

# eaze Insights

**2019** Perceptions on Driving Impairment:  
Cannabis Consumers in Focus

A quantitative survey and analysis focused on the relationship  
between cannabis consumption, transportation options  
and preferences, and safer driving decisions.

## EXECUTIVE SUMMARY

Research shows Californians know driving under the influence of cannabis is illegal — yet few know critical details about cannabis consumption and driving. Survey responses show that most consumers do not know how law enforcement assesses driving under the influence of cannabis, the penalties associated with impairment, or laws about cannabis in vehicles. The report also describes key behaviors and beliefs of cannabis consumers that we hope provides critical context for further safer driving initiatives — including data indicating consumers choose not to drive when other convenient options are available.

## EDUCATION IS KEY

The majority of consumers (62%) do not know the penalties for driving under the influence of cannabis. Public policies focused on at-risk consumers; education and clarification regarding impaired driving laws; and guidelines for impairment self-assessment can reduce cannabis-related impaired driving behavior.

## ALTERNATIVES ARE ESSENTIAL

Providing alternatives to driving is important to minimizing opportunities for impaired driving. A strong majority of consumers report they would avoid driving impaired if safe rides (77%), low-cost or no-cost rideshares (81% and 86% respectively), or cannabis delivery (68%) are available.

## MESSAGE AND MESSENGER MATTER

Data suggests educational messaging focused on emotionally salient scenarios, like the risk of harm to children in the vehicle, can reduce risky driving habits. While a slim majority of consumers trust their own judgement the most (52%), nearly as many (41%) believe their friends and family are best able to judge impairment. Government health agencies and the academic research community are the most trusted sources of cannabis safety information and should be considered for strategic partnership in public safety campaigns.

## KEY FINDINGS

### Awareness

- › A majority (81%) of respondents are aware that driving under the influence of cannabis is illegal.
- › There is no consumer consensus on a “safe” maximum cannabis dosage as it relates to driving: 30% of consumers believe less than 2mg is safe, while about the same number (29%) believe more than 20mg is safe.

### Behavior

- › Half (50%) of consumers always travel to buy cannabis and driving is the most common way to travel both to buy cannabis (82%) and soon after consumption (45%)— most consumers (77%) believe it has no impact on their driving.
- › Half of consumers (50%) report frequently mixing alcohol and cannabis. Those who mix say they typically wait 3 hours before driving — 90 minutes less than the average cannabis consumer.
- › Among those who drive after consuming cannabis, 61% report not feeling impaired and one in five (21%) had no other transportation option.

### Opportunities

- › A supermajority of cannabis consumers express that both ride availability and delivery are strong deterrents to impaired driving, 77% and 68% respectively.
- › Potential harm to minors is a strong deterrent to impaired driving: 66% would “certainly not” drive after consuming cannabis if minors are in the vehicle, compared to 31% driving alone.
- › State and local agencies are the most trusted sources of cannabis safety information, followed by academic researchers and cannabis retailers. Media sources are considered the least trustworthy.

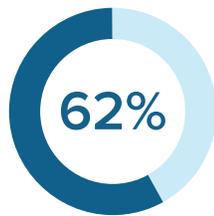
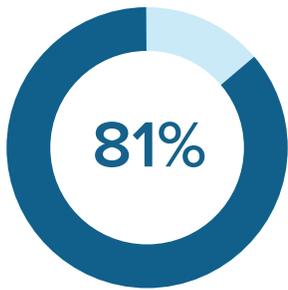
## METHODOLOGY

Findings are based on 527 completed online surveys from cannabis consumers in California 18 years and older with a valid driver’s license who drive at least annually and have consumed cannabis within 30 days prior to the survey. Responses were collected between March 26 and April 9, 2019.

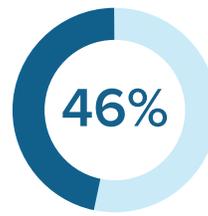
## THE CHALLENGE

Most California consumers know driving under the influence of cannabis is illegal. But few know how law enforcement measures cannabis DUIs, the penalties associated with impairment, or laws about cannabis in vehicles.

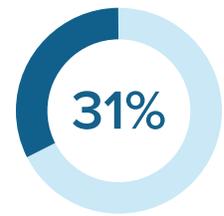
The majority (81%) of respondents are aware that driving under the influence of cannabis is illegal.



The majority (62%) are unaware of the penalties that cannabis DUIs bring. Only 1 in 5 believe that fines and probation apply.

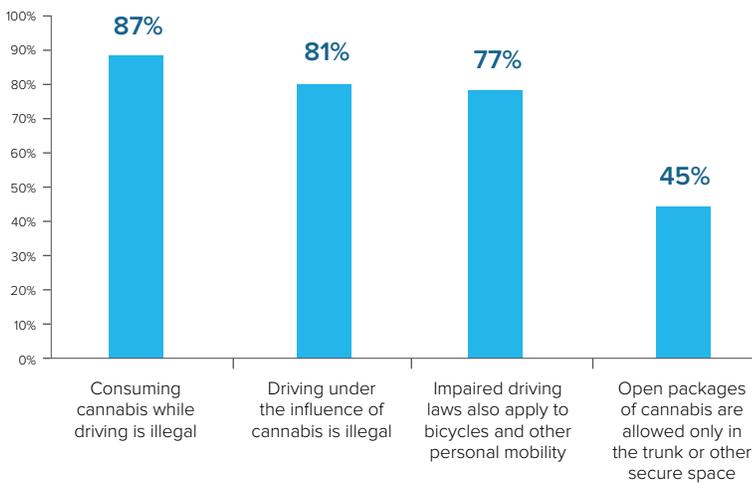


Close to half (46%) do not know whether a legal limit (per se) exists for cannabis.



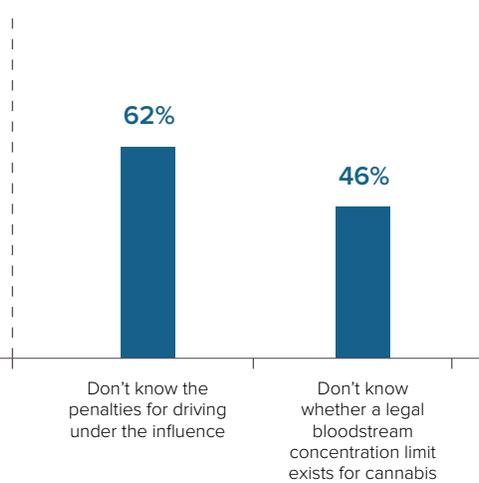
Rules around the presence of cannabis in vehicles are not well understood. Nearly one-third (31%) of respondents did not know if open cannabis containers are allowed in a vehicle.

### WHAT DRIVERS KNOW



Q. Are the following statements true or false?

### WHAT DRIVERS DON'T KNOW



Q. To the best of your knowledge, what are the penalties for driving under the influence of cannabis?

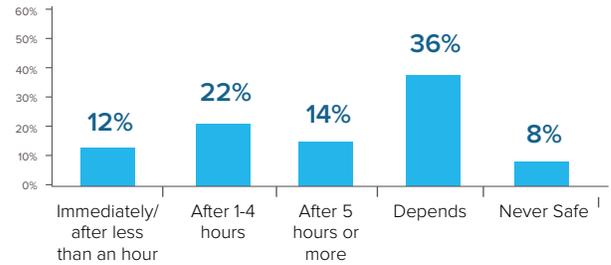
Q. As far as you know, what is the legal limit for THC in the bloodstream when operating a vehicle?

There is little consensus among cannabis consumers about how time elapsed, dosing, and mixing with other substances impacts driving.

Perceptions differ widely about how soon after consuming cannabis someone can safely drive a vehicle.

- › More than one-third (36%) say it depends on the person, method, and quantity of consumption.
- › A nearly equal share (34%) believe it is safe to drive within 4 hours — when studies suggest impairment is most likely.
- › Only 8% say it is “never safe.”

### HOW SOON IS IT SAFE TO DRIVE?

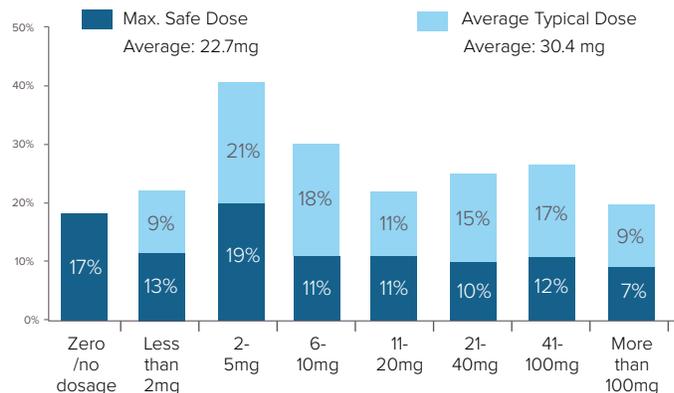


Q. As far as you know, how soon after consuming cannabis can someone safely operate a vehicle?

There is no consensus among consumers on a maximum “safe” cannabis dosage as it relates to driving.

- › Thirty percent of consumers believe less than 2mg is safe, while about the same number (29%) believe more than 20mg is safe.
- › A strong majority (71%) believe it is unsafe to drive after a dose of 20mg of THC or more, yet 41% typically consume more than 20mg.

### MAXIMUM “SAFE” DOSE VS. AVERAGE TYPICAL DOSE

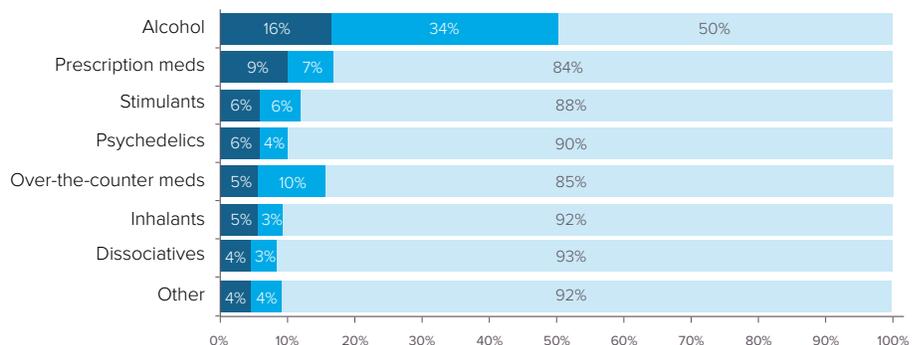


Q. What is the maximum dosage (in milligrams) of THC you would consume or use at once and still feel confident in your ability to drive safely?

Half of consumers repeatedly mix alcohol and cannabis; prescription drug co-use is a distant second, at 16%.

- % Always/Very often
- % Sometimes
- % Rarely/Never

### SUBSTANCES CONSUMED WITH CANNABIS



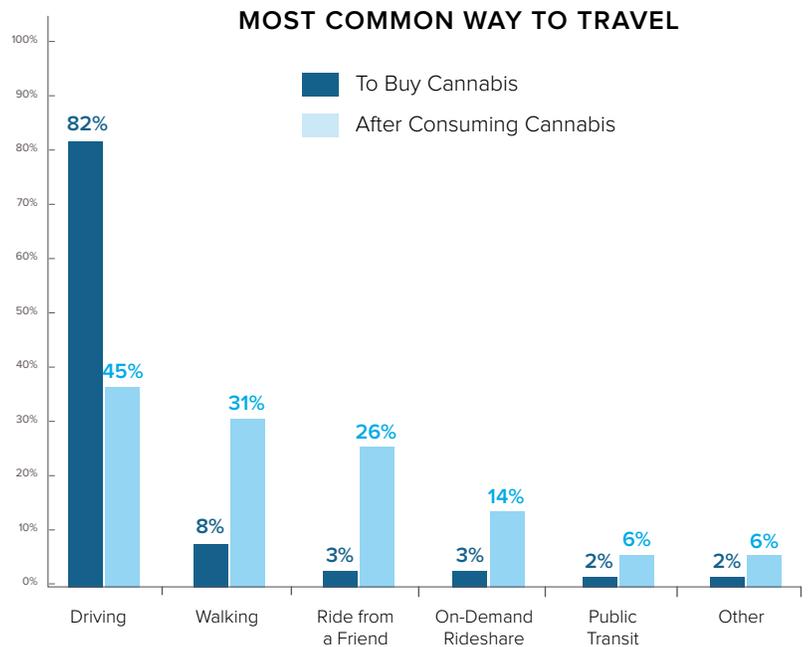
Q. When you consume or use cannabis, how often do you also consume...

## THE REALITY

Driving is the most common form of transportation for consumers going to buy cannabis and immediately after consumption. Nearly 1 in 4 who travel to purchase cannabis typically consume before reaching home.

Driving is by far the most common way consumers travel to buy cannabis (82%) and travel after consuming cannabis (45%).

- › While a majority of consumers (55%) report they do not typically drive after cannabis; 45% report they do.
- › Walking, Ride from a Friend, and On-demand Rideshare are the second, third, and fourth most popular modes of transportation in both scenarios.

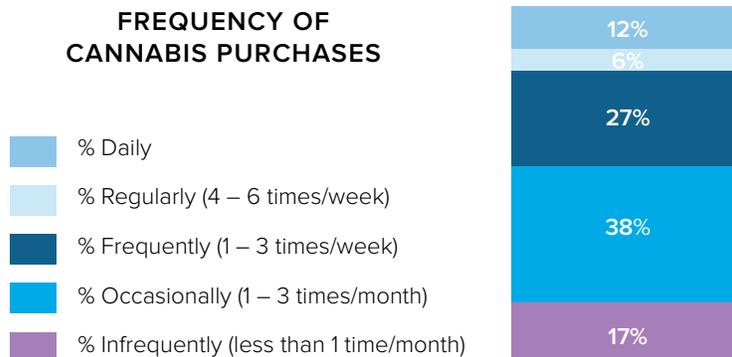


Q. Which modes of transportation do you use most often when traveling to buy cannabis?

Q. Thinking about when you go somewhere shortly after consuming or using cannabis, how do you typically get around? Note: Multiple selections allowed, totals will not equal 100%.

Nearly half (45%) of respondents make a cannabis purchase at least once a week.

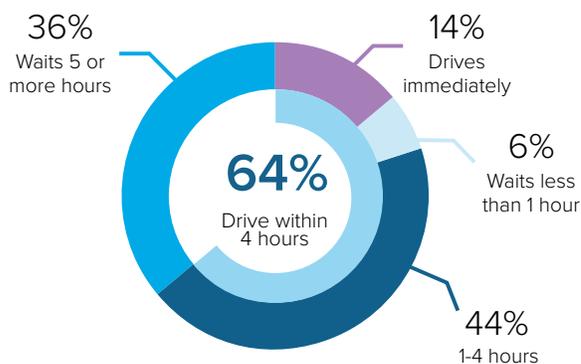
### FREQUENCY OF CANNABIS PURCHASES



64% of cannabis consumers self-report driving within four hours of cannabis consumption.

› 20% say they typically drive within an hour.

### TYPICAL WAIT TIME BEFORE DRIVING AFTER CANNABIS

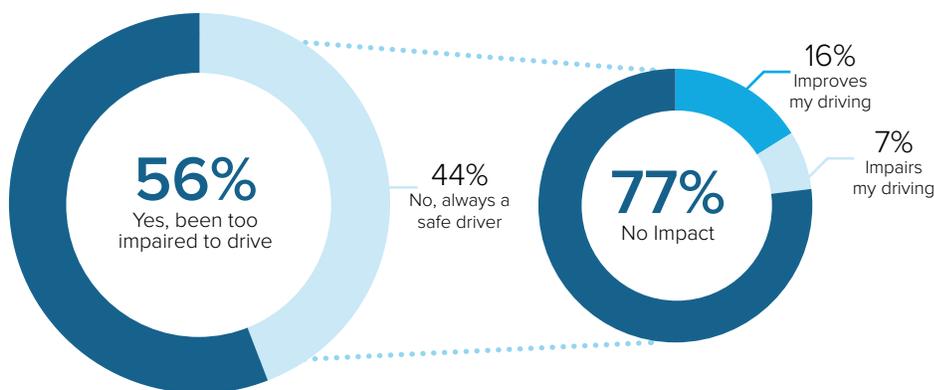


Q. How long after consuming cannabis do you typically wait before driving a vehicle?

56% report avoiding or delaying driving due to cannabis impairment.

› Among those who drive after consuming cannabis, most (77%) believe it does not affect their driving ability and about one in six believe cannabis improves their driving (16%).

### DRIVING AFTER CANNABIS

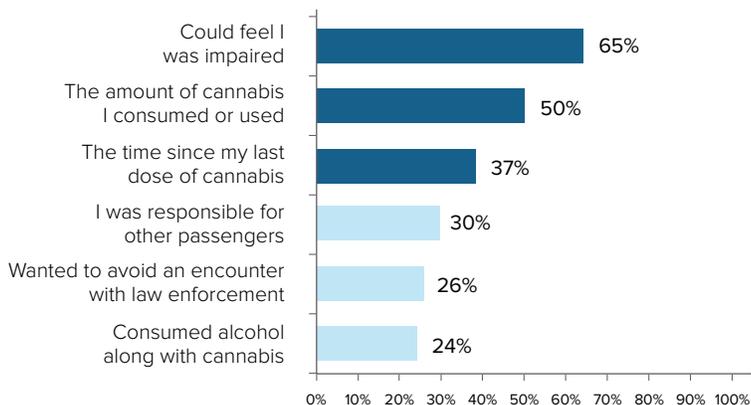


Q. Have you ever avoided or delayed driving due to your cannabis consumption?

Q. How does consuming cannabis affect your driving skills?

Feelings of impairment, the amount of cannabis consumed, and the time since last dose are top reasons consumers report being “too impaired to drive.”

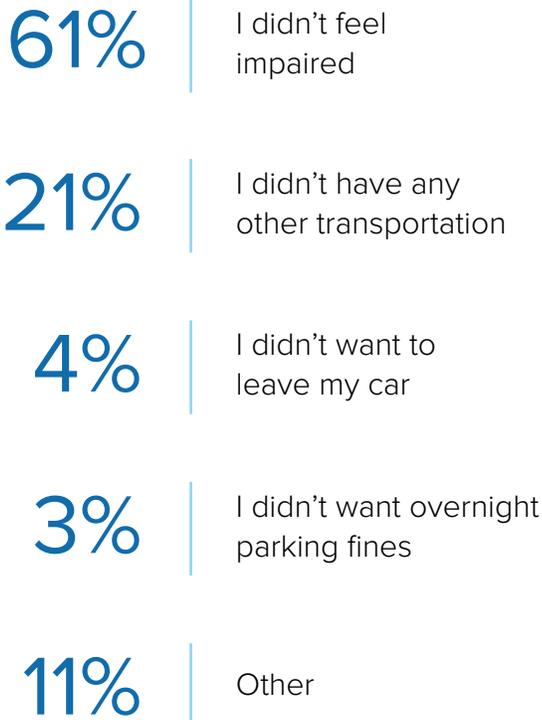
### IMPAIRED DRIVING FACTORS



Q. What factors were important in deciding you were too impaired to drive due to cannabis?

Among those who drove despite cannabis consumption, 1 in 5 (21%) said having no other transportation option led them to drive under the influence of cannabis.

### REASONS FOR DRIVING DESPITE CANNABIS CONSUMPTION



Q. What factors led you to drive under the influence of cannabis?

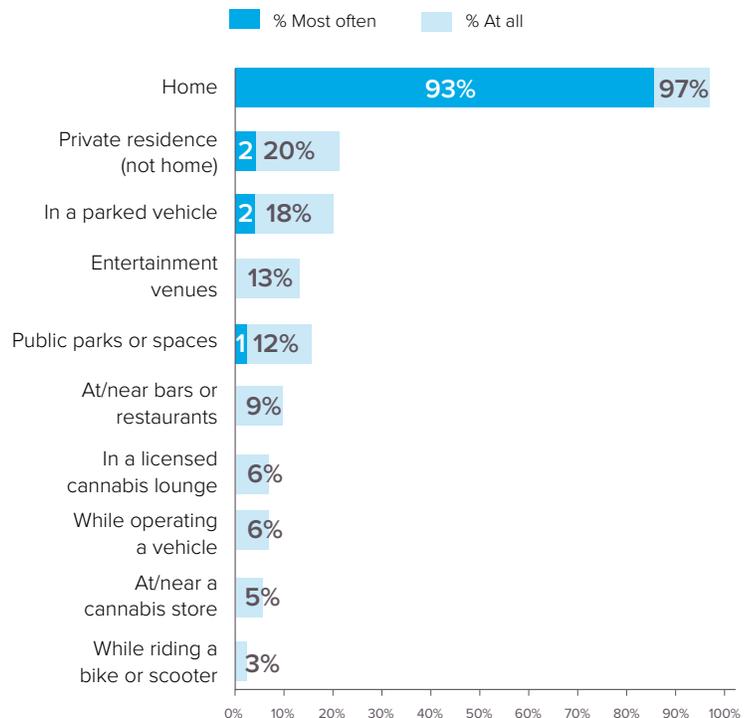
93% of people most often consume cannabis at home.

› Among adults who travel to buy cannabis, a large majority (76%) wait to consume at home after traveling to buy cannabis.



› But one in four (24%) who traveled to make a purchase typically consume before reaching home.

### MOST COMMON CONSUMPTION LOCATIONS



Q. Where do you consume or use cannabis? Where do you consume or use cannabis most often?

## THE OPPORTUNITY

Consumers indicate a willingness to delay or avoid driving after cannabis consumption. Rides available on-demand and fast cannabis delivery are the strongest incentives to avoid driving under the influence.

Rides available on-demand and fast cannabis delivery are the strongest incentives to avoid driving under the influence.

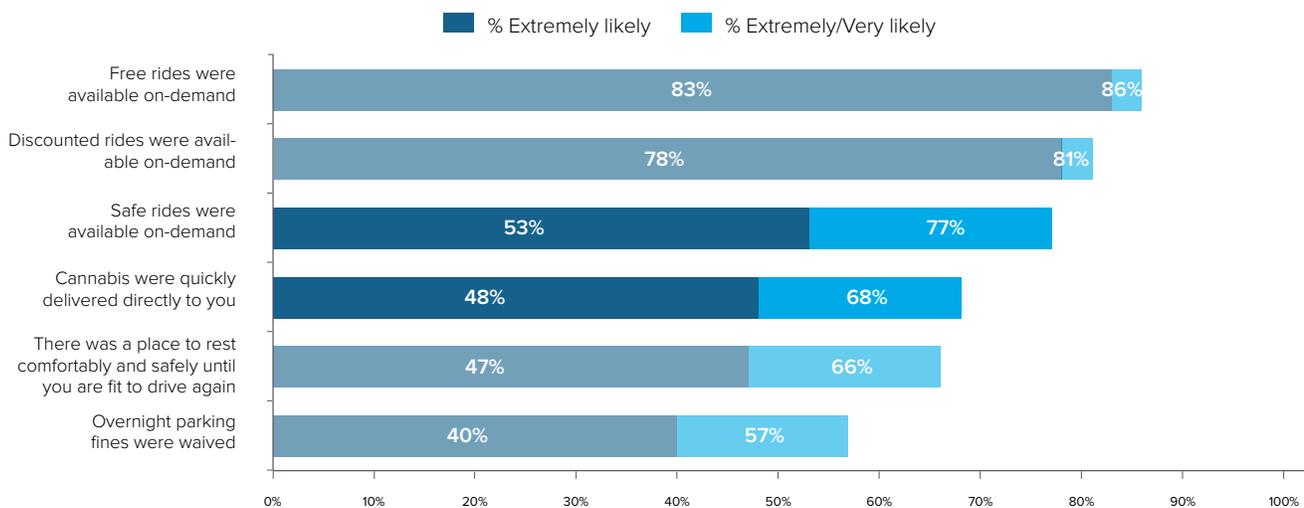
77%

would not drive under the influence if safe on-demand rides are available

68%

would not drive under the influence if quick cannabis delivery is available

### STRATEGIES TO REDUCE IMPAIRED DRIVING

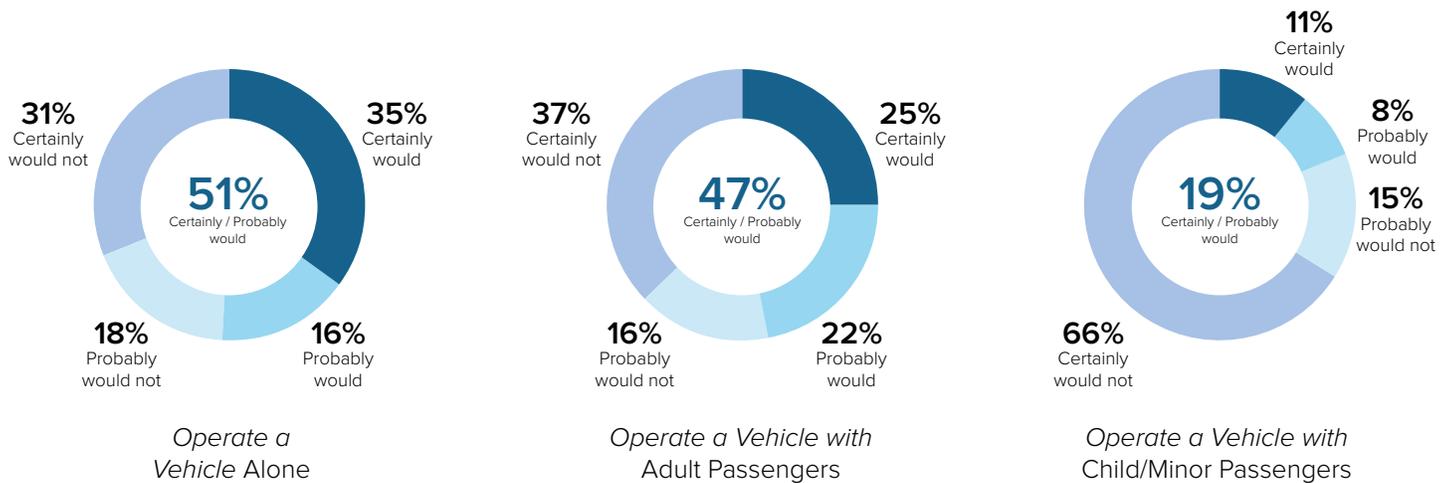


Q. How likely would you be to avoid driving under the influence if..

The potential of harm to minors has a major impact on post-cannabis driving behavior.

- › About half of consumers are likely to drive after consuming cannabis if they are alone (51%) or with adult passengers (47%).
- › However, this number drops to 19% if a child is in the car.

LIKELIHOOD OF OPERATING A VEHICLE AFTER CANNABIS

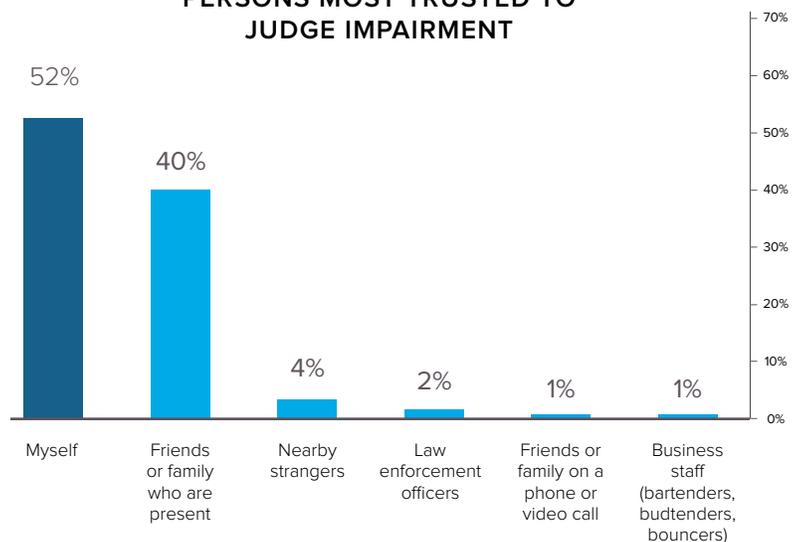


Q. After consuming cannabis, how likely would you be to operate a vehicle...?

Consumers trust themselves, their friends and their families to judge impairment.

- › 52% of respondents said they trust themselves to judge their own impairment.
- › 41% said friends or family — mostly when physically present.
- › Only 2% trusted law enforcement, and just 1% trusted business staff (bartenders/budtenders/bouncers).

PERSONS MOST TRUSTED TO JUDGE IMPAIRMENT



Q. Who are you most likely to trust to judge your impairment?

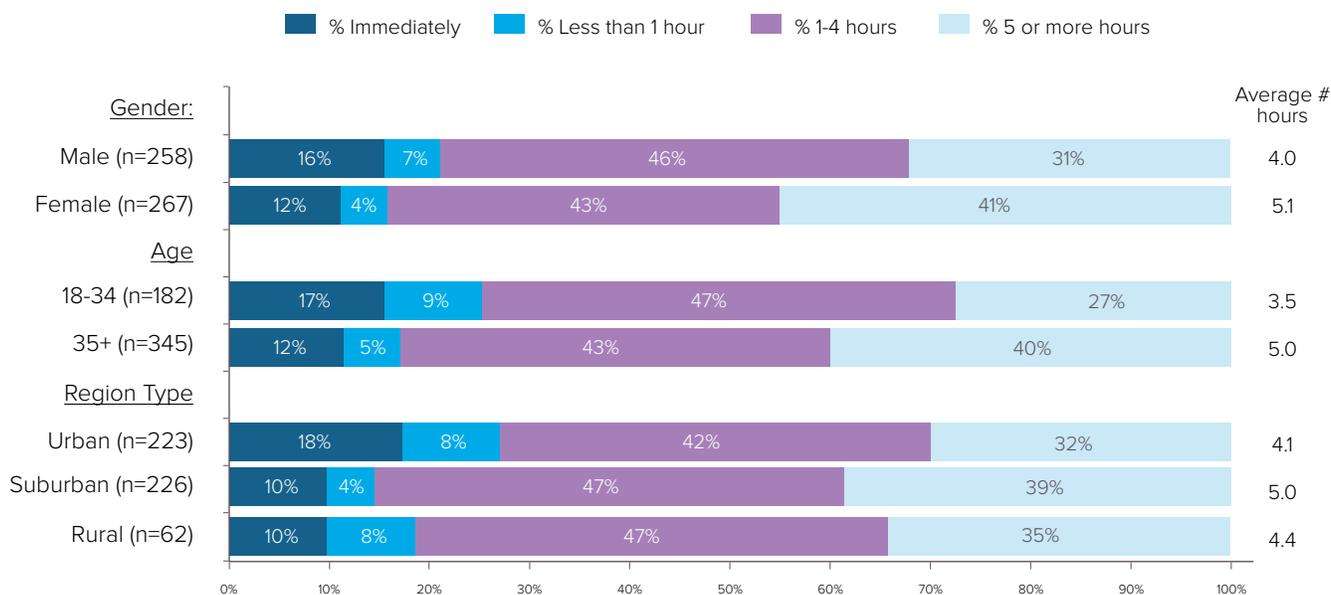
## DEMOGRAPHICS FOR TAILORED PUBLIC EDUCATION

Gender, age, and location are all factors that correlate to the wait times consumers observe before driving, indicating they are important factors to consider when educating drivers about safe driving practices.

Women, adults 35 and older, and suburban drivers wait longer on average to drive after consumption than men, adults 18-34, and urban drivers.

- › Women, adults 35 and older, and people living in suburban or rural areas wait longer to drive. 23% say they never drive within 8 hours of cannabis consumption.
- › City dwellers, young people, and men are most likely to drive within four hours of consuming cannabis, a period when the effects are most acute.

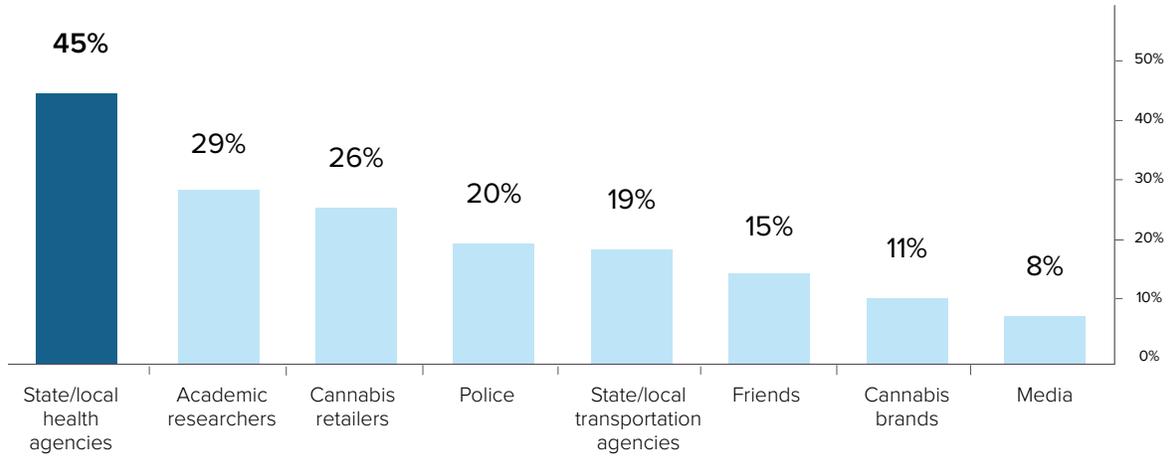
### TYPICAL WAIT TIME BEFORE DRIVING AFTER CANNABIS



**State and local health agencies are the most trusted source of cannabis safety information.**

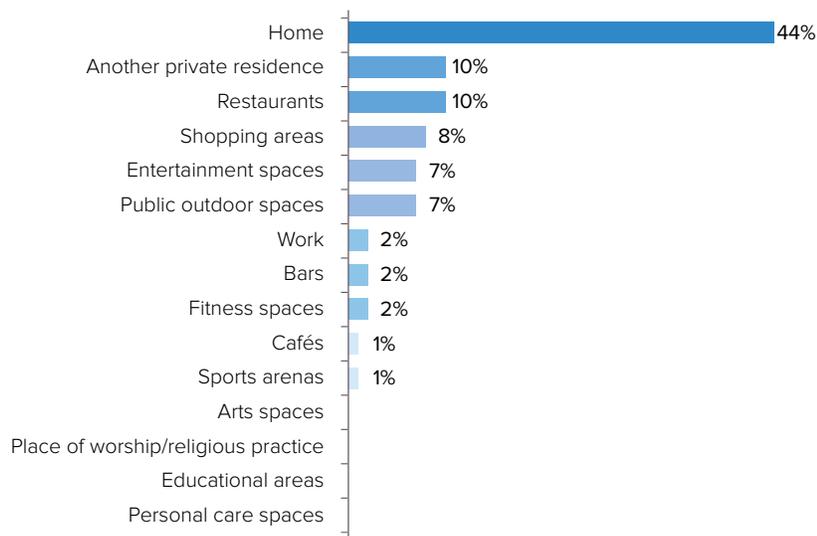
- › Academic researchers and cannabis retailers ranked second and third respectively.
- › Media sources are considered the least trustworthy.

**MOST TRUSTWORTHY SOURCES OF CANNABIS SAFETY INFORMATION**



Q. Which source of cannabis safety information do you find most trustworthy?  
Multiple selections allowed, totals will not equal 100%

**COMMON DESTINATIONS AFTER CONSUMPTION**



Q. Thinking about when you go somewhere shortly after consuming or using cannabis, where do you tend to go most often?

# HOW EAZE WORKS

## WITH THE LEGAL CANNABIS ECOSYSTEM



### Brands

Eaze helps brands understand and comply with new product regulations and serves as a valuable marketing tool that provides access to a broader consumer base.

### Retailers

Eaze provides cannabis retailers with technology solutions to help grow, track and manage their business.

### Consumers

Eaze educates consumers about cannabis products while facilitating safe and reliable on-demand delivery by local retailers.

### Community

Eaze is proud to work with community partners through social impact programs around economic empowerment, patient support and community sustainability.

### Policymakers

Eaze works with policymakers, regulators, and industry stakeholders to help the cannabis industry grow in a sustainable and responsible way.