



Puerto Rico Distracted Driving Observational Survey

CST CAMPAIGN DATE: 2025-APR 7-14



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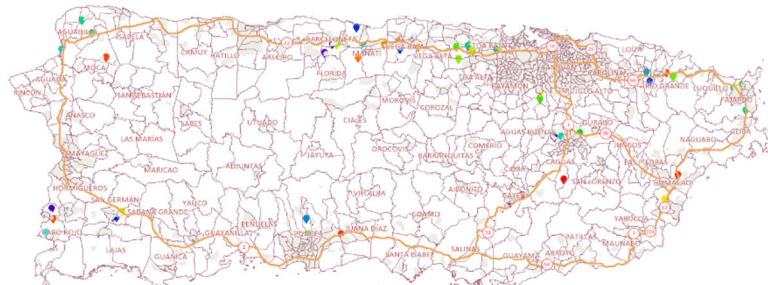


1. Distracted Driving Observational Survey

The Distracted Driving Observational Survey is a structured study designed to measure the prevalence of driver distraction behaviors—particularly mobile device use—on Puerto Rico’s roadways. Conducted by trained field observers without driver interaction, the survey adheres to best practices outlined by the National Highway Traffic Safety Administration (NHTSA) and aligns with the methodological standards of 23 CFR § 1340.8(c). Observations are collected across varied road types and regions to ensure representativeness. The results support the evaluation of educational campaigns, inform data-driven enforcement strategies, and contribute to public policy efforts aimed at reducing distracted driving incidents and improving overall road safety.

Category	Description
Survey	Roadside Distracted Driving Observational Survey
Method	Roadside Observational Study
Sample Size	6,800+ vehicle observations across 68 segments, 17 PSUs, 68 SSUs
Focus	Real-world Distracted Driving by occupants
Purpose	Measure compliance with seat belt laws
Main Content	Driver and front passenger Distracted Driving
Participant Profile	All vehicle occupants observed at intersections and roadways

REGION	MUNICIPIOS	PSU #	SSU #
North	BARCELONETA, DORADO, MANATI, TOA BAJA, VEGA BAJA	5	20
West	AGUADILLA, CABO ROJO, SAN GERMÁN	3	12
South	CAYEY, PONCE	2	8
East	CAGUAS, FAJARDO, HUMACAO, RIO GRANDE	4	16
Metro	BAYAMON, GUAYNABO, SAN JUAN	3	12
5	TOTAL	17	68





2025 Observations Sites

#	PSU	PSU	SSU	Road Name	Long	Latitude	Length	Prob_Selec	Prob_Overall
1	North	BARCELONETA	road #1	Expreso Jose de Diego	-66.543267	18.44154	37	0.033376	0.0006007
2	North	BARCELONETA	road #1	Pr-2	-66.549318	18.43392	120.8	0.0262187	0.0004721
3	North	BARCELONETA	road #1	Cll 10	-66.577102	18.41587	147.8	0.0040745	0.0000734
4	North	BARCELONETA	road #2	Cll Dorada	-66.559151	18.43415	40.9	0.0080454	0.000145
5	North	DORADO	road #1	Expreso Jose de Diego	-66.286862	18.42837	160.1	0.1830936	0.050486
6	North	DORADO	road #1	Pr-2	-66.282166	18.40351	72.4	0.0011613	0.0003202
7	North	DORADO	road #1	Pr-6693	-66.26085	18.43059	162.2	0.0024834	0.0006846
8	North	DORADO	road #2	100 Fairways Village Dr	-66.506672	18.46904	285.1	0.0041211	0.0011363
9	North	MANATI	road #1	Expreso Jose de Diego	-66.502546	18.40582	134.8	0.0019665	0.0005427
10	North	MANATI	road #1	Pr-2	-66.445996	18.4336	79.5	0.0009252	0.0002933
11	North	MANATI	road #1	Cll Vendig	-66.488125	18.42986	13.1	0.0001906	0.0000602
12	North	MANATI	road #2	Pr-686	-66.490614	18.42871	302.1	0.04963	0.0129419
13	North	TOA BAJA	road #1	Expreso Jose de Diego	-66.250376	18.41818	277.9	0.015072	0.0089483
14	North	TOA BAJA	road #1	Pr-165	-66.251495	18.42147	193.6	0.0075516	0.0042781
15	North	TOA BAJA	road #1	Pr-863	-66.198403	18.42384	171.2	0.0009788	0.0005532
16	North	TOA BAJA	road #2	Pr-866	-66.186932	18.42356	552	0.0013838	0.0008123
17	North	VEGA BAJA	road #1	Expreso Jose de Diego	-66.370392	18.42786	420.2	0.0169936	0.0166653
18	North	VEGA BAJA	road #1	Pr-2	-66.412395	18.44382	268.3	0.0027345	0.002314
19	North	VEGA BAJA	road #1	Cll Inocencio Rey	-66.407952	18.42854	31.5	0.0002537	0.0001914
20	North	VEGA BAJA	road #2	Ave Jesus M Armaiz	-66.410275	18.42381	227.6	0.0017071	0.0014446
21	West	AGUADILLA	road #1	Pr-2	-67.057284	18.40648	149.1	0.001043	0.0007519
22	West	AGUADILLA	road #2	Pr-442	-67.155167	18.42278	41.9	0.0005604	0.0004038
23	West	AGUADILLA	road #3	Pr- 465	-67.089146	18.45777	271.8	0.0036935	0.0019488
24	West	AGUADILLA	road #3	Pr- 110	-67.111081	18.4843	42.1	0.0005627	0.003016
25	West	CABO ROJO	road #1	Pr-100	-67.173295	18.07012	153.1	0.0013534	0.0009606
26	West	CABO ROJO	road #1	Pr-3311	-67.141905	18.08673	45.3	0.0004836	0.0002164
27	West	CABO ROJO	road #2	Cll Legion Americana	-67.773865	18.09056	84.6	0.000963	0.0004311
28	West	CABO ROJO	road #3	Comunidad del Toro	-67.189278	18.04088	85.8	0.0009167	0.000401
29	West	SAN GERMÁN	road #1	Pr-2	-67.021718	18.08503	595.2	0.0441878	0.0131671
30	West	SAN GERMÁN	road #1	Cll Retiro	-67.043131	18.07374	42	0.0004093	0.0001959
31	West	SAN GERMÁN	road #1	Pr-321	-67.034135	18.07334	37	0.0003185	0.0001525
32	West	SAN GERMÁN	road #2	Pr- 166	-67.043558	18.08008	36.8	0.0007531	0.0002244
33	South	CAYEY	road #1	Autopista Luis A Ferre	-66.049482	18.15182	57.6	0.0154584	0.0041316
34	South	CAYEY	road #1	Pr-1	-66.141937	18.11936	39.9	0.0003484	0.0000972
35	South	CAYEY	road #1	Ave Jesus T Pinero	-66.166954	18.10368	60.2	0.00055	0.000153
36	South	CAYEY	road #2	Ave Luis Munoz Riv.Sur	-66.168142	18.10694	84.4	0.000772	0.000215
37	South	PONCE	road #1	Pr- 52	-66.540464	18.0379	91.8	0.0021191	0.002623
38	South	PONCE	road #1	Pr- 10	-66.612264	18.03774	45.4	0.0001711	0.0001671
39	South	PONCE	road #1	Cll Torre	-66.616128	18.07049	76.6	0.0002196	0.0002145
40	South	PONCE	road #2	Ave Tito Castro	-66.609691	18.00791	169.1	0.0001931	0.0003116
41	East	CAGUAS	road #1	Exprs Cruz Ortiz Stella	-66.014559	18.24841	54.6	0.00116	0.001126
42	East	CAGUAS	road #1	Ave Zafiro	-66.055186	18.24252	349.9	0.00252	0.002445
43	East	CAGUAS	road #1	Ave Turabo	-66.073252	18.243	70.5	0.00053	0.000496
44	East	CAGUAS	road #2	Cll Via Grande	-66.070892	18.24004	12.4	0.000046	0.000045
45	East	FAJARDO	road #1	Expres Jose C.Barbosa	-65.648822	18.29589	433.9	0.103323	0.029631
46	East	FAJARDO	road #1	Pr- 3	-65.672853	18.34311	104.5	0.004129	0.001369



Puerto Rico Distracted Driving Observational Survey 2025

(2025-000260)

#	PSU	PSU	SSU	Road Name	Long	Latitude	Length	Prob_Selec	Prob_Overall
47	East	FAJARDO	road #1	Ave el Conquistador	-65.658338	18.34766	27.5	0.002649	0.000753
48	East	FAJARDO	road #2	Cll Principal	-65.67547	18.3427	30.4	0.002063	0.000564
49	East	HUMACAO	road #1	Expres Jose C. Barbosa	-65.798686	18.16132	518.5	0.010704	0.004947
50	East	HUMACAO	road #1	Pr- 3	-65.827198	18.11012	202.8	0.002285	0.001096
51	East	HUMACAO	road #1	Cll Dufresne	-65.825858	18.15106	112.3	0.001988	0.000952
52	East	HUMACAO	road #2	Blvd Nicanor Vazquez	-65.829133	18.14894	67.4	0.000491	0.000227
53	East	RIO GRANDE	road #1	Pr- 66	-65.807721	18.36818	655.9	0.149338	0.069208
54	East	RIO GRANDE	road #1	Pr- 3	-65.823649	18.37452	7.6	0.000067	0.000027
55	East	RIO GRANDE	road #1	Ave Cambalache	-65.868122	18.37581	225.8	0.001928	0.000787
56	East	RIO GRANDE	road #2	Cll Rescate	-65.860523	18.35629	61	0.001522	0.000621
57	Metro	BAYAMON	road #1	Expreso Jose de Diego	-66.163284	18.42277	286.6	0.002584	0.001882
58	Metro	BAYAMON	road #1	Ave Comerio	-66.177408	18.43196	156.8	0.001063	0.000488
59	Metro	BAYAMON	road #2	Ave Betances	-66.077594	18.39451	53.5	0.001159	0.000422
60	Metro	BAYAMON	road #3	Ave Santa Ana	-66.119165	18.38055	53.5	0.000198	0.000072
61	Metro	GUAYNABO	road #1	Pr- 20	-66.100457	18.33471	359.5	0.012694	0.0037049
62	Metro	GUAYNABO	road #1	Pr-165	-66.105528	18.4137	367.1	0.0038778	0.0011318
63	Metro	GUAYNABO	road #1	Ave Washington	-66.096259	18.36767	53.7	0.0003043	0.000952
64	Metro	GUAYNABO	road #2	Expreso 834	-66.101755	18.31971	576	0.0032618	0.000952
65	Metro	SAN JUAN	road #1	Expreso Roman Baldorioty de Castro	-66.043002	18.44646	199.3	0.002914	0.003168
66	Metro	SAN JUAN	road #1	Pr- 3	-66.017282	18.39702	236	0.001493	0.001633
67	Metro	SAN JUAN	road #1	Ave Dr Jose N Gandara	-66.045754	18.40165	61.7	0.000967	0.00049
68	Metro	SAN JUAN	road #2	Cll Nemesio Canales	-66.077594	18.41069	269.7	0.000456	0.000499

Variable	Definition
Vgc (Active Drivers)	Total number of active drivers in municipality c within region g.
Vgc / Vg	Proportion of active drivers in the municipality relative to the total number of dr
π_{gc}	Cumulative or adjusted probability that the municipality is selected as part of the
certainty	Indicates whether the municipality is selected with certainty (1) or not (0).
Cumulative Population	Cumulative number of active drivers up to that municipality, ordered for systematic selection.
SAMPLE	Indicates whether that municipality was selected in the sample ("Y") or not.
Vg (Región)	Total number of active drivers in the entire region (g).
Vg / ng	Systematic selection interval in the region
ng	Number of municipalities selected in the sample for region g.
Ng	Total number of municipalities in the region.
RS (Random Start)	Random starting point to apply the systematic selection interval.
RS + SI	Second point of systematic selection in the cumulative list.
RS + 2SI	Third point of systematic selection.
RS + 3SI	Fourth point of systematic selection.
SI (Sampling Interval)	Systematic sampling interval. It is obtained by dividing the total target population



INTRODUCTION

The Traffic Safety Commission of Puerto Rico (CST by its Spanish acronym), with the collaboration of Agentes Y Consultores, Inc., conducted the Distracted Driving Survey for 2025. The purpose of the study is to estimate Distracted Driving in Puerto Rico at a specific point in time. The sample design is like the one approved by the National Highway Traffic Safety Administration (NHTSA) on November 9, 2011. For this year, we used the same road selection from 2024 following the Uniform Criteria for State Observational Surveys of Distracted Driving, approved by NHTSA on May 30, 2017.

The fieldwork team was composed of nine (9) members. All team members participated in a one-day training session on August 11, 2025. The session included all the different aspects for the field observations and quality control. The training was organized in two sections. The first section addressed the objectives of the survey, operational definitions concerning field observations, and data gathering protocols. The second section consisted of examples, the recreation of the different situations, and possible scenarios in the field. This second part also included role playing exercises for observers, counters, and quality control monitors. Observations were conducted from **August 16 to August 30, 2025**. Seventeen (17) counties were visited, for a total of **7,380** vehicle observations.

METHODOLOGY

The methodology used for this 2025 Seat Belt Observational Survey adheres strictly to the Uniform Criteria for State Observational Surveys of Distracted Driving as established by NHTSA (23 CFR § 1340.8(c)). Data collection was conducted through direct roadside observation by trained field staff, without any driver interaction or notification. The survey design is consistent with the sampling approach approved by NHTSA in 2011 and updated for Puerto Rico in 2017, which introduced a new set of road segments based on the approved uniform criteria.

For the 2025 cycle, the same 68 road segments utilized in 2024 were revisited. The sampling frame was organized using a two-stage stratified design. The Primary Sampling Unit (PSU) was defined as the county, while the Secondary Sampling Unit (SSU) was the individual road segment. Each PSU was stratified by five geographic regions (North, South, East, West, and Metro), based on regional distribution across Puerto Rico.

A total of 17 counties were randomly selected from a frame of 45 eligible counties, after excluding those with fewer than 15% of the state's passenger vehicle occupant fatalities, in accordance with 23 CFR § 1340.5(a)(3). The selection was proportional to the number of active driver's licenses per county, ensuring proper representation of the driving population.

Within each selected county, road segments were stratified by road type: 1. Primary Roads, 2. Secondary Roads and 3. Local Roads. Four road segments were selected per county, based on CENSUS TIGER/Line® shapefile data, using segment length as the Measure of Size (MOS). This ensured that longer segments had a higher probability of selection, supporting statistical representativeness. Roadway observation scheduling included rotating time-of-day intervals and road direction to reduce bias and capture diverse traffic patterns.

In general, each county's four selected sites were covered in a single weekday. However, adjustments were made when necessary for weather, safety, or sampling compliance.



This standardized and regionally stratified sampling methodology ensures that the data is representative of vehicle occupants in Puerto Rico and fully compliant with federal requirements. Observations were conducted through direct roadside observation without driver interaction and followed a strict scheduling protocol that ensured data collection occurred across all seven days of the week. Each observation period lasted 45 minutes, followed by an estimated 45-minute travel interval between segments to maintain consistency across sites.

Daily starting times were randomly assigned between 6:00 AM and 1:00 PM, ensuring a balanced probability of observation across the 6:00 AM to 6:00 PM timeframe. Site locations were selected deterministically by identifying the first intersection or ramp on each designated road segment, as mapped using TIGER/Line® shapefiles. Each data collection team consisted of three trained members: two observers recording DISTRACTION and seating position, and one vehicle counter. The team also recorded the roadway directions of the selected segment and, when more than two directions were present, used random selection to determine the direction to observe. For quality assurance, approximately 6% (4 out of 64 segments) of all observation sites were subject to unannounced visits by an independent monitor to ensure compliance with methodological standards.

To facilitate a thorough analysis of the data collected for this report, the team developed a data form containing several key variables. The field data collection app captured detailed observational data for each vehicle encounter, including the region, municipality, road number, road type, road name, timestamp, date, day of the week, time of day, and daytime group. Additionally, it recorded the observer's initials, municipality of observation, specific street or road segment, and optionally, the last three digits of the vehicle's license plate. For each vehicle, the app documented the vehicle type, occupant category, estimated age and gender, seat belt usage, cell phone use by the driver, presence of a child, estimated age of the child, child's use of a car seat, and the weather conditions at the start of the observation.

An observation protocol was implemented to guide all fieldwork activities and ensure methodological consistency across teams. This protocol outlined the specific roles of each team member, criteria for selecting the appropriate roadway direction, designated observation points, procedures for identifying eligible vehicles and occupants, and standardized methods for recording observations.

In addition to the primary protocol, four contingency protocols were developed to address special scenarios: (1) temporarily unavailable observation locations, (2) permanently unavailable sites, (3) situations where the nonresponse rate exceeded 10%, and (4) procedures for handling non-usable or incomplete data. These protocols were critical for maintaining the integrity of the sample design, ensuring that selected sample units were adequately represented, and confirming that the survey's standard error did not exceed 2.5 percentage points, in compliance with 23 CFR § 1340.5(b)(2).

For data entry and processing, the analysis utilized PSPP, Microsoft Excel, and R statistical software.



FINDINGS

General Findings

The five (5) regions of Puerto Rico were covered with visits of the 17 counties (four road segments in each county selected for the sample). The number of observations per segment was a minimum of 100 vehicles, for a total of 7,380 observed vehicles and 9,111 occupants (7,380 drivers and 1,515 front passengers).

The 68 segments visited were the same as 2024 (following NHTSA procedure) within the same time and days of the week. There was no need to change road segments do to the fact that all observations were completed in each of the 68 roads segments used 2024.

Quality control was conducted in four out of the sixty-eight observed segments (6%). These segments, included in table one, were randomly selected.

TABLE 1: QUALITY CONTROL BY ROAD SEGMENTS

Region	County	Type	Road Segment	Coordinates	Date	Hour
METRO	BAYAMON	Primary	Expreso Jose de Diego	18°25'18"N 66°09'50"W	8/20/2025	8:00 AM
METRO	BAYAMON	Local	Ave. Betances	18°23'35"N 66°10'03"W	8/20/2025	9:00 AM
METRO	SANJUAN	Local	NEMESIOCANALES	18°25'01"N 66°04'37"W	8/19/2025	5:00 PM
EAST	CAGUAS	Secondary	Ave Zafiro	18°14'33"N 66°03'00"W	8/20/2025	10:00 AM

Observers recorded the distracted driving information of 7,380 drivers.

The overall Distracted Driving measured was 6.07 percent, with a standard error of 0.28 percent.

TABLE 2: WEIGHTED DISTRACTED DRIVING RATE FOR PUERTO RICO 2025

Table 2 includes the number of observations of drivers per county and region.

Distracted Driving Rate	Standard Error	95 Percent Confidence Interval	
6.07%	0.28%	5.53%	6.61%

n=7,380 (Total observations excluding unknowns)



STANDAR ERROR

The Distracted Driving rate was estimated using a ratio estimator, consistent with statistical methodologies outlined in 23 CFR § 1340.8(c). The standard error (SE) of this estimate was calculated using the survey package in R, in accordance with the procedures submitted and approved in the official Sample Design Plan by NHTSA. The estimation incorporated a total sample of 7,380 observed drivers. The observed proportion of distracted driving (cellphone use) was 6.07%. The calculated standard error for this estimate was approximately 0.28%. The corresponding 95% confidence interval for the true distracted driving rate in Puerto Rico ranges from 5.5% to 6.6%, indicating a high degree of precision and compliance with the federal requirement that the standard error not exceed 2.5 percentage points.

R Script for SE and 95% CI Calculation - Distracted Driving

```
# Load necessary package
install.packages("survey") # Only if not already installed
library(survey)

# Observed distracted driving proportion
p_hat <- 448 / 7380 # 6.07%

# Effective sample size (total observed drivers)
n <- 7380

# Calculate Standard Error
SE <- sqrt(p_hat * (1 - p_hat) / n)

# Calculate 95% Confidence Interval
z <- 1.96 # Z value for 95% confidence
CI_lower <- p_hat - z * SE
CI_upper <- p_hat + z * SE

# Output results
cat("Standard Error (SE):", round(SE * 100, 2), "%\n")
cat("95% Confidence Interval:", round(CI_lower * 100, 2), "% - ", round(CI_upper * 100, 2), "%\n")

# Expected Output:
# Standard Error (SE): 0.28 %
# 95% Confidence Interval: 5.53 % - 6.61 %
```

Table 3 includes the number of observations of drivers per county and region.

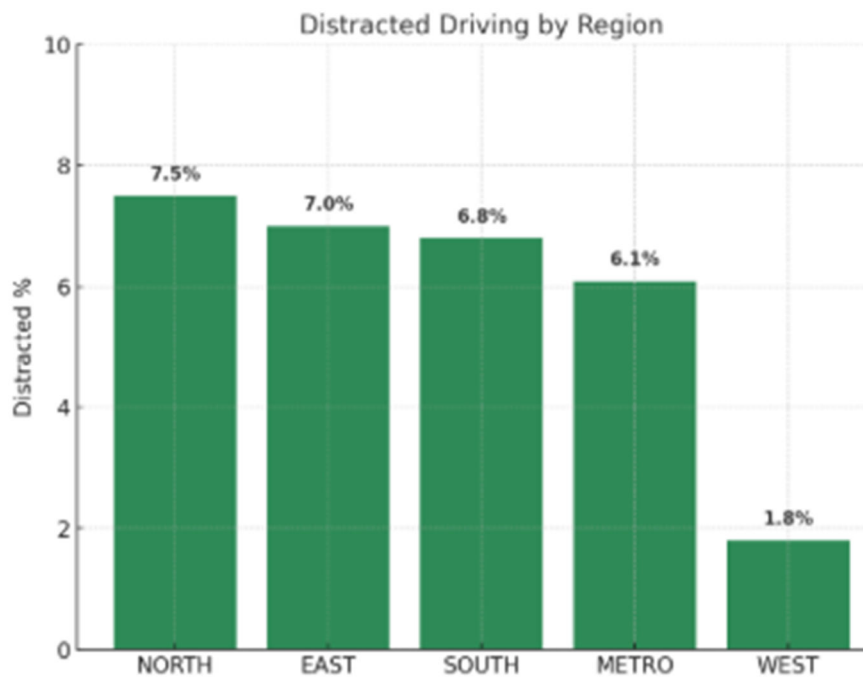
**TABLE 3: NUMBER OF VALID OBSERVATIONS OF DRIVERS PER COUNTY**

	Drivers	Passengers	Occupants
NORTH Region	2,185	419	2,640
BARCELONETA	429	89	521
DORADO	422	92	541
MANATI	448	101	549
TOABAJA	469	72	544
VEGABAJA	417	65	485
WEST Region	1,276	273	1,570
AGUADILLA	409	69	478
CABOROJO	452	105	563
SANGERMÁN	415	99	529
SOUTH Region	888	208	1,108
CAYEY	428	93	530
PONCE	460	115	578
EAST Region	1,630	340	2,039
CAGUAS	405	48	462
FAJARDO	414	98	533
HUMACAO	401	94	501
RIOGRANDE	410	100	543
METRO Region	1,401	275	1,754
BAYAMON	478	78	589
GUAYNABO	472	102	610
SANJUAN	451	95	555



GRAPH 1: OBSERVED DISTRACTION BY REGION

The observational survey of distracted driving in Puerto Rico recorded data from 7,380 drivers, of whom 448 (6.0%) were observed using a cellphone while driving. Regional variation was evident, with the North reporting the highest distracted driving rate at 7.5%, followed by the East at 7.0%, the South at 6.8%, and the Metro region at 6.1%. The West had the lowest rate at only 1.8%. These results highlight that while distracted driving remains a measurable concern across all regions, its prevalence is significantly higher in the North and East compared to the West. Overall, the findings provide a clear regional profile of distracted driving behaviors that can guide targeted enforcement and educational campaigns.



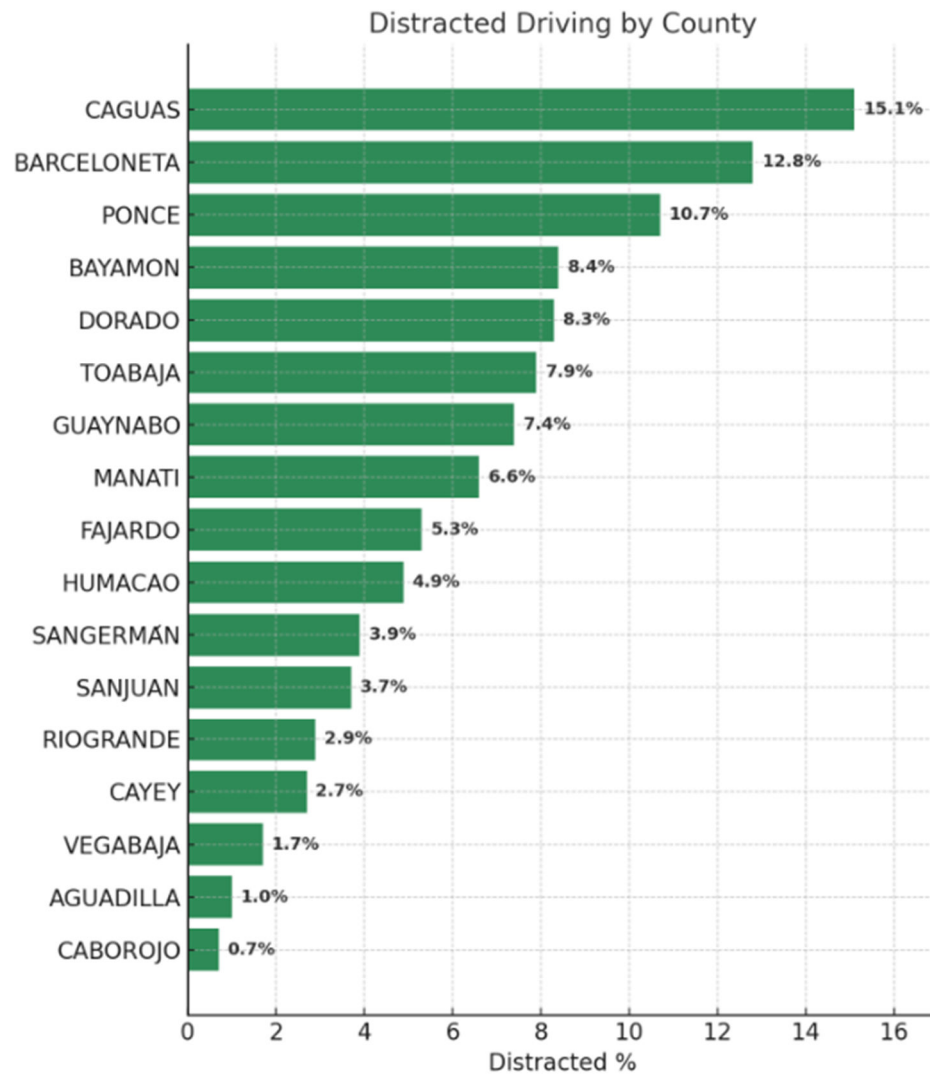
REGION	COUNTIES
North	BARCELONETA, DORADO, MANATI, TOA BAJA, VEGA BAJA
West	AGUADILLA, CABO ROJO, SAN GERMÁN
South	CAYEY, PONCE
East	CAGUAS, FAJARDO, HUMACAO, RIO GRANDE
Metro	BAYAMON, GUAYNABO, SAN JUAN



GRAPH 2: OBSERVED DISTRACTION BY COUNTY

The county-level analysis of distracted driving provides a more detailed picture of variation across Puerto Rico. Among the 7,380 observed drivers, 448 were distracted, resulting in an overall rate of 6.0%. The highest prevalence was found in Caguas, where 15.1% of drivers were observed using a cellphone, followed by Barceloneta at 12.8% and Ponce at 10.7%. Other municipalities with above-average rates include Bayamón (8.4%), Dorado (8.3%), and Toa Baja (7.9%). In contrast, several areas reported substantially lower levels of distracted driving, including San Germán (3.9%), Río Grande (2.9%), Vega Baja (1.7%), Aguadilla (1.0%), and Cabo Rojo (0.7%).

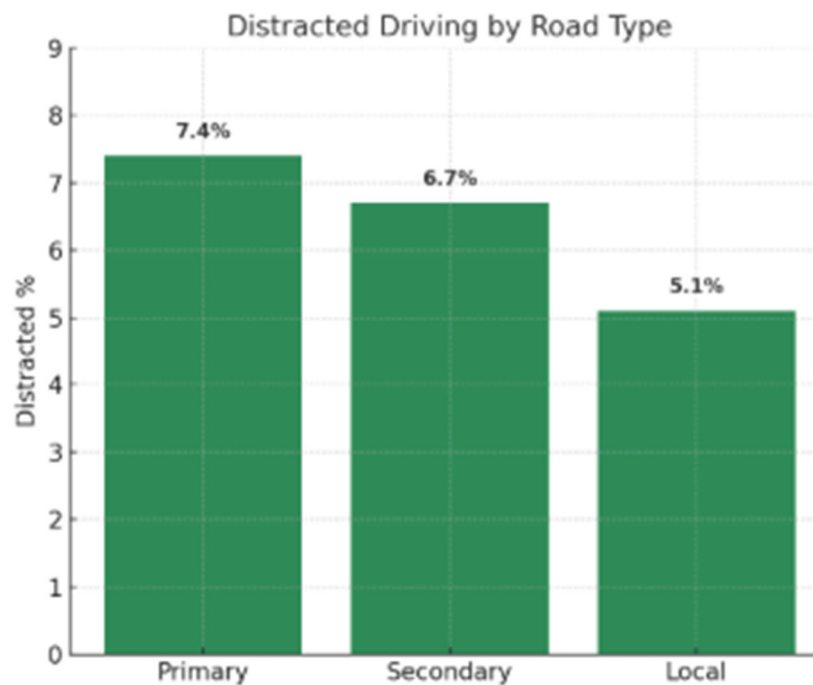
These results highlight clear geographic disparities, with certain urban municipalities emerging as hotspots of distracted driving behavior, while some coastal and western municipalities show markedly lower incidence rates. Such findings provide valuable guidance for targeted enforcement and educational initiatives aimed at reducing risky driving behaviors.





GRAPH 3: OBSERVED DISTRACTION BY ROAD TYPE

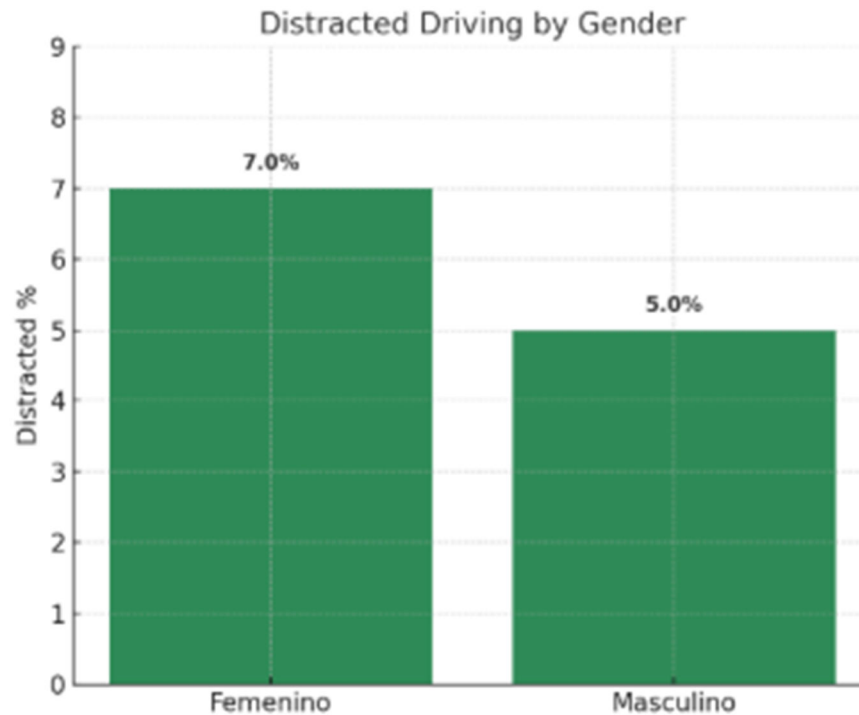
Analysis of 7,380 observed drivers shows that distracted driving varies by road classification. On primary roads, 7.4% of drivers were observed using a cellphone, the highest rate among the three categories. On secondary roads, the distracted driving rate was slightly lower at 6.7%. On local roads, distracted driving was less common, observed among 5.1% of drivers. These results suggest that distraction is more prevalent on higher-classified roads, possibly due to heavier traffic volumes and longer travel times, while drivers on local roads tend to exhibit lower rates of cellphone use.





GRAPH 4: OBSERVED DISTRACTION BY GENDER

Out of 7,380 observed drivers, 448 (6.0%) were distracted using a cellphone. When disaggregated by gender, distracted driving was higher among female drivers (7.0%) compared to male drivers (5.0%). Although men represented a larger share of the observed sample (5,009 drivers vs. 2,371 women), the rate of distraction was notably higher among women. These findings suggest that gender plays a role in distracted driving patterns and may warrant tailored awareness or enforcement strategies



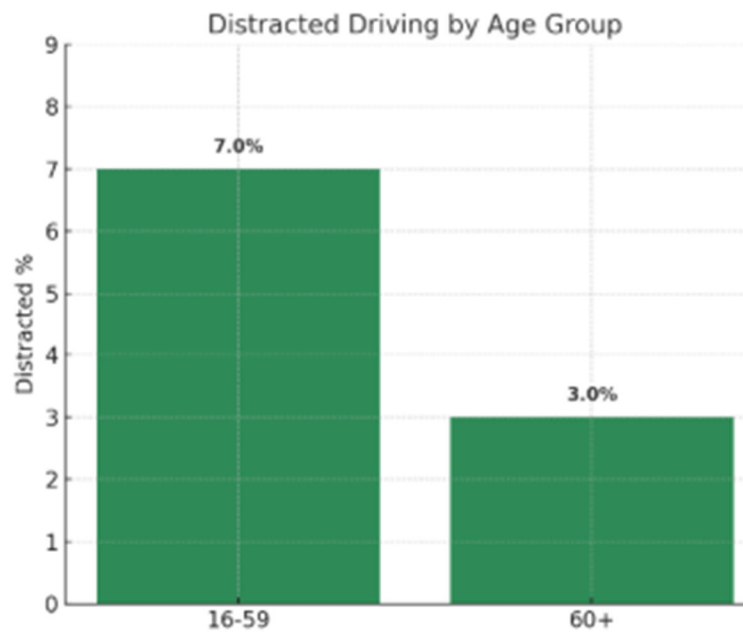
Of the observed drivers, 33% were female and 67% male.



GRAPH 5: OBSERVED DISTRACTION BY AGE

Among the 7,380 observed drivers, distracted driving was reported for 448 individuals, representing 6.0% of the sample. When disaggregated by age, the 16–59 group showed a higher distraction rate of 7.0%, with 406 distracted drivers out of 5,730 observed. In contrast, drivers aged 60 and older exhibited a lower rate of 3.0%, with only 42 distracted drivers among 1,650 observed.

Results indicate that distracted driving is significantly more prevalent among younger and middle-aged drivers, while older drivers are considerably less likely to be observed using a cellphone behind the wheel.

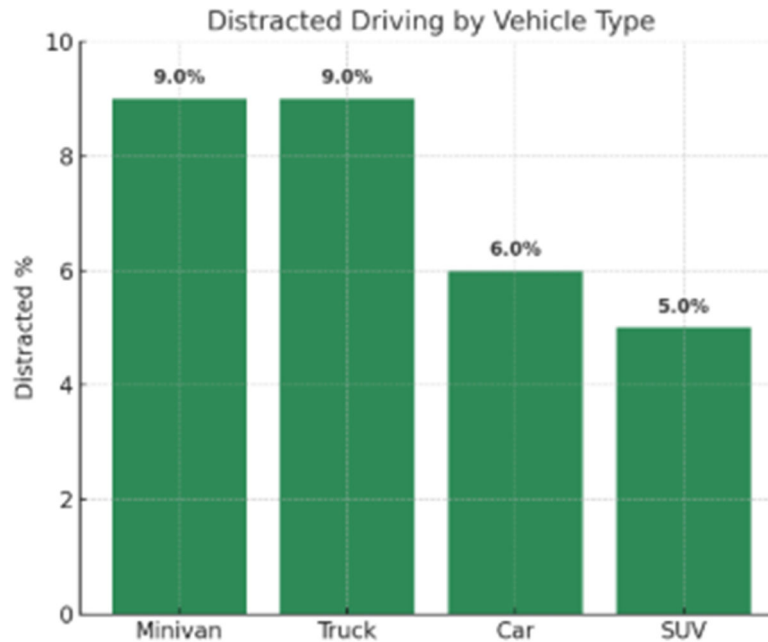


Of the observed drivers, 22% were over the age of 60 and 78% between 16 and 59 years of age.



GRAPH 6: OBSERVED DISTRACTION BY VEHICLE TYPE

Distracted driving was most prevalent among those operating minivans (9.0%) and trucks (9.0%), both above the overall average of 6.0%. In comparison, car drivers exhibited a 6.0% distraction rate, while SUV drivers had the lowest rate at 5.0%. These results suggest that drivers of larger passenger vehicles, particularly minivans and trucks, were more likely to engage in cellphone use while driving, whereas SUV drivers showed a lower prevalence of distraction.

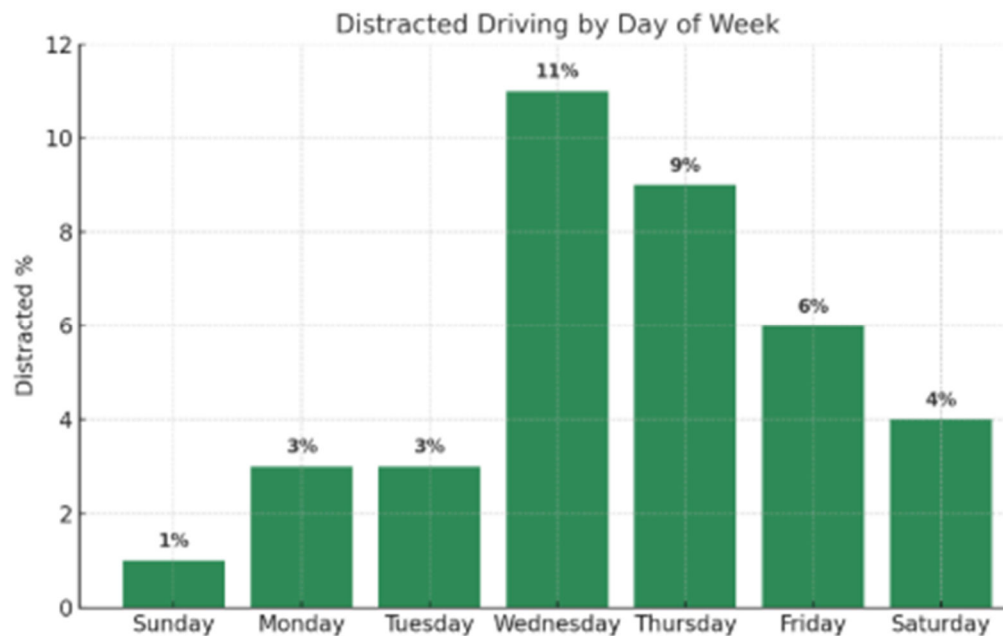


Of the observed vehicles, 45% were regular cars, 43% were SUVs, 7% Minivans and 4% trucks.



GRAPH 7: OBSERVED DISTRACTION BY DAY OF THE WEEK

Distracted driving varied notably across the week. The highest rates were recorded on Wednesday (11%) and Thursday (9%), well above the weekly average of 6%. Friday (6%) was close to the overall mean, while Saturday (4%) and the start of the week (Monday and Tuesday at 3% each) showed lower distraction levels. The lowest rate was observed on Sunday (1%), suggesting a sharp mid-week peak in distracted driving that declines significantly toward the weekend. This pattern indicates that mid-week commuting days carry the highest risk for distracted driving behavior.



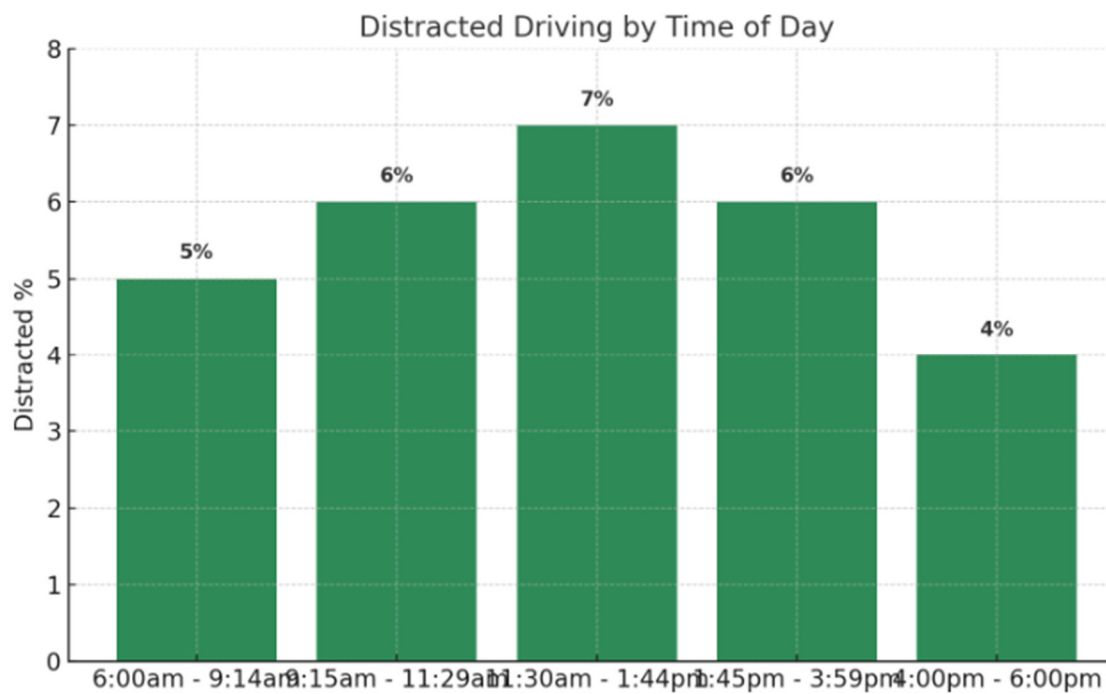
Thursday accounted for the highest proportion of data collection at 21.6%, followed by Wednesday with 18.2%, and Friday with 14.2%. Tuesday and Monday reflected moderate data collection levels, with 12.8% and 12.5% respectively. The lowest levels of data collection occurred during the weekend, with Sunday at 10.5% and Saturday at 10.2%.



GRAPH 8: OBSERVED DISTRACTION BY TIME-OF-DAY INTERVALS

Results show that distracted driving varies by time of day. The late morning to early afternoon period (11:30am–1:44pm) had the highest distraction rate at 7%, followed closely by mid-morning (9:15am–11:29am) and early afternoon (1:45pm–3:59pm), both at 6%. The early morning period (6:00am–9:14am) recorded a lower rate of 5%, while the late afternoon (4:00pm–6:00pm) had the lowest distraction level at 4%.

These results suggest that distraction peaks during midday travel times, while morning commutes and evening hours show comparatively lower cellphone use among drivers.



Data collection activity by time block shows that the 9:15 AM to 11:29 AM period had the highest share, accounting for 28.1% of all observations. This was followed closely by the 6:00 AM to 9:14 AM block, which represented 26.5%. Activity declined notably after mid-morning, with 16.9% of data collected between 11:30 AM and 1:44 PM, and 15.7% between 1:45 PM and 3:59 PM. The lowest level of data collection occurred in the 4:00 PM to 6:00 PM time block, with only 12.8%.

**APPENDIX 1: LIST AND MAP OF SAMPLED ROAD SEGMENTS**

Region	County	Type	Road Segment	Direction	Coordinates	Day	Time	DISTRACTED%
EAST	CAGUAS	Local	Ave Turabo	W	18°13'40"N 66°03'12"W	Wednesday	11 am	9%
EAST	CAGUAS	Local	CLI Via Grande	W	18°14'25"N 66°04'14"W	Wednesday	2 pm	8%
EAST	CAGUAS	Primary	Expreso Cruz Ortiz Stella	W	18°14'43"N 66°01'10"W	Wednesday	8 am	30%
EAST	CAGUAS	Secondary	Ave Zafiro	W	18°14'33"N 66°03'00"W	Wednesday	10 am	14%
EAST	FAJARDO	Local	Ave el Conquistador	S	18°20'19"N 65°39'23"W	Tuesday	9 am	8%
EAST	FAJARDO	Local	CLI Principal	S	18°20'26"N 65°39'37"W	Tuesday	7 am	2%
EAST	FAJARDO	Primary	Expreso Jose Celso Barbosa	E	18°17'54"N 65°38'58"W	Saturday	5 pm	5%
EAST	FAJARDO	Secondary	PR-3	E	18°19'52"N 65°39'41"W	Tuesday	11 am	7%
EAST	HUMACAO	Local	Boulevard Nicanor Vazquez	E	18°08'43"N 65°49'32"W	Friday	11 am	9%
EAST	HUMACAO	Local	CLI Dufresne	E & W	18°09'04"N 65°49'41"W	Friday	1 pm	5%
EAST	HUMACAO	Primary	Expreso Jose Celso Barbosa	S	18°04'47"N 65°50'21"W	Friday	7 am	1%
EAST	HUMACAO	Secondary	PR- 3	S	18°06'43"N 65°49'19"W	Friday	8 am	4%
EAST	RIOGRANDE	Local	Ave Cambalache	N & S	18°22'35"N 65°52'03"W	Saturday	5 pm	4%
EAST	RIOGRANDE	Local	CLI Rescate	N & S	18°21'19"N 65°51'38"W	Saturday	6 pm	0%
EAST	RIOGRANDE	Primary	PR- 66	E	18°22'32"N 65°49'39"W	Saturday	2 pm	7%
EAST	RIOGRANDE	Secondary	PR- 3	W	18°22'40"N 65°50'11"W	Saturday	3 pm	1%
METRO	BAYAMON	Local	AveBetances	N & S	18°23'35"N 66°10'03"W	Wednesday	10 am	11%
METRO	BAYAMON	Local	AveSantaAna	E & W	18°22'49"N 66°07'06"W	Wednesday	7 pm	3%
METRO	BAYAMON	Primary	Expreso Jose de Diego	W	18°25'18"N 66°09'50"W	Wednesday	7 am	3%
METRO	BAYAMON	Secondary	AveComerio	E	18°22'42"N 66°10'21"W	Wednesday	5 pm	15%
METRO	GUAYNABO	Local	AveWashington	N	18°22'00"N 66°05'44"W	Thursday	7 am	9%
METRO	GUAYNABO	Local	Expreso834	S	18°18'11"N 66°06'23"W	Thursday	12 pm	3%
METRO	GUAYNABO	Primary	PR20	S	18°21'42"N 66°06'24"W	Thursday	9 am	10%
METRO	GUAYNABO	Secondary	PR169	S	18°21'29"N 66°06'38"W	Thursday	10 am	5%
METRO	SANJUAN	Local	JOSEGANDARA	W	18°24'05"N 66°03'08"W	Tuesday	3 pm	2%
METRO	SANJUAN	Local	NEMESIOCANALES	N	18°25'01"N 66°04'37"W	Tuesday	5 pm	0%
METRO	SANJUAN	Primary	BALDORIOTY	W	18°26'36"N 66°01'38"W	Saturday	5 pm	3%
METRO	SANJUAN	Secondary	PR-3	W	18°23'47"N 66°01'25"W	Saturday	5 pm	7%
NORTH	BARCELONETA	Local	CALLE10	N	18°26'55"N 66°32'16"W	Thursday	12 pm	17%
NORTH	BARCELONETA	Local	CALLEDORADA	N & S	18°26'02"N 66°33'32"W	Thursday	9 am	5%
NORTH	BARCELONETA	Primary	ExpresoJoseDeDiego	W	18°26'24"N 66°32'35"W	Thursday	11 am	17%
NORTH	BARCELONETA	Secondary	PR2	E	18°26'24"N 66°32'35"W	Thursday	10 am	12%
NORTH	DORADO	Local	100FairwaysVillageDr	S	18°28'08"N 66°18'23"W	Thursday	2 pm	22%
NORTH	DORADO	Local	PR-6693	E & W	18°27'29"N 66°15'32"W	Thursday	4 pm	6%
NORTH	DORADO	Primary	ExpresoDeDiego	W	18°25'14"N 66°16'02"W	Monday	4 pm	4%
NORTH	DORADO	Secondary	PR2	E	18°24'34"N 66°15'40"W	Thursday	6 am	0%
NORTH	MANATI	Local	CLI Vendig	N & S	18°25'26"N 66°29'05"W	Friday	10 am	6%
NORTH	MANATI	Local	Pr-866	E & W	18°28'14"N 66°26'52"W	Friday	9 am	5%
NORTH	MANATI	Primary	ExpresodeDiego	W	18°25'58"N 66°28'33"W	Friday	12 pm	9%
NORTH	MANATI	Secondary	PR-2	E	18°26'16"N 66°28'37"W	Friday	11 am	6%
NORTH	TOABAJA	Local	Pr-866	N	18°25'38"N 66°11'15"W	Thursday	10 am	6%
NORTH	TOABAJA	Local	Pr-868	W	18°27'47"N 66°11'19"W	Thursday	9 am	8%
NORTH	TOABAJA	Primary	ExpresodeDiego	E	18°28'08"N 66°18'23"W	Thursday	12 pm	14%



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Region	County	Type	Road Segment	Direction	Coordinates	Day	Time	DISTRACTED%
NORTH	TOABAJA	Secondary	PR-2	N	18°24'37"N 66°15'21"W	Friday	6 am	14%
NORTH	VEGABAJA	Local	AveJesusArmaiz	N & S	18°25'57"N 66°24'39"W	Tuesday	12 pm	4%
NORTH	VEGABAJA	Local	Cll Inocencio Rey	N & S	18°25'42"N 66°24'28"W	Tuesday	9 am	0%
NORTH	VEGABAJA	Primary	ExpresodeDiego	W	18°26'24"N 66°25'25"W	Tuesday	7 am	1%
NORTH	VEGABAJA	Secondary	PR-2	E	18°26'48"N 66°23'51"W	Tuesday	2 pm	2%
SOUTH	CAYEY	Local	Ave Jesus T Pinero	E & W	18°06'26"N 66°09'31"W	Sunday	7 am	1%
SOUTH	CAYEY	Local	Ave Luis Munoz Rivera Sur	N & S	18°06'35"N 66°10'00"W	Sunday	9 am	0%
SOUTH	CAYEY	Primary	Autopista Luis A Ferre	W	18°06'46"N 66°08'40"W	Friday	9 am	5%
SOUTH	CAYEY	Secondary	PR-1	W	18°07'16"N 66°08'22"W	Sunday	11 am	4%
SOUTH	PONCE	Local	Ave Tito Castro	E	18°01'39"N 66°35'50"W	Wednesday	11 am	12%
SOUTH	PONCE	Local	Cll Torre	E & W	18°00'30"N 66°36'57"W	Wednesday	9 am	1%
SOUTH	PONCE	Primary	PR- 52	E	18°00'21"N 66°35'02"W	Wednesday	1 pm	17%
SOUTH	PONCE	Secondary	PR- 506	W	18°02'19"N 66°32'54"W	Wednesday	1 pm	14%
WEST	AGUADILLA	Local	PR-110	E	18°25'57"N 66°24'39"W	Monday	1 pm	2%
WEST	AGUADILLA	Local	PR-465	E	18°27'16"N 67°05'33"W	Monday	11 am	0%
WEST	AGUADILLA	Primary	PR-2	E	18°25'30"N 67°09'03"W	Monday	9 am	2%
WEST	AGUADILLA	Secondary	PR-442	E & W	18°25'08"N 67°09'22"W	Monday	7 am	0%
WEST	CABOROJO	Local	Comunidad del Toro	N & S	18°02'21"N 67°11'20"W	Sunday	11 am	0%
WEST	CABOROJO	Local	PR- Cll Legion Americana	N & S	18°02'11"N 67°10'40"W	Sunday	9 am	0%
WEST	CABOROJO	Primary	PR-100	E & W	18°03'58"N 67°09'14"W	Sunday	8 am	0%
WEST	CABOROJO	Secondary	PR-3311	E & W	18°07'07"N 67°09'28"W	Sunday	2 pm	3%
WEST	SANGERMÁN	Local	PR-166	E & W	18°04'43"N 67°02'59"W	Monday	11 am	2%
WEST	SANGERMÁN	Local	PR-321	E & W	18°03'30"N 67°02'11"W	Monday	1 pm	2%
WEST	SANGERMÁN	Primary	PR-2	W	18°05'26"N 67°01'46"W	Monday	7 am	7%
WEST	SANGERMÁN	Secondary	Cll Retiro	E & W	18°04'41"N 67°02'07"W	Monday	9 am	5%



APPENDIX 2: DETAILED DATA BY ROAD SEGMENT

Region	Municipality	Road_Type	Road_Name	Direct	W_gchijkml	DATE	TIME	Drivers	Distracted	Distrd%
WEST	AGUADILLA	Local	PR-465	E	5658699.81	25/08/2025	11 am	102	0	0%
WEST	AGUADILLA	Local	PR-110	E	78813334.49	25/08/2025	1 pm	100	2	2%
WEST	AGUADILLA	Primary	PR-2	E	86287469.17	25/08/2025	9 am	102	2	2%
WEST	AGUADILLA	Secondary	PR-442	E & W	17824794.40	25/08/2025	7 am	105	0	0%
NORTH	BARCELONETA	Local	CALLE10	N	14575901.36	21/08/2025	12 pm	116	20	17%
NORTH	BARCELONETA	Local	CALLEDORADA	N & S	21954128.15	21/08/2025	9 am	106	5	5%
NORTH	BARCELONETA	Primary	ExpresoJoseDeDiego	W	96089266.17	21/08/2025	11 am	104	18	17%
NORTH	BARCELONETA	Secondary	PR2	E	88447414.52	21/08/2025	10 am	103	12	12%
METRO	BAYAMON	Local	AveBetances	N & S	33853501.32	20/08/2025	10 am	127	14	11%
METRO	BAYAMON	Local	AveSantaAna	E & W	80884492.14	20/08/2025	7 pm	116	4	3%
METRO	BAYAMON	Primary	Expreso Jose de Diego	W	3635252.72	20/08/2025	7 am	108	4	3%
METRO	BAYAMON	Secondary	AveComerio	E	25636027.30	20/08/2025	5 pm	127	19	15%
WEST	CABOROJO	Local	PR- Cll Legion Americana	N & S	3987125.16	17/08/2025	9 am	115	0	0%
WEST	CABOROJO	Local	Comunidad del Toro	N & S	13052981.18	17/08/2025	11 am	117	0	0%
WEST	CABOROJO	Primary	PR-100	E & W	71683140.36	17/08/2025	8 am	107	0	0%
WEST	CABOROJO	Secondary	PR-3311	E & W	24740981.65	17/08/2025	2 pm	113	3	3%
EAST	CAGUAS	Local	Ave Turabo	W	42421720.95	20/08/2025	11 am	101	9	9%
EAST	CAGUAS	Local	Cll Via Grande	W	47893459.20	20/08/2025	2 pm	104	8	8%
EAST	CAGUAS	Primary	Expreso Cruz Ortiz Stella	W	85560414.38	20/08/2025	8 am	100	30	30%
EAST	CAGUAS	Secondary	Ave Zafiro	W	8756212.94	20/08/2025	10 am	100	14	14%
SOUTH	CAYEY	Primary	Autopista Luis A Ferre	W	8939915.65	22/08/2025	9 am	101	5	5%
SOUTH	CAYEY	Local	Ave Jesus T Pinero	E & W	13958433.54	24/08/2025	7 am	107	1	1%
SOUTH	CAYEY	Local	Ave Luis Munoz Rivera Sur	N & S	24861531.23	24/08/2025	9 am	108	0	0%
SOUTH	CAYEY	Secondary	PR-1	W	26224523.91	24/08/2025	11 am	112	5	4%
NORTH	DORADO	Local	PR-6693	E & W	4711041.18	21/08/2025	4 pm	109	7	6%
NORTH	DORADO	Local	100FairwaysVillageDr	S	34779440.66	21/08/2025	2 pm	110	24	22%
NORTH	DORADO	Primary	ExpresoDeDiego	W	2608486.23	25/08/2025	4 pm	101	4	4%
NORTH	DORADO	Secondary	PR2	E	19393085.14	28/08/2025	6 am	102	0	0%
EAST	FAJARDO	Local	Cll Principal	S	18441879.49	19/08/2025	7 am	104	2	2%
EAST	FAJARDO	Local	Ave el Conquistador	S	42812817.71	19/08/2025	9 am	104	8	8%
EAST	FAJARDO	Secondary	PR-3	E	24171227.61	19/08/2025	11 am	103	7	7%
EAST	FAJARDO	Primary	Expreso Jose Celso Barbosa	E	1181470.04	30/08/2025	5 pm	103	5	5%
METRO	GUAYNABO	Local	Expreso834	S	11246665.77	21/08/2025	12 pm	112	3	3%
METRO	GUAYNABO	Local	AveWashington	N	128988147.75	21/08/2025	7 am	126	11	9%
METRO	GUAYNABO	Primary	PR20	S	1132800.12	21/08/2025	9 am	116	12	10%
METRO	GUAYNABO	Secondary	PR169	S	10122137.72	21/08/2025	10 am	118	6	5%
EAST	HUMACAO	Local	Cll Dufresne	E & W	14118707.14	29/08/2025	1 pm	100	5	5%
EAST	HUMACAO	Local	Boulevard Nicanor Vazquez	E	47009586.63	29/08/2025	11 am	101	9	9%
EAST	HUMACAO	Primary	Expreso Jose Celso Barbosa	S	13715506.12	29/08/2025	7 am	100	1	1%
EAST	HUMACAO	Secondary	PR- 3	S	15459583.60	29/08/2025	8 am	100	4	4%
NORTH	MANATI	Local	Pr-866	E & W	413644.36	29/08/2025	9 am	111	6	5%
NORTH	MANATI	Local	Cll Vendig	N & S	177834937.97	29/08/2025	10 am	110	7	6%
NORTH	MANATI	Primary	ExpresodeDiego	W	30068036.53	29/08/2025	12 pm	110	10	9%
NORTH	MANATI	Secondary	PR-2	E	221958810.50	29/08/2025	11 am	117	7	6%
SOUTH	PONCE	Local	Cll Torre	E & W	24961803.08	20/08/2025	9 am	119	1	1%
SOUTH	PONCE	Local	Ave Tito Castro	E	35721910.82	20/08/2025	11 am	118	14	12%
SOUTH	PONCE	Primary	PR- 52	E	31979795.75	20/08/2025	1 pm	114	19	17%
SOUTH	PONCE	Secondary	PR- 506	W	129446807.53	20/08/2025	1 pm	109	15	14%
EAST	RIOGRANDE	Local	Ave Cambalache	N & S	6804634.80	23/08/2025	5 pm	104	4	4%
EAST	RIOGRANDE	Local	Cll Rescate	N & S	8619641.27	23/08/2025	6 pm	104	0	0%
EAST	RIOGRANDE	Primary	PR- 66	E	354967.53	23/08/2025	2 pm	100	7	7%
EAST	RIOGRANDE	Secondary	PR- 3	W	1200652761.46	23/08/2025	3 pm	102	1	1%
WEST	SANGERMÁN	Local	PR-166	E & W	34934145.06	18/08/2025	11 am	101	2	2%
WEST	SANGERMÁN	Local	PR-321	E & W	44803009.00	18/08/2025	1 pm	108	2	2%
WEST	SANGERMÁN	Primary	PR-2	W	4878217.14	18/08/2025	7 am	106	7	7%
WEST	SANGERMÁN	Secondary	Cll Retiro	E & W	23851020.26	18/08/2025	9 am	100	5	5%
METRO	SANJUAN	Primary	BALDORIOTY	W	53763831.78	16/08/2025	5 pm	115	4	4%



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Region	Municipality	Road_Type	Road_Name	Direct	W_gchijklm	DATE	TIME	Drivers	Distracted	Distrd%
METRO	SANJUAN	Local	NEMESIOCANALES	N	47860310.00	19/08/2025	5 pm	115	0	0%
METRO	SANJUAN	Local	JOSEGANDARA	W	111221950.66	19/08/2025	3 pm	109	2	2%
METRO	SANJUAN	Secondary	PR-3	W	48258623.63	30/08/2025	5 pm	112	8	7%
NORTH	TOABAJA	Local	Pr-866	N	12642352.29	28/08/2025	10 am	107	6	6%
NORTH	TOABAJA	Local	Pr-868	W	19232381.06	28/08/2025	9 am	159	13	8%
NORTH	TOABAJA	Primary	ExpresodeDiego	E	4857793.72	28/08/2025	12 pm	102	4	4%
NORTH	TOABAJA	Secondary	PR-2	N	9960641.38	29/08/2025	6 am	101	14	14%
NORTH	VEGABAJA	Local	AveJesusArmaiz	N & S	3705835.26	26/08/2025	12 pm	103	4	4%
NORTH	VEGABAJA	Local	Cll Inocencio Rey	N & S	26811671.17	26/08/2025	9 am	105	0	0%
NORTH	VEGABAJA	Primary	ExpresodeDiego	W	3636286.27	26/08/2025	7 am	105	1	1%
NORTH	VEGABAJA	Secondary	PR-2	E	18045110.71	26/08/2025	2 pm	104	2	2%



APPENDIX 3: PRIOR YEAR RESULTS

YEAR	Rate of DISTRACTION	Standard Error (%)
2025	6.07%	0.28%
2024	14.20%	0.07%