DISTRACTED DRIVING:
Cell Phone Use While Driving in Maine (2024)

September 16, 2024

Prepared for:

The Maine Bureau of Highway Safety

&

Robyn Dumont, Managing Director

Survey Research Center
Catherine Cutler Institute
The University of Southern Maine
222 Deering Avenue
Portland, Maine 04104-9300

Prepared by:

Neil K. Chaudhary, Ph.D.
Katie Raboin, Senior Research Associate

Preusser Research Group, Inc.
115 Technology Drive
Unit B307
Trumbull, Connecticut 06611

Introduction

According to National Center for Statistics and Analysis (NCSA) estimates, distracted driving caused an estimated 3,522 deaths in 2021 and about 362,000 injuries (NCSA, 2023). There was a 10% increase in "distracted-affected" fatal crashes from 2020 to 2021 (NCSA, 2023). However, it is important to note that NHTSA believes the overall number of reported distracted driving fatalities underestimates the actual number. NHTSA also estimates that 10% of fatal crashes, 18% of injury crashes, and 16% of all police-reported motor vehicle traffic crashes in 2013 were reported as effects of driver distraction. State legislatures are responding to the safety threat as indicated by the Governors Highway Safety Association's tracking of distracted driving and other traffic safety law implementation. As of September 2023, there are 34 States along with the District of Columbia, Puerto Rico, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands that prohibit all drivers from using handheld cell phones while driving. These laws allow for each state and territory (except Alabama and Missouri) to treat cell phone use with primary enforcement, granting law enforcement the ability to stop motorists solely for cell phone use while driving. Currently, 49 states, the District of Columbia, Puerto Rico, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands similarly ban text messaging for all drivers (all but six have primary enforcement).

NHTSA's high-visibility enforcement (HVE) model is a proven technique to change driver behavior and enhance the effects of traffic laws. With this model, program funds pay for overtime hours for a strong ticketing effort (highly visible and highly focused law enforcement activity) can be demonstrated. The goal of this model is to increase the public's perceived likelihood of receiving a ticket and to increase perceptions of strictness in police enforcement of a law, both of which are thought to impact law adherence. Targeted media advertising prior to the campaign educates the public about laws and associated fines while also publicizing increased law enforcement efforts. Evaluation of the impact of the HVE campaign requires two activities. The public's perceptions are assessed before (pre) and after (post) the campaign regarding: 1) how strictly laws are enforced, 2) awareness of media messages, and 3) awareness of campaign slogans. Increases in awareness provide one form of evidence regarding the effectiveness and strength of the media campaign. Observation and documentation of driver behavior related to a law pre-/post-campaign is used to determine whether the program changed the targeted driving behavior(s).

Preexisting research provides strong evidence that primary laws and HVE efforts are effective at quickly increasing seat belt use (Shults et al., 2004) while recent research indicates that HVE programs targeted specifically at handheld cell phone use can reduce observed usage rates. One of the first large-scale campaigns attempting to address the problem of cell phone use while driving found dramatic reductions in distracted driving in Syracuse, New York and Hartford, Connecticut (Chaudhary, Casanova-Powell, Cosgrove, Reagan & Williams, 2012).

NHTSA-sponsored HVE campaigns were conducted four times over the course of a year during this program.

Observational surveys and public awareness surveying were conducted before and after four waves of HVE enforcement in Syracuse. The results indicate that public awareness increased from before the program started to when it ended, and handheld cell phone use and texting behind the wheel declined (3.7% to 2.5%) over the same period. In Hartford, there was a 57% drop in handheld use (from 6.8% to 2.9%), and texting behind the wheel dropped by nearly three-quarters from pre-program to after the program.

A similar campaign, also funded by NHTSA, expanded the HVE method to a much larger implementation level, assessing cell phone use while driving in 13 California counties in the Sacramento area and in the state of Delaware (Chaudhary, Connolly, Tison, Solomon & Elliott, 2015). The Highway Safety Offices in both states coordinated three HVE waves within an 18-month project period. This study found observed handheld cell phone use in California decreased significantly from 4.1% to 2.7% pre- to post-campaign, reflecting a drop of 33%. Drivers in Delaware showed a similar, significant decrease in observed handheld phone use pre-/post-campaign from 4.5% to 3.0%, a 33% reduction in use. Increased awareness of police enforcement, media messages, and of the campaign slogan occurred in both states over the course of the programs.

The current study follows the same design implemented in April 2018 and replicated each year since except 2020, the year of the Covid-19 pandemic. Since that initial study in 2018, Maine's laws regarding the use of handheld devices have changed. Prior to the 2018 study, Maine had a ban on texting while driving, but effective September 2019 (after the 2019 data were collected) it became illegal for a driver to hold a handheld cell phone while driving for *any* purpose. The current study, in addition to estimating the incidence of distracted driving on Maine roadways for 2024, tracks changes from pre-law-change banning all handheld phone use (2018 and 2019 surveys) to post-law change (2021-2024). Observations for the current study were conducted in April 2024 at 80 sites in 12 Maine counties.

Methods

A. Design

The State of Maine conducted its inaugural distracted driving survey in April 2018. The second such survey was conducted one year after in April 2019. There was no survey conducted in 2020 (due to the Covid-19 pandemic). Surveys were resumed in 2021 and were conducted again every year since. The sites selected for the distracted driving survey are a subsample of sites selected for Maine's seat belt survey. Seat belt site selection is a rigorous process, utilizing probabilities proportionate to the state's traffic flow. A new seat belt sample was constructed in 2022. However, because we wanted to maintain consistency for comparison purposes year to year, we kept the sites selected in 2018 for the distracted driving survey.

Observations were conducted using the method developed by Preusser Research Group, Inc. for the NHTSA demonstration project examining the impact of enforcement on driver cell phone use in Delaware and the Sacramento area in California. The methods are a modification of the NOPUS method used for roadside seat belt use data collection. Specifically, whereas NOPUS observes stopped traffic, the modified method observes moving traffic. Details for site selection and observations are found below. The report on the 2021 distracted observations focused on a law change—introducing a ban on all handheld cellphone use—that went into effect after the 2019 surveys (June 2019). The current report predominately focuses on the changes since the 2023 report but also addresses some extended law change effects.

B. Site Selection

Eighty observation locations were selected from the 102 non-local road sites selected in 2017 to be used for the annual statewide seat belt survey. The proportion of sites per functional class strata in the seat belt survey was kept constant for this distracted driving survey. This resulted in 11 sites from interstates, 23 from principal arterials, 21 from other arterials, and 25 from collectors. Only sites that had at least 20 vehicles observed during the 2017 seat belt survey were eligible for inclusion. A random number was used to select from available sites.

The selection resulted in a range of 5 to 9 sites in each county (see Table 1). Counties without any seat belt sites were excluded. Table 3 shows the individual sites selected and the number of observations conducted at each site during the statewide study. The observation sites in 2024 were the same as those in 2018 through 2023.

C. Observations

Appendix A shows the instructions provided to the observers (who also underwent in-depth classroom training and field training). Driver use of handheld cell phones while driving was observed for 60 minutes at each of the 80 sites. All data were recorded on paper forms (see **Appendix B**). Observers coded type of vehicle (car, pickup truck, sport utility, van), driver's sex, estimated age category (<25, 25-59, >59), and two types of cell phone use. These types were *handheld* and *manipulating*. *Handheld* was coded when a cell phone was held in the

general proximity of the driver's ear. *Manipulating* was coded when the device was held in the driver's hand but not in the general vicinity of the head. *Manipulating* could include texting, dialing, checking e-mail, using a mobile GPS application or other activities—no attempt was made to distinguish between these activities. For instances where the phone was held close to the head/mouth but not to the ear (as in when a driver was holding the phone and using the speaker phone feature), both handheld and manipulating were selected. Prior year surveys included the coding of presence of an in-ear device (e.g., Bluetooth, earbuds). This was removed from the observations this year as there has not been any safety related impacts of ear devices measured and there have been no "interesting" effects of ear devices demonstrated in prior Maine studies or in other states' studies conducted by PRG. This measure was likely included in earlier NHTA studies to see if ear device use correlated (negatively) with handheld or manipulating behavior. This relationship has not been demonstrated in the literature.

In order to randomly select vehicles for observation, a reference point is chosen far enough down the road so the vehicle, but not the driver, can be seen. This procedure ensures that vehicles are selected from the traffic stream without foreknowledge of driver cell phone use. Only one vehicle at a time is recorded. Once the data for a vehicle is recorded, the observer looks back to the predetermined reference point to select the next vehicle to be observed. Only passenger vehicles are observed (excluding police, fire, and ambulance), and only vehicles traveling in the nearest lane are coded since device use below the steering wheel is not visible at further distances due to the angle.

Table 1. Sites Selected by County

County Code	County	N Selected
1	**Androscoggin**	7
3	**Aroostook**	5
5	**Cumberland**	8
7	Franklin	0
9	**Hancock**	9
11	**Kennebec**	8
13	Knox	0
15	**Lincoln**	5
17	**Oxford**	7
19	**Penobscot**	6
21	Piscataquis	0
23	Sagadahoc	0
25	**Somerset**	5
27	**Waldo**	6
29	**Washington**	6
31	**York**	8

Results

There were a total of 10,642 drivers observed in 2024, compared to 11,585 in 2023; 9,571 in 2022, 10,973 in 2021; 13,173 in 2019; and 13,568 in 2018. It is unclear why the number of observations has varied so much from year to year. The tables below show how those observations were distributed across various categories by year. Data coded as *unsure/unknown* are excluded from these tables.

Table 2. N and Distribution of Observations by Category

		2018		2019		2021		2022		2023		2024	
		N	%	N	%	N	%	N	%	N	%	N	%
Vehicle Type	Car	5,130	38%	4,378	33%	3,671	33%	2,782	29%	3,270	28%	2,823	27%
	Pickup	3,113	23%	3,269	25%	2,780	25%	2,210	23%	2,868	25%	2,689	25%
	SUV	4,488	33%	4,610	35%	3,905	36%	4,011	42%	4,794	41%	4,550	43%
	Van	836	6%	912	7%	617	6%	568	6%	653	6%	578	5%
Age Category	Under 25	1,107	8%	1,731	13%	1,153	11%	989	10%	1012	9%	864	8%
	25 to 59	10,475	77%	9,509	72%	7,701	70%	6,628	69%	8,609	74%	7,958	75%
	60+	1,969	15%	1,924	15%	2,098	19%	1,935	20%	1,957	17%	1,815	17%
Day of Week	Weekday	9,816	72%	11,007	84%	8,732	80%	7,356	77%	8,732	75%	8,848	83%
	Weekend	3,752	28%	2,166	16%	2,241	20%	2,215	23%	2,853	25%	1,794	17%
Sex	Male	7,903	58%	7,718	59%	6,389	59%	5,490	58%	6,665	58%	6,412	60%
	Female	5,623	42%	5,446	41%	4,523	41%	4,047	42%	4,906	42%	4,225	40%
Road Type	Interstate	1,460	11%	1,483	11%	1,111	10%	1,164	12%	1,287	11%	1,470	14%
	Principle Arterial	4,537	33%	4,203	32%	3,774	34%	3,273	34%	4,074	35%	3,534	33%
	Minor Arterial	4,425	33%	4,307	33%	3,586	33%	2,979	31%	3,573	31%	3,147	30%
	Collector	3,146	23%	3,180	24%	2,502	23%	2,154	23%	2,651	23%	2,491	23%

Different types of use were calculated. *Handheld* refers to a cell phone held to one's ear. *Manipulating* describes if an individual was actively holding a phone but not to their ear (e.g., texting, dialing, reading). *Any use* comprises *handheld* and *manipulating* (or both). The tables below provide use rates for each of the use types. The focus, however, is on *any use*. Chi Square analyses were conducted to explore differences in *any use* between attributes of a category.

Table 3. N and Distribution of Observations by County

	2018		2019		2021		2022		2023		2024	
	N	%	N	%	N	%	N	%	N	%	N	%
Androscoggin	1,113	8%	1,148	9%	965	9%	996	10%	1117	10%	913	9%
Aroostook	699	5%	633	5%	630	6%	358	4%	456	4%	822	8%
Cumberland	1,124	8%	1,243	9%	1,349	12%	1,117	12%	1,523	13%	982	9%
Hancock	1,450	11%	1,685	13%	1,505	14%	752	8%	1310	11%	1253	12%
Kennebec	1,122	8%	994	8%	809	7%	1,062	11%	1,254	11%	819	8%
Lincoln	1,356	10%	1,387	11%	903	8%	853	9%	1095	9%	959	9%
Oxford	854	6%	731	6%	815	7%	747	8%	732	6%	684	6%
Penobscot	1,578	12%	1,475	11%	992	9%	888	9%	1180	10%	1203	11%
Somerset	485	4%	477	4%	528	5%	416	4%	390	3%	403	4%
Waldo	1,482	11%	1,534	12%	729	7%	748	8%	804	7%	709	7%
Washington	515	4%	541	4%	506	5%	255	3%	412	4%	474	4%
York	1,790	13%	1,325	10%	1,242	11%	1,379	14%	1,312	11%	1,421	13%

In 2024, a greater percentage of Maine drivers had a phone to the ear than in 2023. Observations for 2023 indicated that 1.4% had a phone to the ear (i.e., *handheld* use) compared to 1.8% in 2024 ($\chi^2 = 4.154$, $p < 0.05$). *Manipulation* of a phone was coded as occurring in 2.1% of the time in 2023, increasing to 2.5% in 2024. The increase was not significant ($\chi^2 = 3.485$, $p > 0.05$). *Any use* (*handheld* or *manipulating*) was seen among 3.7% of the drivers in 2024, a relatively small but significant increase from 3.1% of drivers in 2023 ($\chi^2 = 7.326$, $p < 0.01$).

Figure 1 shows that following the law change (to the right of the vertical line) most types of measured behaviors declined. *Handheld* use, the behavior directly related to the law change, continued to decline from 2021 to 2023 (but had a small upward movement in 2024). *Manipulating* the phone, however, rose to a level well above its pre-law rate in 2022, declined in 2023 and increased slightly in 2024.

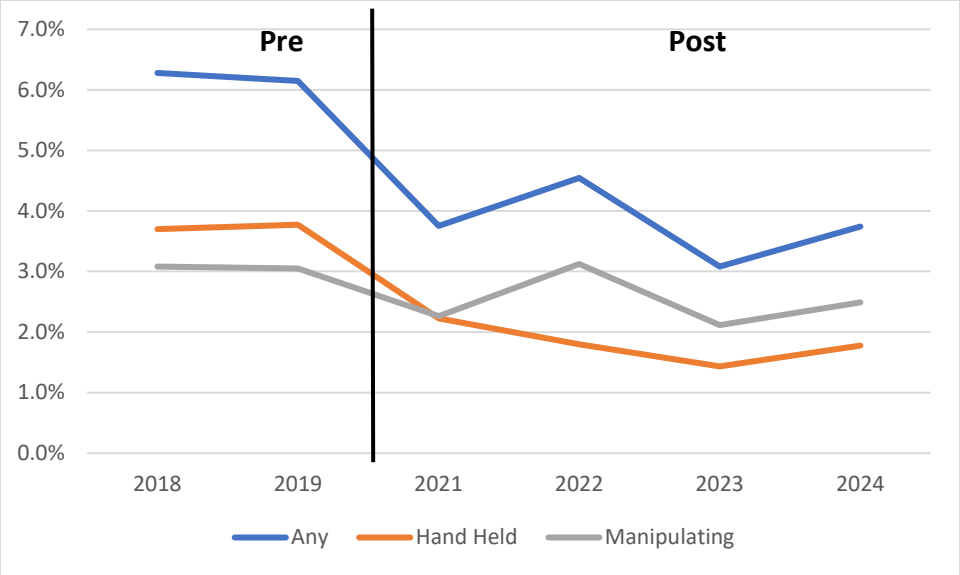

Figure 1. Distraction by year pre- and post-law change.

Despite the increase in *any use* from 2021 to 2022, there was still a significant decrease in any distracted behaviors following the law change, and *any use* decreased even further in 2023. However, in 2024 the rate of distracted driving increased from the 2023 rate. Comparing the combined data for 2018 and 2019 (pre-law change) to the combined data from 2021 and 2024 (post-law change) resulted in a significant decrease in *any use* (pre:6.2%; post: 3.7%; χ^2 = 224.251, $p < 0.001$). *Handheld* use declined significantly from pre- to post-law change (pre: 3.7%; post: 1.8%; χ^2 =247.808, $p < 0.001$). Similarly, there was a significant decrease in *manipulation* from pre- to post-law change. Specifically, observed *manipulation* in the pre-law change period was 3.1% and decreased to 2.5% in the post-law change period (χ^2 = 22.182, $p <$ 0.001).

The remainder of the results will focus on data collected in 2024. See Reference section for reports on other years' data as well as an evaluation of the law change. Table 4a shows that Any use was highest in Hancock County (7.4%) and lowest in Somerset County (1.0%). Overall county differences were significant (χ^2 = 110.563, $p < 0.001$).

Table 4a. Phone Use Category by County

County	Handheld	Manipulating	Any Use
Androscoggin	1.8%	.9%	2.2%
Aroostook	3.2%	1.1%	3.8%
Cumberland	1.1%	1.5%	2.3%
Hancock	6.2%	2.2%	7.4%
Kennebec	2.7%	1.6%	3.7%
Lincoln	2.9%	3.0%	5.4%
Oxford	1.2%	1.9%	2.5%
Penobscot	2.3%	2.5%	4.2%
Somerset	.2%	1.0%	1.0%
Waldo	2.4%	2.5%	4.4%
Washington	4.9%	2.3%	6.1%
York	.5%	.8%	1.3%

The number of observations in each county is not sufficient to provide a stable use rate for a single year. There is variation year to year in which counties have the highest and lowest distracted driving likely because of relatively few observations for at least some counties. As such, all data from after the law change (2021 to 2024) were combined to give a better picture. Hancock County had the overall highest use (6.2%) followed by Aroostook (5.2%). Kennebec (2.0%) and Cumberland (2.2%) had the lowest recorded use.

Table 4b. Any Use by county (2021-2024 Combined)

County	Any
Hancock	6.2%
Aroostook	5.2%
Lincoln	5.1%
Washington	5.0%
Penobscot	4.7%
Waldo	4.0%
Oxford	3.6%
Androscoggin	3.3%
York	2.5%
Somerset	2.3%
Cumberland	2.2%
Kennebec	2.0%

Table 5 shows that there was a significant difference in any distraction measured use on weekdays (3.9%) compared to weekend days (2.8%) ($\chi^2 = 5.442$, $p < 0.05$).

Table 5. Phone Use by Type of Day

	% Use		
Type of Day	**Hand-Held**	**Manipulating**	**Any Use**
Weekday	1.8%	2.7%	**3.9%**
Weekend	1.4%	1.7%	**2.8%**

Any use rates between roadway types (e.g., interstate, arterials) were significantly different ($\chi^2 = 26.658$, $p < 0.001$). The biggest disparity was observed between interstate drivers (1.5%) and drivers on Collectors (4.6%) (See Table 6). The use rate for this survey tends to go up as traffic volume declines. There was not a significant difference in any use among drivers in different types of vehicles ($\chi^2 = 5.633$, $p > 0.05$).

Table 6. Phone Use by Road Type

	% Use		
Road Type	**Hand-Held**	**Manipulating**	**Any Use**
Interstate/Freeways	1.0%	0.8%	**1.5%**
Principal Arterials	2.0%	2.3%	**3.8%**
Other Arterials	1.7%	3.0%	**4.0%**
Collectors	2.0%	3.1%	**4.6%**

Table 7. Phone Use by Vehicle Type

	% Use		
Vehicle Type	**Hand-Held**	**Manipulating**	**Any Use**
Car	1.7%	3.2%	**4.1%**
Truck	2.3%	2.2%	**4.0%**
SUV	1.6%	2.1%	**3.3%**
Van	0.9%	3.8%	**4.5%**

Observers estimated the age of drivers (see Table 8). Cell phone use rates were highest among those deemed to be under 25 years-old (5.9%) and lowest among those judged to be 60 years old or older (0.9%), with those judged to be between 25 and 59 years old landing in the middle (4.1%). This difference in ages was indeed significant ($\chi^2 = 54.480$, $p < 0.001$). Observers also coded their judgment of whether the driver was a woman or a man (Table 9). Results indicated that there was no significant difference between female driver use (3.9%) and male driver use (3.6%) ($\chi^2 = 0.683$, $p > .05$).

Table 8. Phone Use by Age

	% Use		
	Handheld	**Manipulating**	**Any Use**
Under 25	2.3%	4.4%	**5.9%**
25 to 59	2.0%	2.7%	**4.1%**
60+	0.4%	0.8%	**0.9%**

Table 9. Phone Use by Sex

	% Use		
	Handheld	**Manipulating**	**Any Use**
Male	1.8%	2.2%	**3.6%**
Female	1.7%	2.9%	**3.9%**

Discussion

The overall use rate in 2024, across all counties and categories was 3.7%, significantly higher than the 3.1% measured in 2023. Since the law changed, even with another small "spike" in use in 2024, the use rate is down. There appears to be a sawtooth pattern developing which may be indicative of a leveling out of use.

As with other studies (Chaudhary & Raboin, 2018), use among the youngest drivers was highest, and older drivers had relatively low use. The comparative rates of male and female drivers in Maine are somewhat inconsistent with other studies. Some studies have shown female drivers engaging in significantly higher use. A recent observation study in Louisiana (Tison et al., 2018) showed significantly higher use among female drivers than male drivers (mostly from phone manipulation). Another study, (Kidd et al., 2016) showed that female drivers had overall higher engagement of secondary behavior but did not show a difference specifically related to phone use. Indeed, the 2019 report in Maine showed a significant difference between female and male drivers whereas no such difference was observed in subsequent years, including the current one.

Van drivers have had higher use consistently across the years. Both van and truck drivers had higher use than car and SUV drivers. Vans are really composed of two functionally different vehicles: minivans and other vans. To the extent that regular vans could be used more for business purposes (as are pickup trucks), the higher rate could be a function of work-related phone use while driving. This is consistent with higher use on the weekdays than weekends, but the day of week difference could be a function of the people not driving alone more often on the weekends (perhaps for more social activities) than on weekdays. Kidd & Chaudhary (2019) found that some distracted activities, including cell phone use, were lower when there were other occupants in the vehicle. That said, it could be parents transporting children (or parents with children in general) that have a higher use rate (for the higher van use rate).

The increase in use from 2023 to 2024 was relatively small but still significant from a statistical perspective. There was a similar increase in 2022 followed by a decline. Thus, it is too early to say if this is the start of an upward trend or merely annual fluctuation due to chance. The rate of distracted driving is still much lower after the passage of the law.

References

Chaudhary, N. K., Casanova-Powell, T. D., Cosgrove, L., Reagan, I., & Williams, A. (2012, August). Evaluation of NHTSA distracted driving demonstration projects in Connecticut and New York. (Report No. DOT HS 811 635). Washington, DC: National Highway Traffic Safety Administration.

Chaudhary, N. K., Connolly, J., Tison, J., Solomon, M., & Elliott, K. (2015, January). Evaluation of the NHTSA distracted driving high-visibility enforcement demonstration projects in California and Delaware. (Report No. DOT HS 812 108). Washington, DC: National Highway Traffic Safety Administration.

Chaudhary N, Raboin K. Distracted Driving Enforcement in Connecticut. (2018a) In Process.

Chaudhary N, Raboin K. (2018b) Distracted Driving: Cell Phone Use While Driving in Maine (2018). Report prepared for the Maine Bureau of Highway Safety.

Cooper, J.F., Ragland, D.R., Ewald, K., Wasserman, L. & Murphy, C.J. (2015). Observational study of cell phone and texting use among California drivers 2015 and comparison to 2011-2014 data: Methodological and analysis report. The Safe Transportation Research and Education Center, University of California, Berkeley.

Kidd DG, Chaudhary NK. Changes in the sources of distracted driving among Northern Virginia drivers in 2014 and 2018: A comparison of results from two roadside observation surveys. J Saf Res. 2019;68:131–8

Kidd, D.G., Tison, J., Chaudhary, N.K., McCartt, A.T., & Casanova-Powell, T.D. (2016). The influence of roadway situation, other contextual factors, and driver characteristics on the prevalence of driver secondary behaviors. *Transportation Research Part F, 41*, 1-9.

National Center for Statistics and Analysis. (2023, May). Distracted driving in 2021 (Research Note. Report No. DOT HS 813 443). National Highway Traffic Safety Administration. Pickrell, T. M., & Li, H., (2017, June). Driver electronic device use in 2016 (Traffic Safety Facts Research Note. Report No. DOT HS 812 426). Washington,

Shults, R. A., Nichols, J. L., Dinh-Zarr, T. B., Sleet, D. A., & Elder, R. W. (2004). Effectiveness of primary enforcement safety belt laws and enhanced enforcement of safety belt laws: A summary of the guide to community preventive services systematic reviews. Journal of Safety Research, 35(2), 189–196.

State Farm Mutual Automobile Insurance Company, Distracted Driving (2015). Retrieved from: http://www.multivu.com/players/English/72928510-state-farm-distracted-driving-survey/docs/distracted-driving-pdf-419701876.pdf

Tison, J., Chaudhary, N., & Cosgrove, L. (2011, December). National phone survey on distracted driving attitudes and behaviors. (Report No. DOT HS 811 555). Washington, DC: National Highway Traffic Safety Administration. Retrieved from: http://www.nhtsa.gov/staticfiles/nti/pdf/811555.pdf.

Tison J, Chiles, D., Solomon M. (August, 2018). Prevalence of Driver Behaviors Secondary to Driving: 2018 Louisiana Observational Survey. LHSC Project No. 2018-20-10

Wenners, K., Knodler, M., Kennedy, J. & Fitzpatrick, C. (2013). Large-scale observational study of drivers' cell phone use. Transportation Research Record: Journal of the Transportation Research Board No 2365 (-1), 49-57.

APPENDIX A:

2024MAINE DISTRACTED DRIVING/CELL PHONE USE:
ROADSIDE OBSERVATION PROTOCOL

See Google Maps link below for pinned site locations:
https://www.google.com/maps/@45.2205518,-70.3631188,7z/data=!3m1!4b1!4m2!6m1!1s1MOnBLkQEqQ-In64Jk93trRFW7nIXjTK4

For each site, choose one direction of traffic to observe for the whole observation period and indicate this info on the data collection form (the direction you choose for the Pre will determine which direction will be observed during future observations at the same sites).

Include a quick sketch of where you stood & observed on the back of observation forms for each site. Note any helpful landmarks or parking suggestions for future reference.

Please see "Observer Schedule" document for details on dates, day of week, data collection times, and site location information.

DD Observation Instructions

- Each observation period will last for one hour (60 minutes).
- Fill out the top of each observation form completely.
- Observe all vehicles except emergency vehicles (police, fire, ambulance), mid-size, box, and heavy trucks (defined as six or more tires), and/or buses.
- Choose a spot on the designated roadway and observe traffic in the lane *closest to you* (i.e., observe the traffic coming toward you, not cars on the opposite side of the road).
- Select a "reference point" far enough down the road so you can't see the driver. Each vehicle that crosses this point is yours. Use the reference point to randomly select the next vehicle you will observe. Record one vehicle at a time. The goal is not to record every vehicle that passes, but to collect data on a consistently random selection of drivers in that particular area during a specific timeframe.
- Do not observe turn lanes. If your observation area has one, move further down the street to a spot before the turn lane begins.
- Record the following information: type of vehicle (car, pickup truck, sport utility, van,), driver's age category (<25, 25-59, >60), gender, and type of use.
- Check off the type of phone use you observe: Hand-held Use, and/or Manipulating. "Yes" will be recorded as **X**. Note: if someone is holding their phone in front of their face and speaking (on speakerphone) this should also have two checks – one for Manipulation and one for Hand-held Use.
- Do not observe in a steady rainfall, snow, sleet, or heavy fog. If it begins to rain (or snow or sleet) steadily during an observation, stop collecting data and wait 15 minutes for the

precipitation to subside. If it stops, resume observations and extend the observation period to make up for the missed time. If the bad weather continues, notify Katie or Neil that the site will need to be made up and proceed to your next scheduled observation. Do not start your next site earlier than scheduled. If observations are interrupted due to inclement weather, complete the sheet you are using, noting the end time. If you resume observations, begin a new sheet, with a new start time.

- If an intersection is seriously compromised due to construction, a crash, etc., call PRG for further instructions. Your site will either be rescheduled, or an alternate site may be selected on the spot.

APPENDIX B:

PRG ME Distracted Driving Cell Phone Observation Data Collection Form

SITE ID NUMBER: _____ OBSERVER: _____CITY: _____

LOCATION:_____
(Street) ***(Cross Street or other landmark)***

DATE: ___ - ___ - ___ DAY OF WEEK: _____ DIRECTION _____

WEATHER CONDITION: 1 Clear / Sunny 2 Light Rain 3 Cloudy 4 Fog 5 Clear/Wet

START TIME:_____ (Observation period will last exactly 60 minutes)

	Vehicle Type C = Car T= Pick Up S = SUV V = Van	**Age** 1 = < 25 2= 25-59 3= > 60 4= Unsure	**Sex** M=male F=female U=unsure	**Handheld Use**	**Bluetooth Use**	**Manipulating**		**Vehicle Type** C = Car T= Pick Up S = SUV V = Van	**Age** 1 = < 25 2= 25-59 3= > 60 4= Unsure	**Sex** M=male F=female U=unsure	**Handheld Use**	**Bluetooth Use**	**Manipulating**
1							20						
2							21						
3							22						
4							23						
5							24						
6							25						
7							26						
8							27						
9							28						
10							29						
11							30						
12							31						
13							32						
14							33						
15							34						
16							35						
17							36						
18							37						
19							38						

Page:_____ of _____

SITE ID: _____ SHEET: _____

OBSERVER: _____

CITY: _____ DIRECTION: _____

LOCATION: _____

DATE: _____ START TIME: _____

- ◯ CLEAR/SUNNY
- ◯ CLEAR/WET
- ◯ LIGHT RAIN
- ◯ CLOUDY
- ◯ FOG

	CAR	TRK	SUV	VAN	<25Y	25-59	≥60	UNK	M	F	UNK		
1	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
2	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
3	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
4	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
	CAR	TRK	SUV	VAN	<25Y	25-59	≥60	UNK	M	F	UNK		
5	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
6	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
7	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
8	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
	CAR	TRK	SUV	VAN	<25Y	25-59	≥60	UNK	M	F	UNK		
9	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
10	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
11	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
12	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
	CAR	TRK	SUV	VAN	<25Y	25-59	≥60	UNK	M	F	UNK		
13	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
14	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
15	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
16	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

SITE ID: _____ SHEET: _____

SITE ID: _____ SHEET: _____

	CAR	TRK	SUV	VAN	<25Y	25-59	≥60	UNK	M	F	UNK		
17	○	○	○	○	○	○	○	○	○	○	○	○	○
18	○	○	○	○	○	○	○	○	○	○	○	○	○
19	○	○	○	○	○	○	○	○	○	○	○	○	○
20	○	○	○	○	○	○	○	○	○	○	○	○	○
	CAR	**TRK**	**SUV**	**VAN**	**<25Y**	**25-59**	**≥60**	**UNK**	**M**	**F**	**UNK**		
21	○	○	○	○	○	○	○	○	○	○	○	○	○
22	○	○	○	○	○	○	○	○	○	○	○	○	○
23	○	○	○	○	○	○	○	○	○	○	○	○	○
24	○	○	○	○	○	○	○	○	○	○	○	○	○
	CAR	**TRK**	**SUV**	**VAN**	**<25Y**	**25-59**	**≥60**	**UNK**	**M**	**F**	**UNK**		
25	○	○	○	○	○	○	○	○	○	○	○	○	○
26	○	○	○	○	○	○	○	○	○	○	○	○	○
27	○	○	○	○	○	○	○	○	○	○	○	○	○
28	○	○	○	○	○	○	○	○	○	○	○	○	○
	CAR	**TRK**	**SUV**	**VAN**	**<25Y**	**25-59**	**≥60**	**UNK**	**M**	**F**	**UNK**		
29	○	○	○	○	○	○	○	○	○	○	○	○	○
30	○	○	○	○	○	○	○	○	○	○	○	○	○
31	○	○	○	○	○	○	○	○	○	○	○	○	○
32	○	○	○	○	○	○	○	○	○	○	○	○	○
	CAR	**TRK**	**SUV**	**VAN**	**<25Y**	**25-59**	**≥60**	**UNK**	**M**	**F**	**UNK**		
33	○	○	○	○	○	○	○	○	○	○	○	○	○
34	○	○	○	○	○	○	○	○	○	○	○	○	○
35	○	○	○	○	○	○	○	○	○	○	○	○	○
36	○	○	○	○	○	○	○	○	○	○	○	○	○