2015 Virginians' Self-Reported Perceptions of and Actions Involving Targeted Safe-Driving Behaviors

Final Report



Prepared for: Virginia Department of Motor Vehicles' Highway Safety Office

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Table of Contents

Acknowledgements	. 3
Summary	. 4
Introduction	. 5
Procedures	. 6
Survey	. 6
Sample Design and Preparations	. 8
Data Collection	. 9
Results	10
Preliminary Considerations	10
Sample Set-ups for Comparison	11
Seat-Belt Use	12
Impaired Driving	18
Speeding	29
Distracted Driving	36
Discussion	39
Appendix A	41

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The report's contents are the responsibility of the authors and not the Virginia Highway Safety Office or Old Dominion University.

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Summary

In 2011, states began to survey their residents to assess various attitudes and perceptions in traffic safety. The annual survey was required after the National Highway Traffic Safety Administration (NHTSA) and the Governor's Highway Safety Office proposed a need to collect this information for each state and territory on an annual basis, much like NHTSA requires an annual field survey of front-occupant seat-belt use. Specifically, respondents are to be asked about seat-belt use, impaired driving, and speeding topics. Perceptions of media, perceptions of enforcement activities, and self-reported behaviors in each of these topics are to be measured too. Therefore, each state is mandated to assess nine main questions: each of the three topics (seat-belt use, impaired driving, and speeding) crossed by each of the three perceptions and reports (media, enforcement, and self-reported behavior). States are encouraged to add more questions as needed or relevant pending interest. Additional follow-up questions, in particular, are encouraged to go beyond the basic required questions.

Virginia's Highway Safety Office (VHSO) wished to add two questions on distracted driving to explore its prevalence in Virginia. These questions, while not mandated, provided important data for targeting mobile phone talking and texting while driving (mobile phone use was the behavior representing distracted driving in this survey). This report summarizes the work completed in 2015, the sixth year Virginia carried out the survey. (Virginia began its survey in 2010, one year before it was mandated to do so.)

The 2015 survey was deployed by telephone to licensed drivers in Virginia. Overall, two samples were targeted. First, a sample of 1,000 licensed drivers aged 18 and older completed the survey. This sample was distributed across Virginia proportionally by regional population levels. Therefore, more of the sample came from northern and southeastern regions of Virginia than from the southwestern areas. It was appropriately representative of the Commonwealth. A second sample was derived from licensed drivers 18 - 34 years old. This age group was a particular focus of various interventions in Virginia, most notably the *Click It or Ticket* seat-belt enforcement program. The 18 - 34 years old), with an additional oversampling of 300 participants making the 18 - 34 final sample for analysis a total of 603 participants. This latter augment sample was used to make comparisons to the full sample, or the average Virginia driver.

Overall, key *statewide*¹ findings included:

Seat-Belt Use

- The majority of respondents reported always wearing seat belts while driving (90%) or riding as passengers (89.6%).
- A little more than a third (34.5%) recalled law enforcement activity targeting belt use in the time period prior to the survey.
- Approximately half of the respondents (55%) believed the chances of getting a ticket for belt nonuse was "likely" or "very likely."

Impaired Driving

• A large percentage (43.2%) told interviewers they did not drink.

¹ "Statewide" data refer to results from the sample designed to represent, proportionally, the Commonwealth's regions. This is the "full" or n = 1,000 sample.

- For those who did not identify themselves as non-drinkers (and therefore were considered "drinkers" in this study), 16.3% *had* driven within two hours after drinking alcohol in the past 60 days (defined as at least one drive within 2 hours).
- Most believed the chances of arrest after drinking and driving were at least "likely."
- Less than half (40.7%) recalled police activities targeting impaired driving in the time period prior to the survey. Fewer (22.7%) recalled seeing or hearing information about designated driving programs in the same period.

Speeding

- Most participants reported at least sometimes speeding on local roads (more than 35 mph in 30 mph zone); nearly half reported at least sometimes speeding on interstates (more than 70 mph in 65 mph zone).
- Most respondents (61.5%) believed the chances of receiving a speeding ticket were "very likely" or "likely."
- Less than a third (29.5%) recalled law enforcement activity targeting speeding in the past 30 days.

Distracted Driving

- More than half of the respondents (62.9%) "seldom" or "never" talk on mobile phones while driving; 1% reported not owning a mobile phone.
- A significant majority (77.6%) said they "never" text while driving.

In the following pages, we break down these statewide results into gender and regional differences. However, readers should interpret these segregated results with caution. The survey was designed to produce representative *statewide* data. The sample was not constrained to represent equally gender or regional responses.

We also compare these statewide results with the augmented sample of 18-34 year old drivers combined with the 18-34 drivers from the statewide sample. The pooled sample enhanced the sample size and increased the data's reliability. Readers can make comparisons between the self-reports of the "average" Virginia adult driver and self-reports of the driver group identified as being at greatest risk for traffic crashes, injuries, and fatalities².

Additional data not presented in this report are available. Interested readers are encouraged to review Appendix A, where the complete survey and percent responses for categorical items are given.

Introduction

This report documents the design, collection, and analysis methodology that were used to implement the National Highway Traffic Safety Administration (NHTSA) and Governor's Highways Safety Association (GHSA) joint requirement³ to assess citizen attitudes, self-reported behaviors, and perceptions on three major traffic safety issues: (a) seat-belt use; (b) impaired driving (i.e., alcohol); and (c) speeding.

² Institutional Review Board requirements prohibit the surveying of minors under age 18. While the traffic safety community acknowledges 16and 17-year-old drivers are at greatest risk for many negative consequences, these drivers could not be included without the additional costs required to adhere to regulations of their involvement (i.e., the acquisition of both their assent to participate and their guardian's permission for their participation). A decision was made to focus on legal adult drivers, which coincided with the focus on 18 - 34 year old drivers, in particular, who were the specific focus for the national *Click It or Ticket* occupant protection program.

³ The requirement came from a report by J. Hedlund that was part of a NHTSA and GHSA process to add more information to traffic safety measurement. For the initial NHTSA supported report, see Hedlund, J. (2008). *Traffic safety performance measures for states and federal*

The Preusser Research Group, Inc. in their Task 2 Final Report (2009)⁴ developed and tested a series of survey questions on the three interest areas required by NHTSA. These survey questions were taken from state and national organization surveys in use since 2004. A core group of questions was developed using a matrix of self-reported behavior, media awareness and enforcement awareness. Although observable seat-belt use is reported separately by all states, self-report behavior was included in these core questions to give additional information from the individual's point of view.

In addition, Virginia's Highway Safety Office (VHSO) desired questions on distracted driving as a fourth key behavior of interest. To comply, the final survey included questions on mobile phone use and texting while driving. Beyond the required three behaviors of interest across media, enforcement, and self-reported engagement, states can take advantage of this required survey to gather more information per its own interests.

States could choose how to collect these survey data. The Preusser Research Group recommended either phone or in-person surveys (e.g., at DMV offices) of licensed drivers 18+ years of age from a representative sample of the state. The minimum recommended sample size was 500.

The Commonwealth of Virginia chose to use a telephone-based, random digit dialing method. Evaluators from Old Dominion University (ODU) in partnership with the VHSO obtained the services of Issues and Answers Network, Inc. as part of an independent bid process through the Old Dominion University Research Foundation (the non-profit organization which manages the evaluators' research grants and contracts). The survey, which was finalized in 2010 with some minor modifications in 2011, was deployed with data collection timed to follow approximately one month after the conclusion of the 2015 *Click It or Ticket* program. Specifically, data reported here were collected in July 2015.

The remainder of this report documents the basic procedures used to (a) create, test, and finalize the survey (most of this work was completed in baseline efforts of 2010), (b) design and select the samples of interest, (c) collect data, and (d) analyze major results. The purpose of 2015 was to give Virginia updated information on its citizens' attitudes and behaviors as these can assist ongoing programs targeting the three key areas of seat-belt use, impaired driving, and speeding and the Virginia-added fourth area of distracted driving.

Procedures

Survey

The evaluation team at Old Dominion University developed a draft survey, based on the required key areas listed above, in late spring and early summer 2010. The survey took as its questions those from Hedlund et al. (2009)⁵ that were most relevant, with other questions that were adapted from Hedlund et al.'s or added to address other topics (i.e., follow-up questions to the key questions, demographics, distracted driving). The survey was reviewed and pilot-tested among ODU's personnel, and given to the VHSO for review and suggestions.

agencies. Washington, DC: U.S. Department of Transportation/NHTSA. Retrieved from

http://www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/811025.pdf.

⁴ Hedlund, J., Casanova, T., & Chaudhary, N. (2009, February). *Survey recommendations for the NHTSA-GHSA working group (task 2 final report)*. Retrieved from http://www.ghsa.org/html/files/resources/planning/survey_recs.pdf.

⁵ See note 3.

There were minor alterations to the first few questions of the survey (the screening questions) based on 2010 and 2011 experiences. These alterations did not change the survey's focus, but rather were pursued to enhance the flow and efficiency with the respondents once they answered their phones. The alterations also helped obtain more completions.

The following are the main questions constituting the survey. These have not been altered since the first survey in 2010. Main questions were those that addressed the required components of this survey that all states were to follow. Questions that come directly, or nearly directly, from Hedlund et al. (2009) are marked with an asterisk (*). In the actual survey administration, each behavior section was randomly presented to participants. For example, seat-belt use was the first behavioral category for some participants, but it was presented in a different order for others.

Follow-up and demographic questions are not listed here. Rather, the full, complete survey as deployed in 2015 is provided in Appendix A.

SEAT-BELT USE

- 1. *How often do you use seat belts when you <u>drive</u> a car, van, sport utility vehicle or pick up?
- 2. How often do you wear seat belts when you are a **front seat passenger** in a car, van, sport utility vehicle or pick up?
- 3. How often do driving conditions change your seat-belt use?
- 4. Do you wear your seat belt more, less, or about the same at night?
- 5. *In the past 60 days, have you read, seen or heard anything about seat-belt law enforcement by police?
- 6. *What do you think the chances are of getting a ticket if you don't wear your seat belt?

IMPAIRED DRIVING

- 7. *In the past 60 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?
- 8. *In the past 30 days, have you read, seen or heard anything about alcohol impaired driving (or drunk driving) enforcement by police?
- 9. In the past 30 days, have you read, seen or heard anything about designated driving programs?

SPEEDING

- 10. *On a local road with a speed limit of 30 mph, how often do you drive faster than 35 mph?
- 11. *Using the same scale, on an interstate with a speed limit of 65 mph, how often do you drive faster than 70 mph?
- 12. *What do you think the chances are of getting a ticket if you drive over the speed limit?
- 13. *In the past 30 days, have you read, seen or heard anything about speed enforcement by police?

DISTRACTED DRIVING

- 14. How often do you talk on a mobile phone while you are driving a motor vehicle?
- 15. Using the same scale, how often do you text with your mobile phone while you are driving a motor vehicle?

Sample Design and Preparations

As mandated by DOT HS 811 025 (August 2008), data were collected from a representative sample of licensed Virginia drivers who were 18 years and older. Issues and Answers Network, Inc. based their sampling on the U.S. Census Bureau's demographic profile of Virginia (2010). In 2010⁶, Virginia had an estimated population of 8,001,024 people of whom approximately 6,147,347 met the age criteria of the survey.

Old Dominion University requested a minimum sample 1,000 stratified by population across the major regions of the Commonwealth (i.e., areas labeled as Northern Virginia, Richmond, Hampton Roads, Southwest, Other). This sample was called the "full" sample and would be the *statewide* sample to represent the average Virginia adult driver. In addition, ODU requested an oversampling of 18 – 34 year old licensed drivers similarly proportional across Virginia's regions. The oversample size target was 300. It became known as the "augment" sample, although in the Results section note that these 300 were combined with the 303 respondents from the full sample who were 18-34 years old, creating a sample of 603 that will be referred to as the augment sample when actual outcomes of the survey are discussed.

ODU required quotas only to ensure proportional sampling from Virginia's major regions. The goal was to produce representative data to allow generalization to Virginians at large or to Virginians aged 18 - 34. The quota and actual breakdowns of regional representation are presented in Table 1. However, Issues and Answers and ODU also worked to meet additional soft quotas, or those that were targeted but not enforced. Specifically, the full and augment samples had soft quotas to meet expected gender proportions (male vs. female) and age proportions (18 - 24, 25 - 34, 35 - 44, 45 - 54, 55+) given known Virginia breakdowns for these two variables.

Issues and Answers generated phone numbers for the full and augment samples through random digit dialing (RDD) methods. RDD methods have the potential to more accurately sample from listed and unlisted phone numbers (as opposed to purchasing particular phone number banks). RDD samples were drawn from each targeted region to ensure quotas would be reached and monitored. Further, ODU and Issues and Answers agreed that landline and cell phone numbers would be included. Issues and Answers' experience and research suggested 65% of households predominately use landline phones while the remaining 35% are cell-phone only households.

Once the samples were drawn, the actual interviews were collected using a Computer Assisted Telephone Interviewing (CATI) system. Leaders at Issues and Answers imported the survey into this system, managed testing to ensure the questions flowed as expected, involved trained interviewers (e.g., the company uses in classroom, role-play, and live pretest trainings), and provided continual supervision throughout the course of the project. Issues and Answers' system and protocol also allowed quick and efficient daily reports, monitoring, access to the process by lead evaluators if requested, and, just as

 $^{^{6} \}text{ U.S. Census 2010 http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml}$

importantly, efficient downloading of final data into analysis platforms commonly used by evaluators (i.e., in this case, the data were directly transferrable into SPSS, a common statistical analysis software used in all projects run by the ODU team). More details about the Issues and Answers processes to manage such surveys are available from Dr. Bryan Porter (contact information on title page).

Data Collection

Telephone Calls

Telephone calls were made between 5:00 p.m. and 9:00 p.m. weekdays and at varying day and night hours on weekends. Calls occurred in July 2015. The project team received regular updates from Issues and Answers. These updates included completion counts and quota management information (e.g., how well quotas were being met).

The final collected sample sizes were 1,000 for the full sample of Virginians 18 years and older, and 300 for the augment sample of 18 - 34 year olds only (i.e., before the 18-34 year olds from the full sample were pooled with it). Table 1 provides the percentages from these samples that came from the major regions of Virginia (as self-reported by respondents). Table 1 also lists the expected percent from each region based on known population levels for each region. Both samples were close to expected percent breakdowns.

		FULL SAMPLE		BASIC AUGMENT SAMPLE	
REGION	Expected %	Actual	Actual %	Actual n	Actual %
		n			
Northern Virginia	36.1	361	36.1	108	36.0
Richmond	15.7	157	15.7	47	15.7
Hampton Roads	20.5	205	20.5	62	20.7
Southwest	13.9	138	13.8	41	13.7
Other Regions	13.9	139	13.9	42	14.0
Total		1,000		300	

Table 1. Sample by self-reported region with expected percent breakdowns by quota and actual percent collected.

Note: Regional information was self-reported by respondents. However, expected quotas from each region were based on U.S. Census estimates. See earlier note in the sample design section. The Augment sample here is only the extra sample of 18-34 year olds collected; 18-34 year olds from the full sample were added to the augment for analyses reported below to have a larger sample for more reliable estimates. Percentages may not add to 100% due to rounding error.

Besides overall sample size and regional quota information, gender was the next most important variable and the only one considered beyond statewide and region in this report's edition. Table 2 gives the breakdown for gender per sample as well as comparisons to the soft quota for proportional participation (i.e., soft quotas were the goal but were not mandated per the sample design requirements between ODU and Issues and Answers).

		FULL	SAMPLE	BASIC AUGMENT SAMPLE	
GENDER	Target %	Actual	Actual %	Actual n	Actual %
		n			
Males	49.0	490	49.0	156	52.0
Females	51.0	510	51.0	144	48.0
Total		1,000		300	

Table 2. Sample by self-reported gender with soft quota percent and actual percent collected.

Note: Gender information was inferred by interviewers or confirmed with respondents if there were questions. However, expected quotas from each region were based on U.S. Census estimates. Percentages may not add to 100% due to rounding error.

Data Set

Issues and Answers Network collected all data. No phone numbers, neither landline nor cell phone, were ever included in the data set received by Old Dominion University nor VHSO. Issues and Answers destroyed the connecting data between phone number and responses. Data were analyzed by Dr. Bryan Porter in the Department of Psychology at ODU and students working in conjunction with him.

Results

The following section is organized by main topic area measured via the telephone survey. The three mandated topics (i.e., seat-belt use; impaired driving; speeding) are discussed first, followed by the optional topic (distracted driving) that Virginia added.

Preliminary Considerations

Self-Report Data

Surveys requiring self-reported driving behavior have several advantages over observing behavior. They allow information to be obtained that could not be obtained in any other way, such as opinion and perception of media, enforcement, public policy and personal motivation for change⁷. Surveys also allow a large number of people to be accessed in a relatively short period of time. Telephone surveys also tend to reflect the same percentage of national concerns as other national survey methods⁸. Self-report surveys, however, can be prone to certain biases such as social desirability⁹. Respondents may wish to control the impression they are making by deliberately giving an inaccurate answer. Respondents may also practice self-deception to the extent that they believe they are answering correctly. Self-deception, in particular, has been linked to driving skills. This self-deception leads to over-reliance in driving skills and inflated beliefs in safe driving behaviors.

Readers are encouraged to understand the strengths and weaknesses of self-report surveys as they read the results below. The data, like all data, should be compared with additional evaluation sources involving

 ⁷ Hedlund, J. Chaudhary, N. & Williams, A. (2010). Driver Survey: Information and Options for State Highway Safety Offices. SHSO driver survey information 1-7-10. Retrieved from http://www.ghsa.org/html/files/resources/planning/2010.01.07.survey.white.paper.pdf.
⁸ Beck, K. H., Yan, A. J., Wang, M. Q. (2009). A comparison of web-based and telephone surveys for assessing traffic safety concerns, beliefs,

and behaviors. Journal of Safety Research. 40, pp. 377-381. ⁹ Lajunen, T. & Summala, H. (2003) Can we trust self-reports of driving? Effects of impression management on driver behaviour questionnaire

⁹ Lajunen, T. & Summala, H. (2003) Can we trust self-reports of driving? Effects of impression management on driver behaviour questionnaire responses. *Transportation Research Part F*, 97 – 107.

field work, crash reports, other self-report surveys, and so forth. The data are, however, useful in giving the VHSO and other interested traffic safety specialists information for program development and evaluation.

Analytical Decisions

The dataset is extremely rich with various demographic and follow-up question breakdowns. The authors made a deliberate effort to determine which information was most important at this time for this annual report. This report, like the 2010 - 2014 reports, displays the following main groupings for each behavior of interest: (1) statewide responses; (2) gender differences; and (3) regional differences. The latter two variables, gender and regional information, are regularly considered in other reports on traffic safety programs in Virginia. The full survey is given in Appendix A; interested readers may contact Dr. Porter for additional information about other variables of interest.

Statistical Significance and Sampling Error

Finally, the authors decided to report the data *descriptively* as opposed to *inferentially*. That is, the data and discussions which follow focus only on the percentages given for different responses and categories (e.g., full vs. augment, male vs. female, etc.) without any effort to determine if different percentages were mathematically equivalent or different enough to be "significant." In no way should the written descriptive data are useful to give insights about potential differences among categories. In some cases, the VHSO may wish to explore statistical significance via additional analyses or in comparisons with data to be collected in later years.

However, the sampling error for the full and augment responses are relevant and useful. The sampling error informs the reader about how well the obtained response of a sample is likely to represent the population. Specifically, how well does the full sample represent Virginians 18 years and older? How well does the augment sample represent Virginian's 18 - 34 years of age? Small sampling errors are ideal, as these mean an obtained response is close to what is expected at the population level.

In the current work, the sampling errors were acceptable and congruent with other surveys of this type. For the full sample of 1,000 respondents, the sampling error for 95% confidence (the standard in research and evaluation) was +/- 3.1%. The augment sample of 300 respondents had a sampling error, for 95% confidence, of +/- 5.7%. One reason we added 18-34 year olds from the full to the augment sample before reporting results below was to decrease this error. By adding the 300 such participants to the 303 already in the augment, creating a sample of 603, we reduced the error to +/- $4.0\%^{10}$.

Sample Set-ups for Comparison

As mentioned previously, there were two main samples for comparison. The first, full sample, consisted of 1,000 licensed Virginian drivers aged 18 and older. The second, augment sample, was an oversampling of 300 licensed drivers aged 18 - 34 beyond the 303 participants aged 18 - 34 from the full sample, giving a total size of 603. The remainder of this document refers to full (n = 1,000) versus augment comparisons (n = 603), with the augment sample being the total pool of 18 - 34 years olds. Gender and regional information are also presented.

¹⁰ An online, free error calculator is available at http://www.surveysystem.com/sscalc.htm.

Seat-Belt Use

Statewide Results

The first questions assessing seat-belt use focused on use while driving, while riding as a passenger, and while driving in different conditions and times of day. As seen in Figures 1 and 2, the *majority* of respondents in both the full and augment samples reported always wearing their seat belts either as a driver or as a passenger. "Always" use rates were near 90%, even among the augment participants who traditionally are considered higher-risk than the typical Virginian. These self-reported use rates well exceeded what the Virginia field study showed in 2015¹¹.

An important concern for the VHSO and current evaluators was whether respondents remembered seeing, reading, and hearing anything about law enforcement targeting seat-belt use. The time frame for the question was "in the past 60 days," placing it during the *Click It or Ticket* 2015 mobilization (the mobilization was May to early June; this survey occurred in July). As shown in Figure 3, 34% to 39% of the respondents from the samples remembered law enforcement activity.



¹¹ The overall field-observed use rate for Virginia in 2015 was 80.9%; Porter, B. E, Diawara, N., & Balk, I. (2015). 2015 seat-belt use in Virginia. Norfolk, Virginia: Old Dominion University for the Virginia Highway Safety Office.

¹² All figures display percentages.





Neither sample seemed certain of the chances of getting a ticket for not wearing a seat belt. Figure 4 shows the percent choosing very likely to very unlikely to get such a citation; note that the percentages are distributed across categories, approximately 68% of each sample believed there was at least a likely chance of being ticketed for non-belt use.

Gender and Regional Information

Gender

The previous section reported statewide data. Recall that the sampling plan stratified responses as close as possible to population proportions across the main regions of Virginia. As such, data presented thus far can be interpreted as "the typical 18+ year old Virginian" and "the typical 18-34 year old Virginian" responds a certain way regarding seat-belt use. The following data for gender and regions, however, are to be used only as indicators of typical responses for men and women in Virginia, and of typical responses among five main regions: Northern Virginia, Richmond area, Hampton Roads (a group of several cities and counties in southeast Virginia), Southwest, and Other areas. Regional information was determined by respondent self-identification with an area. These data should not be used to generalize to the typical male or female, or typical resident in a certain region without additional study and more refined sampling to produce such justifiable generalizations.

The overall differences between men and women reporting that they always wear seat belts as drivers and passengers versus not always are shown in Figure 5. Both men and women reported rates of always buckling up above 84 percent (women were closer to 93-94 percent). Men were more likely than women to have witnessed in some manner law enforcement activities targeting non-belt use in the past 60 days (see Figure 6).





Figure 6



For the full sample, men and women similarly perceived the likelihood of receiving a ticket for non-belt use. The gender patterns held mostly for both samples. In all, about half believed the chances are at least likely for getting a ticket (Figure 7).

Regional Differences

As with gender, regional differences are to be interpreted with caution. Sample sizes for regions vary; Northern Virginia's data resulted from a larger sample than Southwest's because Northern Virginia contributed more respondents to the full and augment samples. The sampling design was not structured to produce a representative comparison across regions. The following data are only indicators of potential differences.

Two questions were of interest when comparing regions. First, evaluators considered regional differences in witnessing enforcement activities targeting non-belt use. Figure 8 shows regional differences remembering enforcement activity. Figure 9 shows regional data for perceptions of receiving tickets for non-belt use.









Topic Conclusions

The majority of respondents reported always wearing their seat belts. These data do not match what is known from Virginia field studies or from other literature, which may call into question whether the sampling methodology reached those at greatest risk for non-belt use. This concern was mitigated somewhat by the focus of one sample on 18-34 year olds, the identified risk group for belt use interventions. It remains to be seen, as with previous years of this survey's implementation, whether (a) the hard-core non-users participated in the survey or (b) the self-report nature of the survey led people to over-report their belt use much more than is typically expected by such surveys.

While sampling issues remain even after six years of surveying, there are useful findings that can be built upon in additional belt-use interventions. First, targeted groups are receiving the enforcement message more than non-targeted groups. Specifically, a higher percent of men in both samples reported witnessing belt-use enforcement activity. Likewise, respondents from Southwest, a region of great interest for having lower belt use rates and higher-fatality rates per capita, continues to be among the most likely (or was the most likely) to report witnessing enforcement activities. Southwest respondents also were among the most likely to perceive a higher likelihood of receiving a ticket for non-belt use.

Impaired Driving

Statewide Results

Asking questions about one's drinking behavior is more difficult than asking about seat-belt use. The evaluators have seen this phenomenon over several surveys, with respondents becoming very quick to tell them that they do not drink. Drinking – and particularly drinking and driving – has more negative connotations than being unbuckled in a vehicle.

The first piece of data (Figure 10) presents the percent of respondents who, when asked if they had driven within two hours of drinking alcohol in the past 60 days, either answered the question or responded "I don't drink." Those who answered the question would be considered "Those who drink" at least sometimes in future questions, whereas those who refused to answer by stating they don't drink were operationalized as "Non-drinkers." As seen in Figure 10, 56-63% of each sample answered the question and were considered "at least sometimes drinkers."

Figure 11 shows answers from the follow-up question regarding how many times the drinkers had driven within two hours of drinking alcohol in the past 60 days. The vast majority of both samples (approximately 80%) said they had not driven in such a way in the past 60 days. Interestingly, approximately 10% of the full sample and 12% of the augment had driven in such a way at least twice in the past 60 days, and could be inferred to have potentially been among the impaired driving population the previous two months.

The next figure uses both the samples of at least sometimes drinkers and those who stated they did not drink. Figure 12 displays the perceived likelihood that "someone" will get arrested after drinking as rated by those who do not drink. It also displays the perceived likelihood that the individual him or herself will be arrested after drinking as rated by respondents who were at least sometimes drinkers. Overall, the

augment sample perceived the likelihood of getting arrested to be higher than the full sample. Further, the differences between rated likelihoods for someone versus oneself were not large.

Two remaining questions were important to consider for Virginia at-large. Respondents were asked whether they had read, seen, or heard about police enforcement of impaired driving and about designated driving programs. The time period for recollection was "in the past 30 days."¹³ Approximately 40% of the full sample and approximately 43% of the augment recalled witnessing impaired driving enforcement (Figure 13). Fewer respondents (23 and 22%, respectively) recalled designated driving programs in the same time period (Figure 14).¹⁴



¹³ The 30-day time period was used to remain consistent with previous questions reviewed by Hedlund et al. (see footnote #2). Impaired driving programs are often ongoing, so it was reasonable to ask about the previous 30-day period. ¹⁴ Appendix A provides more information about what designated driving programs were recalled. See question #9b.











Gender and Regional Information

Gender

As with seat-belt use, the statewide questions were re-assessed by gender breakdowns. Figure 15 shows that more men than women in each sample gave an answer to the drinking question; therefore more men than women were operationalized to be, at minimum, sometimes drinkers. However, most of each gender in each sample who were considered "sometimes drinkers" reported zero times that driving occurred within two hours of drinking alcohol in the past 60 days. Men were more likely than women in each sample to have driven after drinking two or more times (Figure 16).

Figures 17 and 18 show each gender's ratings of the likelihood of someone or self being arrested after drinking. Recall that the "someone" ratings were by respondents who reported that they do not drink. Self ratings were by respondents operationalized to be at least sometimes drinkers. The majority of both rating groups believed it to be very likely or likely to be arrested for drinking and driving.











In general, more men than women in both samples recalled reading, seeing, or hearing about police enforcement of impaired driving. Further, more men than women, again when looking within each sample, remembered witnessing information about designated driving programs. Figures 19 and 20 provide the percentages.

Regional Differences

Figure 21 shows the percent of respondents by region who were considered at least sometimes drinkers or non-drinkers. In the full sample, "sometimes" drinkers outnumbered non-drinkers in four of the five regions. Sometimes drinkers, on the other hand, outnumbered non-drinkers in all regions of the augment sample.



Figure 20	Figure	20
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Figure 22 displays the number of times within 60 days that these sometimes drinkers drove within two hours of drinking alcohol. Figures 23 and 24 provide regional data on someone versus self being arrested after drinking and driving. It is interesting to note that ratings of someone getting arrested by the augment group tended more toward "very likely" to "likely" than ratings by the full sample. Younger respondents believed the chances of being arrested were greater than Virginians in general. Figures 25 and 26 show regional percentages for reading, seeing, or hearing about police enforcement of impaired driving and designated driving programs, respectively.





Figure 24





Figure 26



Topic Conclusions

Alcohol use is a difficult behavior to address in such self-report measures, as it is reasonable to assume most people responding to the survey know that impaired driving is illegal and considered unsafe. This is one potential reason that a high number of respondents reported immediately that they do not drink. Even so, of the samples operationalized as "at least sometimes drinkers," approximately 10% of both samples admitted to driving two or more times within two hours of drinking alcohol.

About 40% of the respondents recalled police activities – in this case, activities targeting impaired driving. Even fewer recalled designated driving programs. A continuing positive finding, similar to past years, was the perceived likelihood, by both samples, both genders, and most regions, that impaired drivers would be arrested.

Speeding

Statewide Results

Evaluators focused less on speeding and distracted driving (in the next section) than seat-belt use and alcohol considerations. They did so strategically in that speeding and distracted driving receive less attention than the other two traffic behaviors thus far. They also did so to keep the survey length manageable to encourage respondent completions and meet budget requirements.

The first comparison is speeding on a typical local road versus speeding on an interstate. Figure 27 displays the likelihood respondents in each sample would speed more than 5 mph above a posted 30 mph road or 65 mph road. The pattern of responses for each road was similar, with the percent admitting to nearly always to always speeding 5 mph or more being lower than the percent responding rarely to never. In all, approximately half of the respondents from both samples admitted to at least sometimes speeding.

Respondents also believed that the chances of getting a ticket for speeding were good (Figure 28). The majority of respondents from both the full and augment samples believed the chances were likely to very likely. The full and augment samples' percent breakdowns were similar for most categories.



Figure 28





Figure 29 provides the response percentages for each sample's awareness of police activity targeting speeding in the previous 30-day period. The difference between the samples was small. Overall, about 30% of each sample recalled such activity.

Gender and Regional Information

Gender

Figure 30 provides the likelihood of speeding on local (30 mph) and interstate (65 mph) roads by gender. Gender responses for the full and augment samples were similar for local road speeding (i.e., similar patterns). Gender patterns for driving more than 70 mph on roads with a posted limit of 65 mph (e.g., interstates) are given in Figure 31. Women out-reported men in "never" speeding, whereas men overall reported "always" and "most of the time" more frequently than women.





Women in both samples were more likely than men to believe receiving a ticket for speeding was very likely or likely (Figure 32). There were few differences recorded for recollections of speed enforcement activities (Figure 33).





Regional Differences

Regional percentages for speeding frequency are given in Figures 34 and 35. Finally, Figures 36 and 37 display perceptions of getting a ticket and recall of police activities targeting speeding, respectively.





- 34 -







Topic Conclusions

Approximately half of Virginians reported at least sometimes speeding on local or interstate roads. Perceptions of receiving a ticket for speeding were relatively high, although recollections of police activity targeting enforcement were less than 35% overall.

The issue of speeding in Virginia remains overshadowed by foci on occupant protection and impaired driving. These former issues continue to receive much more media and enforcement focus than speeding as a risk, although speeding is targeted during *Click It or Ticket* as one means to focus on non-use of seat belts (speeding is the most common primary reason for the traffic stop).

Distracted Driving

Statewide Results

Evaluators included and asked only two distracted driving questions, and both involved mobile phones¹⁵. There are certainly other variables affecting distracted driving, but the main one focused upon in the traffic safety community is the use of mobile phones while driving. The questions here assessed the frequency of talking on a mobile phone and frequency of texting while driving. Figure 38 presents the results by sample for the frequency of talking. About 60% of the samples reported seldom-to-never talking on a mobile phone while driving. An even larger number of respondents reported seldom-to-never texting while driving (approximately 90% or more; see Figure 39).



¹⁵ We did not differentiate between hand-held and hands-free mobile phone use.



Gender and Regional Information

Gender

Men and women of each sample reported similar patterns of talking on mobile phones while driving (Figure 40). There were even smaller differences between men and women when asked about texting while driving (Figure 41). Both groups in the full sample were about 80% likely to say never, while in the augment about 70% had this response.

Regional Differences

The final two figures of this report provide regional information for talking on a mobile phone and texting while driving. Figure 42 shows talking on a mobile phone across regions. Figure 43 shows the texting frequencies.



Figure 41



Topic Conclusions

While the majority of respondents did not frequently talk on mobile phones or text while driving, the data indicated that sufficient numbers were doing so to warrant continued monitoring. Young drivers (in the augment) are certainly at risk. Gender differences, on the other hand, appeared negligible. Regionally, there were few regional differences, too.



Discussion

This survey, which is annually administered, addressed seat-belt use, impaired driving, and speeding. It also addressed distracted driving via mobile phone use at the request of the VHSO. Perceptions of media, enforcement, and self-involvement in the behaviors were key considerations. The data provided statewide estimates representing two groups of Virginia licensed drivers: (1) a sample of 18+ year olds (n = 1,000) and (2) a sample of 18 – 34 year olds (n = 603). Additional data were presented that, with cautious interpretation, provided indications of gender and regional differences among the key behaviors. For this general discussion, important issues are presented.



First, the data – regardless of the behavior being questioned – clearly indicated that the majority of Virginians perceived their behaviors to be consistent with safe-driving practices. The majority reported wearing seat belts, not speeding, not drinking and driving, and not regularly using mobile phones while driving. These reports were consistent with known field work investigating actual roadway behaviors. However, what was also clear, and this is a concern for future surveys, was that the percentages reporting engagement in the risk behavior seemed lower than those observed doing the behavior (e.g., approximately 10% reported not always buckling up, but field studies in Virginia show this rate closer to 20%)¹⁶. Hard-core, risky drivers and passengers may be less likely to participate in these surveys and interpretations must be cautious as a result.

Second, again regardless of the behavior, a meaningful percentage of respondents believed that police will catch risky behaviors and give tickets or make arrests. Yet, less than half of respondents recalled seeing enforcement activities.

A brief note is required about gender and regional differences. While caution is necessary when interpreting these findings, in most cases it appears that gender and regional differences were marginal. In this particular survey, men and women, and respondents from among Virginia's regions mostly reacted similarly to attitude, perception, and behavior questions.

The authors encourage readers to consider other questions from the data. As mentioned previously in the report, the authors made decisions regarding what to present based on established priorities. However, they look forward to continuing the exploration of other components of the data now and in future surveys – and encourage partners to suggest new avenues for consideration.

¹⁶ See footnote 13.

Appendix A

Text of script used in the 2015 telephone survey, including raw percentages of answers for questions with multiple choice options. Questions listed below that do not have percent responses were those involving free responses or questions for screening purposes only.

GENERAL POPULATION RAW PERCENTAGES IN **BOLD** TEXT (N = 1,000) AUGMENT POPULATION RAW PERCENTAGES (AGES 18-34) IN *ITALICS* (N = 603)

Old Dominion University on behalf of the Virginia Department of Motor Vehicles CORE 9 TRAFFIC SAFETY SURVEY

Project Director: Bryan E. Porter, Ph.D.

Introduction

Hello, my name is ______ with Issues & Answers Network in Virginia Beach. We are conducting a brief survey on behalf of traffic safety officials in Virginia. Your responses will be kept completely confidential. Your telephone number was selected at random and we are not trying to sell you anything.

May I please speak to the youngest adult in the household age 18 or older who has a valid driver's license and drives a motor vehicle? (WHEN SPEAKING WITH APPROPRIATE RESPONDENT, GO TO SCREENER. IF SOMEONE ELSE COMES TO THE PHONE, REPEAT INTRODUCTION EXCEPT FOR THE LAST SENTENCE).

Screening

Q17. What is your age? [QUESTION USED FOR AGE QUOTAS]

1	18-24	12.6	39.6
2	25-34	17.7	60.4
3	35-44	18.0	
4	45-54	19.8	
5	55 or older	31.4	
6	(DO NOT READ) Refused	.5	

- S2. Do you have a valid driver's license and drive a motor vehicle?
 - 1 Yes [CONTINUE]
 - 2 No [RE-SCREEN FOR ADULT WITH LICENSE]

S3. And are you currently using a cell phone or landline phone?

- 1 Cell Phone [QUALIFY FOR CELL PHONE QUOTA]
- 2 Landline [QUALIFY FOR LANDLINE QUOTA]
- 3 Don't know/Refused [TERMINATE]

S4.	How would you classify your household's phone usage? Would you say? (READ LIST)						
	1	Cell phone only	18.6	29.9			
	2	Cell phone mostly	41.9	43.1			
	3	Landline mostly	31.6	21.1			
	4	Landline only	7.9	6.0			
	5	(DO NOT READ) Don't know/Ref	used [TERMINATE]				
S5.	How would you classify the region of Virginia where you reside? (READ LIST) [QUESTION						
	USE	D FOR REGION QUOTAS]					
	1	Northern Virginia	36.1	37.8			
	2	Richmond	15.7	15.4			
	3	Hampton Roads	20.5	20.1			
	4	Southwest Virginia	13.8	12.6			
	5	Some other area of Virginia	13.9	14.1			
Q18.	Are	you male or female? (ASK ONLY IF N	OT EVIDENT OR UNCERTAIN) [QUE	STION USED			
	FOR	GENDER QUOTAS]					
	1	Male	49.0	53.6			
	2	Female	51.0	46.4			

PROGRAMMER: RANDOMIZE SECTIONS 1, 2, 3 AND 4; RESPONSE CHOICES ARE READ TO RESPONDENT *EXCEPT* WHERE INDICATED

Section 1: Seat Belt Usage

Q1. How often do you use seat belts when you drive a car, van, sport utility vehicle or pick up?

1	Always [SKIP TO Q2]	90.0	89.1
2	Nearly always	4.9	5.3
3	Sometimes	2.4	2.7
4	Seldom	1.2	1.5
5	Never	1.5	1.5

Q1a.	What ONE thing, over all others, would convince you to wear your seat belt all the time? (DO NOT READ LIST, BUT MARK THE ONE THAT APPLIES CLOSEST)					
	1	1 A primary law in Virginia (or a stronger law in Virginia) 5.0		6.1		
	2	Getting a ticket	12.0	7.6		
	3	Being in a crash	23.0	30.3		
	4	Insurance reduction	8.0	7.6		
	5	Family motivating me	5.0	1.5		
	6	If I had children	10.0	9.1		
	7	Other (specify)	37.0	37.9		
Q2.	Hov	v often do you wear seat belts whe	n you are a front seat passenger in	a car, van,		
	spo 1		80 C	00 C		
	1 2	Always Noarly always	69.0 E 4	00.0 E 0		
	2	Semetimes	5.4 2.1	5.0		
	Л	Soldom	5.1	4.1		
	4 5	Never	0.5	1.0		
	5	Never	1.4	1.5		
Q3.	Usir	ng the same scale, how often do dri	ving conditions change your seat b	elt use?		
	1	Always	5.8	8.5		
	2	Nearly always	1.6	1.8		
	3	Sometimes	2.1	3.2		
	4	Seldom	2.0	2.3		
	5	Never	88.5	84.2		
Q4.	Doy	you wear your seat belt more, less,	or about the same at night?			
	1	More	3.2	6.8		
	2	Less	0.1	.2		
	3	About the same	96.7	93.0		
Q5. enfor	In th ceme	he past 60 days, have you read, see nt by police?	n or heard anything about seat bel	t law		
	1	Yes	34.5	39.0		
	2	No [SKIP TO Q6]	65.5	61.0		
Q5a.	Wh	ere did vou read, see or hear about	it? (DO NOT READ LIST, CHECK ALL	THAT APPLY)		
•	1	Newspaper	2.6	1.3		
	2	Radio	7.8	8.9		
	3	TV	27.5	22.1		
	4	Billboards	39.7	49.4		
	5	Brochure	1.2	.9		
	6	Police enforcement	7.0	3.8		
	7	Other (specify)	14.2	13.6		

Q6.	What do you think the chances are of getting a ticket if you don't wear your seat belt?						
	1	Very likely	22.4	24.5			
	2	Likely	32.6	29.7			
	3	Neither likely nor unlikely	13.6	14.1			
	4	Unlikely	23.4	23.7			
	5	Very unlikely	8.0	8.0			
<u>Sectio</u>	on 2: A	lcohol use questions					
Q7.	In th	e past 60 days, how many times have you	driven a motor vehicle within	2 hours			
	afte	r drinking alcoholic beverages?					
	1	GAVE ANSWER (Enter Number):	[SKIP TO Q7b] 56.8	63.2			
	2	I don't drink	43.2	36.8			
Q7a.	Wha	It do you think the chances are of someon	e getting arrested if he or she	drives after			
	1	Very likely	41.0	53.2			
	2		33.8	29.2 29.7			
	2	Neither likely nor unlikely	13.4	10.8			
	1		9.0	<u>10.0</u> Л 1			
	5	Very unlikely	2.8				
	5	very drinkely	2.0	2.5			
[IF Q7	IS NO	T "I DON'T DRINK"]					
Q7b.	Wha	What do you think the chances are of getting arrested if you drive after drinking?					
	1	Very likely	34.3	48.3			
	2	Likely	34.0	32.3			
	3	Neither likely nor unlikely	14.3	9.4			
	4	Unlikely	10.9	6.0			
	5	Very unlikely	6.5	3.9			
Q8.	In the past 30 days, have you read, seen or heard anything about alcohol impaired						
	1		40 7	13 3			
	2	No [SKIP TO Q9]	59.3	45.5 56.7			
O8a.	Whe	ere did vou read. see or hear about it? (DO	NOT READ LIST. CHECK ALL TH	IAT APPLY)			
	1	Newspaper	13.0	5.0			
	2	Radio	9.8	9.2			
	3	TV	44.0	42.1			
	4	Billboards	9.6	16.5			
	5	Brochure	.5	0.0			
	6	Police enforcement	8.4	8.4			
	7	Other (specify)	14.7	18.8			

Q9.	In the past 30 days, have you read, seen or heard anything about designated driving
	programs?

1	Yes	22.7	21.7
2	No [SKIP TO NEXT SECTION]	77.3	78.3

Q9a. Where did you read, see or hear about it? (DO NOT READ LIST, CHECK ALL THAT APPLY)

1	Newspaper	5.3	2.3
2	Radio	20.3	19.8
3	TV	42.7	32.8
4	Billboards	7.0	12.2
5	Brochure	1.8	1.5
6	Police enforcement	1.3	3.8
7	Other (specify)	21.6	27.5

Q9b.	Do you remember any names of those designated driving programs?	If so, what was the
	name? (DO NOT READ LIST, CHECK ALL THAT APPLY)	

1	Be A HERO, Be A Designated Driver	1.3	1.5
2	Friends don't let friends drive drunk	1.3	9.9
3	Other (specify)	12.3	16.0
4	I do not remember any program names	85.0	72.5

Section 3: Speed Enforcement

Q10. On a local road with a speed limit of 30 mph, how often do you drive faster than 35 mph?

1	Always	5.2	8.5
2	Most of the time	13.0	16.4
3	Sometimes	27.9	33.5
4	Rarely	32.0	24.9
5	Never	21.9	16.7

Q11. Using the same scale, on an interstate with a speed limit of 65 mph, how often do you drive faster than 70 mph?

1	Always	4.6	7.8
2	Most of the time	11.0	14.3
3	Sometimes	26.8	30.0
4	Rarely	24.7	23.4
5	Never	32.9	24.5

Q12.	What do you think the chances are of getting a ticket if you drive over the speed limit?				
	1	Very likely	22.7	27.0	
	2	Likely	38.8	42.6	
	3	Neither likely nor unlikely	18.3	15.8	
	4	Unlikely	16.3	12.4	
	5	Very unlikely	3.9	2.2	
Q13.	In the past 30 days, have you read, seen or heard anything about speed enforcement by police?				
	1	Yes	29.5	31.5	
	2	No [SKIP TO NEXT SECTION]	70.5	68.5	
Q13a.	Where	did you read, see or hear about it? (DO NOT	READ LIST, CHECK A	LL THAT APPLY)	
	1	Newspaper	12.3	3.8	
	2	Radio	8.7	7.1	
	3	TV	26.0	19.1	
	4	Billboards	18.3	28.4	
	5	Brochure	.3	1.6	
	6	Police enforcement	21.9	25.1	
	7	Other (specify)	12.6	14.8	

Section 4: Distracted Driving

Q14.	How often do you talk on a mobile phone while you are driving a motor vehicle?				
	1	Always	3.0	3.0	
	2	Nearly always	4.8	5.3	
	3	Sometimes	28.3	32.5	
	4	Seldom	31.5	31.8	
	5	Never	31.4	26.9	
	6	(DO NOT READ) I do not own a mobile phone	1.0	0.5	

Q15. Using the same scale, how often do you text with your mobile phone while you are driving a motor vehicle?

drivir	ng a motor vehicle?		
1	Always	.1	0.5
2	Nearly always	1.2	1.7
3	Sometimes	6.2	12.3
4	Seldom	13.8	21.2
5	Never	77.6	64.2
6	(DO NOT READ) I do not own a mobile phone	1.1	0.2

Section 5: Demographics

Now I'd like to ask just a few questions about you. (DO NOT READ LISTS)

- Q16. May I please have your zip code?
 - 1 GAVE ANSWER (Enter): _____
 - 2 Refused
- Q19. Approximately how many miles do you drive each week? [RANGE=1-999] _____
- Q20. What is your profession? (RECORD VERBATIM)
- Q21. Please select which category includes your total household income from all sources before taxes last year. (READ LIST)
 - 1 Less than \$25,000
 - 2 \$25,000 to less than \$50,000
 - 3 \$50,000 to less than \$75,000
 - 4 \$75,000 to less than \$100,000
 - 5 \$100,000 to less than \$150,000
 - 6 \$150,000 to less than \$200,000
 - 7 \$200,000 or more
 - 8 (DO NOT READ) Refused

Q22. Are you of Hispanic, Latino or Spanish origin?

1	Yes	5.7	9.5
2	No	91.1	87.1
3	Refused	3.2	3.5

Q23.	What is your race? (DO NOT READ THESE CATEGORIES CHECK THE CLOSEST ONE THAT APPLIES. IF NONE IS A DIRECT MATCH, REPEAT BACK THE PERSON'S CHOICE BEFORE CHECKING OTHER)			
	1	White	72.7	61.9
	2	Black or African Am.	13.4	17.2
	3	American Indian or Alaska Native	0.4	.7
	4	Asian Indian	2.0	3.3
	5	Chinese	0.4	.8
	6	Filipino	0.2	.7
	7	Japanese	0.1	.2
	8	Korean	0.2	.5
	9	Vietnamese	0.1	.3
	10	Native Hawaiian	0.2	.2
	11	Guamanian or Chamorro		
	12	Samoan		
	13	Other Pacific Islander		
	14	Other Asian		1.0
	15	Some other Race (specify)	4.1	7.2
	16 Refused (PROBE FOR RESPONSE FIRST, BUT IF STILL REFUSE, THEN USE THIS			
	CODE)			
			6.2	6.0

That's all the questions I have. Thank you very much for your time. Have a nice evening!