalled the campaign. Recall in Southern California was highest (34.9%), and a slightly lower percentage of respondents recalled this campaign in Northern and Central California (30.3% each), but there were no significant differences when compared across regions and with the 2020 responses (Table Q8e).

Table Q8e. "In the past 6 months, do you recall: Put Your Phone Down, Just Drive" by region and year

| Q8e by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|
| Voc | 213 | 95 | 526 | 834 | 800 | 213 | 398 |
| Yes | 30.3% | 30.3% | 34.9% | 33.0% | 30.4% | 17.1% | 29.4% |
| No | 491 | 219 | 982 | 1,692 | 1,830 | 1,035 | 954 |
| No | 69.7% | 69.7% | 65.1% | 67.0% | 69.6% | 82.9% | 70.6% |
| Tatal | 704 | 314 | 1,508 | 2,526 | 2,630 | 1,248 | 1,352 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Safety Campaign Source of Recall (Q8a-e)

Respondents who recalled a safety campaign were then asked where they had seen or heard the campaign. Table Q8a_e outlines the results, with the most frequent response highlighted for each campaign. "Road Sign" was reported most often as the source for the majority of the safety campaigns, except for the "Go Safely California" campaign, where respondents were most likely to report seeing or hearing the campaign on TV.

Table Q8a_e Follow-Up: "Where did you See or Hear...?" respective campaign source

| Q8a-e | Go Safely California | Drive Sober or Get Pulled Over | Slow the Fast Down | DUI Doesn't Just Mean Booze | Put Your Phone Down, Just Drive |
|-----------|----------------------|-----------------------------------|--------------------|--------------------------------|------------------------------------|
| Road Sign | 19.9% | 30.7% | 24.7% | 31.1% | 24.0% |
| TV | 20.0% | 20.1% | 14.0% | 21.0% | 17.0% |
| Facebook | 16.7% | 12.1% | 17.7% | 11.8% | 15.8% |
| Twitter | 10.6% | 8.0% | 13.3% | 8.2% | 10.3% |
| Instagram | 14.6% | 10.1% | 14.3% | 9.6% | 13.8% |
| Web | 8.2% | 8.2% | 8.9% | 8.3% | 10.5% |
| Radio | 10.0% | 10.8% | 7.1% | 10.0% | 8.6% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Intoxicated Driving (Q9) by Wave

All respondents were asked whether they had driven when they thought they had too much alcohol to drive safely in the past six months. In 2021, the number of respondents who reported this behavior increased by 1.4% from the previous year while the number of respondents who say they don't drink at all increased by only 0.4%, which is not significant compared to the 2020 panel data (Table Q9_1).

Table Q9_1. "In the past 6 months, did you drive when you thought you had too much alcohol to drive safely?" by year

| O0 by year | Total |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Q9 by year | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| Yes | 256 | 223 | 95 | 88 | 137 | 83 | 138 | 162 | 119 | 102 | 120 | 99 |
| res | 9.2% | 7.8% | 7.3% | 6.3% | 10.1% | 6.6% | 7.2% | 8.8% | 6.2% | 5.5% | 6.7% | 6.0% |
| No | 1,846 | 1,945 | 766 | 980 | 918 | 816 | 1,264 | 1,258 | 1,452 | 1,263 | 1,267 | 1,214 |
| No | 66.4% | 68.2% | 59.2% | 70.5% | 67.4% | 64.5% | 65.6% | 68.3% | 75.3% | 68.6% | 70.7% | 73.5% |
| I do not | 678 | 685 | 433 | 322 | 307 | 367 | 525 | 422 | 358 | 475 | 405 | 338 |
| drink at all | 24.4% | 24.0% | 33.5% | 23.2% | 22.5% | 29.0% | 27.2% | 22.9% | 18.6% | 25.8% | 22.6% | 20.5% |
| Total | 2,781 | 2,853 | 1,294 | 1,390 | 1,362 | 1,266 | 1,927 | 1,842 | 1,929 | 1,840 | 1,792 | 1,671 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Intoxicated Driving (Q9) by Region

Table Q9_2 shows the comparison of self-reported intoxicated driving in the previous six months by region. Northern California respondents have a slightly higher percentage of respondents who reported driving after drinking too much.

Table Q9 2. "In the past 6 months, did you drive when you thought you had too much alcohol to drive safely?" by region

| Q9 by | Northern | Central | Southern |
|--------------|------------|------------|------------|
| region | California | California | California |
| Yes | 74 | 32 | 150 |
| res | 9.5% | 9.2% | 9.1% |
| No | 509 | 220 | 1,117 |
| INO | 65.3% | 63.4% | 67.5% |
| I do not | 196 | 95 | 387 |
| drink at all | 25.2% | 27.4% | 23.4% |
| Total | 779 | 347 | 1,654 |
| Total | 100.0% | 100.0% | 100.0% |

Use of Alternative Ride Services When Drinking (Q10) by Region and Wave

Table Q10 shows the distribution of how often respondents have used a taxi or other ride-hailing service when drinking in the past six months. In 2021, more than half (52.7%) of respondents reported they "Never" use these services when drinking, with the highest percentage of Central California respondents reporting never using them. Overall, the distribution of responses among regions is similar, and the comparison to 2020 data does not show any significant change. It may be that some of the shift in use of ride services is due to the pandemic, which limited travel and use of ride sharing.

Table Q10. "In the past 6 months, how often have you used a taxi or other ride-hailing service when drinking with others or alone?" by region and year

| Q10 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 | Total 2014 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Almania | 109 | 42 | 243 | 394 | 457 | 316 | 330 | 278 | 187 | 319 | 150 |
| Always | 18.8% | 16.7% | 19.3% | 18.8% | 21.2% | 37.1% | 31.2% | 26.4% | 20.8% | 22.9% | 10.6% |
| Sometimes | 99 | 39 | 213 | 351 | 389 | 217 | 240 | 188 | 162 | 177 | 179 |
| Sometimes | 17.0% | 15.5% | 16.9% | 16.8% | 18.1% | 25.5% | 22.7% | 17.8% | 18.0% | 12.7% | 12.7% |
| Paroly | 67 | 30 | 148 | 245 | 272 | 88 | 115 | 147 | 111 | 184 | 189 |
| Rarely | 11.5% | 11.9% | 11.7% | 11.7% | 12.6% | 10.3% | 10.9% | 13.9% | 12.3% | 13.2% | 13.4% |
| Never | 306 | 141 | 657 | 1,104 | 1,036 | 230 | 372 | 442 | 439 | 710 | 894 |
| Nevei | 52.7% | 56.0% | 52.1% | 52.7% | 48.1% | 27.0% | 35.2% | 41.9% | 48.8% | 51.1% | 63.3% |
| Total | 581 | 252 | 1,261 | 2,094 | 2,154 | 851 | 1,057 | 1,055 | 899 | 1,390 | 1,412 |
| IUlai | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Designated Sober Driver (Q11) by Region and Wave

Respondents were asked how often they had (or were) a designated sober driver in the past six months, and respondents most often reported "Never," with highest percentage of Northern California drivers responding this way (42.0%) compared to the other two regions, but comparisons among regions and with the previous year's data did not show any significant differences (Table Q11).

Table Q11. "In the past 6 months, how often have you had a designated sober driver, including yourself?" by region and year

| Q11 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 | Total 2014 |
|------------------|------------------------|-----------------------|------------------------|-----------------|-----------------|---------------|-----------------|-----------------|---------------|-----------------|-----------------|
| Always | 194 | 81 | 406 | 681 | 711 | 322 | 355 | 249 | 223 | 585 | 525 |
| Always | 33.6% | 32.3% | 32.3% | 32.6% | 32.8% | 38.5% | 33.6% | 23.6% | 24.9% | 42.2% | 28.5% |
| Comotimos | 87 | 46 | 235 | 368 | 400 | 213 | 248 | 222 | 184 | 226 | 338 |
| Sometimes | 15.1% | 18.3% | 18.7% | 17.6% | 18.5% | 25.4% | 23.5% | 21.1% | 20.6% | 16.3% | 18.3% |
| Paroly | 54 | 30 | 126 | 210 | 240 | 101 | 135 | 170 | 140 | 154 | 192 |
| Rarely | 9.3% | 12.0% | 10.0% | 10.1% | 11.1% | 12.1% | 12.8% | 16.1% | 15.6% | 11.1% | 10.4% |
| Nover | 243 | 94 | 490 | 827 | 815 | 201 | 317 | 413 | 348 | 421 | 790 |
| Never | 42.0% | 37.5% | 39.0% | 39.6% | 37.6% | 24.0% | 30.0% | 39.2% | 38.9% | 30.4% | 42.8% |
| Total | 578 100.0% | 251 100.0% | 1,257 100.0% | 2,086 100.0% | 2,166 100.0% | 837 100.0% | 1,055 100.0% | 1,054 100.0% | 895 100.0% | 1,386 100.0% | 1,845 100.0% |

Recall of Sobriety/DUI Checkpoints in Past 6 Months (Q12) by Wave

When asked whether they had seen or heard about police setting up sobriety/DUI checkpoints in the past six months, more than half of the panelists (51.0%) said they had. Compared to the 2020 findings, there was a 4.5% decrease in respondents who reported awareness of the checkpoints, a significant decrease between years (p< 0.01, Table Q12 1).

Table Q12_1. "In the past 6 months, have you seen/heard anything about police setting up sobriety/DUI checkpoints to catch drunk drivers?" by year

| Q12 | Total |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| by year | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| Yes | 1,234 | 1,415 | 489 | 593 | 706 | 735 | 1,094 | 1,327 | 993 | 1,263 | 1,300 | 1,006 |
| res | 51.0% | 55.5% | 40.1% | 45.7% | 52.9% | 57.9% | 56.8% | 71.3% | 51.6% | 67.8% | 72.9% | 60.6% |
| No | 1,187 | 1,135 | 730 | 704 | 629 | 535 | 831 | 535 | 931 | 599 | 483 | 653 |
| No | 49.0% | 44.5% | 59.9% | 54.3% | 47.1% | 42.1% | 43.2% | 28.7% | 48.4% | 32.2% | 27.1% | 39.4% |
| Total | 2,421 | 2,550 | 1,219 | 1,297 | 1,335 | 1,270 | 1,925 | 1,862 | 1,924 | 1,862 | 1,783 | 1,659 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Recall of Sobriety/DUI Checkpoints in Past 6 Months (Q12) by Region

56.5% of Central California respondents reported awareness of DUI checkpoints in the past six months, compared to 51.9% of Southern California and 46.4% of Northern California respondents. A comparison of responses by region shows significant differences between Northern and Central California, with respondents in Central California reporting a significantly higher recall compared to those in Northern California (p<0.01, Table Q12 2)

Table Q12_2. "In the past 6 months, have you seen/heard anything about police setting up sobriety/DUI checkpoints to catch drunk drivers?" by region

| Q12 by region | Northern California | Central California | Southern California |
|---------------|------------------------|-----------------------|------------------------|
| Voc | 312 | 173 | 749 |
| Yes | 46.4% | 56.5% | 51.9% |
| No | 360 | 133 | 694 |
| No | 53.6% | 43.5% | 48.1% |
| Total | 672 | 306 | 1,443 |
| Total | 100.0% | 100.0% | 100.0% |

Awareness of DUI (Q13) by Region and Wave

Compared to 2020, there was a 1.8% decrease in respondents who were aware that you can get a DUI for driving under the influence of legal or illegal drugs. Central California had the highest percentage of awareness, with 89.3% respondents, compared to 88.7% of Southern California respondents. However, the differences when compared across regions and with the 2020 data collection are not significant (Table Q13).

Table Q13. "Did you know that you can get a DUI if you drive under the influence of legal or illegal drugs" by region and year

| Q13 by region | Northern | Central | Southern | Total | Total | Total | Total | Total |
|---------------|------------|------------|------------|--------|--------|--------|--------|--------|
| Q13 by region | California | California | California | 2021 | 2020 | 2019 | 2018 | 2017 |
| Voc | 681 | 309 | 1,459 | 2,449 | 2,572 | 1,132 | 1,263 | 1,209 |
| Yes | 87.8% | 89.3% | 88.7% | 88.5% | 90.3% | 90.0% | 93.8% | 91.2% |
| No | 95 | 37 | 185 | 317 | 275 | 126 | 83 | 116 |
| No | 12.2% | 10.7% | 11.3% | 11.5% | 9.7% | 10.0% | 6.2% | 8.8% |
| Total | 776 | 346 | 1,644 | 2,766 | 2,847 | 1,258 | 1,346 | 1,325 |
| TOLAI | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Likelihood of Getting Arrested for Driving Impaired (Q14) by Region and Wave

Respondents were asked about their perception of the likelihood of getting arrested for driving while impaired, with the results outlined in Table Q14. Overall, 78.8% of California drivers believed it to be "Very Likely" or "Somewhat Likely" to be arrested for driving impaired.

Table Q14. "How likely is it for someone to get arrested if they drive impaired?" by region and year

| Q14 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 | Total 2014 |
|--------------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 279 | 129 | 595 | 1,003 | 1,099 | 571 | 569 | 519 | 519 | 643 | 808 |
| Very Likely | 36.0% | 37.3% | 36.2% | 36.3% | 38.6% | 45.4% | 42.5% | 38.7% | 41.3% | 34.7% | 44.5% |
| Carrani hat Librah | 337 | 148 | 690 | 1,175 | 1,177 | 394 | 454 | 446 | 377 | 625 | 515 |
| Somewhat Likely | 43.5% | 42.8% | 41.9% | 42.5% | 41.4% | 31.3% | 33.9% | 33.2% | 30.0% | 33.7% | 28.4% |
| Somewhat | 125 | 56 | 281 | 462 | 299 | 213 | 206 | 243 | 264 | 373 | 316 |
| Unlikely | 16.1% | 16.2% | 17.1% | 16.7% | 14.0% | 16.9% | 15.4% | 18.1% | 21.0% | 20.1% | 17.4% |
| Vom dibald | 33 | 13 | 79 | 125 | 171 | 81 | 109 | 134 | 97 | 214 | 175 |
| Very Unlikely | 4.3% | 3.8% | 4.8% | 4.5% | 6.0% | 6.4% | 8.1% | 10.0% | 7.7% | 11.5% | 9.6% |
| Total | 774 | 346 | 1,645 | 2,765 | 2,846 | 1,259 | 1,338 | 1,342 | 1,257 | 1,855 | 1,814 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Perception of Marijuana Impairing Driving Functions (Q15) by Region and Wave

In 2021, 77.0% of respondents believed marijuana can impair driving functions, compared to 80.1% in 2020. Southern California respondents were slightly more likely to report this (77.7%), compared to those in Northern and Central California (77.3% and 73.0%, respectively). There are no significant differences in the perception of marijuana impairing driving among regions and when compared to 2020 (Table Q15).

Table Q15. "Do you think marijuana can impair driving related functions, such as reaction time, distance perception, lane tracking,

coordination and balance?" by region and year

| Q15 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|
| Yes | 601 | 254 | 1,283 | 2,138 | 2,271 | 1,019 | 1,048 |
| 163 | 77.3% | 73.0% | 77.7% | 77.0% | 80.1% | 80.0% | 77.3% |
| No | 63 | 38 | 136 | 237 | 209 | 125 | 98 |
| INO | 8.1% | 10.9% | 8.2% | 8.5% | 7.4% | 9.8% | 7.2% |
| It Donands | 113 | 56 | 232 | 401 | 356 | 130 | 210 |
| It Depends | 14.5% | 16.1% | 14.1% | 14.4% | 12.6% | 10.2% | 15.5% |
| Total | 777 | 348 | 1,651 | 2,776 | 2,836 | 1,274 | 1,356 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Perception of DUI of Drugs, Legal and Illegal (Q16) by Region and Wave

The majority of respondents in 2021 (51.9%) reported they believe driving under the influence of drugs (including marijuana, prescription, and illegal) to be "A Very Big Problem," with a similar distribution among regions and compared to the previous year's data (Table Q16).

Table Q16. "How serious of a problem is driving under the influence of drugs: including marijuana, prescription, and illegal?" by region and year

| Q16 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 |
|---------------|------------------------|-----------------------|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| A Very Big | 379 | 191 | 867 | 1,437 | 1,486 | 617 | 664 | 715 | 717 | 980 |
| Problem | 48.8% | 55.0% | 52.7% | 51.9% | 52.3% | 49.6% | 49.3% | 53.5% | 58.1% | 54.7% |
| Somewhat of a | 314 | 111 | 605 | 1,030 | 1,006 | 353 | 494 | 461 | 381 | 571 |
| Problem | 40.5% | 32.0% | 36.8% | 37.2% | 35.4% | 28.4% | 36.7% | 34.5% | 30.9% | 31.9% |
| A Small | 70 | 36 | 153 | 259 | 287 | 237 | 140 | 122 | 113 | 193 |
| Problem | 9.0% | 10.4% | 9.3% | 9.4% | 10.1% | 19.1% | 10.4% | 9.1% | 9.1% | 10.8% |
| Not a Problem | 13 | 9 | 20 | 42 | 63 | 37 | 48 | 39 | 24 | 48 |
| at all | 1.7% | 2.6% | 1.2% | 1.5% | 2.2% | 3.0% | 3.6% | 2.9% | 1.9% | 2.7% |
| Total | 776 100.0% | 347 100.0% | 1,645 100.0% | 2,768 100.0% | 2,842 100.0% | 1,244 100.0% | 1,346 100.0% | 1,337 100.0% | 1,235 100.0% | 1,792 100.0% |

Safety of Driving 10 Miles Over the Speed Limit on Freeways (Q17) by Region and Wave

Between 2020 and 2021, there was a 3.1% reduction in the number of respondents who believe it is safe to drive 10 miles over the speed limit on freeways. Central California respondents were most likely to believe it is safe (34.4%) compared to the other two regions. There are no significant differences in perception across the California regions, but the 3.1% decrease in drivers who believe it is safe to drive 10 miles over the speed limit from 2020 is slightly significant, (p<0.05, Table Q17).

Table Q17. "Do you think it's safe to drive 10 miles over the speed limit on freeways?" by region and year

| Q17 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 | Total 2014 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 237 | 120 | 551 | 908 | 1,023 | 764 | 788 | 879 | 755 | 1,110 | 1,104 |
| Yes | 30.5% | 34.4% | 33.6% | 32.8% | 35.9% | 59.5% | 56.9% | 65.0% | 59.5% | 57.5% | 59.3% |
| No | 214 | 100 | 474 | 788 | 742 | 337 | 266 | 253 | 275 | 481 | 449 |
| No | 27.5% | 28.7% | 28.9% | 28.5% | 26.0% | 26.2% | 19.2% | 18.7% | 21.7% | 24.9% | 24.1% |
| It Donondo | 327 | 129 | 616 | 1,072 | 1,087 | 183 | 332 | 220 | 238 | 341 | 309 |
| It Depends | 42.0% | 37.0% | 37.5% | 38.7% | 38.1% | 14.3% | 24.0% | 16.3% | 18.8% | 17.7% | 16.6% |
| Tatal | 778 | 349 | 1,641 | 2,768 | 2,852 | 1,284 | 1,386 | 1,352 | 1,268 | 1,932 | 1,862 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Safety of Driving 5 Miles Over the Speed Limit on Residential Streets (Q18) by Region and Wave

The majority (51.7%) of respondents in 2021 indicated they believe it is unsafe to drive five miles over the speed limit on residential streets, with a comparable distribution among regions (Table Q18), and no significant difference compared to the previous year.

Table Q18. "Do you think it's safe to drive five miles over the speed limit on residential streets?" by region and year

| Q18 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 | Total 2014 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 168 | 79 | 405 | 652 | 729 | 506 | 460 | 545 | 465 | 750 | 577 |
| Yes | 21.5% | 22.6% | 24.6% | 23.5% | 25.6% | 39.5% | 33.2% | 40.3% | 36.6% | 38.8% | 31.0% |
| No | 418 | 195 | 823 | 1,436 | 1,476 | 639 | 701 | 598 | 585 | 905 | 978 |
| No | 53.5% | 55.9% | 49.9% | 51.7% | 51.8% | 49.8% | 50.7% | 44.3% | 46.1% | 46.8% | 52.6% |
| It donondo | 196 | 75 | 420 | 691 | 643 | 137 | 223 | 208 | 220 | 279 | 306 |
| It depends | 25.1% | 21.5% | 25.5% | 24.9% | 22.6% | 10.7% | 16.1% | 15.4% | 17.3% | 14.4% | 16.4% |
| Tatal | 782 | 349 | 1,648 | 2,779 | 2,848 | 1,282 | 1,384 | 1,351 | 1,270 | 1,934 | 1,861 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Chance of Being Ticketed for Driving Over Speed Limit (Q19) by Region and Wave

The 2021 distribution of responses regarding the likelihood of getting a ticket for driving over the speed limit is comparable across California regions, and over two-thirds of drivers (68.4%) believe it is "Very Likely" or "Somewhat Likely". Those results are comparable to the 2020 panel data (Table Q19).

Table Q19. "What do you think the chances are of getting a ticket if you drive over the speed limit?" by region and year

| Q19 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 | Total 2016 | Total 2015 | Total 2014 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Vonetikole | 162 | 86 | 397 | 645 | 614 | 345 | 267 | 290 | 267 | 398 | 413 |
| Very Likely | 20.8% | 24.8% | 24.1% | 23.3% | 21.6% | 27.7% | 20.1% | 21.6% | 21.3% | 21.5% | 22.5% |
| Somewhat | 380 | 154 | 718 | 1,252 | 1,315 | 410 | 552 | 484 | 460 | 741 | 691 |
| Likely | 48.8% | 44.4% | 43.6% | 45.1% | 46.2% | 32.9% | 41.6% | 36.0% | 36.7% | 40.0% | 37.6% |
| Somewhat | 190 | 85 | 408 | 683 | 717 | 354 | 321 | 334 | 341 | 467 | 484 |
| Unlikely | 24.4% | 24.5% | 24.8% | 24.6% | 25.2% | 28.4% | 24.2% | 24.9% | 27.2% | 25.2% | 26.4% |
| Very Unlikely | 47 | 22 | 125 | 194 | 198 | 138 | 186 | 236 | 186 | 245 | 248 |
| very Unlikely | 6.0% | 6.3% | 7.6% | 7.0% | 7.0% | 11.1% | 14.0% | 17.6% | 14.8% | 13.2% | 13.5% |
| Total | 779 | 347 | 1,648 | 2,774 | 2,844 | 1,247 | 1,326 | 1,344 | 1,254 | 1,851 | 1,836 |
| TOLAI | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Perception of driverless vehicles and road safety (Q20) by Region and Wave

In 2021, 48.3% of respondents reported they did not believe driverless vehicles will make roadways safer, a 2.2% increase from 2020. Regionally, Central California respondents represented the highest percentage responding this way, with more than half (55.9%) of drivers, answering "No", but without significant differences among regions nor compared to the 2020 data (Table Q20).

<u>Table Q20. "Do you think driverless vehicles will make our roadways safer?" by region and year</u>

| Q20 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 |
|---------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|
| Yes | 204 | 75 | 391 | 670 | 683 | 444 | 319 | 351 |
| 162 | 26.2% | 21.6% | 23.8% | 24.2% | 24.0% | 35.9% | 23.8% | 27.7% |
| No | 368 | 193 | 776 | 1,337 | 1,310 | 534 | 642 | 614 |
| NO | 47.2% | 55.9% | 47.3% | 48.3% | 46.1% | 43.2% | 47.9% | 48.5% |
| It Donands | 208 | 80 | 475 | 763 | 849 | 258 | 380 | 301 |
| It Depends | 26.7% | 23.0% | 28.9% | 27.5% | 29.9% | 20.9% | 28.3% | 23.8% |
| Tatal | 780 | 348 | 1,642 | 2,770 | 2,842 | 1,236 | 1,341 | 1,266 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Sharing roads with driverless vehicles (Q21) by Region and Wave

The majority (58.1%) of drivers surveyed in 2021 were "Somewhat Uncomfortable" or "Very Uncomfortable" sharing the road with driverless vehicles, which is similar to the 2020 distribution of responses for this measure. Central California respondents were significantly more likely to report they are "Very Uncomfortable", compared to the other regions, and Northern California respondents were significantly more likely to report that they are "Very Comfortable" sharing the road with driverless vehicles (*p*<0.01, Table Q21).

Table Q21. "How comfortable are you about sharing the road with driverless vehicles?" by region and year

| Q21 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 | Total 2017 |
|------------------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|---------------|
| | 127 | 35 | 233 | 395 | 381 | 246 | 234 | 269 |
| Very Comfortable | 16.4% | 10.2% | 14.2% | 14.3% | 13.4% | 20.2% | 17.7% | 21.0% |
| Samaulat Camfartable | 223 | 87 | 449 | 759 | 830 | 409 | 318 | 287 |
| Somewhat Comfortable | 28.8% | 25.3% | 27.4% | 27.5% | 29.2% | 33.6% | 24.0% | 22.4% |
| Somewhat Uncomfortable | 240 | 104 | 530 | 874 | 892 | 323 | 350 | 279 |
| Somewhat Oncomfortable | 31.0% | 30.2% | 32.4% | 31.7% | 31.4% | 26.5% | 26.4% | 21.6% |
| Vary Uncomfortable | 184 | 118 | 425 | 727 | 738 | 239 | 423 | 449 |
| Very Uncomfortable | 23.8% | 34.3% | 26.0% | 26.4% | 26.0% | 19.6% | 31.9% | 35.0% |
| Total | 774 | 344 | 1,637 | 2,755 | 2,841 | 1,217 | 1,325 | 1,284 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Perception of Legality for Bikes on Roadways (Q22) by Region and Wave

When asked whether they believe it is legal to ride bicycles on roadways, 62.2% of surveyed drivers confirmed this, compared to 63.0% of the 2020 respondents, and there were no significant differences in perceptions for this measure among regions (Table Q22).

Table Q22. "Do you think it is legal for bicyclists to ride on roadways when there is no bike lane?" by region and year

| Q22 by | Northern | Central | Southern | Total |
|--------|------------|------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| region | California | California | California | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
| Vos | 469 | 215 | 1,014 | 1,698 | 1,764 | 993 | 984 | 956 | 838 | 1,260 | 1,204 |
| Yes | 61.7% | 63.0% | 62.2% | 62.2% | 63.0% | 80.2% | 73.8% | 72.2% | 68.0% | 68.6% | 68.7% |
| No | 291 | 126 | 617 | 1,034 | 1,038 | 245 | 349 | 369 | 395 | 577 | 549 |
| No | 38.3% | 37.0% | 37.8% | 37.8% | 37.0% | 19.8% | 26.2% | 27.8% | 32.0% | 31.4% | 31.3% |
| Total | 760 | 341 | 1,631 | 2,732 | 2,802 | 1,238 | 1,333 | 1,325 | 1,233 | 1,837 | 1,753 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Level of Comfort Sharing Road with Bicyclists with Bike Lanes (Q23) by Region and Wave

Overall, 72.0% of drivers surveyed were "Very Comfortable" or "Somewhat Comfortable" sharing the road with bicyclists in bike lanes, and with a similar distribution among regions and when compared to the previous year's data (Table Q23).

Table Q23. "How comfortable are you with sharing the road with bicyclists when there IS a designated bike lane?" by region and year

| O22 by region | Northern | Central | Southern | Total | Total | Total | Total |
|------------------|------------|------------|------------|--------|--------|--------|--------|
| Q23 by region | California | California | California | 2021 | 2020 | 2019 | 2018 |
| Vary Comfortable | 277 | 123 | 586 | 986 | 1,034 | 570 | 634 |
| Very Comfortable | 35.7% | 35.4% | 35.7% | 35.7% | 36.2% | 45.1% | 46.3% |
| Somewhat | 294 | 134 | 576 | 1,004 | 1,045 | 395 | 369 |
| Comfortable | 37.9% | 38.6% | 35.1% | 36.3% | 36.6% | 31.3% | 27.0% |
| Somewhat | 138 | 66 | 325 | 529 | 506 | 171 | 205 |
| Uncomfortable | 17.8% | 19.0% | 19.8% | 19.1% | 17.7% | 13.5% | 15.0% |
| Very | 67 | 24 | 155 | 246 | 269 | 127 | 160 |
| Uncomfortable | 8.6% | 6.9% | 9.4% | 8.9% | 9.4% | 10.1% | 11.7% |
| Total | 776 | 347 | 1,642 | 2,765 | 2,854 | 1,263 | 1,368 |
| TOTAL | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Sharing Road with Bicyclists without Bike Lane (Q24) by Region and Wave

In 2021, 38.8% of drivers surveyed were "Very Comfortable" or "Somewhat Comfortable" sharing the road with bicyclists without a bike lane, similar to the 2020 survey and without significant differences across California regions (Table Q24).

Table Q24. "How comfortable are you with sharing the road with bicyclists when there ISN'T a designated bike lane?" by region and year

| Q24 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 |
|------------------|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|
| Vam. Camfantable | 112 | 40 | 202 | 354 | 396 | 289 | 237 |
| Very Comfortable | 14.5% | 11.6% | 12.3% | 12.8% | 13.9% | 22.9% | 17.4% |
| Somewhat | 219 | 91 | 410 | 720 | 702 | 327 | 329 |
| Comfortable | 28.3% | 26.5% | 24.9% | 26.0% | 24.7% | 25.9% | 24.2% |
| Somewhat | 219 | 121 | 520 | 860 | 887 | 281 | 348 |
| Uncomfortable | 28.3% | 35.2% | 31.6% | 31.1% | 31.2% | 22.3% | 25.6% |
| Very | 225 | 92 | 513 | 830 | 855 | 364 | 446 |
| Uncomfortable | 29.0% | 26.7% | 31.2% | 30.0% | 30.1% | 28.9% | 32.8% |
| Total | 775 | 344 | 1,645 | 2,764 | 2,840 | 1,261 | 1,360 |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Safety Problems Experienced as Pedestrian or Bicyclist (Q25): Coding Categories

Respondents were asked to identify the safety problems they had experienced as pedestrians or bicyclists in the past six months in a multiple-choice question. The provided answers and additional codes based on open-ended responses (highlighted in blue) are shown in Table Q25 1.

Table Q25_1. "Think of the times you have been a pedestrian or bicyclist in the last 6 months. What safety problems did you experience, if any?" Coding Categories

| Distracted drivers using cell phones | Bicycle behavior |
|--------------------------------------|---|
| Cars not stopping | Drivers turning right without looking |
| Cars going too fast | Drivers don't see or look for pedestrians |
| Bicyclists not stopping | Drivers not paying attention |
| Lots of Traffic | Drivers stopping in crosswalk |
| Almost getting hit by car or bike | Lack of awareness of bike lanes |
| Lack of sidewalks or bike lanes | Lack of awareness of right-of-way |
| None | Not Applicable-Have not been a |
| Other | pedestrian/bicyclist because of COVID |

In 2021, respondents reported a total of 7,451 answers on safety problems experienced as a pedestrian or bicyclist - "Cars going too fast" was reported most frequently, accounting for 20.2% of responses and given by 54.5% of drivers. "Cars not stopping" was the second most frequent response with 17.9% of responses provided by 48.4% of drivers, followed by "Distracted drivers (cell phones)" as the third most frequent response with 14.2% of answers and reported by 38.2% of drivers (Table Q25_2 with the three most frequently mentioned responses highlighted).

Table Q25_2. Frequencies Q25 by percent of answers and percent of drivers

| Q25 all answers combined | Count | % of answers | % of Drivers |
|--|-------|--------------|-----------------|
| Cars going too fast | 1,507 | 20.2% | 54.5% |
| Cars not stopping | 1,337 | 17.9% | 48.4% |
| Distracted drivers (cell phones) | 1,057 | 14.2% | 38.2% |
| Lack of sidewalks or bike lanes | 914 | 12.3% | 33.1% |
| Lots of traffic | 819 | 11.0% | 29.6% |
| Almost getting hit by car or bike* | 742 | 10.0% | 26.8% |
| Bicyclists not stopping | 644 | 8.6% | 23.3% |
| NONE | 385 | 5.2% | 13.9% |
| Not Applicable-Have not been a pedestrian/bicyclist because of COVID | 15 | 0.2% | 0.5% |
| All Other Responses Combined | 32 | 0.4% | 1.2% |
| Total | 7,451 | 100.0% | 269.5% |

Safety Problems Experienced as Pedestrian or Bicyclist (Q25) by Region and Wave

The safety problems experienced as a pedestrian or bicyclist by California region and survey year are outlined in Table Q25_3, with similar results among regions and when compared to the 2020 data. The answering option with a slight change to the verbiage are outlined under the table.

Table Q25_3. "Think of the times you have been a pedestrian or bicyclist in the last 6 months. What safety problems did you experience, if

any?" by region and year

| Q25 by region | Northern | Central | Southern | Total | Total | Total | Total |
|--|------------|------------|------------|------------|--------|--------|--------|
| | California | California | California | 2021 | 2020 | 2019 | 2018 |
| Cars going too fast | 422 | 182 | 902 | 1,507 | 1,598 | 336 | 239 |
| | 20.7% | 20.0% | 20.0% | 20.2% | 20.7% | 17.7% | 12.3% |
| Cars not stopping | 362 | 157 | 818 | 1,337 | 1,403 | 432 | 336 |
| | 17.8% | 17.3% | 18.1% | 17.9% | 18.1% | 22.8% | 17.3% |
| Distracted drivers (cell phones) | 275 | 116 | 666 | 1,057 | 1,246 | 348 | 426 |
| | 13.5% | 12.7% | 14.8% | 14.2% | 16.1% | 18.4% | 21.9% |
| Lack of sidewalks or bike lanes* | 256 | 128 | 530 | 914 | 858 | 37 | 52 |
| | 12.6% | 14.1% | 11.8% | 12.3% | 11.1% | 2.0% | 2.7% |
| Lots of traffic | 214 | 96 | 509 | 819 | 791 | 98 | 106 |
| | 10.5% | 10.6% | 11.3% | 11.0% | 10.2% | 5.2% | 5.5% |
| Almost getting hit by a car or bike** | 194 | 90 | 457 | 742 | 741 | 197 | 185 |
| | 9.5% | 9.9% | 10.1% | 10.0% | 9.6% | 10.4% | 9.5% |
| Bicyclists not stopping | 203 | 66 | 374 | 644 | 718 | 69 | 67 |
| | 10.0% | 7.3% | 8.3% | 8.6% | 9.3% | 3.6% | 3.5% |
| NONE | 97 | 61 | 227 | 385 | 320 | 308 | 352 |
| | 4.8% | 6.7% | 5.0% | 5.2% | 4.1% | 16.3% | 18.1% |
| All Other Responses Combined | 9 | 7 | 17 | 32 | 62 | 55 | 162 |
| | 0.4% | 0.7% | 0.3% | 0.4% | 0.6% | 2.9% | 8.4% |
| Not Applicable-Have not been a pedestrian because of COVID | 4 0.2% | 5 0.6% | 6 0.1% | 15 0.2% | | | |
| Total | 2,036 | 909 | 4,506 | 7,451 | 7,736 | 1,894 | 1,942 |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

^{*&}quot;Lack of sidewalks" in 2020 survey

^{**&}quot;Almost getting hit by a car" in 2020 survey

Safety Problems Experienced as Driver around Pedestrians and Bicyclists (Q26)

The safety problems reported while driving near pedestrians and bicyclists are outlined in Table Q26_1, based on 8,516 responses and with the three most frequently mentioned responses highlighted. "Pedestrians not using crosswalks" was reported most frequently by 55.9% of respondents, while half of the respondents (50.6%) also indicated "Pedestrians stepping off curb without looking" as a safety problem.

Table Q26_1. Frequencies Q26 by percent of answers and percent of drivers

| Q26 all answers combined | Count | % of answers | % of Drivers |
|---|-------------|--------------|-----------------|
| Pedestrians not using crosswalks | 1,548 | 18.2% | 55.9% |
| Pedestrians stepping off curb without looking | 1,399 | 16.4% | 50.6% |
| Cyclists not stopping at stop signs or traffic lights | 1,255 | 14.7% | 45.4% |
| Pedestrians/cyclists not being visible enough | 1,117 13.1% | | 40.4% |
| Pedestrians/cyclists distracted behavior (phones, ear pods, headsets) | 1,087 | 12.8% | 39.3% |
| Cyclists being in the road or blocking traffic | 960 | 11.3% | 34.7% |
| Lack of sidewalks or bike lanes | 905 | 10.6% | 32.7% |
| None | 221 | 2.6% | 8.0% |
| All Other Responses Combined | 12 | 0.1% | 0.3% |
| Lack of awareness of right-of-way/Not following rules of road | 11 | 0.1% | 0.4% |
| Total | 8,516 | 100.0% | 307.8% |

Safety Problems Experienced as Driver around Pedestrians and Bicyclists (Q26) by Region & Wave

The distribution of problems experienced as a driver around pedestrians and bicyclists is comparable, both by region and by survey wave (Table Q26_2). It should be noted that the sample may be biased in favor of drivers, since respondents needed a driver's license to participate in the survey.

Table Q26_2. "Think of the times you have been a DRIVER around pedestrian or bicyclist in the last 6 months. What safety problems did you

experience, if any?" by region and year

| Q26 by region | Northern California | Central California | Southern California | Total 2021 | Total 2020 | Total 2019 | Total 2018 |
|--|------------------------|-----------------------|------------------------|---------------|---------------|---------------|---------------|
| Pedestrians not using crosswalks | 438 | 207 | 902 | 1,548 | 1,612 | 300 | 294 |
| De destrieure et aurium off aurib aut | 18.6% | 19.1% | 17.8% | 18.2% | 18.5% | 15.2% | 14.8% |
| Pedestrians stepping off curb without | 379 | 175 | 845 | 1,399 | 1,453 | 321 | 179 |
| looking | 16.1% | 16.1% | 16.7% | 16.4% | 16.7% | 16.2% | 9.0% |
| Cyclists not stopping at stop signs or | 366 | 167 | 722 | 1,255 | 1,385 | 321 | 179 |
| traffic lights | 15.5% | 15.4% | 14.2% | 14.7% | 15.9% | 10.7% | 10.6% |
| Pedestrians/cyclists not being visible | 304 | 138 | 676 | 1,117 | 1,143 | 194 | 169 |
| enough | 12.9% | 12.7% | 13.3% | 13.1% | 13.1% | 9.8% | 8.5% |
| Pedestrians/cyclists distracted behavior | 297 | 132 | 659 | 1,087 | 1,174 | 332 | 264 |
| (phones, ear pods, headsets) | 12.6% | 12.1% | 13.0% | 12.8% | 13.5% | 16.8% | 13.3% |
| Cyclists being in the read or blocking traffic | 255 | 110 | 595 | 960 | 1,047 | 269 | 187 |
| Cyclists being in the road or blocking traffic | 10.8% | 10.2% | 11.7% | 11.3% | 12.0% | 13.6% | 9.4% |
| Lack of sidewalks or bike lanes* | 244 | 120 | 542 | 905 | 652 | 38 | 108 |
| Lack of Sidewarks of bike failes | 10.4% | 11.0% | 10.7% | 10.6% | 7.5% | 1.9% | 5.5% |
| NONE | 60 | 34 | 126 | 221 | 223 | 242 | 356 |
| NONE | 2.6% | 3.2% | 2.5% | 2.6% | 2.6% | 12.2% | 18.0% |
| All Other Responses Combined | 6 | 1 | 5 | 12 | 36 | 47 | 76 |
| All Other Responses Combined | 0.2% | 0.1% | 0.1% | 0.1% | 0.4% | 2.4% | 3.8% |
| Lack of awareness of right-of way/Not | 5 | 1 | 5 | 11 | | | |
| following rules of road | 0.2% | 0.1% | 0.1% | 0.1% | | | |
| Total | 2,354 | 1,085 | 5,077 | 8,516 | 8,725 | 1,979 | 1,942 |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

^{*&}quot;Lack of sidewalks or clear crosswalks" in 2020 survey