

Road Safety, Distracted Driving and Cell Phone Usage

Final Report

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INTRODUCTION

The Traffic Safety Commission of Puerto Rico (CST for its Spanish acronym) hired the consulting firm Estudios Técnicos, Inc., to design and conduct a survey to assess the impact of road safety, distracted driving and cell phone usage campaign. This report presents the results of such survey, conducted between June 6th and June 30th of 2018.

METHODOLOGY

A telephone survey was developed for Puerto Rico residents that were 16 years or older and with an active driver's license. The survey used a probabilistic sample. Telephone numbers were randomly chosen among a list of residential and mobile phone numbers ("Random Digit Dialing" (RDD)). Based on the selected sample type, the estimated sampling error is +4.4% with a confidence level of 95%.

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

FINDINGS

DEMOGRAPHIC PROFILE

General demographic profile:

The gender distribution of the sample consisted of 229 males (45.8%) and 271 females (54.2%). The median age of the sample was 54 years old and the average was slightly similar with 53 years old. The youngest participant was 18 years old and the oldest was 90 years old.

Gender of the interviewee

	Freq.	%
Male	229	45.8%
Female	271	54.2%
Total	500	100.0%

N=500.

Age

	Freq.
18 to 24 years	33
25 to 34 years	52
35 to 44 years	69
45 to 59 years	140
60 or older years	206
Total	500
Mean	53
Median	54
Minimum	18
Maximum	90

N=500.

The average household size consisted of 3 persons while the median household size consisted of 2 persons, including the participants.

How many people live in your household, including yourself?

Mean	3
Median	2
Minimum	1
Maximum	12

N=494. 6 did not respond.

Two out of ten participants (19.6%) had a high school diploma, while one out of three (30.2%) had 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 had some type of college education.

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

	Freq.	%
High School or less	37	7.4%
High School Diploma	98	19.6%
Associate Degree or some years of college	135	27.0%
Bachelor's Degree	151	30.2%
Master's Degree	50	10.0%
Doctorate Degree	17	3.4%
Does not say	12	2.4%
Total	500	100.0%

N=500.

Two out of five (39.4%) participants are currently “working full time”, while 7.8% are working “part time”. Also, one out of three (33.0%) is “retired / pensioner”.

What is your current occupational status?

	Freq.	%
Working full time	197	39.4%
Retired / Pensioner	165	33.0%
Homemaker	49	9.8%
Working part time	39	7.8%
Only studying	17	3.4%
Working and studying	15	3.0%
Unemployed	9	1.8%
Other	8	1.6%
Does not say	1	0.2%
Total	500	100.0%

N=500.

Half (52.4%) of participants are married, while one out of four (25.4%) is single.

Civil status

	Freq.	%
Married	262	52.4%
Single	127	25.4%
Widowed	43	8.6%
Divorced	39	7.8%
Cohabiting	24	4.8%
Does not say	5	1.0%
Total	500	100.0%

N=500.

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

What is your annual household income?

	Freq.	%
Up to \$15,000	119	23.8%
\$15,001-\$25,000	96	19.20%
\$25,001-\$35,000	77	15.40%
\$35,001-\$50,000	52	10.4%
\$50,001-\$75,000	35	7.0%
\$75,001 or more	28	5.6%
Does not say	93	18.6%
Total	500	100.0%

N=500.

GENERAL QUESTIONS ABOUT DISTRACTION

When the participants are driving, they also engage primarily in “eating or drinking” (34.6%), “tending to children on the back seat” (7.2%) and “fixing or brushing your hair looking at the mirror” (5.4%).

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

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

	Freq.	%
Eating or drinking	173	34.6%
Tending to children on the back seat	36	7.2%
Fixing or brushing your hair looking at the mirror	27	5.4%
Driving with a pet on your lap or next to you (unleashed or loose inside the car)	20	4.0%
Putting on makeup or shaving looking at the mirror	17	3.4%
Watching TV / Videos / Movies	2	0.4%
Total	500	-

N=500. Note: The sum of percentages may be different 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	4	0.8%
No	496	99.2%
Total	500	100.0%

N=500.

Which distraction caused that you had a car accident?

	Freq.	%
Changing the radio station	1	25.0%
Talking on the phone	1	25.0%
Look at the sidewalk	1	25.0%
Does not say	1	25.0%
Total	4	100.0%

n=4. Note: n is equal to the number of respondents that indicated having a car accident due to being distracted.

Road Safety, Distracted Driving and Cell Phone Usage

The majority (95.8%) of the participants indicated that they own a cellular phone. However, only 35.5% use it while driving.

Do you own a cellular phone?

	Freq.	%
Yes	479	95.8%
No	21	4.2%
Total	500	100.0%

N=500.

Do you use your cell phone while you drive?

	Freq.	%
Yes	170	35.5%
No	309	64.5%
Total	479	100.0%

n=479. Note: n is equal to the number of respondents that indicated owning a cell phone.

For those who did use their cellular phones while driving, 25.3% use it “always” or “almost always.” Two out of five (41.8%) use it “sometimes”, while 33.0% use it “rarely.” No significant statistical difference was found by gender or type of vehicle and the frequency of use of the cell phone while driving. However, a significant statistical difference was found by age and the frequency of use of the cell phone while driving at a confidence level of 95%.

How often do you use the cell phone while driving?

	Freq.	%	
Always	12	7.1%	
Almost always	31	18.2%	
Sometimes	71	41.8%	MEDIAN
Rarely	56	33.0%	
Total	170	100.0%	

n=170. Note: n is equal to the number of respondents that indicated using the cell phone while driving.

From the participants that did use their cell phone while driving, a little more than six out of ten (62.4%) use it to make or receive calls while driving “very often” or “sometimes.” The remaining 37.6% use it “almost never” or “never” for those purposes.

How often do you use the cell phone while driving to make or receive calls?

	Freq.	%	
Very often	31	18.2%	
Sometimes	75	44.1%	MEDIAN
Almost never	57	33.5%	
Never	7	4.1%	
Total	170	100.0%	

n=170. Note: n is equal to the number of respondents that indicated using the cell phone while driving.

During a weekday, the participants receive an average of five calls a day, with some participants receiving up to 50 calls. On the other hand, the participants make an average of three calls, while some of them can make up to 40 calls.

Approximately, how many calls do you RECEIVE on your cell phone while driving on a typical day of the week?

Mean	5
Median	2
Minimum	0
Maximum	50

n=164. Note: n is equal to the number of respondents that indicated using the cell phone while driving. 6 did not respond.

Approximately, how many calls do you MAKE on your cell phone while driving on a typical day of the week?

Mean	3
Median	1
Minimum	0
Maximum	40

n=164 Note: n is equal to the number of respondents that indicated using the cell phone while driving. 6 did not respond.

During a weekend day, the participants receive an average of three calls a day, with some participants receiving up to 30 calls. Participants make an average of two calls, while some of them can make up to 20 calls daily.

Approximately, how many calls do you RECEIVE on your cell phone while driving on a typical day of the weekend?

Mean	3
Median	2
Minimum	0
Maximum	30

n=164. Note: n is equal to the number of respondents that indicated using the cell phone while driving. 6 did not respond.

Approximately, how many calls do you MAKE on your cell phone while driving on a typical day of the weekend?

Mean	2
Median	1
Minimum	0
Maximum	20

n=164. Note: n is equal to the number of respondents that indicated using the cell phone while driving. 6 did not respond.

In terms of the use of cell phones for sending or receiving text messages, 81.8% of the participants indicated that they “never” or “rarely” use their phones for such purposes while driving. However, 4.7% of the participants reported that they use their phones for text messages “always” or “almost always”, while one out of 10 (13.5%) use it “sometimes.”

How often do you use your cell phone while driving to send or receive text messages?

	Freq.	%	
Always	1	0.6%	
Almost always	7	4.1%	
Sometimes	23	13.5%	
Rarely	40	23.5%	MEDIAN
Never	99	58.3%	
Total	170	100.0%	

n=170. Note: n is equal to the number of respondents that indicated using the cell phone while driving.

During a weekday, the participants send an average of one text per day, with some participants sending up to 50 texts. On the other hand, participants read an average of two texts, while some of them can read up to 30 texts.

Approximately, how many text messages do you SEND from your cell phone while driving on a typical day of the week?

Mean	1
Median	0
Minimum	0
Maximum	50

n=161. Note: n is equal to the number of respondents that indicated using the cell phone while driving. 9 did not respond.

Approximately, how many text messages do you READ from your cell phone while driving on a typical day of the week?

Mean	2
Median	0
Minimum	0
Maximum	30

n=160. Note: n is equal to the number of respondents that indicated using the cell phone while driving. 10 did not respond.

During a weekend day, the participants send and read an average of one text per day, with some participants sending up to 30 texts.

Approximately, how many text messages do you SEND from your cell phone while driving on a typical day of the weekend?

Mean	1
Median	0
Minimum	0
Maximum	30

n=161. Note: n is equal to the number of respondents that indicated using the cell phone while driving. 9 did not respond.

Approximately, how many text messages do you READ from your cell phone while driving on a typical day of the weekend?

Mean	1
Median	0
Minimum	0
Maximum	30

n=160. Note: n is equal to the number of respondents that indicated using the cell phone while driving. 10 did not respond.

The most common reason for using their cell phones while driving was “for family purposes” (66.5%) followed by “emergencies”, which was mentioned by four out of ten participants (41.8%).

What is the most common reason or reasons why you use your cell phone while driving?

	Freq.	%
For family purposes	113	66.5%
Emergencies	71	41.8%
For work purposes	69	40.6%
For personal purposes (coordinating medical appointments, etc.)	50	29.4%
Having a casual conversation or with friends through a call or text	18	10.6%
Reviewing or posting something on social media	5	2.9%
Take photos	2	1.2%
Record videos	1	0.6%
Other	8	4.7%
Total	170	-

n=170. Note: The sum of percentages may be different 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 using the cell phone while driving.

Almost nine out of 10 participants (88.2%) think they are at risk when they use their cell phones while driving. No significant statistical difference was found by gender, type of vehicle, or age, and thinking of being at risk when using the cell phone while driving.

Do you think you are at risk when you use your cell phone while driving?

	Freq.	%
Yes	150	88.2%
No	20	11.8%
Total	170	100.0%

n=170. Note: n is equal to the number of respondents that indicated using the cell phone while driving.

Using a scale in which five means “A lot” and one “not at all”, 90% of the participants scored between five and four in terms of the level of danger of using their cell phones while driving. Only 2% of participants scored two for the level of danger, while 7.3% scored three in such scale.

On a scale from 1 to 5, in which 5 means “A lot” and 1 means “Not at all”, how dangerous to you think is it to use your cell phone while driving?

	Freq.	%	
2	3	2.0%	
3	11	7.3%	
4	19	12.7%	
5 - A lot	116	77.3%	MEDIAN
Does not say	1	0.7%	
Total	150	100.0%	

n is equal to the number of respondents that think that are at risk when they use the cell phone while driving. n=150.

The majority of the participants (88.2%) have a hands-free device that allows them to talk on their cell phones without using their hands. “Bluetooth installed in the car or separated” is the most popular device among the participants(62.7%). The second most used device for this purpose is “head phones with a cable”, indicated by two out of 10 participants and “Bluetooth earbuds (without cables)”, mentioned by 11.3%.

Do you have a hands-free device that allows you to talk on your cell phone without using your hands?

	Freq.	%
Yes	150	88.2%
No	20	11.8%
Total	170	100.0%

n=170. Note: n is equal to the number of respondents that indicated using the cell phone while driving.

What type of hands-free device do you have for your cell phone?

	Freq.	%
Bluetooth installed in the car or separated	94	62.7%
Head phones with a cable	29	19.3%
Bluetooth earbuds (without cables)	17	11.3%
Speaker of the phone	9	6.0%
Other	1	0.7%
Total	150	100.0%

n=150. Note: n is equal to the number of respondents that indicated having a hands-free device.

Almost nine out of 10 participants “always” or “almost always” used hands-free devices, while 4% use it “rarely” or “never”.

When driving and speaking on your cell phone, how often to you use these hands-free devices?

	Freq.	%	
Always	112	74.7%	MEDIAN
Almost always	20	13.3%	
Sometimes	12	8.0%	
Rarely	3	2.0%	
Never	3	2.0%	
Total	150	100.0%	

n=150. Note: n is equal to the number of respondents that indicated having a hands-free device.

The majority of the participants (98.4%) understands that driving and talking on a cell phone without a hands-free device in Puerto Rico is illegal. Also, 99% indicated that texting while driving is illegal.

Is it legal or illegal in Puerto Rico to drive and talk on a cell phone without a hands-free device?

	Freq.	%
Illegal	492	98.4%
Legal	3	0.6%
Does not know / Does not say	5	1.0%
Total	500	100.0%

N=500.

Is it legal or illegal in Puerto Rico to drive and text?

	Freq.	%
Illegal	495	99.0%
Legal	2	0.4%
Does not know / Does not say	3	0.6%
Total	500	100.0%

N=500.

Two out of ten participants (18.8%) think it is “very likely” or “likely” they would receive a traffic fine for driving while talking on their cell phones without a hands-free device. The majority (81%) thinks it is “very unlikely” or “unlikely” they would receive a traffic fine for driving while talking on their cell phones without a hands-free device.

No significant statistical difference was found by gender and the likelihood of receiving a traffic fine for driving while talking on the cell phone without a hands-free device. However, a statistical difference was found between the type of vehicle or age, and the likelihood of receiving a traffic ticket for driving while talking on the cell phone without a hands-free device at a confidence level of 95%.

How likely is that you receive a traffic fine for driving while talking on your cell phone without a hands-free device?

	Freq.	%	
Very likely	38	7.6%	
Likely	56	11.2%	
Unlikely	77	15.4%	
Very unlikely	328	65.6%	MEDIAN
Does not know / Does not say	1	0.2%	
Total	500	100.0%	

N=500.

Eight out of 10 participants indicated they have not seen, read or heard anything about police officers giving traffic fines to people driving without using a hands-free device. No significant statistical difference was found by gender, type of vehicle or age, and seeing, reading or hearing anything about police officers giving traffic fines to people driving without using a hands-free device.

During the last 30 days, have you seen, read, or heard anything about police officers giving traffic fines to people driving without using a hands-free device?

	Freq.	%
Yes	100	20.0%
No	398	79.6%
Does not know	2	0.4%
Total	500	100.0%

N=500.

Almost one out of five of the participants (15%) think it is “very likely” or “likely” they would receive a traffic fine for texting while driving. The other 84.8% thinks it is “very unlikely” or “unlikely” they would receive a traffic ticket for texting while driving. No statistical difference was found by gender and the likelihood of receiving a traffic fine for texting while driving. However, a statistical difference was found by age or type of vehicle, and the likelihood of receiving a traffic fine for texting at a confidence level of 95%. Also, only 16.4% of the participants knew how much money is a fine for driving and talking on the phone without a hands-free device. While only one out of ten knows how much is the fine for "texting" while driving.

How likely is it that you receive a traffic fine for texting while driving?

	Freq.	%	
Very likely	39	7.8%	
Likely	36	7.2%	
Unlikely	77	15.4%	
Very unlikely	347	69.4%	MEDIAN
Does not know	1	0.2%	
Total	500	100.0%	

N=500.

Do you know how much is the fine for driving and talking on the phone without using a hands-free device?

	Freq.	%
Yes	82	16.4%
No	418	83.6%
Total	500	100.0%

N=500.

Do you know how much is the fine for "texting" while driving?

	Freq.	%
Yes	47	9.4%
No	453	90.6%
Total	500	100.0%

N=500.

Of the 35.5% of participants that reported the use of cellphones while driving, 4.1% indicated they have received a traffic ticket for using the cellphone. "Talking on the phone" is the most frequent activity with the cell phone(42.9% of participants) . In a 12 month period previous to the survey, all of these participants received only one traffic fine for the use of their cell phones while driving.

During the past 12 months, have you received any traffic fine for using your cellular phone while driving?

	Freq.	%
Yes	7	4.1%
No	163	95.9%
Total	170	100.0%

n=170. Note: n is equal to the number of respondents that indicated using the cell phone while driving.

What were you doing with your cell phone that caused the traffic fine?

	Freq.	%
Talking on the phone	3	42.9%
Texting	2	28.6%
Other	2	28.6%
Total	7	100.0%

n=7. Note: n is equal to the number of respondents that indicated receiving any traffic tickets for using the cell phone while driving.

During the past 12 months, how many times have you received a traffic fine for using your cell phone while driving?

	Freq.
1	7
Total	7
Mean	1
Median	1
Minimum	1
Maximum	1

n=7. Note: n is equal to the number of respondents that indicated receiving any traffic tickets for using the cell phone while driving.

During the past 12 month previous to the study one participant was involved in a car accident due to the use of cell phones while driving.

During the past 12 months, have you been involved in a car accident because you were using your cell phone while driving?

	Freq.	%
Yes	1	0.6%
No	169	99.4%
Total	170	100.0%

n=170. Note: n is equal to the number of respondents that indicated using the cell phone while driving.

Three out of 10 participants (35.4%) remembers having seen, read or heard messages about a campaign related to the use of the cell phones while driving during the 30 days previous to the study.

During the last 30 days, do you remember having seen, read, or heard any messages about a campaign related to the use of the cell phone while driving?

	Freq.	%
Yes	177	35.4%
No	323	64.6%
Total	500	100.0%

N=500.

Those who did remember the message concerning the use of cell phones while driving, 74.6% identified "local TV" as the media where they heard the message. One out of four (24.9%) said that "Radio" was the second media outlet where they remember getting notice of the message.

How did you hear, read or see this message about the use of cell phones while driving?

	Freq.	%
Local TV	132	74.6%
Radio	44	24.9%
Social media	21	11.9%
Cable TV and/or satellite	17	9.6%
Newspaper	9	5.1%
Other internet websites	9	5.1%
Billboards or posters at bus stops or other public places	8	4.5%
Magazine	1	0.6%
Movie theater	1	0.6%
Other	6	3.4%
Total	177	-

n=177. Note: The sum of percentages may be different 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 the use of the cell phone while driving.

Of these participants, one out of three (33.3%) reported remembering a slogan or phrase of the campaign about the use of cell phones while driving. "Si texteas, no guíes" is the phrase they remember the most, indicated by 25.4%, followed by "Si texteas, pagas" mentioned by 16.9% of the participants.

Do you remember any slogan or phrase you saw, read, or heard as part of that campaign about the use of cell phones while driving?

	Freq.	%
Yes	59	33.3%
No	117	66.1%
Does not know	1	0.6%
Total	177	100.0%

n=177. Note: n is equal to the number of respondents that indicated remembering any messages related to a campaign regarding the use of the cell phone while driving.

Which phrase phrases or slogans do you remember seeing, reading, or hearing as part of that campaign regarding the use of cell phones while driving?

	Freq.	%
Si texteas, no gués	15	25.4%
Si texteas, pagas	10	16.9%
Si texteas, te multan	4	6.8%
No usar el celular mientras maneja	3	5.1%
Si hablas por el celular mientras manejas, pagas	3	5.1%
Si te agarran, seras multado	3	5.1%
Mujer policía hablando	2	3.4%
Si guías, no bebas	2	3.4%
Aumento en la multa	1	1.7%
Cero uso	1	1.7%
Conduzca con cuidado, precaución.	1	1.7%
Cuide su vida	1	1.7%
Guías borracho los cogen y los multan	1	1.7%
Ha perdido la vida por contestar textos	1	1.7%
Imagen de un accidente con una ambulancia en el sitio	1	1.7%
Muchacha que está mirando el celular y de momento está debajo de un camión y se mata	1	1.7%
Nada es tan importante	1	1.7%
No textear	1	1.7%
Personas han matado a alguien mientras van texteando	1	1.7%
Precaución al conducir	1	1.7%
Si no sigues la norma, pagas	1	1.7%
Si quieres ver a Dios, habla por el celular	1	1.7%
Si ves el celular, no ves la carretera	1	1.7%
Si viola la ley sera multado	1	1.7%
Te dan boleto por utilizar el celular	1	1.7%
Te van a multar	1	1.7%
Textear y hablar por teléfono es como andar borracho	1	1.7%
Textear y la muerte	1	1.7%
No recuerda	2	3.4%
Total	59	-

n=59. Note: The sum of percentages may be different 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 the use of cell phones while driving.

Using a scale where five means “very effective” and one “not effective at all” on how effective the participants think the message they remember seeing, reading, or hearing about the use of the cell phone while driving, 62.7% of the participants assigned a score between five and four while 13.6% of them scored between one and two.

On a scale from 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 the use of the cell phone while driving?

	Freq.	%	
1 - Not at all effective	5	8.5%	
2	3	5.1%	
3	14	23.7%	
4	12	20.3%	MEDIAN
5 - Very effective	25	42.4%	
Total	59	100.0%	

n=59. Note: n is equal to the number of respondents that indicated remembering any slogans, themes or phrases related to a campaign regarding the use of cell phones while driving.