

# Driving Under the Influence of Alcohol

Final Report

Submitted to: Traffic Safety Commission of Puerto Rico



September 29, 2017

## TABLE OF CONTENT

<b>INTRODUCTION</b> .....	<b>3</b>
<b>METHODOLOGY</b> .....	<b>3</b>
<b>FINDINGS</b> .....	<b>4</b>
DEMOGRAPHIC PROFILE .....	4
GENERAL QUESTIONS ABOUT DISTRACTION.....	7
GENERAL DRIVING HABITS.....	8
DRIVING UNDER THE INFLUENCE OF ALCOHOL.....	13

## INTRODUCTION

In May of 2017, the Traffic Safety Commission of Puerto Rico (CST for its Spanish acronym) hired the firm Estudios Técnicos, Inc., to design and conduct a survey to assess the impact of the seatbelt use campaign, utilizing a research methodology in compliance with the with National Highway Traffic Safety Administration (NHTSA) requirements. This report presents the results of the survey, conducted between August 22 and September 16, 2017.

## METHODOLOGY

A telephone survey was made to residents in Puerto Rico 16 years or older with an active driver's license. The survey used a stratified probabilistic sample. It uses geographic strata based on the number of active licenses by region. Telephone numbers were randomly chosen among a list of residential and mobile phone numbers generated randomly from a sample based on "Random Digit Dialing" (RDD). Based on the selected sample type, the estimated sampling error is  $\pm 4.4\%$  with a confidence level of 95%.

The research instrument for data collection consisted of a telephone interview using a Computer Assisted Telephone Interviewing System (CATI), by the Estudios Técnicos, Inc. staff.

## FINDINGS

### DEMOGRAPHIC PROFILE

A general demographic profile of the sample follows:

The gender distribution of the sample consisted of 222 males (44.4%) and 278 females (55.6%). The median age of the sample was 44 years, the average 46 years, the youngest participant 17 years old and the oldest was 89 years old.

#### Gender of the interviewee

	Freq.	%
Male	222	44.4%
Female	278	55.6%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

#### Age

	Freq.	%
16 to 24 years	52	10.4%
25 to 34 years	109	21.8%
35 to 44 years	98	19.6%
45 to 59 years	121	24.2%
60 or older years	120	24.0%
<b>Total</b>	<b>500</b>	<b>100%</b>
<b>Mean</b>	<b>46</b>	
<b>Median</b>	<b>44</b>	
<b>Minimum</b>	<b>17</b>	
<b>Maximum</b>	<b>89</b>	

N=500.

The average and median household size was 3 persons, including the participants.

#### How many people live in your household, including yourself?

<b>Mean</b>	<b>3</b>
<b>Median</b>	<b>3</b>
<b>Minimum</b>	<b>1</b>
<b>Maximum</b>	<b>9</b>

N=497. Three did not respond.

Two out of ten participants (19.6%) have a high school diploma, while one out of three (29.2%) has a bachelor's degree. The median academic degree of the sample was between "some years of college" and "associate's degree". More than 70% of the sample has some college education.

**Could you please tell me the last academic degree you completed?**

	Freq.	%
High School or less	36	7.2%
High School Diploma	98	19.6%
Associate Degree or some years of college	118	23.6%
Bachelor's Degree	146	29.2%
Master's Degree	74	14.8%
Doctorate Degree	21	4.2%
Does not say	7	1.4%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

Almost half (43.0%) of the participants are currently "working full time", while one out of ten (10.4%) are working "part time". Also, one out of four (23.2%) are "retired / pensioner".

**What is your current occupational status?**

	Freq.	%
Working full time	215	43.0%
Retired / Pensioner	116	23.2%
Working part time	52	10.4%
Homemaker	45	9.0%
Working and studying	40	8.0%
Only studying	12	2.4%
Unemployed	12	2.4%
Other	7	1.4%
Does not say	1	0.2%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

Half (48.4%) of our participants are married and one out of three (32.8%) is single.

### Civil status

	Freq.	%
Married	242	48.4%
Single	164	32.8%
Divorced	36	7.2%
Cohabiting	31	6.2%
Widowed	25	5.0%
Does not say	2	0.4%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

The median household income was between \$15,001 and \$25,000 per year.

### What is your annual household income?

	Freq.	%
Up to \$15,000	164	32.8%
\$15,001-\$25,000	97	19.4%
\$25,001-\$35,000	73	14.6%
\$35,001-\$50,000	53	10.6%
\$50,001-\$75,000	33	6.6%
\$75,001 or more	21	4.2%
Does not say	59	11.8%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

## GENERAL QUESTIONS ABOUT DISTRACTION

When the participants are driving, they also engage primarily in “eating or drinking” (41.0%), “fixing or brushing your hair looking at the mirror” (15.0%) and “tending to children on the back seat” (10.8%).

Only one percent of the participants had an accident due to being distracted (for different reasons).

### Typically, when you are driving, do you also engage in any of the following activities?

	Freq.	%
Eating or drinking	205	41.0%
Fixing or brushing your hair looking at the mirror	75	15.0%
Tending to children on the back seat	54	10.8%
Putting on make up or shaving looking at the mirror	47	9.4%
Driving with a pet on your lap or next to you (unleashed or lose inside the car)	25	5.0%
Watching TV / Videos / Movies	11	2.2%
<b>Total</b>	<b>500</b>	<b>-</b>

N=500. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore and independent count is performed for each of the answers mentioned.

### During the past 12 months, have you had a car accident due to being distracted?

	Freq.	%
Yes	5	1.0%
No	494	98.8%
Does not know	1	0.2%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

### Which distraction caused that you had a car accident?

	Freq.	%
Texting	1	20.0%
Looking at yourself in the mirror	1	20.0%
Falling asleep	1	20.0%
Looking at the road	1	20.0%
Looking the other way	1	20.0%
<b>Total</b>	<b>5</b>	<b>100.0%</b>

n=5. Note: n is equal to the number of respondents that indicated having a car accident due to being distracted.

## GENERAL DRIVING HABITS

Most of the participants of the study (77%) drive their vehicles “every day”. While only two percent drive “once a week”.

### How often do you drive a motor vehicle?

	Freq.	%	
Every day	385	77.0%	MEDIAN
Almost every day	48	9.6%	
Several times a week	57	11.4%	
Once a week	10	2.0%	
<b>Total</b>	<b>500</b>	<b>100.0%</b>	

N=500.

“Regular cars” is the most frequent vehicle used among participants (six out of 10), followed by “SUV” preferred by three of every 10. One out of 10 participants reported the use of “pick-up truck”, “truck”, “minivan”, “van” or “motorbike”.

### What type of vehicle do you drive most frequently?

	Freq.	%
Regular car	299	59.8%
SUV	156	31.2%
Pick-up truck or truck	25	5.0%
Mini van	10	2.0%
Van	9	1.8%
Motorbike	1	0.2%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.



In a typical weekday the median amount of time participants spend driving was two hours, with some respondents driving as much as 20 hours. In a typical weekend day almost two and a half hours is the median amount of time participants spend driving, with respondents driving as much as 20 hours. The minimum time reported on week days was 10 minutes while on weekends some participants don't spend any time driving.

**On average, during a typical day of the week, approximately how much time do you spend driving a vehicle?**

Mean	2 hours 54 minutes
Median	2 hours
Minimum	10 minutes
Maximum	20 hours

N=497. Note: Three did not respond.

**On average, during a typical day of the weekend, approximately how much time do you spend driving a vehicle?**

Mean	2 hours 23 minutes
Median	2 hours
Minimum	Does not drive
Maximum	20 hours

N=497. Note: Three did not respond.

On weekdays, more than six of every 10 participants (62.6%) drive to “work”, followed by “Shopping” 55.8% while four out of 10 go to “medical appointments”. On weekends, the most frequent driving activity is “visiting family and friends” (55.8%) while “work” drops to 17.6%. “Shopping” was done on weekends by half of the participants.

**During a typical day of the week, to where do you drive or which places do you visit?**

	Freq.	%
Work	313	62.6%
Shopping (grocery store, etc.)	279	55.8%
Medical appointments	206	41.2%
Visiting family and friends	192	38.4%
School / College	150	30.0%
Entertainment (movie theater, the beach, the park, etc.)	119	23.8%
Traveling around different places and spending most of the time inside the vehicle	60	12.0%
Church	17	3.4%
Other	25	5.0%
<b>Total</b>	<b>500</b>	<b>-</b>

N=500. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore and independent count is performed for each of the answers mentioned.

**During a typical day of the weekend, to where do you drive or which places do you visit?**

	Freq.	%
Visiting family and friends	279	55.8%
Shopping (grocery store, etc.)	253	50.6%
Entertainment (movie theater, the beach, the park, etc.)	238	47.6%
Traveling around different places and spending most of the time inside the vehicle	163	32.6%
Work	88	17.6%
Church	47	9.4%
Medical appointments	37	7.4%
School / College	13	2.6%
Other	19	3.8%
<b>Total</b>	<b>500</b>	<b>-</b>

N=500. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore and independent count is performed for each of the answers mentioned.

In a scale from one to 10, in which 10 was defined as very good, 22% of the participants rate driving in Puerto Rico as “five”. The most frequent score selected by one out of four participants was “very bad”, and only 1.2% rated driving in Puerto Rico as “very good”.

**On a scale from 1 to 10, in which 10 means “very good” and 1 means “very bad”, according to your experience, how would you rate driving in Puerto Rico?**

	Freq.	%
1 - Very bad	129	25.8%
2	27	5.4%
3	43	8.6%
4	46	9.2%
5	110	22.0%
6	46	9.2%
7	54	10.8%
8	33	6.6%
9	6	1.2%
10 - Very good	6	1.2%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

“Road conditions” is the main issue of concern for safety on the roads of Puerto Rico identified by seven out of ten participants. However, 66.2% mentioned “distracted drivers” as their secondary concern, while one out of three indicated “drunk driven” as another main concern.

**Which would you say are the three main issues of concern in terms of your safety on the roads of Puerto Rico? (Total)**

	Freq.	%
Road conditions	349	69.8%
Distracted drivers	331	66.2%
Speed	238	47.6%
Drunk drivers	163	32.6%
Lane cutters	124	24.8%
Drivers running red lights	81	16.2%
Riders on horsebacks	54	10.8%
Stray animals	42	8.4%
Cyclists on the road	37	7.4%
Pedestrians	29	5.8%
Motorbikes	20	4.0%
Other	31	6.2%
<b>Total</b>	<b>500</b>	<b>-</b>

N=500. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore an independent count is performed for each of the answers mentioned.

**Which would you say are the three main issues of concern in terms of your safety on the roads of Puerto Rico? (First priority)**

	Freq.	%
Road conditions	201	40.2%
Distracted drivers	105	21.0%
Speed	78	15.6%
Drunk drivers	40	8.0%
Lane cutters	22	4.4%
Drivers running red lights	18	3.6%
Riders on horsebacks	13	2.6%
Cyclists on the road	11	2.2%
Stray animals	4	0.8%
Pedestrians	3	0.6%
Motorbikes	0	0.0%
Other	4	0.8%
<b>Total</b>	<b>500</b>	<b>-</b>

N=500. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore an independent count is performed for each of the answers mentioned.

**Which would you say are the three main issues of concern in terms of your safety on the roads of Puerto Rico? (Second priority)**

	Freq.	%
Distracted drivers	132	26.4%
Speed	82	16.4%
Road conditions	77	15.4%
Drunk drivers	71	14.2%
Lane cutters	50	10.0%
Drivers running red lights	19	3.8%
Riders on horsebacks	14	2.8%
Stray animals	14	2.8%
Cyclists on the road	12	2.4%
Pedestrians	10	2.0%
Motorbikes	6	1.2%
Other	13	2.6%
<b>Total</b>	<b>500</b>	<b>-</b>

N=500. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore and independent count is performed for each of the answers mentioned.

**Which would you say are the three main issues of concern in terms of your safety on the roads of Puerto Rico? (Third priority)**

	Freq.	%
Distracted drivers	94	18.8%
Speed	78	15.6%
Road conditions	71	14.2%
Drunk drivers	52	10.4%
Lane cutters	52	10.4%
Drivers running red lights	44	8.8%
Riders on horsebacks	27	5.4%
Stray animals	24	4.8%
Pedestrians	16	3.2%
Cyclists on the road	14	2.8%
Motorbikes	14	2.8%
Other	14	2.8%
<b>Total</b>	<b>500</b>	<b>-</b>

N=500. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore and independent count is performed for each of the answers mentioned.

## DRIVING UNDER THE INFLUENCE OF ALCOHOL

Of all the participants, 30.6% indicated having consumed alcoholic beverages at some point, approximately 2 to 3 times a month.

### Do you consume alcoholic beverages?

	Freq.	%
Yes	153	30.6%
No	346	69.2%
Does not know	1	0.2%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

### How often do you consume alcoholic beverages?

	Freq.	%	
3 to 4 times a week	4	2.6%	
1 to 2 times a week	44	28.8%	
2 to 3 times a month	55	35.9%	Median
Once a month or less	50	32.7%	
<b>Total</b>	<b>153</b>	<b>100.0%</b>	

n=153. Note: n is equal to the number of respondents that indicated consuming alcoholic beverages.

Less than ten percent (7.6%) admitted to have driven a vehicle after consuming alcoholic beverages during the past 30 days (most of them were males).

### During the last 30 days, have you driven a vehicle after consuming alcoholic beverages?

	Freq.	%
Yes	38	7.6%
No	461	92.2%
Does not know	1	0.2%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

On average, the participants indicated that twice they have driven (mean) a vehicle two hours after consuming alcoholic beverages in the last 30 days.

**During the past 30 days, how many times have you driven a motor vehicle two hours after consuming alcoholic beverages?**

	Freq.
0	4
1	11
2	11
3	3
4	6
8	1
Does not know / Does not say	2
<b>Total</b>	<b>38</b>
<b>Mean</b>	<b>2</b>
<b>Median</b>	<b>2</b>
<b>Minimum</b>	<b>0</b>
<b>Maximum</b>	<b>8</b>

n=38. Note: n is equal to the number of respondents that indicated having driven a vehicle after consuming alcoholic beverages.

Almost half of the participants said that they know the blood alcohol content allowed for drivers 18 to 20 years old (44.2%) and drivers with 21 years and older (44.6%). When asked about the specific percentage of blood alcohol content allowed, in both cases the average was 0.06% and the median was 0.08%.

**According to what you know about alcohol and traffic laws, could you indicate the blood alcohol content allowed for drivers 18 to 20 years old...**

	Freq.	%
Yes	221	44.2%
No	182	36.4%
Does not know	97	19.4%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

**According to what you know about alcohol and traffic laws, could you indicate the blood alcohol content allowed for drivers 18 to 20 years old...**

<b>Mean</b>	<b>0.060</b>
<b>Median</b>	<b>0.08</b>
<b>Minimum</b>	<b>0</b>
<b>Maximum</b>	<b>0.09</b>

n=221. Note: n is equal to the number of respondents that indicated knowing the blood alcohol content allowed for drivers 18 to 20 years old.

**According to what you know about alcohol and traffic laws, could you indicate the blood alcohol content allowed for drivers 21 years or older...**

	Freq.	%
Yes	223	44.6%
No	181	36.2%
Does not know	96	19.2%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

**According to what you know about alcohol and traffic laws, could you indicate the blood alcohol content allowed for drivers 21 years or older...**

<b>Mean</b>	<b>0.067</b>
<b>Median</b>	<b>0.08</b>
<b>Minimum</b>	<b>0</b>
<b>Maximum</b>	<b>0.09</b>

n=223. Note: n is equal to the number of respondents that indicated knowing the blood alcohol content allowed for drivers 21 years or older.

Also, almost 9 out of 10 (86.0%) of the participants said that they know what a designated driver is.

**Do you know what a designated driver is?**

	Freq.	%
Yes	430	86.0%
No	68	13.6%
Does not know	2	0.4%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

Participants perceive that in Puerto Rico a drunk driver faces a high probability of being arrested. Participants indicated that it is “very likely” (45.8%) and “likely” (39.6%) to get arrested for driving under the influence. This perception seems to be independent of gender or age group.

**How likely is it that a driver gets arrested for driving under the influence of alcohol?**

	Freq.	%
Very likely	229	45.8%
Likely	198	39.6%
Unlikely	34	6.8%
Very unlikely	36	7.2%
Does not know / Does not say	3	0.6%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

It's important to mention that none of the participants were pulled over for driving under the influence of alcohol nor have they been in a car accident for the same reason (during the past 12 months).

**During the past 12 months, have you been pulled over for driving under the influence of alcohol?**

	Freq.	%
No	500	100.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

**During the past 12 months, have you been in any car accidents due to driving under the influence of alcohol?**

	Freq.	%
No	500	100.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.



As to police enforcement efforts and awareness of media campaigns for DUI, only two out of five participants (39.6%) had seen, read or heard of police enforcement efforts regarding impaired driving (driving under the influence of alcohol) in the past 30 days. We found a statistical difference between the age groups of 16 to 59 and 60 years and older. The younger group had a higher recall regarding the efforts of the police than those on the older group.

**During the past 30 days, have you seen, read, or heard about any efforts from the police regarding driving under the influence of alcohol?**

	Freq.	%
Yes	198	39.6%
No	299	59.8%
Does not know	3	0.6%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

Regarding the awareness of media campaigns for DUI's, almost two out of five participants (38.6%) recalled at least one type of message during the last 30 days.

**During the last 30 days, do you remember seeing, reading or hearing any messages as part of a campaign regarding driving under the influence of alcohol?**

	Freq.	%
Yes	193	38.6%
No	304	60.8%
Does not know	3	0.6%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

N=500.

Among those that recalled the campaign, Local TV (74.1%), Radio (28.5%) and Social media (17.6%) were the main outlets of the participants for hearing, reading or seeing said campaign.

**How did you hear, read, or see this message about driving under the influence of alcohol?**

	Freq.	%
Local TV	143	74.1%
Radio	55	28.5%
Social media	34	17.6%
Billboards or posters at bus stops or other public places	31	16.1%
Cable TV and/or satellite	28	14.5%
Newspaper	24	12.4%
Movie theater	11	5.7%
Other internet websites	6	3.1%
Magazine	2	1.0%
Other	6	3.1%
<b>Total</b>	<b>193</b>	<b>-</b>

n=193. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore and independent count is performed for each of the answers mentioned. n is equal to the number of respondents that indicated remembering any messages related to a campaign regarding driving under the influence of alcohol.

A bit over half of participants (55.4%) that recalled the campaign, remembered slogans or phrases. We found a statistical difference between age groups, with those 25 to 59 years having a stronger recall of the slogans than those in the 16 to 24 years and 60 years or older segments.

**Do you remember any slogan or phrase you saw, read, or heard as part of this campaign about driving under the influence of alcohol?**

	Freq.	%
Yes	107	55.4%
No	85	44.0%
Does not know	1	0.5%
<b>Total</b>	<b>193</b>	<b>100.0%</b>

n=193. Note: n is equal to the number of respondents that indicated remembering any messages related to a campaign regarding driving under the influence of alcohol.

The following table summarizes the slogan recall of the participants:

**What slogan, slogans, or phrases you remember seeing, reading, or hearing as part of this campaign about driving under the influence of alcohol?**

	Freq.	%
Si guías y bebes, serás arrestado	41	38.3%
Si bebes, pasa la llave	22	20.6%
Guiar borracho afecta la familia	15	14.0%
Si bebes no guíes / Si guías no bebas	13	12.1%
Anuncio de una niña que paga la condena de su padre	11	10.3%
Si guías borracho, pagas	7	6.5%
Guiar borracho es un crimen	4	3.7%
Si bebes y guías, serás multado	2	1.9%
Other	6	5.6%
Does not say	2	1.9%
<b>Total</b>	<b>107</b>	<b>-</b>

n=107. Note: The sum of percentages may not add to 100% since this is a multiple answer question, therefore and independent count is performed for each of the answers mentioned. n is equal to the number of respondents that indicated remembering any slogans, themes or phrases related to a campaign regarding driving under the influence of alcohol.

Half (52.3%) that recalled the campaign said that the message was “very effective” and only 5.6% said it was “not effective at all”.

**On a scale of 1 to 5, in which 5 means “very effective” and 1 means “not effective at all”, how effective do you think is the message you remember seeing, reading, or hearing about driving under the influence of alcohol?**

	Freq.	%
1 - Not at all effective	6	5.6%
2	4	3.7%
3	16	15.0%
4	23	21.5%
5 - Very effective	56	52.3%
Does not know / Does not say	2	1.9%
<b>Total</b>	<b>107</b>	<b>100.0%</b>

n=107. Note: n is equal to the number of respondents that indicated remembering any slogans, themes or phrases related to a campaign regarding driving under the influence of alcohol.

