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2014 Traffic Safety Behaviors Report

Minnesota Department of Public Safety, Office of Traffic Safety

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INTRODUCTION

In 2014, the Minnesota Department of Public Safety's Office of Traffic Safety retained Corona Insights to conduct a random telephone survey of Minnesotans for the purpose of examining the behaviors of Minnesotans with regard to a variety of traffic safety issues, as well as their awareness of various efforts to promote safer driving in the state. This survey will help to better understand the impacts that these efforts are having.

In addition to understanding the attitudes and behaviors of the state's population as a whole, the 2014 survey also sought to test how various groups of subpopulations differed in their responses. Specifically, the study was designed to examine how responses varied by age, gender, and geographic areas (i.e., urban and rural). In addition, the survey specifically examined findings for a key target of the traffic safety campaigns: young unmarried males (defined as males between the ages of 18 and 34 who are not currently married).

Finally, the 2014 survey data were compared with the 2012 and 2013 survey data for examining changes across time.

REPORT LAYOUT

This report is divided into a number of major sections, which include the following:

- **Background and Methodology** This section provides a detailed description of the approach used for this project in terms of goals and methodologies used.
- □ Summary of Key Findings This section contains a brief overview of the key findings and themes of the research.
- □ **Detailed Findings** This section is divided into numerous subsections and focuses on the results of the research in each of the major categories addressed in the survey.
- □ Comparison of 2012-2014 Results This section contains the key and detailed findings of analyses that compare the results from the 2014 survey to those of the 2012-2013 surveys.
- □ Appendix A: Respondent Demographics This appendix contains tables of demographic characteristics of survey respondents.
- □ Appendix B: Open Ended Responses This appendix contains the unedited responses that survey respondents gave in response to the open ended questions.
- □ Appendix C: Survey Instrument This appendix contains the l survey instrument used for this study.
- □ Appendix D: Detailed Weighting Methodology This appendix contains a detailed description of the methodology used to weight responses.



BACKGROUND AND METHODOLOGY

SUBPOPULATION DEFINITIONS

As described previously, the study was designed to examine the attitudes and behaviors of the state's population as a whole and by key subpopulations. The following are the definitions to categorize respondents into the subpopulations used throughout this report.

- □ Young unmarried males Respondents are defined as unmarried males between ages 18 and 34. This primarily includes those who have never been married but also includes a small number who are separated, divorced, or living with a partner.
- □ **Gender** Respondents are categorized as male or female.
- □ Age Respondents are divided between those who are ages 18 to 34 and those who are 35 or older.
- □ **Geographic area** Respondents are classified as being in an urban or rural area based on their county. The map below shows the exact geographic areas that are defined as "urban" and "rural" for the purposes of this report.





METHODOLOGY

SURVEY INSTRUMENT DESIGN

The survey instrument for this study was developed through a collaborative process between Corona Insights and the Office of Traffic Safety. The Office of Traffic Safety prepared a rough draft of the questions to be included in the survey. Based on this draft, Corona made recommendations to improve the survey through minor question edits, revised ordering, and the addition of questions necessary to accommodate the sampling of cell phone users. Based on these recommendations, the team collaboratively decided on final revisions to the survey instrument.

SURVEY IMPLEMENTATION

All surveys were conducted via telephone between July 15th and August 20th, 2014 through a randomly generated sample of telephone numbers. The telephone sample included both landlines and cell phones. The specific number of respondents in each of the various subpopulations examined is shown in the following table:

Sample Size by Segment

Audience	Total Completed Surveys
Total Population	939
Subpopulations	
Young Unmarried Males (ages 18-34)	219
Urban	501
Rural	438
Males	581
Females	358
Adults 18-34	310
Adults 35+	629

The proportion of cell phone to landline surveys was determined based on NHIS (National Health Interview Survey) data for "cell only" and "cell mostly" households. Dual users (i.e., households who have both cell phones and landlines) were not excluded from the cell sample, nor were they excluded from the landline sample.



WEIGHTING

Telephone surveys, like any other type of survey, do not precisely reflect the entire population when merely summed and totaled. Older residents, for example, are more likely to respond to telephone surveys than are younger residents. In this particular survey young unmarried males and rural residents were over sampled to ensure adequate representation. Because of different response probabilities among single- and dual-users (i.e. individuals who use only cell or landline phones versus those who use both) within each sample, we also had to weight each sample individually for single- and dual-users using NHIS population data. A compositing estimator (another kind of weight to account for selection probability of single- and dual-users) was then used to combine data from landline and cell samples.

After those initial weighting and combining steps, the study team developed a final unique weighting factor for every single respondent that adjusted that person's representation in the survey data. Weights are based on four variables: region (urban/rural), gender, age (three categories: 18-34, 35-54, 55+), and telephone service by area (rural landline-only, rural dual, rural cell-only, urban landline-only, urban dual, urban cell-only). Telephone usage (i.e., landline-only, landline-mostly, dual use, cell-mostly, cell-only) was not used as a weighting variable because it has not been found to reduce bias compared to telephone service alone, and it results in a larger design effect.

Population estimates for region, gender, marital status, and age were obtained from the 2012 American Community Survey conducted by the U.S. Census. Population estimates for telephone service in Minnesota were obtained from National Health Statistics Reports, 2013. Cell weighting is not possible because estimates of telephone service by region, gender, marital status, and age are not available. Therefore, a process of iterative marginal weighting (i.e., raking or Random Iterative Method weighting) was used to develop weights for each respondent. Sixteen iterations were performed to allow convergence.

The responses of those respondents who have traits that were underrepresented in the group of survey participants were therefore weighted more heavily than those whose traits were overrepresented among the survey participants. For this reason, the survey findings represent a much more complex, but also more accurate analysis than would a mere tabulation of the raw data.

See Appendix D for a more detailed description of the methodology used to derive the weights used for this study.

MARGIN OF ERROR

A total of 939 surveys were completed during the survey period, resulting in an overall adjusted margin of error of (plus or minus) 3.8 percent with a 95 percent confidence level. Margins of error take into account the weighting factors.

During the course of the survey, Corona recorded information on several attributes of survey respondents, including their gender and geographical region. It is possible to segment findings among these groups with varying degrees of confidence; this report provides information for each question for the total population, as well as unmarried males age 18-34, gender breakdowns (male versus female), geography (urban versus rural), and age (under 35 versus 35 and over).



Shown below is a table of the margins of error (with a 95 percent confidence level) for each segment. Margins of error are also corrected for the weighting effect, which will reduce the margin of error in proportion to the size of the weights required.

Margins of Error (MoE) by Segment

	Survey	
Subpopulation	Respondents	95% MoE
Statewide 18+	939	± 3.8%
Unmarried males age 18 to 34	219	± 6.7%
Males	581	± 4.7%
Females	358	± 5.9%
Rural	438	± 5.9%
Urban	501	± 5.0%
Adults 18-34	310	± 6.4%
35 and over	639	± 4.4%

(Smaller margins of error represent more confidence in the findings.)



SUMMARY OF KEY FINDINGS

Readers are encouraged to review the tables in the following pages for a full overview of how respondents answered the various questions included in the survey. However, the following is a brief discussion of some of the key findings and implications of the survey.

SEAT BELT BEHAVIORS AND ENFORCEMENT AWARENESS

A vast majority of Minnesotans wear their seat belts all of the time. Even so, seat belt non-use remains higher among males and, in particular, young unmarried males. However, these groups are actually more likely than others to be aware of messaging about seat belt enforcement, indicating that awareness of messaging does not necessarily directly drive improved behaviors.

Several key findings related to seat belt use and enforcement awareness are given below.

- 1. **Males and young unmarried males are less likely to wear their seat belts "all of the time."** Ninety three (93) percent of all statewide respondents self-reported wearing their seat belts "all of the time." This includes 95 percent of females who reported this and 91 percent of males, a statistically significant difference. In addition, only 88 percent of young unmarried males reported this behavior versus 94 percent of all "other" respondents. *Source:* Exhibit I-1
- 2. **About one half of statewide respondents have seen or heard about recent seat belt enforcement.** When asked if they were aware of law enforcement efforts within the past 30 days, 47 percent of respondents indicated they were. Men were more likely than women to be aware of such efforts (51 percent versus 42 percent), but no other statistically significant differences were observed. *Source: Exhibit I-2*
- 3. **Drivers** in rural areas are more likely to believe they will get a ticket for not wearing a seat belt. Overall, one-third of respondents (35 percent) believed they would "very likely" get a ticket for not wearing their seat belt. This was particularly evident in rural areas, where 41 percent of respondents believed they were very likely to be ticketed, compared to only 30 percent of those in in urban areas. In addition, younger drivers were generally more likely to believe they would be ticketed compared to older drivers. *Source: Exhibit I-4*

SPEEDING BEHAVIORS AND ENFORCEMENT AWARENESS

Similar to seat belt use, speeding is a behavior that is more common among young drivers and males, including the young unmarried male subpopulation. Younger drivers are more likely to believe they would be ticketed for speeding, suggesting that behaviors are not necessarily linked to the perception that the behavior will result in punishment. Even so, younger drivers are less likely to be aware of speeding enforcement messaging, so increased awareness of these efforts may help to improve younger drivers' behaviors.

Several key findings related to speeding while driving are given below.



- 4. Young drivers and males are more likely to speed "most of time" in highway driving. Both young drivers (under 35) and males, including young unmarried males, were more likely to speed on a road with a speed limit of 65 miles per hour. Young unmarried males, in particular, were twice as likely as other drivers to speed "most of the time" (18 percent versus 9 percent). Similarly, respondents from rural areas were more likely to say they "never" speed compared to those in urban areas. Source: Exhibit I-6
- 5. Awareness of speeding enforcement efforts is slightly higher among older drivers. Statewide, 56 percent of respondents were aware of speed enforcement efforts, and older drivers were more likely to be aware of such efforts than younger drivers (58 percent versus 51 percent). However, younger drivers were more likely to believe that they would receive a ticket for speeding than older drivers, indicating that awareness and the belief that one might receive a ticket are not necessarily linked. In contrast, though, young drivers believed they could drive slightly faster than older drivers before they would be pulled over (7.0 miles per hour versus 6.2). Source: Exhibits 1-7, 1-8 and 1-9

IMPAIRED DRIVING BEHAVIORS AND ENFORCEMENT AWARENESS

Younger drivers are more likely than their older counterparts to drive after drinking, and men are more likely to do so among women. Similar to the trend seen for speeding, younger drivers are actually more likely to believe that they would be stopped and arrested for drinking after driving. In addition, younger drivers were more likely to have personally driven through areas of increased enforcement. Again, this seems to indicate that perceptions of the risk of punishment do not necessarily translate into better behaviors.

Several key findings related to impaired driving are given below.

- 6. **Males and younger drivers are most likely to drive after drinking.** Males were significantly more likely than females to indicate driving a vehicle within two hours after drinking alcohol (22 percent versus 12 percent), as were younger drivers compared to older drivers (24 percent versus 14 percent). Finally, though a smaller difference, urban drivers were slightly more likely to drive after drinking than rural drivers (19 percent versus 14 percent). *Source:* Exhibit I-11
- 7. The vast majority of statewide respondents believe it is at least "somewhat likely" that someone will get stopped and arrested for driving after they drink. Statewide, 87 percent of respondents believed they would be stopped for driving drunk, and a nearly identical percentage (88 percent) believed that someone who drives after drinking is at least "somewhat likely" of being arrested. Younger drivers (and young unmarried males in particular) were more likely to believe someone would be stopped and arrested for driving after drinking than their counterparts. Similar to the trend seen for speeding, the fact that younger drivers were more likely to drive after drinking, along with their belief that it is more likely that they will be arrested, indicates that there is not necessarily a direct relationship between perceived risk of punishment and behavior. Source: Exhibits I-12 and I-13
- 8. **A vast majority of respondents are aware of recent impaired driving enforcement efforts.** Two-thirds of respondents (67 percent) had recently noticed impaired driving enforcement efforts. Furthermore, men were slightly more likely than women to have noticed such efforts (73 percent versus 62 percent). However, only one in four respondents (23 percent) had actually driven through an area of



increased enforcement. Those who had done so were more likely to be younger drivers and were more likely to be from urban areas. Source: Exhibits I-14 and I-16

MESSAGING AND COMMUNICATIONS

Across a variety of slogans addressed in the survey, men, younger drivers, and rural drivers are generally more likely to be aware of such slogans than their counterparts. Click It or Ticket remains the most often recalled slogan, followed by Drive Sober and Get Pulled Over. In terms of sources of awareness, TV remains the most commonly-recalled source of awareness, though there are growing differences in sources used by older drivers (who are more likely to recall messaging on TV and in newspapers) and younger drivers (who are more likely to recall messaging on social media or in outdoor advertisements).

Selected key findings related to messaging and message sources are given below.

9. Click It or Ticket remains the slogan with the highest recall in the past 30 days. Among statewide respondents, 70 percent recalled seeing or hearing the Click It or Ticket slogan in the past 30 days. Recall of this message was higher among men, younger drivers, and those in rural areas compared to their counterparts.

Drive Sober or Get Pulled Over was the second-highest recalled slogan statewide (by 61 percent of respondents). Again, men and rural drivers were more likely to recall this message, as were young unmarried males. However, the difference in recall of this slogan among overall age groups was not statistically significant.

Finally, Friends Don't Let Friend Drive Drunk (57 percent) and You Drink, You Drive, You Lose (51 percent) were both recalled by over half of respondents. *Source: Exhibit I-18*

- 10. Seat belt enforcement efforts, drinking and driving enforcement efforts, and traffic safety slogans are mostly recalled via TV in unaided responses. Television was the primary source for recall of traffic safety efforts and slogans. It was most commonly mentioned for recognition of a traffic safety slogan (63 percent), followed by drinking and driving enforcement efforts (54 percent), and seat belt enforcement efforts (50 percent). Other common sources of awareness were:
 - > Billboards/signs (31 percent for seat belt enforcement, 21 percent for impaired driving enforcement, 42 percent for slogans)
 - > Radio (19 percent for seat belt enforcement, 30 percent for impaired driving enforcement, 30 percent for slogans)
 - > Electronic road signs (23 percent for seat belt enforcement, 20 percent for impaired driving enforcement, 18 percent for slogans)

Television and newspapers were generally more commonly cited as sources of awareness for older respondents, while younger respondents were generally disproportionately more likely to be aware of online ads/social media and outdoor advertising. *Source: Exhibits I-3, I-15 and I-19*



ADDITIONAL ANALYSES

Young respondents are much more likely to talk on a cell phone or text while driving. This occurs despite the fact that young respondents, in general, are more aware of the texting while driving law than older drivers. This appears to imply that the mere presence of a law, in of itself, does not act as a deterrent. However, awareness of distracted driving messaging increased significantly in the past year, indicating that efforts to make Minnesotans aware of the dangers of being distracted while driving are being noticed by the public.

Several key findings related to additional analyses are given below.

- 11. Young respondents are much more likely to talk on a cell phone while driving or text while driving. Young respondents (ages 18-34) and young unmarried males were most likely to talk on their cell phone or text while driving. In the past seven days, two-thirds of young drivers (66 percent) had talked on a cell phone while driving, compared to only 46 percent of older drivers. Similarly, while only 9 percent of older drivers had texted while driving in the past seven days, 39 percent of younger drivers had done so. *Source: Exhibits I-21 and I-22*
- 12. **There is high awareness of the texting while driving law in Minnesota.** Overall, four in five respondents (79 percent) were aware of this law. Young respondents under age 35 were significantly more likely to be aware of the law than those 35 and over (85 percent versus 77 percent) and males were more likely than females to be aware (82 percent versus 77 percent). Similarly, young unmarried males were considerably more likely to be aware of the law than other drivers (89 percent versus 78 percent). Source: Exhibit I-23
- 13. A vast majority of Minnesotans are aware of both texting and driving and distracted driving campaigns. Statewide, 85 percent of respondents were aware of texting and driving messaging. This awareness was similar among all of the subgroups examined. Similarly, 74 percent of respondents were aware of distracted driving messaging. In this case, women were more likely to be aware of the campaign than men. In addition, it is interesting to note that awareness of such messaging climbed significantly between 2013 and 2014 (55 percent vs. 74 percent). Source: Exhibits I-24, I-25, and II-25
- 44. Awareness, risk perception and actual behavior tend to be consistent across traffic safety issues. Generally speaking, respondents who were aware of one type of messaging for a traffic safety issue (e.g. seat belt use) were likely to also be aware of messaging for additional traffic safety issues (e.g. drinking and driving and speeding). This pattern also holds true for risk perception and (good) behavior. Overall, there is a slightly stronger relationship between perceived risk and (good) behavior than there is for messaging awareness and behavior. Source: Section 1



COMPARISON OF 2012-2014 RESULTS

Generally, only minor changes have been observed during the three-year study period. Messaging is seen in a wider variety of locations in 2014 compared to 2012, but overall recall of those messages has not increased significantly. However, awareness of state laws and new types of messaging, such as the Minnesota Ignition Interlock Law and distracted driving messaging, have increased somewhat since 2012.

Several key findings related to year-over-year comparisons are given below.

- 1. Seat belt use frequency has remained relatively consistent since 2012 and was at 93 percent in 2014. Source: Exhibit II-1.
- 2. Awareness of both seat belt enforcement efforts and speeding enforcement efforts is constant from 2012 to 2014, with about half of statewide respondents indicating they have read, seen or heard about each of these efforts in the past 30 day period. Source: Exhibits 2 and 7.
- 3. Drivers are seeing messaging about seat belt enforcement in a wider variety of places in 2014 compared to 2012; the percentage of respondents who mentioned TV, billboards, electronic road signs, radio, newspapers, and online ads/social media all increased significantly between 2012 and 2014. *Source: Exhibit II-3*.
- 4. Awareness of impaired driving enforcement efforts from 2012 to 2014 is relatively constant at roughly two-thirds (66-67 percent) during that time period. *Source:* Exhibit II-14.
- 5. Awareness of the Minnesota Ignition Interlock law increased by a statistically significant margin between 2012 and 2013 while moving from 33 percent to 39 percent, then remained at 39 percent in 2014 *Source: Exhibit II-17*.
- 6. Awareness of two different traffic safety slogans increased by a statistically significant margin between 2012 and 2014. These slogans include: Drive Sober or Get Pulled Over (42 percent to 61 percent); and Toward Zero Deaths (14 percent to 22 percent). Source: Exhibit II-18.
- 7. In 2014, respondents were significantly more likely to recall slogans on electronic road signs and in online ads/social media than in 2012. *Source:* Exhibit II-19.
- 8. Awareness of motorcycle safety efforts increased between 2012 and 2013 but returned to 2012 levels in the most recent year. *Source: Exhibit II-20*.
- 9. The frequencies of talking on a cell phone while driving decreased slightly since 2012 from 4.2 times in the past week to 3.2 times in 2014. Exhibit II-21
- 10. Awareness of distracted driving messaging increased significantly from 2013 to 2014 from 55 percent in the former year to 74 percent in the latter. *Exhibit II-25*



DETAILED FINDINGS

TABLE INTERPRETATION

Throughout this report, a relatively consistent format is used to present the results of each question. The following is a general description of how to interpret these tables.

- □ In each table, the row heading contains all of the answers given by respondents to the question. The column heading contains each of the various subpopulations being examined (i.e., males, females, urban respondents, rural respondents, etc.). Therefore, the distribution of answers to each question is shown in each column.
- The "sample size" row contains the total number of respondents in each category who answered the question. This number will vary slightly from question to question in cases where the question was only asked to a subset of respondents.
- The "X² (chi-square) result" row contains the results of a chi-square test for relationships between the demographic category being examined (e.g., gender) and the question being asked. In other words, this test identifies whether the variations in question responses are related to variations in group membership. This test was conducted at the 95 percent confidence level with three possible results as defined below:
 - O Different There is evidence (at the 95 percent confidence level) that there is a relationship between the demographic characteristic being examined and the question's results. In other words, the two groups have "different" response patterns.
 - O Not Different There is evidence (at the 95 percent confidence level) that there is not a relationship between the demographic characteristic being examined and the question's results. In other words, the two groups have the "same" response patterns.
 - o Inconclusive The results of the chi-square test are "inconclusive" at the 95 percent confidence level.
- Each analysis cell contains the percentage of respondents of each type who gave each answer. In addition, a z-test was conducted between individual responses to identify whether one group was significantly more (or less) likely to select a response. In cases where the two groups being examined were significantly more (or less) likely to select a response, an asterisk (*) is shown between the two percentages. All z-tests were conducted at the 95 percent confidence level.
- □ Figures in all tables have been rounded for reporting purposes. Occasionally, a column may not add exactly to 100 percent for this reason.
- □ As an example, consider the sample analysis table shown on the following page.



Sample Analysis

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Inconclusive		Diffe	erent	Diffe	erent	Different	
Car	53%	62%	51%	54%	50%	45%	60%*	65%*	47%
Van or minivan	9%	3%	10%†	8%	11%	8%	10%	4%	11%*
Motorcycle	1%	2%	1%	1%	0%	1%	0%	1%	1%
Pickup truck	15%	16%	15%	11%	22%*	28%*	4%	11%	17%†
Sport Utility Vehicle	17%	12%	18%	20%†	14%	15%	20%†	13%	19%†
Other	1%	0%	1%	1%	0%	0%	1%	1%	1%
Other truck	0%	0%	0%	-	0%	0%	-	0%	0%
Never drive	4%	4%	5%	6%	3%	4%	5%	5%	4%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

As shown in the table above, 53 percent of all respondents most frequently drove a car. In addition, there were differences observed between respondents of different areas, genders, and ages (as evidenced by the results of the chi-square test). More specifically, rural respondents were more likely to drive a pickup truck than urban drivers (based on the presence of an asterisk in that result); females were more likely to drive a car than males; and younger respondents were more likely to drive a car than older respondents. Other significant differences can be observed in the other response categories indicated by an asterisk above. A † indicates that the data are significant but at a weaker level than the asterisk. Although the pattern of data suggests that a difference exists between groups marked with a †, the weaker significance level means that there is a higher probability that this difference is purely due to chance.



SECTION 1: OVERARCHING FINDINGS (INTERRELATED AREAS)

In addition to the various analyses of subpopulations presented previously in this report, the research team also examined how responses to some of the survey's questions related to responses of other questions, especially those across the spectrum of awareness, perceptions and behaviors. We present an overview of some of these findings below.

- Respondents who are aware of DWI messaging are somewhat likely to be aware of other traffic safety messaging. Similar to findings in this analysis in previous years, there is a significant proportion of respondents who are aware of DWI enforcement messaging who are also highly likely to be aware of messaging for one or both of the two other primary traffic safety issues addressed (i.e. speeding and seat belts). This shows the reality that awareness, where it exists, is likely in some cases to exist across the spectrum of these traffic safety issues.
- □ The table to the right illustrates the percentage of respondents who are aware of all three types of messaging, none of the three, or some combination thereof. A vast majority of respondents (83 percent) had heard of at least some types of messaging, though only 27 percent were aware of all three types of messaging. Awareness is highest for DWI messaging (67 percent in total), followed by awareness for speeding messaging (56 percent) and seat belts (47 percent). These figures are similar to those observed in previous years, though the percentage who are aware of speeding increased slightly between 2013 and 2014.

Awareness	Pct
ALL	27%
SB/SP	4%
SB/DWI	10%
SP/DWI	19%
SB	5%
SP	6%
DWI	11%
NONE	17%

- There appears to be a very strong correlation between perceptions of the risk of getting a ticket (or arrested) for various behaviors.
 - Similar to the above, a solid majority of respondents who believe that the risk of them being cited for not wearing a seat belt is high also believe that the risk of their being cited for speeding or driving under the influence is high as well. Thus, the perception of risk for unacceptable driving behaviors tends to be more "global," thereby applying across the three major traffic safety issues, regardless of whether this risk perception is high or low.
- The table to the right shows the percentages of respondents who believe they would be at least "somewhat likely" to be cited for the three behaviors, none of the three behaviors, or some combination thereof. Half of respondents felt that they would be at least "somewhat likely" to be cited for all three behaviors while very few (4 percent) felt that they would "very unlikely" be cited for any of the three behaviors. Similar to findings above for awareness, more feel they would be penalized for DWI (88 percent) compared to speeding (72 percent) or seat belt offenses (67 percent). Overall, the 2014 risk perceptions were similar to the 2012 and 2013 risk perceptions.

Perceived	
Risk	Pct.
ALL	50%
SB/SP	4%
SB/DWI	11%
SP/DWI	16%
SB	2%
SP	2%
DWI	11%
NONE	4%



Those who exhibit good driving behaviors are more likely to also exhibit other good driving behaviors. Again, as shown, there is a strong correlation between those who wear their seat belts and those who don't drink and drive. As was seen previously, some individuals are simply more risky with their behaviors, and that attitude manifests itself across the undesirable behaviors.

The table to the right illustrates the percentage of respondents who exhibit each of the three "good" behaviors. That is, people who wear their seat belt "all of the time," who "never" drive more than 5 mph over the speed limit, and who have not driven after drinking in the past 30 days. Roughly one-fourth of respondents (24 percent) exhibited good behaviors in all three categories, and an additional 54 percent exhibited good behaviors in the two areas aside from speeding. Overall, respondents are the most likely to exhibit good behaviors with regard to seat belt use (93 percent), followed by DWI (83 percent) and speeding (27 percent). These levels have remained largely consistent since 2012.

Good	
Behavior	Pct.
ALL	24%
SB/SP	1%
SB/DWI	54%
SP/DWI	2%
SB	14%
SP	0%
DWI	3%
NONE	2%

- Behaviors are more strongly correlated with perceived risk than with awareness of messaging. Using the information discussed above for overall awareness, the research team created a "score" for each respondent based on their responses for awareness, perception of risk, and good behavior across all three behavior categories. In other words, this score evaluated how aware a person is overall (A), how they asses risk of enforcement (R), and how well they behaved (B) in general. Using these scores, respondents are classified as having a "high" score if they are in the top one-third (roughly) of all respondents in that category.
- The table to the right illustrates the results of this analysis, though readers should use caution in interpreting these raw percentages given that the scoring system is somewhat arbitrary in nature. However, this analysis is useful in that it illustrates a trend seen across the survey's results: those who perceive their risk to be higher are less likely to exhibit bad behaviors than those who are merely aware of the issue.
- There are significant demographic differences between respondents who have high awareness, perception of risk, and good behaviors. In addition to illustrating the correlation between perceived risk and behavior, this analysis was useful in identifying some key differences between respondents of various types. Drivers in rural areas are more likely to exhibit high scores in all three categories, for example. It is also interesting that younger drivers (and young unmarried males in particular) are more likely to be in the "A/R" category than their counterparts, indicating that they are more likely to be aware of messaging and to perceive that there is a risk, but not necessarily to behave better based on these perceptions.

High	
Scores	Pct.
A/R/B	22%
A/R	15%
A/B	14%
R/B	10%
A	15%
R	7%
В	11%
NONE	6%



SECTION 2: SEAT BELT BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit I-1 Seat Belt Usage Frequency

(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Inconclusive		Different		Different		Inconclusive	
All of the time	93%	88%	94%	95%†	90%	91%	95%*	90%	95%†
Most of the time	4%	6%	4%	3%	6%†	6%†	3%	6%	3%
Some of the time	1%	3%	1%	1%	2%	1%	1%	2%	1%
Rarely	1%	1%	1%	1%	0%	1%	0%	1%	0%
Never	1%	2%	1%	1%	1%	1%	0%	1%	1%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

SEAT BELT USE FREQUENCY IS STATISTICALLY DIFFERENT ACROSS MANY SUBPOPULATIONS

Ninety-three (93) percent of respondents, overall, reported wearing their seat belts "all of the time." Young unmarried males were least likely to wear seat belts "all of the time," while females were most likely to wear their seat belts with this frequency. While 88 percent of young unmarried males wore their seat belts "all of the time," 95 percent of females reported wearing their seat belt with this frequency.

When comparing responses across selected subpopulations, statistically significant differences are observed in many cases. Females were more likely than males to report this behavior "all of the time" (95 percent versus 91 percent), though it should be noted that this difference is smaller than has been observed in years past (97 percent versus 84 percent in 2013). Differences observed by area (i.e. urban versus rural) were also statistically significant, although smaller, with only a 5 percentage point difference with rural drivers being slightly less likely to report wearing their seat belts all of the time versus their counterparts.



Exhibit I-1a Seat Belt Usage Frequency by Detailed Subpopulations

(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

			Area by	Gender		Area by Age			
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	939	305	196	276	162	165	336	145	293
X ² Result		Inconclusive		Inconclusive		Different		Inconclusive	
All of the time	93%	93%	97%	87%	93%	90%	97%*	89%	91%
Most of the time	4%	4%	2%	8%	4%	7%*	1%	5%	6%
Some of the time	1%	1%	1%	2%	2%	1%	1%	5%	1%
Rarely	1%	1%	1%	1%	-	1%	0%	0%	0%
Never	1%	1%	-	2%	0%	0%	1%	1%	1%

Exhibit I-1b Seat Belt Usage Frequency by Detailed Subpopulations

(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

		Area	by Young U	J nmarried 1	Males	Age by Gender				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+	
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females	
Sample Size (n)	939	110	391	109	329	241	69	340	289	
X ² Result		Different		Inconclusive		Inconclusive		Different		
All of the time	93%	87%	96%*	89%	91%	89%	90%	91%	97%*	
Most of the time	4%	8%†	2%	4%	6%	7%	6%	5%†	2%	
Some of the time	1%	3%	1%	4%	2%	2%	3%	1%	1%	
Rarely	1%	1%	1%	1%	0%	1%	1%	1%	-	
Never	1%	1%	0%	3%	1%	1%	-	2%	0%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



YOUNGER URBAN SUBPOPULATIONS AND OLDER MALES ARE LESS LIKELY TO WEAR THEIR SEAT BELTS

When compared with older respondents from urban areas, younger respondents were significantly less likely to indicate that they wear their seat belts "all of the time." Similarly, among older respondents, men were less likely to wear their seat belts than women. However, it should be noted that these differences are all less than 7 percent – a smaller difference than has been observed in years past. It would appear that seat belt usage is becoming fairly ubiquitous among all subpopulations.

Exhibit I-1b Seat Belt Usage Frequency by Vehicle Type Driven

(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

	Statewide	Car	Van or minivan	Pickup truck	Sport Utility Vehicle	Other
Sample Size (n)	939	498	77	153	153	58
All of the time	93%	94%	95%	88%	96%	87%
Most of the time	4%	3%	1%	8%	4%	13%
Some of the time	1%	1%	4%	2%	0%	-
Rarely	1%	1%	-	1%	-	-
Never	1%	1%	-	1%	1%	-

PICKUP TRUCK DRIVERS ARE LESS LIKELY TO WEAR SEAT BELTS ALL OF THE TIME

While 93 percent of respondents, overall, indicate they were their seat belts all of the time, 88 percent of pickup truck drivers indicated this. Instead, higher proportions of pickup truck drivers indicated "most of the time," or "some of the time." Again, this is a smaller difference than has been observed in years past.

Given that pickup driver respondents were more likely male than female by about a seven-to-one ratio (Exhibit I-26), and rural, these factors likely play a role in pickup truck drivers' lack of seat belt use.



Exhibit I-2 Awareness of Seat Belt Enforcement Efforts

(In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?)

		Target	Target Group		ea	Ger	nder	Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	Inconclusive		Inconclusive		erent	Inconclusive	
Yes	47%	56%	45%	45%	48%	51%*	42%	46%	47%
No	51%	44%	52%	52%	50%	47%	55%†	53%	50%
Don't know	2%	-	3%	2%	2%	2%	3%	1%	3%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

MEN ARE MORE LIKELY TO BE AWARE OF SEAT BELT ENFORCEMENT MESSAGING THAN WOMEN

Statewide, just under half of respondents (47 percent) were aware of recent seat belt enforcement efforts. When examining subpopulation groups, the only significant difference observed was that men were slightly more likely to be aware of such messaging than women. Though not statistically significant, it also appears that young unmarried males were more likely to be aware of such efforts than others in the population.



Exhibit I-2a Awareness of Seat Belt Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?)

			Area by	Gender		Area by Age				
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural	
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+	
Sample Size (n)	939	305	305 196		162	165	336	145	293	
X ² Result		Incon	clusive	Different		Inconclusive		Inconclusive		
Yes	47%	49%	42%	54%†	42%	45%	46%	47%	49%	
No	51%	50%	55%	44%	55%†	54%	52%	52%	49%	
Don't know	2%	2%	3%	2%	3%	1%	3%	1%	3%	

Exhibit I-2b Awareness of Seat Belt Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?)

		Area	by Young U	J nmarried 1	Males	Age by Gender					
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+		
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females		
Sample Size (n)	939	110	391	109	329	241	69	340	289		
X ² Result		Diffe	erent	Inconclusive		Different		Inconclusive			
Yes	47%	59%†	44%	51%	48%	56%*	35%	49%	45%		
No	51%	41%	54%	49%	50%	43%	63%*	49%	51%		
Don't know	2%	-	3%	-	3%	1%	1%	2%	3%		

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



MALES ARE MORE LIKELY THAN FEMALES TO BE AWARE OF SEAT BELT ENFORCEMENT EFFORTS AMONG A NUMBER OF SUBPOPULATIONS

Among respondents in nearly all subpopulations, males were slightly more likely than females to be aware of seat belt enforcement efforts. This difference was largest among younger respondents, among whom males were dramatically more likely to be aware of such efforts than females (56 percent versus 35 percent). On the other hand, this difference was essentially negligible among older respondents, indicating that current enforcement messaging is being effectively targeted at young males in particular.



Exhibit I-3 Sources of Seat Belt Enforcement Awareness

(Where did you read, see, or hear that message?)

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	456	118	338	238	218	299	157	156	300
X ² Result		n,	/a	n/	/a	n	/a	n	/a
TV	50%	46%	50%	44%	57%†	51%	47%	37%	55%*
Radio	19%	22%	19%	13%	27%*	20%	18%	27%†	16%
Online ads or social media	5%	5%	5%	6%	4%	4%	7%	6%	5%
Newspaper	15%	4%	17%†	11%	22%*	13%	19%	2%	21%*
Billboard/signs	31%	38%	30%	32%	29%	33%	28%	41%*	27%
Personal observation/on the road	10%	14%	9%	13%†	6%	9%	11%	13%	9%
Electronic Road Signs	23%	17%	23%	33%*	9%	22%	23%	23%	22%
Bar restroom	1%	-	1%	-	1%	-	1%	2%	_
Minnesota Twins backup									
sign	_	-	-	-	-	_	-	-	_
Gas station advertisement	-	-	-	-	-	-	-	-	_
Other	6%	6%	6%	5%	9%	5%	7%	7%	6%
Don't know	1%	1%	1%	1%	0%	1%	0%	0%	1%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

Note: This question was only asked to respondents who had seen such enforcement efforts.

TV IS THE MOST COMMON SOURCE MENTIONED, FOLLOWED BY BILLBOARDS, ELECTRONIC SIGNS AND RADIO

Half of statewide respondents cited TV as a source of enforcement messages. However, it is interesting to note that only 37 percent of younger respondents mentioned TV as a source compared to 55 percent of older respondents. Among the younger age group, the most common source of messaging about seat belt enforcement was actually billboards (41 percent).

Other differences were observed between respondents in urban and rural areas. Those in urban areas were more likely to cite electronic road signs as a source for this messaging, while those in rural areas were more likely to cite TV, radio, and newspapers as sources.



Exhibit I-3a Sources of Seat Belt Enforcement Awareness by Detailed Subpopulations

(Where did you read, see, or hear that message?)

			Area by	Gender			Area l	y Age	
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	456	151	87	148	70	84	154	72	146
X ² Result		n	/a	n	/a	n,	/a	n	/a
TV	50%	47%	41%	57%	56%	39%	47%	34%	65%*
Radio	19%	18%†	8%	22%	33%	21%†	10%	35%	24%
Online ads or social media	5%	4%	9%	4%	4%	9%	5%	1%	5%
Newspaper	15%	8%	14%	18%	26%	2%	15%*	1%	29%*
Billboard/signs	31%	36%	28%	30%	28%	38%	30%	45%*	22%
Personal observation/on	10%	10%	16%	8%	4%	11%	14%	15%*	3%
the road	1070	10 / 0	10 / 0	0/0	4/0	11/0	14/0	13/0'	370
Electronic Road Signs	23%	30%	36%	12%	5%	28%	35%	16%	6%
Bar restroom	1%	-	-	-	3%	-	-	4%	-
Minnesota Twins backup									
sign	-	-	_	=	-	-	1	_	_
Gas station advertisement	-	-	-	-	-	-	-	-	-
Other	6%	4%	6%	8%	10%	3%	5%	13%	7%
Don't know	1%	1%	1%	1%	=	1%	1%	=	0%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



Exhibit I-3b Sources of Seat Belt Enforcement Awareness by Detailed Subpopulations

(Where did you read, see, or hear that message?)

		Area	by Young U	J nmarried 1	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	456	63	175	55	163	131	25	168	132
X ² Result		n	/a	n,	/a	n,	/a	n	/a
TV	50%	46%	44%	45%	58%	40%	32%	57%	52%
Radio	19%	18%	12%	29%	27%	24%	31%	18%	14%
Online ads or social media	5%	7%	6%	3%	4%	4%	9%	4%	6%
Newspaper	15%	5%	12%	2%	24%†	3%	-	18%	25%
Billboard/signs	31%	40%	31%	35%	28%	43%	37%	28%	25%
Personal observation/on	10%	14%	13%	15%	5%	14%	10%	7%	11%
the road	10 / 0	14/0	1370	13/0	370	14/0	1070	7 70	11/0
Electronic Road Signs	23%	20%	35%	13%	8%	22%	25%	22%	23%
Bar restroom	1%	-	-	-	1%	-	5%	1	-
Minnesota Twins backup									
sign	-	ı	_	1	_	_	_	1	_
Gas station advertisement	-	-	-	-	-	-	-	-	-
Other	6%	7%	4%	6%	9%	7%	7%	5%	7%
Don't know	1%	2%	1%	-	0%	1%	-	1%	1%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

DIFFERENCES BETWEEN SUBPOPULATIONS ARE MOST PRONOUNCED BETWEEN AGE GROUPS

Generally, the subgroups examined were similar in their sources for messaging awareness. However, in many of the comparisons, younger respondents were more likely to cite billboards as a source of messaging, while older respondents were more likely to cite TV and newspapers. This is particularly pronounced among respondents in rural areas.



Exhibit I-4
Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt

(How likely do you think you are to get a ticket if you don't wear your seat belt?)

		Target Group		Ar	ea	Ger	nder	Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	Inconclusive		erent	Inconclusive		Inconclusive	
Very likely	35%	39%	34%	30%	41%*	34%	35%	39%	33%
Somewhat likely	31%	35%	31%	31%	31%	31%	31%	30%	32%
Somewhat unlikely	18%	18%	18%	18%	17%	19%	17%	16%	18%
Very unlikely	16%	9%	17%	21%*	10%	16%	17%	15%	17%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

THOSE IN RURAL AREAS BELIEVE IT IS MORE LIKELY THAT THEY WILL RECEIVE A TICKET FOR NOT WEARING A SEAT BELT

Statewide, one-third of respondents felt that they would "very likely" receive a ticket for not wearing a seat belt. This trend is similar among all of the subpopulations examined, but those in rural areas were considerably more likely to believe they would receive a ticket than their counterparts in urban areas (41 percent versus 30 percent).



Exhibit I-4a Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt by Detailed Subpopulations

(How likely do you think you are to get a ticket if you don't wear your seat belt?)

		Area by Gender				Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Incon	Inconclusive		Inconclusive		clusive	Inconclusive			
Very likely	35%	30%	30%	40%	42%	34%	28%	46%	40%		
Somewhat likely	31%	31%	31%	32%	31%	29%	33%	31%	31%		
Somewhat unlikely	18%	21%	16%	16%	18%	16%	19%	16%	18%		
Very unlikely	16%	18%	23%	12%	8%	21%	21%	7%	11%		

Exhibit I-4b
Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt by Detailed Subpopulations

(How likely do you think you are to get a ticket if you don't wear your seat belt?)

		Area	by Young U	J nmarried 1	Males	Age by Gender				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+	
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females	
Sample Size (n)	939	110	391	109	329	241	69	340	289	
X ² Result		Incon	Inconclusive		Inconclusive		ifferent	Inconclusive		
Very likely	35%	39%	29%	38%	42%	39%	39%	32%	34%	
Somewhat likely	31%	32%	31%	39%	31%	31%	29%	32%	32%	
Somewhat unlikely	18%	18%	18%	17%	17%	16%	16%	20%	17%	
Very unlikely	16%	11%	22%	6%	10%	14%	16%	16%	17%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



VERY FEW DIFFERENCES IN THE PERCEIVED LIKELIHOOD OF RECEIVING A TICKET FOR NOT WEARING A SEATBELT ARE APPARENT AMONG SUBGROUPS

No significant differences were observed between any of the detailed subgroups examined with regarding the perceived likelihood of receiving a ticket for not wearing a seat belt. Young unmarried males in urban areas were slightly more likely to believe they would be ticketed for not wearing a seat belt than others in urban areas, but even this difference was relatively slight (39 versus 29 percent selecting "very likely).

Exhibit I-4b
Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt by Type of Vehicle Driven

(How likely do you think you are to get a ticket if you don't wear your seat belt?)

	Statewide	Car	Van or minivan	Pickup truck	Sport Utility Vehicle	Other
Sample Size (n)	939	498	77	153	153	58
Very likely	35%	36%	37%	40%	28%	28%
Somewhat likely	31%	31%	25%	28%	37%	35%
Somewhat unlikely	18%	19%	14%	16%	17%	14%
Very unlikely	16%	14%	23%	16%	18%	24%

SUV DRIVERS ARE SLIGHTLY LESS LIKELY THAN OTHER DRIVERS TO PERCEIVE BEING VERY LIKELY TO BE TICKETED FOR NOT WEARING A SEAT BELT

Only 28 percent of SUV drivers indicated a perception of being very likely to be pulled over for not wearing their seat belt. This was a lower proportion than the statewide respondent sample overall (35 percent), and was particularly lower than pickup truck drivers (40 percent) and van drivers (37 percent).



Exhibit I-5 Importance of Seat Belt Law being Primary

(How important do you think it is for the Minnesota Seat Belt Law to be Primary?)

		Target	Target Group		ea	Ger	nder	Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	Inconclusive		erent	Different		Inconclusive	
Very important	56%	50%	57%	56%	55%	47%	64%*	54%	57%
Fairly important	19%	18%	20%	20%	18%	18%	21%	24%†	17%
Just somewhat important	11%	14%	11%	9%	14%†	13%	9%	10%	11%
Not that important	14%	17%	13%	15%	12%	22%*	6%	12%	15%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

WOMEN ARE MORE LIKELY TO BELIEVE THAT IT IS VERY IMPORTANT THAT THE SEAT BELT LAW BE PRIMARY

Overall, 56 percent of respondents believed it was "very important" that the seat belt law be a primary law. Among the subgroups examined, women were particularly likely to believe this was very important (64 percent) compared to their male counterparts (47 percent). It is interesting to note that, in previous years, there were considerably more differences among subgroups, indicating that messaging aimed at the importance of such laws are being effective at normalizing public opinion among the various subpopulations of interest.



Exhibit I-5a Importance of Seat Belt Law being Primary by Detailed Subpopulations

(How important do you think it is for the Minnesota Seat Belt Law to be Primary?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Diffe	Different		Different		clusive	Different			
Very important	56%	45%	67%*	51%	60%	59%	55%	46%	59%†		
Fairly important	19%	20%	20%	15%	22%	23%	19%	27%†	15%		
Just somewhat important	11%	10%	7%	16%	12%	6%	10%	15%	14%		
Not that important	14%	25%*	6%	18%*	6%	12%	17%	12%	12%		

Exhibit I-5b
Importance of Seat Belt Law being Primary by Detailed Subpopulations

(How important do you think it is for the Minnesota Seat Belt Law to be Primary?)

		Area	by Young U	J nmarried 1	Males	Age by Gender				
	Ctatarrida	Urban	Urban	Rural	Rural	<35	<35	35+	35+	
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females	
Sample Size (n)	939	110	391	109	329	241	69	340	289	
X ² Result		Incon	clusive	Inconclusive		Different		Different		
Very important	56%	53%	57%	46%	57%	48%	60%†	47%	66%*	
Fairly important	19%	17%	20%	20%	18%	21%	27%	17%	18%	
Just somewhat important	11%	11%	8%	19%	14%	14%†	6%	12%	11%	
Not that important	14%	18%	15%	16%	12%	17%*	6%	24%*	6%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



FEMALE SUBPOPULATIONS ARE SIMILAR IN THEIR OPINIONS ON THE IMPORTANCE OF THE PRIMARY SEAT BELT LAW

When compared with their male counterparts, females in both urban and rural areas, and females in both age groups were more likely to believe the primary seat belt law is "very important." In these cases, differences between females and males range from 9-22 percent, suggesting a large gap in perceived importance of this law between genders.

Otherwise, the older rural respondent population was significantly more likely to perceive this level of importance versus younger rural respondents (59 percent versus 46 percent).



SECTION 3: SPEEDING BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit I-6 Speeding Frequency

(On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X^2 Result		Different		Inconclusive		Different		Different	
Most of the time	10%	18%*	9%	11%	9%	13%†	8%	14%†	9%
Half the time	14%	22%†	13%	15%	11%	13%	15%	21%*	11%
Rarely	47%	44%	48%	48%	46%	50%	45%	47%	48%
Never	28%	15%	30%*	25%	33%†	24%	32%*	18%	32%*
Don't know	0%	1%	0%	0%	1%	0%	0%	0%	0%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

MALES AND YOUNGER DRIVERS ARE MORE LIKELY TO DRIVE FASTER THAN 70 MPH WITH A SPEED LIMIT OF 65 MPH

Speeding behavior is associated with younger age and males. Males were considerably more likely than females to indicate they drive faster than 70 miles per hour in a 65 miles per hour zone "most of the time" (13 percent versus 8 percent). Young unmarried males were also twice as likely as "other" respondents to state this (18 percent versus 9 percent). Younger respondents (under 35) were more likely than their older counterparts to indicate this. All of these differences are statistically significant.

As a group, rural drivers were significantly less likely to speed with 33 percent of these drivers indicating they "never" speed compared with just 25 percent of urban drivers who stated this.



Exhibit I-6a Speeding Frequency by Detailed Subpopulations

(On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?)

			Area by	Gender		Area by Age				
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural	
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+	
Sample Size (n)	939	305	196	276	162	165	336	145	293	
X ² Result		Different		Inconclusive		Different		Inconclusive		
Most of the time	10%	15%†	8%	11%	7%	16%†	9%	10%	9%	
Half the time	14%	15%	16%	10%	13%	25%*	11%	16%	10%	
Rarely	47%	49%	47%	50%	42%	44%	50%	51%	44%	
Never	28%	20%	29%†	29%	36%	15%	29%*	23%	37%†	
Don't know	0%	0%	-	1%	0%	-	0%	1%	1%	
Refused	0%	1%	-	-	0%	0%	0%	-	0%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



Exhibit I-6b Speeding Frequency by Detailed Subpopulations

(On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?)

		Area	by Young U	J nmarried 1	Males	Age by Gender				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+	
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females	
Sample Size (n)	939	110	391	109	329	241	69	340	289	
X ² Result		Different		Inconclusive		Inconclusive		Different		
Most of the time	10%	21%†	10%	15%	8%	18%†	9%	11%	7%	
Half the time	14%	27%†	14%	15%	11%	22%	20%	8%	13%	
Rarely	47%	42%	49%	46%	46%	44%	49%	52%†	43%	
Never	28%	10%	27%*	22%	34%	14%	22%	28%	36%†	
Don't know	0%	-	0%	2%	0%	1%	-	0%	0%	
Refused	0%	0%	0%	-	0%	0%	-	0%	0%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

SOME FEMALE AND OLDER RESPONDENT SUBPOPULATIONS ARE MORE LIKELY TO NEVER SPEED

Older females (35 and older) were significantly more likely than older males to indicate they "never" speed (36 percent versus 28 percent). Otherwise, when comparing across other subpopulation groups, urban females and older respondents from both urban and rural areas were groups that were each less likely than their counterparts to indicate speeding behavior.



Exhibit I-7 Awareness of Speeding Enforcement Efforts

(In the past 30 days, have you read, seen or heard anything about speed enforcement by police?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	56%	50%	57%	56%	56%	57%	55%	51%	58%
No	43%	49%	42%	43%	43%	41%	44%	49%†	40%
Don't know	1%	0%	1%	1%	1%	1%	1%	0%	2%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

OLDER DRIVERS ARE SLIGHTLY MORE LIKELY TO BE AWARE OF SPEEDING ENFORCEMENT EFFORTS THAN YOUNGER DRIVERS

Overall, statewide respondents were nearly evenly split as to whether they have recently read, seen or heard anything about speed enforcement efforts by police in the past 30 days with slightly more than half indicating they had not. Older respondents were slightly more likely to be aware of such efforts (58 versus 51 percent), and, similarly, young unmarried males were less likely than others to be aware of speeding enforcement efforts.



Exhibit I-7a Awareness of Speeding Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen or heard anything about speed enforcement by police?)

			Area by	Gender		Area by Age				
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural	
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+	
Sample Size (n)	939	305	196	276	162	165	336	145	293	
X ² Result		Incon	clusive	Inconclusive		Different		Inconclusive		
Yes	56%	57%	56%	58%	54%	48%	60%*	57%	55%	
No	43%	42%	43%	40%	45%	52%*	38%	43%	43%	
Don't know	1%	0%	2%	2%	1%	0%	1%	-	2%	

Exhibit I-7b

Awareness of Speeding Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen or heard anything about speed enforcement by police?)

		Area	by Young U	J nmarried	Males	Age by Gender				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+	
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females	
Sample Size (n)	939	110	391	109	329	241	69	340	289	
X ² Result		Incon	clusive	Different		Inconclusive		Inconclusive		
Yes	56%	57%	56%	40%	58%†	49%	54%	61%	56%	
No	43%	42%	43%	60%†	41%	51%	46%	37%	43%	
Don't know	1%	1%	1%	_	2%	0%	-	2%	2%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

OLDER DRIVERS IN URBAN AREAS ARE MORE LIKELY TO BE AWARE OF SPEED ENFORCEMENT EFFORTS THAN THEIR YOUNGER COUNTERPARTS

Generally, all of the subpopulations examined were similarly likely to be aware of speed enforcement efforts. However, among those in urban areas, older respondents were more likely to be aware of such efforts than younger drivers (60 versus 48 percent). In addition, young unmarried males in rural areas were less likely than others in rural areas to be aware of such efforts (40 percent versus 58 percent).



Exhibit I-8 Perceived Likelihood of Being Ticketed for Speeding

(How likely do you think you are to get a ticket if you drive over the speed limit?)

		Target	Group	Ar	ea	Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	clusive	Diffe	erent	Diff	erent	Diff	erent
Very likely	28%	34%	27%	23%	35%*	23%	33%*	35%*	25%
Somewhat likely	44%	44%	44%	45%	42%	46%	42%	47%	42%
Somewhat unlikely	17%	14%	17%	19%*	13%	18%	15%	12%	18%†
Very unlikely	10%	6%	10%	11%	9%	12%	8%	4%	12%*
Don't know	2%	1%	2%	2%	2%	2%	2%	1%	2%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

FEMALES AND YOUNGER DRIVERS ARE MORE LIKELY TO BELIEVE THEY WILL BE TICKETED FOR SPEEDING

About one quarter (28 percent) of statewide respondents believed they were "very likely" to be ticketed for speeding if they drive over the speed limit. Among subpopulations, females were significantly more likely than males to believe this (33 percent versus 23 percent) and younger respondents (under 35) were significantly more likely than older respondents to indicate this perception (35 percent versus 25 percent). In addition, those in rural areas were more likely than those in urban areas to believe they would be ticketed for speeding (35 percent versus 23 percent).



Exhibit I-8a Perceived Likelihood of Being Ticketed for Speeding by Detailed Subpopulations

(How likely do you think you are to get a ticket if you drive over the speed limit?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Incon	Inconclusive		erent	Diff	erent	Different			
Very likely	28%	20%	26%	26%	43%*	32%*	19%	41%	33%		
Somewhat likely	44%	46%	43%	45%	39%	48%	43%	46%	40%		
Somewhat unlikely	17%	21%	18%	15%	10%	16%	21%	6%	15%†		
Very unlikely	10%	12%	10%	11%	6%	4%	14%*	4%	10%		
Don't know	2%	1%	3%	3%	1%	-	3%	2%	2%		

Exhibit I-8b Perceived Likelihood of Being Ticketed for Speeding by Detailed Subpopulations

(How likely do you think you are to get a ticket if you drive over the speed limit?)

		Area	by Young U	J nmarried 1	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incone	clusive	Incon	clusive	Diff	erent	Diffe	erent
Very likely	28%	32%	22%	38%	35%	30%	41%	19%	30%*
Somewhat likely	44%	44%	45%	44%	42%	46%	49%	46%	39%
Somewhat unlikely	17%	18%	20%	9%	13%	17%†	8%	19%	18%
Very unlikely	10%	6%	12%	8%	9%	6%	3%	14%	11%
Don't know	2%	-	2%	2%	2%	1%	-	2%	3%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



FEMALE SUBPOPULATIONS BY AREA AND BY AGE GROUP PERCEIVE A GREATER LIKELIHOOD OF RECEIVING A SPEEDING TICKET THAN THEIR MALE COUNTERPARTS

Rural females were significantly more likely than rural males (43 percent versus 26 percent) to perceive being "very likely" to receive a ticket if they drove over the speed limit. This trend is also apparent in urban areas, but the difference between males' and females' perceptions is much smaller and is not statistically significant (26 percent versus 20 percent). This trend can also be observed between older respondents; 30 percent of older women believed it was very likely that they would be ticketed compared to 19 percent of older males.

Finally, younger drivers were more likely to believe they would be ticketed for speeding than older drivers, particularly among those in urban areas (32 versus 19 percent).



Exhibit I-9
Perceived Level of Speeding at which Police would Stop a Vehicle

(How far over the speed limit do you think you can drive before a police officer would stop you for speeding?)

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Diffe	erent	Incon	clusive	Incon	clusive	Diffe	erent
1-5mph	58%	44%	60%*	57%	61%	57%	59%	51%	62%*
6-10mph	37%	49%†	36%	39%	36%	37%	37%	45%*	34%
11-15mph	3%	4%	3%	3%	3%	4%	2%	3%	3%
More than 15mph	1%	2%	1%	2%	0%	1%	1%	2%	1%
Mean	6.5	7.4	6.4	6.7	6.2	6.6	6.4	7.0	6.2

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

MOST BELIEVE THEY CAN DRIVE 1-10 MILES PER HOUR OVER THE SPEED LIMIT BEFORE BEING STOPPED BY A POLICE OFFICER

A majority (58 percent) believed they can speed just 1-5 miles per hour over the speed limit before being stopped. Another 37 percent believed they can speed 6-10 miles per hour over the limit. These proportions were somewhat similar across subpopulations examined. However, older drivers were more likely to believe they would be ticketed for driving 1-5 miles per hour over the speed limit than younger drivers (62 versus 51 percent). Similarly, young unmarried males were less likely than other respondents to be ticketed for driving 1-5 miles per hour over the limit.



Exhibit I-9a Perceived Level of Speeding at which Police would Stop a Vehicle by Detailed Subpopulations

(How far over the speed limit do you think you can drive before a police officer would stop you for speeding?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Not D	ifferent	Incon	clusive	Diffe	erent	Incon	clusive		
1-5mph	58%	56%	57%	59%	62%	50%	60%†	52%	64%†		
6-10mph	37%	39%	38%	35%	36%	45%†	36%	44%	32%		
11-15mph	3%	3%	3%	6%†	1%	2%	4%	4%	3%		
More than 15mph	1%	2%	2%	1%	0%	4%	1%	0%	0%		
Mean	6.5	6.7	6.7	6.4	6.0	7.3	6.4	6.7	6.0		

Exhibit I-9b

Perceived Level of Speeding at which Police would Stop a Vehicle by Detailed Subpopulations

(How far over the speed limit do you think you can drive before a police officer would stop you for speeding?)

		Area	by Young U	J nmarried 1	Males	Age by Gender						
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+			
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females			
Sample Size (n)	939	110	391	109	329	241	69	340	289			
X ² Result		Diffe	erent	Incon	clusive	Diff	erent	Incon	clusive			
1-5mph	58%	37%	59%*	54%	61%	43%	58%†	64%	60%			
6-10mph	37%	55%*	37%	41%	35%	49%	40%	32%	36%			
11-15mph	3%	5%	3%	4%	3%	5%†	0%	3%	3%			
More than 15mph	1%	3%	2%	1%	0%	3%	1%	0%	1%			
Mean	6.5	7.9	6.5	6.7	6.2	7.6	6.4	6.1	6.4			

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



YOUNGER DRIVERS IN URBAN AREAS AND, AMONG YOUNGER DRIVERS, MALES ARE LESS LIKELY TO BELIEVE THEY WILL BE STOPPED FOR MINOR SPEEDING

On average, younger drivers in urban areas believed they can drive 7.3 miles per hour over the speed limit before being stopped for speeding compared to 6.4 miles per hour for older drivers in such areas. Similarly, among younger drivers as a whole, males believed they could drive 7.6 miles per hour over the speed limit compared to 6.4 miles per hour for female drivers.

Among all of the subgroups examined, young unmarried males in urban areas had the highest perceptions of how fast they could drive without being stopped – among this group, the average speed given was 7.9 miles per hour compared to 6.5 miles per hour for other drivers from urban areas.



SECTION 4: IMPAIRED DRIVING BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit I-10 Alcohol Use

(During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?)

		Target	Target Group		ea	Ger	ıder	Age	
	Statewide	Y.U.M.			Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	Inconclusive		Inconclusive		Different		clusive
Yes	51%	53%	51%	53%	49%	57%*	46%	54%	50%
No	49%	47%	49%	47%	51%	43%	54%*	46%	50%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

HALF OF STATEWIDE DRIVERS HAVE HAD AT LEAST ONE DRINK IN THE PAST 7 DAYS

The proportions of those indicating they have had a drink in the past seven days and those who have not are roughly equal. In addition, men were more likely to have had a drink than women.



Exhibit I-10a Alcohol Use by Detailed Subpopulations

(During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?)

			Area by Gender				Area by Age				
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Diff	erent	Inconclusive		ve Inconclusive		Different			
Yes	51%	60%*	46%	53%	46%	52%	53%	57%	46%		
No	49%	40%	54%*	47%	54%	48%	47%	43%	54%		

Exhibit I-10b Alcohol Use by Detailed Subpopulations

(During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?)

		Area	by Young U	J nmarried 1	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incon	clusive	Inconclusive		Incon	clusive	Different	
Yes	51%	54%	53%	52%	49%	58%	50%	56%*	44%
No	49%	46%	47%	48%	51%	42%	50%	44%	56%*

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

MEN IN URBAN AREAS ARE CONSIDERABLY MORE LIKELY TO HAVE HAD A DRINK THAN WOMEN

When looking at more specific subpopulations, men were more likely than women in urban areas to have had a drink (60 versus 46 percent). This trend is similar among older respondents, among whom 56 percent of men had had a drink compared to 44 percent of women.



Exhibit I-11 Frequency of Driving after Drinking

(In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?)

		Target	Group	Ar	rea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	clusive	Incon	clusive	Diff	erent	Diffe	erent
None	83%	78%	84%	81%	86%†	78%	88%*	76%	86%*
1	8%	10%	7%	9%†	5%	10%†	6%	10%	6%
2	4%	6%	4%	4%	5%	6%	3%	6%	4%
3	2%	2%	2%	2%	1%	2%	2%	4%+	1%
4	1%	1%	1%	1%	1%	2%†	0%	2%	1%
5 times or more	2%	3%	1%	2%	1%	3%*	0%	2%	2%
Mean	0.4	0.5	0.4	0.4	0.4	0.5	0.2	0.6	0.3

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

MALES AND URBAN AREA DRIVERS DIFFER IN THEIR DRINKING AND DRIVING TENDENCIES

In total, 22 percent of men had driven within two hours of drinking alcohol compared to only 12 percent of women. Similarly, 24 percent of younger respondents had done so compared to only 14 percent of older drivers. Though a weaker difference, it also appears that driving after drinking was also slightly more prevalent in urban areas compared to rural areas (19 percent versus 14 percent).



Exhibit I-11a Frequency of Driving after Drinking by Detailed Subpopulations

(In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?)

			Area by	Gender			Area l	y Age	
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	939	305	196	276	162	165	336	145	293
X ² Result		Diff	erent	Diffe	erent	Incon	clusive	Diff	erent
None	83%	76%	86%*	80%	92%*	76%	83%	76%	91%*
1	8%	11%	8%	9%*	1%	13%	8%	6%	5%
2	4%	5%	3%	6%	3%	3%	4%	10%*	3%
3	2%	2%	3%	1%	1%	4%	2%	4%	0%
4	1%	2%†	0%	1%	1%	2%	1%	2%	1%
5 times or more	2%	3%*	0%	2%	1%	1%	2%	3%	1%
Mean	0.4	0.6	0.2	0.5	0.3	0.5	0.3	0.7	0.3

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



Exhibit I-11b Frequency of Driving after Drinking by Detailed Subpopulations

(In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?)

		Area	by Young U	Jnmarried 1	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incon	Inconclusive		clusive	Incon	clusive	Diff	erent
None	83%	75%	82%	81%	87%	71%	82%†	81%	91%*
1	8%	11%	9%	9%	5%	14%	7%	8%	5%
2	4%	6%	4%	7%	4%	7%	4%	5%	3%
3	2%	4%	2%	-	1%	3%	5%	1%	1%
4	1%	1%	1%	1%	1%	3%	1%	1%	_
5 times or more	2%	3%	1%	2%	1%	2%	1%	3%	_*
Mean	0.4	0.5	0.4	0.5	0.4	0.6	0.5	0.5	0.1

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

ALL FEMALE SUBPOPULATIONS EXAMINED ARE LESS LIKELY TO DRINK AND DRIVE VERSUS THEIR RESPECTIVE MALE SUBPOPULATIONS

Females in both urban and rural areas were significantly less likely to drink and drive versus their male counterparts. Similarly, both female subpopulation groups by age (i.e. under the age of 35, and 35 and older) drank and drove significantly less often than their male counterparts. However, it is interesting to note that the young unmarried males group did not differ significantly in these self-reported drinking and driving behaviors when compared with other respondents in either urban or rural areas.



Exhibit I-12 Perceived Likelihood of Being Arrested for Driving after Drinking

(How likely do you think it is that someone will get arrested if they drive after drinking?)

		Target	Group	Ar	ea	Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Diffe	Different		clusive	Inconclusive		Different	
Very likely	38%	58%*	35%	36%	39%	36%	39%	52%*	31%
Somewhat likely	50%	34%	52%*	51%	50%	50%	51%	40%	55%*
Not likely	9%	5%	10%	10%	8%	11%	8%	5%	11%*
Don't know	3%	2%	3%	3%	3%	4%	2%	3%	2%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

THE VAST MAJORITY OF DRIVERS STATEWIDE BELIEVE IT IS AT LEAST "SOMEWHAT LIKELY" SOMEONE WILL BE ARRESTED IF THEY DRIVE AFTER DRINKING

Eighty-eight (88) percent of statewide respondents believed it is at least somewhat likely someone will get arrested if they drive after drinking. This proportion includes 38 percent of statewide respondents who believe it is "very likely" that someone will get arrested for this behavior. Younger respondents and, in particular, young unmarried males were more likely to believe they would be arrested for driving after drinking than their respective counterparts. On the other hand, the perceived likelihood of being arrested for driving after drinking did not vary significantly between subgroups based on area or gender.



Exhibit I-12a Perceived Likelihood of Being Arrested for Driving after Drinking by Detailed Subpopulations

(How likely do you think it is that someone will get arrested if they drive after drinking?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Diffe	erent	Inconclusive		Diff	erent	Different			
Very likely	38%	31%	42%†	43%	36%	54%*	28%	50%†	35%		
Somewhat likely	50%	54%	48%	44%	56%†	39%	56%*	42%	53%		
Not likely	9%	11%	9%	11%	6%	5%	13%*	5%	9%		
Don't know	3%	4%	1%	3%	3%	3%	3%	3%	2%		

Exhibit I-12b Perceived Likelihood of Being Arrested for Driving after Drinking by Detailed Subpopulations

(How likely do you think it is that someone will get arrested if they drive after drinking?)

		Area	by Young U	J nmarried 1	Males	Age by Gender					
	Ctatarrida	Urban	Urban	Rural	Rural	<35	<35	35+	35+		
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females		
Sample Size (n)	939	110	391	109	329	241	69	340	289		
X ² Result		Diffe	Different		erent	Inconclusive		Inconclusive			
Very likely	38%	57%*	34%	61%*	37%	48%	56%	30%	32%		
Somewhat likely	50%	36%	53%†	33%	52%†	42%	38%	53%	57%		
Not likely	9%	6%	11%	4%	9%	6%	4%	13%	10%		
Don't know	3%	2%	3%	2%	3%	4%	2%	3%	2%		

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



YOUNGER DRIVERS IN BOTH RURAL AND URBAN AREAS ARE SIGNIFICANTLY MORE LIKELY TO PERCEIVE A LIKELY ARREST FOR DRINKING AND DRIVING

Across both urban and rural areas, a statistically significant difference between younger (under age 35) and older respondents (35 and over) is observed in perception of the likelihood of an arrest when a person is drinking and driving. This was a particularly strong difference in urban areas, where younger respondents were nearly twice as likely to believe they would be arrested as older drivers (54 percent versus 28 percent).

In addition, the perception that they would "very likely" be arrested for driving after drinking was highest among young unmarried males in rural areas (61 percent). In both rural and urban areas, young unmarried males were more likely to believe they would be arrested than other drivers in the equivalent geographies.



Exhibit I-13 Perceived Likelihood of Being Stopped for Driving Drunk

(Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers.

How likely is it that the police would stop you?)

		Target	Group	Ar	ea	Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Diffe	Different		clusive	Inconclusive		Different	
Very likely	45%	59%*	43%	45%	46%	41%	49%†	60%*	39%
Somewhat likely	42%	32%	44%†	42%	43%	45%	40%	36%	45%*
Not likely	9%	6%	9%	10%	7%	10%	7%	4%	11%*
Don't know	4%	2%	4%	4%	3%	4%	4%	1%	5%*

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

THE PERCEIVED LIKELIHOOD OF BEING STOPPED FOR DRIVING DRUNK IS HIGHEST AMONG YOUNGER DRIVERS

The vast majority (87 percent) of statewide respondents perceived they were "very likely" or "somewhat likely" to be stopped for driving after drinking and with a higher than legal amount of alcohol in their system. Among the subgroups examined, younger drivers were considerably more likely to believe they would be stopped than older drivers and, similarly, young unmarried males were more likely to believe they would be stopped than other drivers.



Exhibit I-13a Perceived Likelihood of Being Stopped for Driving Drunk by Detailed Subpopulations

(Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers.

How likely is it that the police would stop you?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Incon	clusive	Inconclusive		Diff	erent	Different			
Very likely	45%	40%	49%†	43%	49%	59%*	38%	61%*	40%		
Somewhat likely	42%	46%	38%	44%	43%	36%	44%	36%	46%		
Not likely	9%	11%	9%	9%	5%	4%	12%*	2%	9%†		
Don't know	4%	3%	5%	4%	3%	0%	6%*	2%	4%		

Exhibit I-13b Perceived Likelihood of Being Stopped for Driving Drunk by Detailed Subpopulations

(Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers.

How likely is it that the police would stop you?)

		Area	by Young U	J nmarried 1	Males	Age by Gender					
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+		
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females		
Sample Size (n)	939	110	391	109	329	241	69	340	289		
X ² Result		Incon	Inconclusive		Different		clusive	Inconclusive			
Very likely	45%	54%	43%	67%*	44%	55%	65%	35%	42%		
Somewhat likely	42%	35%	43%	28%	45%†	37%	34%	49%	42%		
Not likely	9%	9%	10%	2%	8%	6%	1%	12%	10%		
Don't know	4%	1%	4%	4%	3%	2%	-	4%	6%		

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



AGE IS A STRONG DRIVER OF THE BELIEF THAT ONE WILL BE STOPPED FOR DRIVING DRUNK ACROSS BOTH URBAN AND RURAL AREAS

Younger respondents in both urban and rural areas were considerably more likely than their older counterparts to believe they would be stopped for driving drunk. In addition, this same trend can be seen among young unmarried males in rural areas, where two-thirds of young unmarried males (67 percent) believed it was very likely that they would be stopped compared to only 44 percent of other drivers in rural areas.



Exhibit I-14
Awareness of Impaired Driving Enforcement Efforts

(In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?)

		Target	Group	Ar	ea	Ger	nder	Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	Inconclusive		Not Different		Different		erent
Yes	67%	71%	67%	67%	68%	73%*	62%	66%	68%
No	31%	28%	31%	31%	30%	26%	35%*	34%	29%
Don't know	2%	1%	2%	2%	2%	1%	2%	0%	2%†

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

AWARENESS OF IMPAIRED DRIVING EFFORTS VARIES BY GENDER

Overall, 67 percent of respondents report they recently had read, seen or heard about alcohol-impaired driving enforcement efforts by police in the past 30 days. When comparing across subpopulations, male respondents were significantly more likely to report that they were aware of impaired driving efforts than women (73 percent versus 62 percent).



Exhibit I-14a Awareness of Impaired Driving Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Diff	erent	Inconclusive		Diffe	erent	Inconclusive			
Yes	67%	73%*	62%	72%	63%	63%	69%	71%	66%		
No	31%	26%	36%†	26%	35%	37%†	28%	29%	31%		
Don't know	2%	1%	2%	1%	3%	-	2%	1%	3%		

Exhibit I-14b Awareness of Impaired Driving Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?)

		Area	by Young I	J nmarried 1	Males		Gender		
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incon	clusive	Inconclusive		Different		Inconclusive	
Yes	67%	77%	66%	63%	68%	74%*	58%	72%†	64%
No	31%	23%	32%	35%	30%	26%	42%*	26%	32%
Don't know	2%	-	2%	2%	2%	0%	-	2%	3%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



THERE ARE FEW SIGNIFICANT DIFFERENCES AMONG SUBPOPULATIONS IN AWARENESS OF THE RECENT DRUNK DRIVING ENFORCEMENT CAMPAIGN

Awareness levels of an alcohol-impaired driving enforcement campaign among most subpopulations are similar to the statewide rate of 67 percent. However, mirroring the trend seen among the entire population, males in urban areas were significantly more likely to be aware of impaired driving enforcement efforts than their female counterparts (72 versus 63 percent). This trend was also seen among both age groups and, in particular, younger drivers, among whom 74 percent of males were aware of enforcement efforts compared to only 58 percent of young females.



Exhibit I-15 Sources of Impaired Driving Enforcement Awareness

(Where did you see or hear these messages?)

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	635	153	482	346	289	416	219	212	423
X ² Result		n,	/a	n/	/a	n	/a	n	/a
TV	54%	47%	55%	48%	62%*	51%	57%	43%	58%*
Radio	30%	34%	30%	26%	36%†	32%	29%	32%	29%
Online ads or social media	4%	7%	4%	4%	5%	4%	4%	9%*	2%
Newspaper	12%	2%	13%†	7%	18%*	9%	15%†	4%	15%*
Billboard/signs	21%	24%	21%	27%*	14%	22%	20%	31%*	18%
Personal observation/on	8%	10%	8%	10%	6%	9%	7%	7%	8%
the road									
Electronic Road Signs	20%	22%	20%	30%*	7%	21%	19%	21%	20%
Bar restroom	0%	1%	-	0%	-	0%	-	0%	-
Minnesota Twins backup	0%	_	0%	0%		0%			0%
sign	0 / 0	ı	070	070	ı	0 / 0	-	1	070
Gas station advertisement	0%	=	0%	-	0%	0%	-	0%	=
Other	6%	6%	7%	5%	9%†	4%	9%*	8%	6%
Don't know	3%	2%	3%	3%	2%	3%	2%	3%	2%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

Note: This question was only asked to respondents who had seen such enforcement efforts.

TV, RADIO, BILLBOARDS, AND ELECTRONIC ROAD SIGNS ARE COMMON SOURCES OF MESSAGES

Half of respondents (54 percent), overall, indicated seeing impaired driving messages on TV. Radio was the second-most-common source of information, cited by 30 percent of respondents. Finally, 20-21 percent of respondents mentioned seeing messages on electronic road signs or billboards.

Among the subpopulations examined, rural drivers were more likely to cite seeing messaging in traditional media (TV, radio, and newspapers), while urban drivers were more likely to cite billboards or road signs. Similarly, older drivers were more likely to recall seeing messaging on TV or in the newspaper, while younger respondents were more likely to mention billboards or social media.



Exhibit I-15a Sources of Impaired Driving Enforcement Awareness by Detailed Subpopulations

(Where did you see or hear these messages?)

			Area by	Gender			Area l	y Age	
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	635	223	123	193	96	115	231	97	192
X ² Result		n	/a	n	/a	n,	/a	n	/a
TV	54%	46%	49%	58%	67%	36%	53%*	53%	66%
Radio	30%	27%	25%	38%	33%	30%	25%	35%	36%
Online ads or social media	4%	3%	5%	6%	4%	7%	3%	11%*	2%
Newspaper	12%	4%	10%†	16%	21%	2%	9%†	7%	23%*
Billboard/signs	21%	27%	27%	16%	11%	36%†	23%	23%*	10%
Personal observation/on	8%	12%	7%	5%	7%	4%	12%†	11%†	3%
the road	870	12/0	/ /0	370	7 70	4/0	12/0	11/0	370
Electronic Road Signs	20%	32%	28%	6%	8%	29%	31%	10%	5%
Bar restroom	0%	0%	-	-	-	1%	-	-	-
Minnesota Twins backup	0%	0%					0%		
sign	0 / 0	070	_	=	_	-	070	1	_
Gas station advertisement	0%	-	-	1%	-	-	-	1%	-
Other	6%	3%	6%	5%	14%†	5%	5%	12%	8%
Don't know	3%	3%	3%	4%	1%	4%	2%	1%	3%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



Exhibit I-15b Sources of Impaired Driving Enforcement Awareness by Detailed Subpopulations

(Where did you see or hear these messages?)

		Area	by Young U	J nmarried 1	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	635	84	262	69	220	171	41	245	178
X ² Result		n	/a	n,	/a	n	/a	n	/a
TV	54%	40%	49%	60%	62%	44%	42%	55%	62%
Radio	30%	31%	26%	38%	35%	33%	32%	31%	27%
Online ads or social media	4%	8%	3%	6%	5%	8%	10%	2%	2%
Newspaper	12%	1%	8%	4%	20%	2%	8%	12%	17%
Billboard/signs	21%	27%	27%	19%	13%	29%	33%	19%	16%
Personal observation/on	8%	9%	10%	11%	5%	9%	5%	9%	7%
the road	870	9/0	1070	11/0	370	970	370	9/0	7 70
Electronic Road Signs	20%	31%	30%	6%	7%	24%	17%	20%	20%
Bar restroom	0%	1%	-	-	ı	1%	-	1	-
Minnesota Twins backup	0%		0%					0%	
sign	0 / 0	ı	070	1	ı	ı	_	070	_
Gas station advertisement	0%	ı	-	-	0%	1%	-	1	-
Other	6%	7%	4%	3%	10%	4%	12%	4%	8%
Don't know	3%	2%	3%	3%	2%	4%	2%	3%	2%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

Note: This question was only asked to respondents who had seen such enforcement efforts.

WHEN SPECIFIC SUBPOPULATIONS ARE EXAMINED, FEW DIFFERENCES IN MESSAGE SOURCE ARE OBSERVED

Very few differences in message source were noted among additional subpopulations examined other than those general themes recognized in Exhibit I-15. However, older drivers in urban areas were considerably more likely to mention seeing messaging on TV compared to younger drivers in these areas, while the difference was smaller in rural areas.



Exhibit I-16 Personal Experience with Increased Impaired Driving Enforcement Areas

(In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?)

		Target	Group	Ar	ea	Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Diffe	erent	Different		Inconclusive		Different	
Yes	23%	35%*	21%	26%†	19%	24%	22%	29%*	20%
No	71%	60%	72%†	68%	75%†	70%	72%	66%	73%†
Don't know	6%	4%	7%	6%	7%	6%	7%	5%	7%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

URBAN DRIVERS AND YOUNGER DRIVERS ARE MORE LIKELY TO HAVE PERSONALLY OBSERVED AN AREA OF INCREASED ENFORCEMENT

Twenty seven (23) percent of statewide respondents indicated they have personally observed increased police enforcement in the past 30 days. Urban respondents were more likely than rural respondents to report personal experience with areas of increased police enforcement, by a margin of 26 percent versus 19 percent. Similarly, younger respondents (under age 35) were more likely to report this experience than those 35 and older (29 percent versus 20 percent). Finally, young unmarried males were more likely than other respondents to have personally observed enforcement efforts (35 percent versus 21 percent).



Exhibit I-16a Personal Experience with Increased Impaired Driving Enforcement Areas by Detailed Subpopulations

(In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Incon	clusive	Inconclusive		Different		Different			
Yes	23%	26%	25%	20%	17%	31%	23%	26%†	16%		
No	71%	66%	71%	76%	73%	66%	69%	66%	78%†		
Don't know	6%	8%	4%	4%	10%†	3%	8%	9%	6%		

Exhibit I-16b

Personal Experience with Increased Impaired Driving Enforcement Areas by Detailed Subpopulations

(In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?)

		Area	by Young I	J nmarried 1	Males	s Age by Gender				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+	
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females	
Sample Size (n)	939	110	391	109	329	241	69	340	289	
X ² Result		Diffe	erent	Inconclusive		Inconclusive		Inconclusive		
Yes	23%	41%*	24%	27%	18%	34%	24%	19%	21%	
No	71%	54%	70%†	70%	75%	61%	71%	74%	72%	
Don't know	6%	5%	6%	3%	7%	6%	5%	7%	7%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



YOUNGER RESPONDENT SUBPOPULATIONS ARE MORE LIKELY TO WITNESS AN AREA OF INCREASED POLICE ENFORCEMENT

Rural respondents under the age of 35 were significantly more likely than their older counterparts to report noticing increased enforcement for drunk driving in the past 30 days (26 percent versus 16 percent). This trend was also seen in urban areas, though the difference was not statistically significant. Similarly, young unmarried males in urban areas were particularly likely to have witnessed an area of increased enforcement (41 percent) compared to other respondents (24 percent).



Exhibit I-17 Awareness of Ignition Interlock Law

(Are you aware of the Minnesota Ignition Interlock law?)

		Target	Group	Ar	ea	Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Diffe	Different		clusive	Different		Inconclusive	
Yes	39%	50%†	37%	40%	36%	47%*	31%	39%	39%
No	58%	48%	60%†	57%	60%	50%	66%*	60%	58%
Don't know	3%	2%	3%	3%	3%	3%	3%	1%	4%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

MORE THAN ONE-THIRD OF DRIVERS OVERALL ARE AWARE OF THE IGNITION INTERLOCK LAW, AND MALES ARE PARTICULARLY MORE LIKELY TO BE AWARE

Thirty nine (39) percent of respondents overall were aware of the state's Ignition Interlock Law. Males were significantly more likely than females to be aware (47 percent versus 31 percent) of this law. In addition, young unmarried males were more likely to be aware of this law than any other group.



Exhibit I-17a Awareness of Ignition Interlock Law by Detailed Subpopulations

(Are you aware of the Minnesota Ignition Interlock law?)

			Area by Gender				Area by Age				
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Diffe	erent	Different		Inconclusive		Inconclusive			
Yes	39%	48%*	34%	46%*	27%	39%	41%	39%	35%		
No	58%	50%	64%*	51%	69%*	60%	56%	59%	61%		
Don't know	3%	2%	3%	3%	4%	1%	3%	3%	4%		

Exhibit I-17b Awareness of Ignition Interlock Law by Detailed Subpopulations

(Are you aware of the Minnesota Ignition Interlock law?)

		Area	by Young U	J nmarried 1	Males	Age by Gender					
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+		
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females		
Sample Size (n)	939	110	391	109	329	241	69	340	289		
X ² Result		Incon	clusive	Inconclusive		Different		Different			
Yes	39%	50%	39%	50%	35%	45%†	32%	48%*	30%		
No	58%	48%	58%	47%	62%	52%	68%*	50%	65%*		
Don't know	3%	2%	3%	3%	4%	3%	-	3%	4%		

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

ALL MALE SUBPOPULATIONS ARE SIGNIFICANTLY MORE LIKELY TO BE AWARE OF THE IGNITION INTERLOCK LAW

Male subpopulations by both geographic area (urban and rural) and by age (under 35 and 35 and over) were all significantly more likely than their female counterparts to be aware of the ignition interlock law. Compared with statewide awareness of 39 percent, in all of these cases comparing male and female subpopulations, between 45-48 percent of males were aware of the law versus 27-34 percent of females.



SECTION 5: ADDITIONAL ANALYSES

GENERAL TRAFFIC SAFETY SLOGAN AWARENESS

Exhibit I-18 Awareness of Traffic Safety Slogans

(Do you recall hearing or seeing the following slogans in the past 30 days?)

		Target	Group	Ar	ea	Ger	ıder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		n,	/a	n,	[/] a	n,	/a	n,	/a
Click It or Ticket	70%	82%*	69%	65%	77%*	77%*	64%	78%*	67%
Drive Sober or Get Pulled	61%	75%*	59%	57%	67%*	67%*	55%	64%	60%
Over	01/0	7370	3770	3770	07 70	0770	3370	0470	0070
Friends don't let friends	57%	59%	57%	52%	64%*	54%	61%†	53%	59%
drive drunk	3770	3770	3770	3270	0470	J470	0170	3370	3770
Look Twice for	47%	52%	46%	43%	53%*	47%	47%	48%	47%
Motorcyclists	7770	32/0	7070	T370	3370	7//0	7//0	7070	7//0
Safe & Sober	50%	53%	49%	46%	56%*	55%*	45%	44%	53%†
Share the Road	48%	63%*	46%	49%	47%	48%	48%	57%*	45%
Toward Zero Deaths	22%	27%	22%	21%	23%	28%*	17%	21%	23%
You drink and drive, you	51%	56%	51%	48%	56%†	57%*	46%	47%	53%
lose	31/0	J0 / 0	J1/0	T U / 0	3070	3770	1 0 / 0	T / / 0	3370

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

NEARLY THREE QUARTERS OF RESIDENTS RECALL "CLICK IT OR TICKET" IN THE PAST 30 DAYS

About three quarters (70 percent) of respondents recalled hearing or seeing the Click It or Ticket slogan in the past 30 days. Young unmarried males, rural respondents, males, and younger respondents were all significantly more likely to indicate hearing or seeing this slogan in the past 30 days versus their counterparts. Furthermore, males and those in rural areas were more likely to be aware of nearly all slogans included in the survey compared to their female and urban counterparts.



Exhibit I-18a Awareness of Traffic Safety Slogans by Detailed Subpopulations

(Do you recall hearing or seeing the following slogans in the past 30 days?)

			Area by	Gender			Area l	y Age	
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	939	305	196	276	162	165	336	145	293
X ² Result		n	/a	n	/a	n,	/a	n	/a
Click It or Ticket	70%	74%*	57%	81%	73%	74%*	61%	85%†	74%
Drive Sober or Get Pulled	61%	64%*	51%	72%	62%	54%	58%	79%*	62%
Over	0170	04/01	31/0	/ ᠘ / 0	02/0	34/0	30/0	/9/0'	02/0
Friends don't let friends	57%	48%	56%	61%	67%	52%	53%	55%	68%†
drive drunk	3770	40 / 0	3070	0170	0770	32/0	3370	3370	0070
Look Twice for	47%	42%	44%	54%	52%	44%	42%	54%	52%
Motorcyclists	77/0	4 2/0	4470	J 4 /0	3270	44/0	42/0	J470	32/0
Safe & Sober	50%	46%	45%	67%*	45%	43%	47%	45%	60%*
Share the Road	48%	49%	49%	47%	47%	55%	46%	59%*	42%
Toward Zero Deaths	22%	27%*	16%	30%*	17%	18%	23%	25%	23%
You drink and drive, you	51%	54%*	42%	62%†	50%	43%	50%	53%	57%
lose	5170	3470	4270	04/0	3070	4 3/0	30 / 0	3370	3//0

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



Exhibit I-18b Awareness of Traffic Safety Slogans by Detailed Subpopulations

(Do you recall hearing or seeing the following slogans in the past 30 days?)

		Area	by Young U	J nmarried	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		n,	/a	n	/a	n	/a	n	/a
Click It or Ticket	70%	80%†	63%	84%	76%	80%	76%	76%*	59%
Drive Sober or Get Pulled	61%	74%*	55%	77%	66%	69%	58%	66%*	54%
Over	0170	7 170	3370	7770	0070	0770	3070	0070	3170
Friends don't let friends	57%	60%	51%	56%	65%	52%	54%	55%	63%†
drive drunk					00,1				307-1
Look Twice for	47%	54%	41%	48%	54%	48%	48%	47%	47%
Motorcyclists	1770	3170	1170	1070	3170	1070	1070	1770	1770
Safe & Sober	50%	54%	45%	52%	56%	50%†	37%	57%†	49%
Share the Road	48%	66%*	47%	58%	45%	58%	55%	43%	46%
Toward Zero Deaths	22%	28%	21%	26%	23%	28%*	14%	28%*	18%
You drink and drive, you lose	51%	56%	47%	56%	56%	51%	43%	60%*	47%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

MOST STATISTICAL DIFFERENCES ACROSS SUBPOPULATION GROUPS ARE BY AGE AND GENDER

Overall, not many statistically significant differences in slogan awareness existed across detailed subpopulations examined. For Click It or Ticket, the most commonly recalled slogan, young respondents and males in both urban and rural areas were more likely than their older and female counterparts to recall the slogan.

These differences were similar, but generally weaker, for many of the other slogans addressed.



Exhibit I-19 Sources of Slogan Awareness

(Where have you read, seen, or heard these slogans?)

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	885	209	676	472	413	554	331	297	588
X ² Result		n,	/a	n,	/a	n,	/a	n,	/a
TV	63%	62%	64%	61%	66%	62%	65%	56%	67%*
Radio	30%	35%	30%	25%	38%*	33%†	27%	35%†	28%
Online ads or social media	6%	12%†	5%	5%	8%	7%	5%	12%*	3%
Newspaper	10%	3%	11%†	6%	15%*	8%	11%	2%	13%*
Billboard/signs	42%	42%	42%	41%	42%	43%	41%	43%	41%
Personal observation/on	13%	16%	13%	15%	11%	13%	14%	15%	13%
the road		1070	1370	1370	1170	1370	1170	1370	
Electronic Road Signs	18%	13%	19%	24%*	11%	15%	22%*	19%	18%
Bar restroom	1%	1%	1%	1%	2%	1%	1%	2%	1%
Minnesota Twins back up	0%	1%	0%	0%	0%	1%	0%	0%	0%
sign	070	1 / 0	070	070	070	1 / 0	070	070	070
Gas station advertisement	1%	1%	1%	0%	2%*	0%	1%	2%†	0%
Other	9%	13%	8%	8%	9%	8%	9%	9%	9%
Don't know	3%	1%	3%	3%	2%	3%	3%	2%	3%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

Note: This question was only asked to respondents who were aware of such slogans.

TV IS THE MOST COMMON SOURCES FOR SLOGANS

TV was the most commonly recalled source for slogan messaging across all subpopulations examined and was especially likely to be recalled by older respondents compared to younger respondents. The second-most commonly recalled source across all subpopulation groups was billboards/signs.

In addition, newspapers were more likely to be recalled by older respondents and those in rural areas, while social media was more commonly cited by younger respondents. Finally, electronic road signs were more likely to be recalled by those in urban areas and by women.



Exhibit I-19a Sources of Slogan Awareness by Detailed Subpopulations

(Where have you read, seen, or heard these slogans?)

			Area by	Gender			Area b	y Age	
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	885	291	181	263	150	158	314	139	274
X ² Result		n	/a	n	/a	n,	/a	n,	/a
TV	63%	61%	62%	63%	70%	52%	66%*	63%	68%
Radio	30%	29%	21%	40%	36%	29%	23%	45%	35%
Online ads or social media	6%	6%	4%	8%	7%	10%*	2%	13%†	5%
Newspaper	10%	6%	7%	12%	17%	3%	8%†	1%	20%*
Billboard/signs	42%	48%*	35%	37%	48%†	37%	44%	53%†	38%
Personal observation/on	13%	15%	15%	9%	13%	16%	14%	13%	10%
the road	1370	13/0	13/0	9/0	13/0	1070	14/0	13/0	1070
Electronic Road Signs	18%	19%	28%†	8%	14%	21%	25%	17%†	8%
Bar restroom	1%	1%	1%	1%	3%	1%	1%	4%	1%
Minnesota Twins back up	0%	1%		0%	0%	0%	0%	0%	0%
sign	070	1 /0	-	U / 0	0 70	0 / 0	0 / 0	U / 0	0 / 0
Gas station advertisement	1%	-	-	1%	3%	-	-	5%†	0%
Other	9%	8%	8%	7%	11%	8%	9%	10%	8%
Don't know	3%	3%	4%	3%	1%	3%	3%	1%	2%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



Exhibit I-19b Sources of Slogan Awareness by Detailed Subpopulations

(Where have you read, seen, or heard these slogans?)

		Area	by Young U	J nmarried 1	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	885	106	366	103	310	230	67	324	264
X ² Result		n,	/a	n,	/a	n	/a	n	/a
TV	63%	63%	61%	60%	67%	57%	56%	64%	69%
Radio	30%	33%	24%	38%	38%	36%	35%	32%†	24%
Online ads or social media	6%	11%†	4%	13%	7%	13%	10%	4%	3%
Newspaper	10%	3%	7%	3%	16%†	2%	2%	11%	15%
Billboard/signs	42%	43%	41%	42%	42%	50%†	36%	40%	43%
Personal observation/on	13%	15%	15%	17%	10%	13%	17%	13%	12%
the road	13/0	13/0	13/0	1 / /0	1070	1370	1 / /0	1370	12/0
Electronic Road Signs	18%	15%	25%	10%	11%	12%	27%*	16%	20%
Bar restroom	1%	2%	1%	1%	2%	2%	2%	0%	1%
Minnesota Twins back up	0%	1%	0%	1%	0%	1%		1%	0%
sign	0 / 0	1 /0	070	1 /0	070	1 / 0	_	1 / 0	070
Gas station advertisement	1%	-	-	2%	2%	1%	3%	-	0%
Other	9%	13%	8%	13%	8%	10%	7%	7%	10%
Don't know	3%	1%	4%	2%	2%	3%	1%	2%	4%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

A VARIETY OF SMALL DIFFERENCES EXIST AMONG SUBPOPULATIONS WITH REGARD TO MESSAGE SOURCES

Older urban drivers were more likely than younger urban drivers to cite TV as a source of slogan awareness. In rural areas, almost none of younger drivers mentioned seeing slogans in the newspaper, but one in five older drivers did. In addition, similar to the trend seen among the general population, younger women were much more likely to recall seeing slogans on electronic road signs compared to younger men, while this trend was not seen among older respondents at all.



MOTORCYCLE SAFETY CAMPAIGN AWARENESS

Exhibit I-20

Awareness of Motorcycle Safety Efforts

(Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Inconclusive		Different		Inconclusive		Inconclusive	
Yes	42%	49%	41%	36%	50%*	43%	41%	43%	41%
No	56%	50%	57%	62%*	48%	56%	56%	56%	56%
Don't know	2%	1%	2%	2%	2%	1%	2%	0%	2%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

TWO IN FIVE HAVE SEEN OR HEARD ABOUT MOTORCYCLE SAFETY EFFORTS IN THE PAST 30 DAYS

Forty-two (42) percent of all respondents indicated noticing efforts in the past 30 days related to motorcycle safety. This percentage is similar among most subpopulations examined, but those in rural areas were considerably more likely to recall seeing or hearing about motorcycle safety than those in urban areas (50 percent versus 36 percent).



Exhibit I-20a Awareness of Motorcycle Safety Efforts by Detailed Subpopulations

(Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?)

		Area by Gender				Area by Age				
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural	
		Males	Females	Males	Females	<35	35+	<35	35+	
Sample Size (n)	939	305	196	276	162	165	336	145	293	
X ² Result		Inconclusive		Inconclusive		Inconclusive		Inconclusive		
Yes	42%	37%	35%	51%	49%	37%	36%	53%	49%	
No	56%	62%	62%	48%	48%	62%	62%	47%	48%	
Don't know	2%	1%	2%	1%	3%	0%	2%	0%	3%	

Exhibit I-20b Awareness of Motorcycle Safety Efforts by Detailed Subpopulations

(Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?)

		Area by Young Unmarried Males				Age by Gender				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+	
		Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females	
Sample Size (n)	939	110	391	109	329	241	69	340	289	
X ² Result		Different		Inconclusive		Inconclusive		Inconclusive		
Yes	42%	50%†	34%	47%	51%	47%	39%	41%	42%	
No	56%	49%	64%†	53%	47%	52%	61%	58%	55%	
Don't know	2%	1%	2%	1%	2%	1%	_	1%	3%	

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

YOUNG UNMARRIED MALES IN URBAN AREAS ARE MORE LIKELY THAN OTHER URBAN DRIVERS TO RECALL MESSAGING ABOUT MOTORCYCLE SAFETY

Generally, few significant differences were observed among the detailed subgroups examined. However, half (50 percent) of urban young unmarried males had heard or seen messaging about motorcycle safety compared to only one-third (34 percent) of other drivers in urban areas.



MOBILE PHONE BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit I-21 Frequency of Driving while Talking on a Cell Phone

(In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?)

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	clusive	Incon	clusive	Diff	erent	Diff	erent
None	48%	45%	49%	48%	49%	47%	49%	34%	54%*
1-4 times	31%	34%	31%	34%	27%	31%	31%	37%†	28%
5-9 times	13%	9%	13%	10%	16%†	10%	15%†	18%*	10%
10-24 times	6%	10%	5%	6%	5%	8%*	4%	8%†	5%
25 times or more	2%	1%	2%	2%	2%	2%	2%	3%	2%
Refused	0%	1%	-	0%	-	0%	-	0%	-
Mean	3.2	3.3	3.2	3.3	3.1	3.8	2.6	4.0	2.9

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

OVER HALF OF DRIVERS HAVE TALKED ON THEIR CELL PHONE WHILE DRIVING IN THE PAST 7 DAYS

Over half (52 percent) of statewide respondents indicated they had talked on their cell phone at least once while driving in the past seven days. Of those, a majority indicated they had done so between one and four times in this time period.

Both age and gender are factors in the frequency of talking on a cell phone while driving. On average, men talked on a cell phone 3.8 times in the past seven days, while only women averaged only 2.6 times. Similarly, young people talked on a cell phone 4.0 times on average compared to 2.9 times for older respondents.



Exhibit I-21a

Frequency of Driving while Talking on a Cell Phone by Detailed Subpopulations
(In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?)

Area by Gender Area by Age Urban Urban Urban Rural Rural Urban Rural Rural Statewide Males Females Females <35 35 +<35 35 +Males Sample Size (n) 939 305 276 162 165 336 145 196 293 X² Result Inconclusive Different Different Different None 48% 47% 48% 48% 51% 39% 52%* 28% 58%* 1-4 times 31% 33% 34% 29% 26% 35% 33% 39%* 23% 9% 5-9 times 13% 12% 12% 19% 13% 9% 24%* 13% 6% 8% 5% 5% 10-24 times 5% 9%* 1% 9%7%25 times or more 2% 3% 1% 2% 2% 2% 2% 3%2%3.2 2.9 Mean 4.0 2.6 3.6 2.7 4.0 4.0 2.8

Exhibit I-21b
Frequency of Driving while Talking on a Cell Phone by Detailed Subpopulations
(In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?)

		Area	by Young U	J nmarried	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incon	clusive	Incon	clusive	Diff	erent	Incon	clusive
None	48%	48%	48%	41%	50%	35%	34%	53%	55%
1-4 times	31%	32%	34%	36%	26%	38%	36%	28%	29%
5-9 times	13%	5%	11%	15%	16%	11%	24%*	10%	11%
10-24 times	6%	11%	6%	8%	5%	13%*	4%	6%	3%
25 times or more	2%	2%	2%	-	2%	2%	3%	2%	1%
Mean	3.2	3.7	3.2	2.6	3.2	4.2	3.8	3.7	2.2

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



GENDER AND AGE ARE DRIVERS OF CELL PHONE FREQUENCY AMONG ALL SUBGROUPS

Both among urban and rural respondents, men more frequently used a cell phone while driving than women. This trend was also seen among both younger and older respondents. In addition, younger drivers in both urban and rural areas more frequently talked on a call phone while driving than their older counterparts in these areas.



Exhibit I-22 Frequency of Texting while Driving

(In the past 7 days, how many times have you composed or read a text message while driving a motor vehicle?)

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Diff	erent	Incon	clusive	Incon	clusive	Diff	erent
None	82%	72%	83%*	81%	82%	84%	80%	61%	91%*
1-4 times	13%	14%	13%	12%	13%	10%	16%*	26%*	7%
5-9 times	3%	8%*	2%	3%	2%	3%	2%	6%*	1%
10-24 times	2%	5%	2%	3%	2%	2%	2%	6%*	1%
25 times or more	0%	1%	0%	0%	0%	0%	0%	0%	0%
Refused	0%	1%	-	0%	-	0%	-	0%	-
Mean	0.8	1.7	0.7	0.9	0.7	0.8	0.9	1.8	0.4

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

YOUNG DRIVERS ARE FOUR TIMES AS LIKELY TO TEXT WHILE DRIVING THAN OLDER DRIVERS

Eighty-two (82) percent of statewide respondents indicated they had not texted while driving in the past seven days. In examining subpopulations, young unmarried males were significantly more likely than "others" to indicate texting while driving at least once during that period. While 83 percent of "all other respondents" indicated they had not texted while driving in the past seven days, only 72 percent of young unmarried males had not.

However, the most striking difference between subgroups was between younger and older drivers. Only 9 percent of older drivers had texted while driving in the past week compared to 39 percent of younger drivers.



Exhibit I-22a Frequency of Texting while Driving by Detailed Subpopulations

(In the past 7 days, how many times have you composed or read a text message while driving a motor vehicle?)

			Area by	Gender			Area b	y Age	
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	939	305	196	276	162	165	336	145	293
X ² Result		Incon	clusive	Different		Diffe	erent	Diffe	erent
None	82%	82%	81%	87%†	78%	64%	90%*	55%	93%*
1-4 times	13%	11%	14%	8%	18%*	22%*	8%	33%*	5%
5-9 times	3%	3%	2%	3%	2%	7%*	1%	6%†	1%
10-24 times	2%	3%	3%	1%	2%	7%*	1%	5%*	0%
25 times or more	0%	-	1%	1%	-	-	0%	1%	0%
Refused	0%	0%	-	-	-	0%	-	-	-
Mean	0.8	0.8	1.0	0.8	0.7	1.8	0.5	1.9	0.3

		Area	by Young U	J nmarried	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Diffe	Different		erent	Incon	clusive	Incon	clusive
None	82%	72%	83%	71%	84%	64%	57%	93%	89%
1-4 times	13%	13%	12%	15%	13%	21%	31%	4%	9%†
5-9 times	3%	7%	2%	10%*	1%	8%	5%	1%	1%
10-24 times	2%	6%	2%	3%	2%	5%	7%	1%	1%
25 times or more	0%	-	0%	2%	0%	0%	_	0%	0%
Refused	0%	1%	-	-	-	0%	-	1	-
Mean	0.8	1.6	0.8	1.9	0.6	1.8	1.8	0.4	0.5

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



YOUNGER SUBPOPULATIONS ARE MORE LIKELY TO TEXT AND DRIVE

Young respondents under the age of 35 in both urban and rural areas, as well as young unmarried males in both urban and rural areas, were more likely to indicate texting while driving behavior in the past seven days. In these subpopulations, 55-72 percent of young respondents indicated they did not text while driving in the past seven days. This compares with the statewide population, among whom 82 percent indicate this behavior. Texting and driving was particularly common among young rural drivers, among whom nearly half (45 percent) had done so in the past week.



Exhibit I-23 Awareness of Texting and Driving Law

(To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?)

		Target	Group	Ar	ea	Ger	nder	Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Diffe	Different		Inconclusive		Different		erent
Yes	79%	89%†	78%	81%	76%	82%†	77%	85%*	77%
No	7%	6%	7%	7%	7%	7%	6%	6%	7%
Don't know	14%	5%	15%*	12%	17%	11%	17%*	9%	16%*

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

YOUNGER DRIVERS AND MALES ARE MORE LIKELY TO KNOW ABOUT THE TEXTING AND DRIVING LAW

Overall, 79 percent of respondents statewide were aware of the Minnesota law that says it is illegal to text, email or access the Web while driving. Across demographic groups examined, statistically significant differences were observed by gender and by age. Respondents under age 35 were significantly more likely than those 35 and over to be aware of this law (85 percent versus 77 percent). Male respondents were significantly more likely than females to be aware (82 percent versus 77 percent).



Exhibit I-23a Awareness of Texting and Driving Law by Detailed Subpopulations

(To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?)

			Area by	Gender		Area by Age				
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural	
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+	
Sample Size (n)	939	305	196	276	162	165	336	145	293	
X ² Result		Diffe	erent	Inconclusive		Inconclusive		Different		
Yes	79%	85%†	77%	78%	75%	83%	81%	88%*	72%	
No	7%	8%	6%	7%	7%	6%	7%	5%	8%	
Don't know	14%	7%	17%*	15%	18%	11%	13%	6%	21%*	

Exhibit I-23b Awareness of Texting and Driving Law by Detailed Subpopulations

(To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?)

		Area	by Young I	J nmarried 1	Males				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Diffe	erent	Inconclusive		Inconclusive		Different	
Yes	79%	91%	80%	87%	75%	87%	83%	80%	74%
No	7%	7%	7%	4%	7%	6%	6%	8%	6%
Don't know	14%	2%	13%†	10%	17%	7%	11%	12%	20%*

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

YOUNGER DRIVERS IN RURAL AREAS ARE MORE LIKELY TO BE AWARE OF THE LAW THAN OLDER DRIVERS

In rural areas, those under the age of 35 were more aware of the texting and driving law than rural respondents 35 and over (88 percent versus 72 percent). Few other significant differences were observed, though males in urban areas were slightly more likely to be aware of the law than females.



Exhibit I-24 Awareness of Texting and Driving Campaign

(So far, in 2014, have you read, seen, or heard anything about texting and driving?)

		Target	Group	Ar	ea	Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	Inconclusive		Inconclusive		Inconclusive		clusive
Yes	85%	85%	85%	84%	87%	84%	86%	87%	85%
No	14%	15%	14%	15%	13%	15%	14%	13%	14%
Don't know	1%	-	1%	1%	0%	1%	0%	-	1%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

EIGHTY FIVE PERCENT OF DRIVERS ARE AWARE OF MESSAGING ABOUT TEXTING AND DRIVING

A strong majority (85 percent) of statewide respondents indicated they had read, seen or heard something about texting and driving during 2014. There were no statistically significant differences among top level subpopulations' awareness.



Exhibit I-24a Awareness of Texting and Driving Campaign by Detailed Subpopulations

(So far, in 2014, have you read, seen, or heard anything about texting and driving?)

			Area by	Gender		Area by Age					
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural		
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+		
Sample Size (n)	939	305	196	276	162	165	336	145	293		
X ² Result		Incon	clusive	Inconclusive		Inconclusive		Inconclusive			
Yes	85%	85%	83%	84%	90%	85%	84%	90%	86%		
No	14%	14%	16%	16%	9%	15%	15%	10%	14%		
Don't know	1%	1%	0%	-	1%	-	1%	-	0%		

Exhibit I-24b Awareness of Texting and Driving Campaign by Detailed Subpopulations

(So far, in 2014, have you read, seen, or heard anything about texting and driving?)

		Area	by Young I	J nmarried 1	Males				
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incon	clusive	Inconclusive		Not Different		Inconclusive	
Yes	85%	84%	84%	86%	87%	87%	87%	83%	86%
No	14%	16%	15%	14%	13%	13%	13%	15%	14%
Don't know	1%	-	1%	-	0%	-	-	1%	1%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

THERE ARE NO SIGNIFICANT DIFFERENCES IN MESSAGE RECALL AMONG DETAILED SUBPOPULATIONS

While no statistically significant differences were observed by detailed subpopulations, there are some subpopulations that appear to have slightly higher recall than the statewide average. Rural females and rural young respondents (under 35) were among these and were more likely than their counterparts to recall texting and driving messages.



Exhibit I-25 Awareness of Distracted Driving Campaign

(So far, in 2014, have you read, seen, or heard anything about distracted driving?)

		Target	Group	Ar	ea	Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	Inconclusive		clusive	Inconclusive		Inconclusive	
Yes	74%	69%	75%	73%	75%	71%	77%†	70%	76%
No	24%	28%	24%	25%	24%	27%	22%	27%	23%
Don't know	2%	2%	1%	2%	1%	2%	1%	2%	1%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

THREE-FOURTHS OF DRIVERS ARE AWARE OF DISTRACTED DRIVING CAMPAIGN EFFORTS

Among statewide respondents, 74 percent were aware of distracted driving efforts – up from 55 percent in 2013. Recall was similar among subpopulations examined, though women were slightly more likely to be aware of such efforts than men.



Exhibit I-25a Awareness of Distracted Driving Campaign by Detailed Subpopulations

(So far, in 2014, have you read, seen, or heard anything about distracted driving?)

		Area by Gender			Area by Age				
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	939	305	196	276	162	165	336	145	293
X ² Result		Incon	clusive	Diff	erent	Diffe	erent	Incon	clusive
Yes	74%	72%	74%	69%	81%†	66%	77%*	78%	74%
No	24%	26%	24%	29%†	19%	31%†	22%	22%	24%
Don't know	2%	2%	2%	2%	1%	3%	1%	0%	1%

Exhibit I-25b Awareness of Distracted Driving Campaign by Detailed Subpopulations

(So far, in 2014, have you read, seen, or heard anything about distracted driving?)

		Area by Young Unmarried Males			Age by Gender				
	Statowida	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incon	clusive	Incon	clusive	Incon	clusive	Diffe	erent
Yes	74%	69%	74%	69%	76%	70%	71%	72%	80%†
No	24%	28%	24%	30%	23%	29%	26%	26%	20%
Don't know	2%	3%	2%	1%	1%	2%	3%	2%	1%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

WOMEN IN RURAL AREAS ARE MORE LIKELY TO HAVE NOTICED MESSAGING ABOUT DISTRACTED DRIVING

Four in five (81 percent) of women in rural areas were aware of distracted driving efforts, compared to only 69 percent of men in rural areas. This trend was also seen among older respondents, among whom women were again more likely to recall messaging than men. Finally, in urban areas, older drivers were more likely than younger drivers to recall hearing or seeing messaging about distracted driving.



VEHICLE CHOICES

Exhibit I-26 Types of Vehicles Driven

(Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?)

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
X ² Result		Incon	clusive	Diffe	erent	Diff	erent	Diff	erent
Car	53%	62%	51%	54%	50%	45%	60%*	65%*	47%
Van or minivan	9%	3%	10%†	8%	11%	8%	10%	4%	11%*
Motorcycle	1%	2%	1%	1%	0%	1%	0%	1%	1%
Pickup truck	15%	16%	15%	11%	22%*	28%*	4%	11%	17%†
Sport Utility Vehicle	17%	12%	18%	20%†	14%	15%	20%†	13%	19%†
Other	1%	0%	1%	1%	0%	0%	1%	1%	1%
Other truck	0%	0%	0%	-	0%	0%	-	0%	0%
Never drive	4%	4%	5%	6%	3%	4%	5%	5%	4%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

SLIGHTLY OVER HALF DRIVE CARS, AND SOME SUBPOPULATIONS ARE PARTICULARLY MORE LIKELY TO DRIVE THEM

Cars were the most common vehicles driven (by 53 percent of respondents statewide), and were driven by a majority or near majority of all respondents across all demographics. Women and younger drivers were significantly more likely than their counterparts to drive cars, while men were more likely to than women to drive pickup trucks, and older drives were more likely than younger drivers to drive a van or minivan.



Exhibit I-26a Types of Vehicles Driven by Detailed Subpopulations

(Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?)

			Area by	Gender			Area l	y Age	
	Statewide	Urban	Urban	Rural	Rural	Urban	Urban	Rural	Rural
	Statewide	Males	Females	Males	Females	<35	35+	<35	35+
Sample Size (n)	939	305	196	276	162	165	336	145	293
X ² Result		Diff	erent	Diff	erent	Diffe	erent	Incon	clusive
Car	53%	45%	63%*	44%	56%†	67%*	48%	62%*	45%
Van or minivan	9%	8%	7%	7%	14%†	4%	9%†	5%	13%†
Motorcycle	1%	2%	0%	0%	-	1%	1%	0%	-
Pickup truck	15%	21%*	1%	36%*	8%	5%	13%†	21%	22%
Sport Utility Vehicle	17%	19%	21%	9%	19%*	16%	21%	7%	16%†
Other	1%	0%	2%	0%	-	1%	1%	0%	0%
Other truck	0%	-	-	1%	-	-	-	0%	0%
Never drive	4%	4%	7%	2%	3%	6%	6%	3%	3%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level



Exhibit I-26b Types of Vehicles Driven by Detailed Subpopulations

(Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?)

		Area	by Young U	J nmarried 1	Males		Age by	Gender	
	Statewide	Urban	Urban	Rural	Rural	<35	<35	35+	35+
	Statewide	Y.U.M.	Others	Y.U.M.	Others	Males	Females	Males	Females
Sample Size (n)	939	110	391	109	329	241	69	340	289
X ² Result		Incone	clusive	Incon	clusive	Diff	erent	Diff	erent
Car	53%	70%†	52%	50%	50%	59%	71%†	39%	55%*
Van or minivan	9%	3%	8%	4%	12%	4%	5%	9%	12%
Motorcycle	1%	3%	1%	1%	-	1%	-	1%	0%
Pickup truck	15%	8%	11%	28%	21%	21%*	2%	30%*	4%
Sport Utility Vehicle	17%	13%	21%	11%	14%	11%	14%	16%	22%†
Other	1%	-	1%	1%	0%	0%	1%	0%	1%
Other truck	0%	-	-	1%	0%	0%	-	0%	-
Never drive	4%	4%	6%	4%	3%	3%	7%	4%	5%

^{*} Indicates that the group was significantly more likely to select the response than the group it was compared to; † reflects a weaker significance level

YOUNG UNMARRIED MALES IN URBAN AREAS ARE VERY LIKELY TO DRIVE CARS

Seven in ten young unmarried males in urban areas drove cars, compared to only half of other drivers in urban areas. However, women were generally more likely to drive cars than men, indicating that young unmarried males in urban areas are somewhat unique in this respect.

Among the other subgroups examined, women were more likely than men in each group examined (urban, rural, younger, and older) to drive cars, while men were more likely to drive pickup trucks in each of these four subpopulations. Interestingly, in rural areas, women were more likely to drive a sports utility vehicle than men.



COMPARISON OF 2012-2014 RESULTS

The Corona team prepared a year-over-year comparison of findings for surveys completed in 2012, 2013, and 2014. Corona also tested year-over-year findings for statewide respondents for statistical significance to identify those cases where a "true" change is observed between 2012 and the year of focus. These are noted herein as part of complete detailed findings that are provided in this section.

SECTION 1: SEAT BELT BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit II-1 Seat Belt Usage Frequency

(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

	Year				
	2012	2013	2014		
Sample Size (n)	939	945	939		
X ² Result	Inconclusive				
All of the time	91%	91%	93%		
Most of the time	6%	6%	4%		
Some of the time	1%	1%	1%		
Rarely	1%	1%	1%		
Never	1%	1%	1%		

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



Exhibit II-2 Awareness of Seat Belt Enforcement Efforts

(In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?)

		Year				
	2012	2013	2014			
Sample Size (n)	939	945	939			
X ² Result		Inconclusive	<u>;</u>			
Yes	51%	49%	47%			
No	47%	49%	51%			
Don't know	2%	3%	2%			

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



Exhibit II-3 Sources of Seat Belt Enforcement Awareness

(Where did you read, see, or hear that message?)

		Year	
	2012	2013	2014
Sample Size (n)	473	469	456
X ² Result		n/a	
TV	41%	51%*	50%*
Radio	10%	24%*	19%*
Online ads or social media	-	2%*	5%*
Newspaper	9%	11%	15%*
Billboard/signs	20%	32%*	31%*
Personal observation/on	7%	5%	10%
the road	7 70	370	1070
Electronic Road Signs	13%	27%*	23%*
Bar restroom	-	1%	1%
Minnesota Twins backup		0%	
sign	_	070	_
Gas station advertisement	-	0%	-
Other	6%	7%	6%
Don't know	1%	1%	1%

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level Note: This question was only asked to respondents who had seen such enforcement efforts.



Exhibit II-4
Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt

(How likely do you think you are to get a ticket if you don't wear your seat belt?)

	Year				
	2012	2013	2014		
Sample Size (n)	939	945	939		
X ² Result		Inconclusive	<u>;</u>		
Very likely	35%	39%	35%		
Somewhat likely	35%	33%	31%		
Somewhat unlikely	16%	15%	18%		
Very unlikely	14%	13%	16%		

Exhibit II-5
Importance of Seat Belt Law being Primary

(How important do you think it is for the Minnesota Seat Belt Law to be Primary?)

		Year			
	2012	2013	2014		
Sample Size (n)	939	945	939		
X ² Result		Inconclusive	<u>)</u>		
Very important	58%	58%	56%		
Fairly important	16%	17%	19%		
Just somewhat important	12% 11% 11%				
Not that important	14%	14%	14%		

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



SECTION 2: SPEEDING BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit II-6 Speeding Frequency

(On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?)

	Year				
	2012	2013	2014		
Sample Size (n)	939	945	939		
X ² Result	-	Inconclusive	<u>,</u>		
Most of the time	8%	9%	10%		
Half the time	14%	14%	14%		
Rarely	48%	45%	47%		
Never	29%	31%	28%		
Don't know	0%	1%	0%		
Refused	0%	0%	0%		

Exhibit II-7
Awareness of Speeding Enforcement Efforts

(In the past 30 days, have you read, seen or heard anything about speed enforcement by police?)

	Year					
	2012	2013	2014			
Sample Size (n)	939	945	939			
X ² Result		Different				
Yes	53%	47%†	56%			
No	46%	52%†	43%			
Don't know	1%	1%	1%			

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



Exhibit II-8 Perceived Likelihood of Being Ticketed for Speeding

(How likely do you think you are to get a ticket if you drive over the speed limit?)

		Year		
	2012	2013	2014	
Sample Size (n)	939	945	939	
X ² Result		Inconclusive		
Very likely	27%	28%	28%	
Somewhat likely	48%	48%	44%	
Somewhat unlikely	15%	12%	17%	
Very unlikely	8%	10%	10%	
Don't know	1%	2%	2%	

Exhibit II-9
Perceived Level of Speeding at which Police would Stop a Vehicle

(How far over the speed limit do you think you can drive before a police officer would stop you for speeding?)

	Year		
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result	Inconclusive		
1-5mph	57%	61%	58%
6-10mph	39%	36%	37%
11-15mph	3%	2%	3%
More than 15mph	1%	1%	1%
Mean	6.5	6.3	6.5

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



SECTION 3: IMPAIRED DRIVING BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit II-10 Alcohol Use

(During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?)

	Year		
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result	Inconclusive		
Yes	49%	50%	51%
No	51%	50%	49%
Don't know	-	0%	-
Refused	0%	0%	_

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level

Exhibit II-11 Frequency of Driving after Drinking

(In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?)

	Year		
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result		Inconclusive	
None	85%	85%	83%
1	6%	6%	8%
2	4%	5%	4%
3	1%	1%	2%
4	1%	0%	1%
5 times or more	3%	2%	2%
Refused	0%	0%	-
Mean	0.5	0.5	0.4



Exhibit II-12 Perceived Likelihood of Being Arrested for Driving after Drinking

(How likely do you think it is that someone will get arrested if they drive after drinking?)

	Year		
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result	Inconclusive		
Very likely	36%	37%	38%
Somewhat likely	50%	51%	50%
Not likely	11%	9%	9%
Don't know	3%	2%	3%

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level

Exhibit II-13
Perceived Likelihood of Being Stopped for Driving Drunk

(Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers.

How likely is it that the police would stop you?)

	Year		
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result	Inconclusive		
Very likely	44%	45%	45%
Somewhat likely	43%	40%	42%
Not likely	10%	11%	9%
Don't know	3%	4%	4%



Exhibit II-14 Awareness of Impaired Driving Enforcement Efforts

(In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?)

		Year		
	2012	2013	2014	
Sample Size (n)	939	945	939	
X ² Result		Inconclusive		
Yes	66%	71%	67%	
No	31%	28%	31%	
Don't know	2%	1%	2%	

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



Exhibit II-15 Sources of Impaired Driving Enforcement Awareness

(Where did you see or hear these messages?)

		Year	
	2012	2013	2014
Sample Size (n)	610	663	635
X ² Result		n/a	
TV	49%	51%	54%
Radio	21%	23%	30%*
Online ads or social media	-	3%*	4%*
Newspaper	13%	12%	12%
Billboard/signs	16%	21%†	21%†
Personal observation/on	7%	5%	8%
the road	7 70	370	070
Electronic Road Signs	25%	29%	20%†
Bar restroom	-	1%	0%
Minnesota Twins backup		0%	0%
sign	-	070	070
Gas station advertisement	-	0%	0%
Other	2%	4%†	6%*
Don't know	1%	1%	3%

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level Note: This question was only asked to respondents who had seen such enforcement efforts.



Exhibit II-16 Personal Experience with Increased Impaired Driving Enforcement Areas

(In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?)

	Year		
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result	Inconclusive		
Yes	25%	27%	23%
No	68%	67%	71%
Don't know	7%	6%	6%

Exhibit II-17 Awareness of Ignition Interlock Law

(Are you aware of the Minnesota Ignition Interlock law?)

	Year		
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result	Different		
Yes	33%	39%*	39%†
No	65%	58%*	58%*
Don't know	2%	3%	3%

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



SECTION 4: ADDITIONAL ANALYSES

GENERAL TRAFFIC SAFETY SLOGAN AWARENESS

Exhibit II-18 Awareness of Traffic Safety Slogans

(Do you recall hearing or seeing the following slogans in the past 30 days?)

		Year	
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result		n/a	
Click It or Ticket	74%	72%	70%
Drive Sober or Get Pulled	42%	50%*	61%*
Over	42/0	30 / 0 ·	01/0
Friends don't let friends	63%	65%	57%†
drive drunk	0370	0370	3770
Look Twice for	52%	57%†	47%†
Motorcyclists	32/0	3770	4770
Safe & Sober	51%	49%	50%
Share the Road	-	50%	48%
Toward Zero Deaths	14%	20%*	22%*
You drink and drive, you	52%	51%	51%
lose	JZ/0	J1/0	J1/0

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



Exhibit II-19 Sources of Slogan Awareness

(Where have you read, seen, or heard these slogans?)

	Year		
	2012	2013	2014
Sample Size (n)	870	901	885
X ² Result		n/a	
TV	62%	67%†	63%
Radio	26%	30%†	30%
Online ads or social media	ı	5%*	6%*
Newspaper	12%	11%	10%
Billboard/signs	39%	42%	42%
Personal observation/on	10%	6%*	13%
the road	120/	17%*	18%*
Electronic Road Signs	13%		
Bar restroom	-	2%*	1%*
Minnesota Twins back up	_	1%†	0%
sign		170	070
Gas station advertisement	=	1%*	1%†
Other	12%	14%	9%
Don't know	3%	4%	3%

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



MOTORCYCLE SAFETY CAMPAIGN AWARENESS

Exhibit II-20

Awareness of Motorcycle Safety Efforts

(Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?)

		Year	
	2012	2013	2014
Sample Size (n)	939	945	939
X ² Result		Different	
Yes	44%	51%*	42%
No	55%	47%*	56%
Don't know	2%	2%	2%

MOBILE PHONE BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit II-21

Frequency of Driving while Talking on a Cell Phone

(In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?)

		Year				
	2012	2013	2014			
Sample Size (n)	939	945	939			
X ² Result						
None	47%	51%	48%			
1-4 times	28%	27%	31%			
5-9 times	13%	12%	13%			
10-24 times	8%	5%	6%			
25 times or more	3%	4%	2%			
Refused	1%	1%	0%*			
Mean	4.2	4.6	3.2			

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



Exhibit II-22 Frequency of Texting while Driving

(In the past 7 days, how many times have you composed or read a text message while driving a motor vehicle?)

		Year				
	2012	2013	2014			
Sample Size (n)	939	945	939			
X ² Result	Different					
None	86%	83%	82%†			
1-4 times	8%	10%	13%*			
5-9 times	3%	3%	3%			
10-24 times	2%	1%	2%			
25 times or more	1%	1%	0%			
Refused	0%	1%	0%			
Mean	1.0	1.2	0.8			

Exhibit II-23 Awareness of Texting and Driving Law

(To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?)

		Year				
	2012	2013	2014			
Sample Size (n)	939	945	939			
X ² Result	-	Inconclusive	;			
Yes	77%	79%	79%			
No	9% 9% 7%					
Don't know	14%	13%	14%			

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



Exhibit II-24 Awareness of Texting and Driving Messaging

(So far, in [this year], have you read, seen, or heard anything about texting and driving?)

		Year	
	2012	2013	2014
Sample Size (n)	-	945	939
X ² Result		Inconclusive	<u>.</u>
Yes	-	83%	85%
No	-	16%	14%
Don't know	-	1%	1%

Exhibit II-25 Awareness of Distracted Driving Messaging

(So far, in [this year], have you read, seen, or heard anything about distracted driving?)

		Year				
	2012 2013 2014					
Sample Size (n)	-	945	939			
X ² Result		Different				
Yes	-	55%	74%*			
No	- 41% 24%*					
Don't know	-	4%	2%*			

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



VEHICLE CHOICES

Exhibit II-26 Types of Vehicles Driven

(Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?)

		Year			
	2012	2013	2014		
Sample Size (n)	939	945	939		
X ² Result	Inconclusive				
Car	54%	56%	53%		
Van or minivan	9%	10%	9%		
Motorcycle	1%	1%	1%		
Pickup truck	13%	13%	15%		
Sport Utility Vehicle	20%	16%†	17%		
Other	1%	0%	1%		
Other truck	-	1%†	0%		
Never drive	3%	2%	4%		

^{*} Indicates a significantly different response in that year than was observed in 2012; † reflects a weaker significance level



APPENDIX A: RESPONDENT DEMOGRAPHICS

This appendix includes tabulations of the demographic characteristics of survey respondents. These tables have *not* been weighted and, therefore, represent simple, raw tabulations of the results.

Exhibit D1 Gender

		Target	Target Group		ea	Ger	nder Ag		ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
Male	49%	100%	50%	61%	63%	100%	-	78%	54%
Female	51%	-	50%	39%	37%	-	100%	22%	46%

Exhibit D2

Age

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	926	219	707	494	432	581	345	310	616
18-34	33%	100%	13%	33%	34%	41%	20%	100%	-
35-44	8%	-	10%	10%	6%	8%	9%	-	12%
45-54	14%	-	19%	18%	10%	14%	15%	-	21%
55-64	17%	-	22%	17%	17%	15%	20%	-	25%
65+	27%	-	36%	23%	33%*	22%	37%	-	41%
Refused	-	-	1	-	-	-	-	-	-
Mean	49	24	57	48	51	45	55	25	61



Exhibit D3
Hispanic or Latino?

		Target	Target Group		ea	Ger	Gender		ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
Yes	5%	9%	4%	6%	3%	5%	4%	10%	2%
No	95%	91%	96%	94%	96%	95%	96%	90%	97%
Don't know	0%	0%	-	-	0%	0%	-	0%	-
Refused	0%	=	0%	=	0%	0%	-	-	0%

Exhibit D4 Race

		Target	Group	Ar	ea	Ger	ıder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
American Indian or Alaskan Native	2%	4%	1%	1%	3%	2%	1%	3%	1%
Asian	3%	5%	2%	5%	0%	3%	3%	6%	1%
Black or African American	4%	9%	3%	5%	3%	4%	5%	8%	2%
Native Hawaiian or other Pacific Islander	0%	0%	0%	0%	0%	0%	0%	0%	0%
White	88%	78%	92%	85%	92%	87%	90%	78%	93%
Other	3%	7%	2%	4%	2%	4%	2%	6%	2%
Don't know	0%	-	0%	-	1%	0%	0%	-	0%
Refused	1%	1%	1%	1%	1%	2%	1%	1%	1%



Exhibit D5 Marital Status

		Target	Group	Ar	ea	Ger	nder	A	ge
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
Never Married	33%	91%	16%	34%	33%	41%	20%	78%	11%
Married	49%	-	63%	49%	48%	44%	56%	14%	66%
Separated	1%	1%	0%	1%	0%	0%	1%	1%	0%
Divorced	9%	4%	11%	9%	9%	8%	10%	3%	12%
Widowed	6%	0%	8%	5%	7%	4%	10%	0%	9%
Living with a partner	2%	4%	1%	2%	2%	2%	2%	4%	1%
Refused	1%	-	1%	1%	1%	-	2%	0%	1%

Exhibit D6 Survey Mode

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	501	438	581	358	310	629
Landline	51%	22%	60%	50%	52%	46%	60%	21%	66%
Cell	49%	78%	40%	50%	48%	54%	40%	79%	34%



APPENDIX B: OPEN-ENDED RESPONSES

IS THE VEHICLE YOU DRIVE MOST OFTEN A CAR, VAN, MOTORCYCLE, SPORT UTILITY VEHICLE, PICKUP TRUCK, OR OTHER TYPE OF TRUCK? ("OTHER TRUCK" OR "OTHER" RESPONSES)

Other	Other Truck
Crossover	Petebuilt 388 model (18 wheeler)
RV	Semi truck
Public transportation	Semi-truck
School Bus	
We don't have a vehicle.	
Crossover	

IN THE PAST 30 DAYS, HAVE YOU READ, SEEN, OR HEARD ANYTHING ABOUT SEAT BELT LAW ENFORCEMENT BY POLICE? WHERE DID YOU READ, SEE, OR HEAR THAT MESSAGE? ("OTHER" RESPONSES)

- > A friend got a ticket.
- > At work.
- > Bumper Stickers
- > Coming out of a fast food restaurant.
- Community watch meeting
- > Co-worker
- > From my brother who is a state trooper.
- > Grocery stores
- > I heard about it because son was in a crash caused by a drunk driver.
- > I heard it from a guy at work that got a ticket.
- > I heard it in a conversation.
- I saw them at the DMV.
- > I work at State Farm so I see it there all the time.
- > I'm a police officer and we've discussed these things in meetings.
- > I'm a police officer, so I hear and see messages about it all the time.
- > In magazines.
- > Metro Transit message board.
- Minnesota DMV.
- > My grandson got a ticket a week ago for not wearing his seatbelt.
- My mom
- Neighbors and co-workers.
- Safety briefs
- > Word of mouth
- > Word-of-mouth I work with a police officer.
- > Word-of-mouth through friends.



DO YOU RECALL HEARING OR SEEING THE FOLLOWING SLOGANS IN THE PAST 30 DAYS? WHERE HAVE YOU READ, SEEN, OR HEARD THESE SLOGANS? ("OTHER" RESPONSES)

- > At a fair.
- At school.
- > At work.
- > Bumper sticker
- Bumper sticker
- > Bumper sticker
- > Bumper sticker
- > Bumper stickers
- Bumper stickers
- Bumper stickers
- > Bumper stickers
- Bumper Stickers
- > Bumper stickers
- > Bumper stickers
- > Bumper stickers
- Bumper Stickers
- > Bumper stickers on cars.
- > Bumper stickers on cars.
- > Bumper stickers.
- > Buses
- > Buses
- > Buses
- > Car bumper stickers.
- > County fair
- > DMV booklet
- > Friends and at work.
- > Friends have said it.
- > Friends talking
- > From friends
- > From people when we were talking.
- > I heard them at a town meeting.
- I read it in a magazine.
- > I saw it on a bumper sticker.



- > I saw it on the drivers permit.
- I saw them at the DMV.
- > I saw them at work.
- > I see them at work.
- I work for the Minnisota DOT.
- > In a magazine.
- > In magazines.
- > In the coffee house.
- > In the mail
- > Internet
- Magazine
- > Magazine.
- Magazines
- Magazines
- > Magzines and bumper stickers.
- > Memos from work and on facebook.
- > On a bumper sticker.
- > On bumper sticker and in the stores.
- > On bumper stickers.
- > On motorcycle saftey cars.
- > On other trucks and car stickers.
- > Pandora
- Poster at bus stops
- Poster at school.
- > Posters at work.
- > Roadside signs
- > Safety brief; Military
- > Signs and pamphlets at the DMV.
- Store front windows
- > Stores and a casino.
- > Word of mouth
- > Yard signs



IN THE PAST 30 DAYS, HAVE YOU READ, SEEN, OR HEARD ANYTHING ABOUT ALCOHOL-IMPAIRED DRIVING (OR DRUNK DRIVING) ENFORCEMENT BY POLICE? WHERE DID YOU SEE OR HEAR THESE MESSAGES? ("OTHER" RESPONSES)

- > A friend is a Highway Patrolman.
- > A friend of mine got a knock on her door, and the cops said, "We're watching you."
- > Again, I see them all the time in memos at work and we discuss it during meetings.
- > At a concert.
- At a town meeting.
- > At work.
- > At work.
- At work.
- College classroom
- > Employment office.
- Flyers
- > Friends
- > Friends.
- > From my friends who are cops.
- > I heard this from some friends of mine who are cops.
- I read it in magazines.
- > I saw them at the DMV.
- I see it on the buses.
- > In AA meetings.
- > In the court house and in stores.
- > Internet
- My husband is a policeman.
- > On bumper stickers.
- On college campus
- Our friend was just killed.
- > People talking.
- Safety brief; military
- > Speaking with police officers and neighbors.
- > The college that I attend.
- > The fair
- > Traffic safety training with the military
- > Word of mouth



APPENDIX C: SURVEY INSTRUMENT

[THROUGHOUT SURVEY, DO NOT READ RESPONSES UNLESS SPECIFIED OR NEEDED FOR CLARIFICATION.]

Hello, I'm _____ calling on behalf of the Minnesota Office of Traffic Safety. We are conducting a study of Minnesotans' driving habits and attitudes. The interview is voluntary and completely confidential. It only takes about 10 minutes to complete. May I begin?

S1. [CELL ONLY] Before I continue, are you in a safe place to talk on your phone, specifically not currently driving? [INTERVIEWER NOTE: EVEN IF THE RESPONDENT IS OK WITH TAKING THE SURVEY WHILE DRIVING, WE CANNOT CONTINUE WITH THE SURVEY.]

- 1. Yes in safe place/not driving [CONTINUE]
- 2. No not safe/driving [ARRANGE CALLBACK]

S2. [CELL ONLY] **Are you in a place where you can speak freely?** [INTERVIEWER NOTE: WE WANT TO ENSURE THEY CAN ANSWER HONESTLY ABOUT THESE TOPICS AND ARE NOT INFLUENCED BY OTHERS LISTENING.]

- 1. Yes can speak freely [CONTINUE]
- 2. No cannot speak freely [ARRANGE CALLBACK]

S3. [LANDLINE ONLY] In order to meet our quotas, could I speak to a man in your household who is between the ages of 18 and 34?

- 1. Respondent is the person
- 2. Other respondent comes to phone
- 3. Respondent is not available [ARRANGE CALLBACK]
- 4. No such person. "Then I can conduct the survey with anyone else age 18 or older. Are you 18 or older?"
- 5. Refused

S4. What county in Minnesota do you live in? [USE FOR URBAN AND RURAL QUOTAS. RED BELOW ARE URBAN, BLACK ARE RURAL. TERMINATE 96-99]

1 Aitkin	24 Freeborn	47 Meeker	70 Sherburne
2 Anoka	25 Goodhue	48 Mille Lacs	71 Sibley
3 Becker	26 Grant	49 Morrison	72 St. Louis
4 Beltrami	27 Hennepin	50 Mower	73 Stearns
5 Benton	28 Houston	51 Murray	74 Steele
6 Big Stone	29 Hubbard	52 Nicollet	75 Stevens
7 Blue Earth	30 Isanti	53 Nobles	76 Swift
8 Brown	31 Itasca	54 Norman	77 Todd



9 Carlton	32 Jackson	55 Olmsted	78 Traverse
10 Carver	33 Kanabec	56 Otter Tail	79 Wabasha
11 Cass	34 Kandiyohi	57 Pennington	80 Wadena
12 Chippewa	35 Kittson	58 Pine	81 Waseca
13 Chisago	36 Koochiching	59 Pipestone	82 Washington
14 Clay	37 Lac qui Parle	60 Polk	83 Watonwan
15 Clearwater	38 Lake	61 Pope	84 Wilkin
16 Cook	39 Lake of the Woods	62 Ramsey	85 Winona
17 Cottonwood	40 Le Sueur	63 Red Lake	86 Wright
18 Crow Wing	41 Lincoln	64 Redwood	87 Yellow Medicine
19 Dakota	42 Lyon	65 Renville	96 NOT IN
20 Dodge	43 Mahnomen	66 Rice	MINNESOTA
21 Douglas	44 Marshall	67 Rock	97 OTHER
22 Faribault	45 Martin	68 Roseau	98 DON'T KNOW
23 Fillmore	46 McLeod	69 Scott	99 REFUSED

Q1. Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck? [IF RESPONDENT DRIVES MORE THAN ONE VEHICLE OFTEN, ASK: "What kind of vehicle did you LAST drive?"]

- 1. Car
- 2. Van or minivan
- 3. Motorcycle
- 4. Pickup truck
- 5. Sport Utility Vehicle
- 6. Other truck
- 7. Other
- 8. Never drive

Q2. How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up? [READ RESPONSES]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. Rarely
- 5. Never

Q3. In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?

- 1. Yes
- 2. No
- 8. Don't know

(Ask Q4 if response to Q3 is Yes)

Q4. Where did you read, see, or hear that message? [CATEGORIZE RESPONSES. PROMPT WITH "ANYWHERE ELSE?" ONCE BEFORE CONTINUING.]



- 1. TV
- 2. Radio
- 3. Online ads or social media
- 4. Newspaper
- 5. Billboard/signs
- 6. Personal observation/on the road
- 7. Electronic Road Signs
- 8. Bar restroom
- 9. Minnesota Twins backup sign
- 10. Gas station advertisement
- 11. Other (specify): _____
- 98. Don't know

Q5. How likely do you think you are to get a ticket if you don't wear your seat belt? [READ RESPONSES]

- 1. Very likely
- 2. Somewhat likely
- 3. Somewhat unlikely
- 4. Very unlikely
- Q6. Having a "primary" seat belt law means that police are allowed to stop a vehicle if they observe a seat belt violation when no other traffic laws are being broken. How important do you think it is for the Minnesota Seat Belt Law to be Primary? [READ RESPONSES]
- 1. Very important
- 2. Fairly important
- 3. Just somewhat important
- 4. Not that important
- Q7. Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?
- 1. Yes
- 2. No
- 8. Don't know
- Q8. On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph? [READ RESPONSES]
- 1. Most of the time
- 2. Half the time
- 3. Rarely
- 4. Never
- 8. Don't know [DON'T READ]
- 9. Refused



Q9. In the past 30 days, have you read, seen or heard anything about speed enforcement by police?

- 1. Yes
- 2. No
- 8. Don't know

Q10. How likely do you think you are to get a ticket if you drive over the speed limit? [READ RESPONSES]

- 1. Highly likely
- 2. Somewhat likely
- 3. Somewhat unlikely
- 4. Very unlikely
- 8. Don't know [DON'T READ]

Q11. How far over the speed limit do you think you can drive before a police officer would stop you for speeding? [NOTE: RESPONSES SHOULD GENERALLY BE BETWEEN 1-25 MPH. IF A VALUE IS GIVEN OUTSIDE THIS RANGE, CLARIFY THAT WE'RE LOOKING FOR AN AMOUNT OVER THE LIMIT – NOT THE ACTUAL SPEED BEING DRIVEN.]

_ mph

Q12. Do you recall hearing or seeing the following slogans in the past 30 days? [ASK EACH INDIVIDUALLY.]

- a. Click It or Ticket
- b. Drive Sober or Get Pulled Over
- c. Friends don't let friends drive drunk
- d. Look Twice for Motorcyclists
- e. Safe & Sober
- f. Share the Road
- g. Toward Zero Deaths
- h. You drink and drive, you lose
- 1. Yes
- 2. No
- 8. Don't know

(Ask Q13 if any response to Q12 is Yes)

Q13. Where have you read, seen, or heard these slogans? [REPEAT THEIR ANSWERS FROM Q13 ONCE. CATEGORIZE RESPONSES. PROMPT WITH "ANYWHERE ELSE?" ONCE BEFORE CONTINUING.]

- 1. TV
- 2. Radio
- 3. Online ads or social media
- 4. Newspaper
- 5. Billboard/signs
- 6. Personal observation/on the road
- 7. Electronic Road Signs
- 8. Bar restroom



9. Minnesota Twins backup sign
10. Gas station advertisement
11. Other (specify):
98. Don't know

Q14. During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?

- 1. Yes
- 2. No
- 8. Don't know
- 9. Refused

Q15. In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?

_____ [RANGE: 1-30, 99=REFUSED]

Q16. How likely do you think it is that someone will get arrested if they drive after drinking? [READ RESPONSES]

- 1. Very likely
- 2. Somewhat likely
- 3. Not likely
- 8. Don't know [DON'T READ]

Q17. Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers. How likely is it that the police would stop you? [READ RESPONSES]

- 1. Very Likely
- 2. Somewhat Likely
- 3. Not Likely
- 8. Don't know [DON'T READ]

Q18. In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?

- 1. Yes
- 2. No
- 8. Don't know

(Ask Q19 if response to Q18 is Yes)

Q19. Where did you see or hear these messages? [CATEGORIZE RESPONSES. PROMPT WITH "ANYWHERE ELSE?" ONCE BEFORE CONTINUING.]

- 1. TV
- 2. Radio
- 3. Online ads or social media
- 4. Newspaper
- 5. Billboard/signs
- 6. Personal observation/on the road
- 7. Electronic Road Signs
- 8. Bar restroom



9. Minnesota Twins backup sign
10. Gas station advertisement
11. Other (specify):
98. Don't know
Q20. In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk? 1. Yes
2. No
8. Don't know
Q21. Are you aware of the Minnesota Ignition Interlock law? 1. Yes
2. No
8. Don't know
Q22. In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?
times [99=REFUSED]
Q23. In the past 7 days, how many times have you composed or read a text message while driving a motor vehicle? times [99=REFUSED]
Q24. To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving? 1. Yes 2. No 8. Don't know
Q25. So far, in 2014, have you read, seen, or heard anything about texting and driving? 1. Yes 2. No 8. Don't know
Q26. So far, in 2014, have you read, seen, or heard anything about distracted driving? 1. Yes 2. No 8. Don't know
<u>DEMOGRAPHICS</u>
Q27. Are you male or female? [ASK ONLY IF NOT OBVIOUS.] 1. Male 2. Female
Q28. What is your age? [99=REFUSED]



Q29. Do you consider yourself to be Hispanic or Latino?

- 1. Yes
- 2. No
- 8. Don't know
- 9. Refused

Q30. Which of the following racial categories describes you? You may select more than one. [READ RESPONSES]

- 1. American Indian or Alaskan Native
- 2. Asian
- 3. Black or African American
- 4. Native Hawaiian or other Pacific Islander
- 5. White
- 7. Other (specify):
- 8. Don't know [DON'T READ]
- 9. Refused

Q31. What is your current Marital Status?

- 1. Never Married
- 2. Married
- 3. Separated
- 4. Divorced
- 5. Widowed
- 6. Living with a partner
- 9. Refused

Q32. [CELL ONLY] Which of the following best describes your personal telephone status? [READ LIST]

- 1. I only have a cell phone and no landline.
- 2. I have a landline, but mostly use my cell phone.
- 3. I use my cell phone and landline equally.
- 4. I mostly use a landline, though I have a cell phone.

Q33. [LANDLINE ONLY] Which of the following best describes your personal telephone status? [READ LIST]

- 1. I only have a landline and no cell phone.
- 2. I have a cell phone, but mostly use my landline.
- 3. I use my cell phone and landline equally.
- 4. I mostly use a cell phone, though I have a landline.



APPENDIX D: DETAILED WEIGHTING METHODOLOGY

SAMPLE & RESPONDENTS

Cell phone surveys were conducted without a screener for dual-users (landline and cell). In other words, dual users were not excluded from the cell sample. Other researchers have determined that screening out dual-users from the cell phone sample introduces more bias into overall results (Brick et al., 2006; Kennedy, 2007).

SELECTION PROBABILITY/COMPOSITING ESTIMATOR

Keeping dual-users from both landline and cell samples results in a selection probability for dual-users that is twice that of cell-only and landline-only users. When combining data from both samples, a composite estimator is used to down-weight the dual-users. [The weights used are based on the proportion of dual-users coming from the cell and landline samples (see Kennedy, 2007 for explanation). In the survey, 29% of the dual-users were in the cell sample, and 71% were in the landline sample. So, all single-users got a weight of 1, while dual-users from the cell sample got a weight of 0.29, and dual-users from the landline sample got a weight of 0.71.]

WEIGHTS BEFORE COMBINING CELL AND LANDLINE SAMPLES (PRE-WEIGHTS FOR TELEPHONE SERVICE)

Because of different response probabilities among single- and dual-users within each sample, we first weight each sample individually for single- and dual-users using NHIS population data. In both samples, single-users are over-represented compared to dual-users, presumably because people with only one service (cell-only or landline-only) are more likely to answer in that mode. The over-representation is more pronounced in the cell sample. Weighting is done to two categories in each sample: cell sample = cell-only + dual users; landline sample = landline-only + dual users.

COMBINING SAMPLES/INPUT WEIGHT

The pre-weight for telephone service is multiplied by the compositing estimator for each person, and the resulting weighted counts (combining samples) are the input for the next stage of weighting to demographic variables.

PRELIMINARY RAKED WEIGHTS

Weights are based on four variables: region (Urban/Rural, defined by county), gender, age (three categories: 18-34, 35-54, 55+), and telephone service in each area (rural landline-only, rural dual, rural cell-only, urban landline-only, urban dual, urban cell-only). Telephone usage (i.e., landline-only, landline-mostly, dual use, cell-mostly, cell-only) was not used as a weighting variable because it has not been found to reduce bias compared to telephone service alone (Kennedy, 2007), and it results in a larger design effect.

Population estimates for region, gender, and age were obtained from the 2010 U.S. Census, Summary File 1, P12. Population estimates for telephone service in Minnesota were obtained from National Health Statistics Reports, 2012.



Cell weighting is not possible because estimates of telephone service by region, gender, and age are not available. Therefore, a process of iterative marginal weighting (i.e., raking or RIM weighting) was used to develop weights for each respondent. Sixteen iterations were performed to allow convergence.

FINAL WEIGHTS

Final weights are calculated by multiplying the input weight by the preliminary raked weight.

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