SAFETY BELT USAGE RATES AT HIGH SCHOOLS AND COLLEGES IN RHODE ISLAND

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TABLE OF CONTENTS

Abstra Execu	act itive Summary	iv v
I.	Introduction Background Seat Belt Use Reasons for Seat Belt Use and Non-Use Attitudes Concerning the Utility of Seat Belts, Risk Perception, and Fatalism Comparison to Prior Year Motor Vehicle Occupant Safety Surveys Teens Are At Risk	1
II.	URITC Model Sample Design Data Collection Methodology	5
III.	Sources of Possible Bias	7
IV.	Findings – Rhode Island High School Reasons for Not "Buckling Up"	8
V.	Intervention Initiatives Application of the Transtheoretical Model of Change to Teenage Seat Belt Usage Description of Transtheoretical Model Seat Belt Survey Intervention Efforts Expanded Sample Population (Middle School Sample School)	16
VI.	Findings – Rhode Island Colleges Reasons for Not "Buckling Up" Safety Belt Observed Usage – College Campus Application of the Transtheoretical Model of Change To College Seat Belt Usage Demographic Comparisons	23
VII.	Conclusion	34
Ackno	owledgements	36
Refer	ences	37
Apper Cha	ndix rts for High School – Observed Usage Rates	39
Apper Scar	ndix xx nning Seat Belt Survey Questionnaires	44
Surve	y on Seat Belt Usage	46
Obser	vational Survey	48

TABLES & FIGURES

List of Figures

Figures 1&2.	Reported Usage by Rhode Island Teens	8
Figure 3.	Usage Rate vs. Grade	10
Figure 4.	Usage Likelihood	10
Figure 5.	Usage Likelihood vs. Gender	11
Figure 6.	Usage Likelihood vs. Grade	11
Figure 7.	Peer Pressure and Usage	12
Figure 8.	Peer Pressure and Usage vs. Gender	12
Figure 9.	Peer Pressure and Usage vs. Grade	13
Figure 10.	Non-use Patterns	13
Figure 11.	Non-use Patterns vs. Gender	14
Figure 12.	Non-use Patterns vs. Grade	14
Figure 13.	Increased Usage	16
Figure 14.	Middle School Usage vs. Grade	20
Figure 15.	Middle School Non-use Patterns vs. Grade	21
Figure 16.	Reported Parental Seatbelt Usage (Middle School Sample)	22
Figures 17&18.	Reported Usage by Rhode Island College Students	23
Figure 19.	Usage Rate vs. Grade	24
Figure 20.	Usage Likelihood	24
Figure 21.	Usage Likelihood vs. Gender	25
Figure 22.	Usage Likelihood vs. Grade	26
Figure 23.	Peer Pressure and Usage	27
Figure 24.	Peer Pressure and Usage vs. Gender	27
Figure 25.	Peer Pressure and Usage vs. Grade	28
Figure 26.	Non-use Patterns	28
Figure 27.	Non-use Patterns vs. Gender	29
Figure 28.	Non-use Patterns vs. Grade	29
Figure 29.	Increase Usage	30
Figure 30.	Increased Usage by Gender	31
Figure 31.	Increased Usage by Grade	31

List of Tables

Table 1.	Reported Rate at 29 Rhode Island High School	9
Table 2.	Observed Seat Belt Usage of Rhode Island Teens	15
Table 3.	Representative of the Consolidated Data for 29 Schools	19
	Surveyed in Rhode Island	
Table 4.	Consolidated information Displayed as Percentages for each Grade and Stage	19
Table 5&6.	Observed Usage Rates on URI Campus	32
Table 7.	University of Rhode Island College Student Data 2004	33
Table 8.	Reported Rates for Rhode Island	33

ABSTRACT

This report presents the implementation, analysis, and results of a model seat belt survey targeting Rhode Island high school students. This study was conducted to gather baseline information on seat belt usage patterns and characteristics, categorize behavior use, and strategize potential interventions specific to different stages of behavior. Though, national and state seat belt usage studies exist, few to none focus on assessing and increasing the usage rate among teens.

The University Of Rhode Island's Transportation Center contracted with the Rhode Island Department of Transportation (RIDOT) to conduct a seat belt usage survey of High Schools and colleges in the state of Rhode Island. The survey asked questions regarding the student's attitudes and behaviors on usage, opinions to increase usage and reasons for low usage. The results will be used by RIDOT and the URITC to plan and evaluate programs intended to increase the seat belt usage rates at the high schools to achieve a goal 90% usage statewide.

Using the information discussed in the NOPUS and MVOSS, the URITC developed a model survey tool based on the National Center for Statistics and Analysis (NCSA) Survey Criteria for use at local Rhode Island high schools and colleges. URITC completed over 14,000 paper surveys at 29 Rhode Island high schools and over 3200 electronic surveys at 5 Rhode Island colleges. In addition, the URITC conducted 13 observational surveys at 13 school parking lots during the morning arrival period. The results of each survey were analyzed to determine disparities based on location (i.e. rural/urban), gender, age, grade, etc. The visual observational sample of Safety Belt Usage at selected schools was used to verify the reported paper survey results. The average time to complete the paper survey was 1 minute. This data provided an overall assessment of Rhode Island high schools by groupings and was then compared to national rates reported by NHSTA. The development of this "model survey" and the Rhode Island results are distributed for national use.

The results of each survey were analyzed to determine differences based on location, gender, grade, etc. The observational sample of seat belt usage at selected schools was used to verify the reported paper survey results. This data is compared to national rates reported by the National Highway Traffic and Safety Administration (NHTSA).

83% of Rhode Island high school students reported that they do wear seat belts. However, the average observational usage rate is only 73.7%. 90% of Rhode Island college students reported they wear seat belts. However, the average observational usage rate is only 73.7%. Questions were designed to investigate the possible affect of peer pressure on individual usage and analyses of these questions assists in deciphering the disparity between reported and observed usage rates.

In this study we have established a baseline for the State of Rhode Island. From these data, the intention is to achieve behavioral change, specifically, to reach a 90% usage rate among RI high school students.

Executive Summary

The data collection was a collaborative effort involving high schools, The Rhode Island State Department of Transportation (RIDOT), and URI Transportation Center (URITC).

The survey team gathered 14,000 paper surveys (N=14,000) from 29 Rhode Island high schools and over 3200 (N=3250) electronic surveys at 5 Rhode Island colleges. In addition, the survey team conducted 13 observational surveys (N=2700) at 13 high school parking lots during the morning arrival period. The average time to complete the paper survey was less than one minute.

The results of each survey were analyzed to determine differences based on location (i.e. rural/urban), gender, age, grade, etc. The visual observational sample of Safety Belt Usage at selected schools was used to verify the reported paper survey results. Rhode Island high school data were compared to national rates reported by the National Highway Traffic and Safety Administration (NHTSA). The development of this "model survey" and the Rhode Island results will be distributed for national use.

83% of students reported that they do wear seat belts. However, the average observational usage rate is only 73.7%. The study determined an overall effective rate of only 69.5% when factoring in part time users. Questions were designed to investigate the possible affect of peer pressure on individual usage and analyses of these questions assists in deciphering the disparity between reported and observed usage rates.

The reported usage rates of RI high schools ranged from a high of 95% to a low of 69%. However, with the subtraction of "today 's non-use" percentage, the range changed from 87% to 60%, which is a more accurate representation of actual usage rates on any given day. "Today 's non-use" percentage is the reported percentage of students who answered "today" as the last time they did not wear a seat belt.

When asked if they are just as likely to wear their seat belts when driving with friends as when they are alone, 67.6% of 9th-12th graders answered "yes". Only 11.9% said their usage would be less likely. When the same information was evaluated by grade, 9th graders were more likely to be influenced by peer pressure than 12th graders, showing a 9% difference. The major conclusion from high school students is that peers influence an individual 's likelihood of usage as well as his/her increase of usage.

Students reported, "**traveling a short distance**" as the number one reason why they are less likely to wear a seat belt. When asked this question, 17.5% of 9th-12th graders answered with this response. When the same information was evaluated by grade, 9th graders were even more likely to respond for this reason than all other graders, showing a response rate of 22.6%. The 12-grade response rate was only 13.2%. The major conclusion from high school students is that, "**traveling a short distance**" is the number one reason why they are less likely to wear a seat belt especially among younger students.

Of the 8 questions in the seat belt survey, 3 are directly targeted to ask a student about the affect of peer pressure on his/her individual usage of a seat belt. Unlike adults, teens are more vulnerable to participating in the popular, yet sometimes unsafe, behaviors of their peers.

Introduction

Background

Of all the risks High School Students encounter everyday, one of the greatest dangers they face is being killed or severely injured in a motor vehicle crash. In fact, of the 32,598 passenger vehicle occupants killed in crashes in the United States, 59 percent were not wearing a seat belt (NHTSA 2003). Fortunately, there is something very simple that can be done to stop this unnecessary loss of life and that is to increase seat belt use among high school students. Unfortunately, not enough baseline information on high school usage rates and high school attitudes exist on the problem to develop targeted interventions.

While the U.S. Highway System is among the safest in the world, each year over 40,000 deaths and 3million injuries occur. In Rhode Island alone, over 80 fatalities and over 20,000 accidents occurred in 2001. Statistics indicate teenagers (ages 13-19) are represented in a major portion of these crashes, and their rates are worse in the United States than elsewhere. In 2001, teenagers accounted for 10% of the U.S. population and were involved in 13% of motor vehicle deaths as both passengers and drivers. Alarmingly, many teenagers and young adults don't buckle their seat belts (1996-2003 Insurance Institute for Highway Safety, Highway Loss Data Institute).

One of the most effective means to save lives and prevent injuries is to increase seat belt usage. In 2002, the nationwide Safety Belt Usage Rate was 79%. However, in Rhode Island the Safety Belt Usage Rate was 71% in 2002, up from a low of 63% in 2001. Targeting the low performing groups in these area with specific interventions could potentially raise statewide Safety Belt Usage Rates and serve as a national model of a collaborative approach toward safety partnerships.

One major form of data currently available is the Motor Vehicle Occupant Safety Survey (MVOSS) conducted biennially for the National Highway Traffic Safety Administration (NHTSA). It is a national telephone survey composed of two questionnaires, each administered to approximately 4,000 randomly selected persons age 16 and older. The questionnaire emphasizes seat belt issues and also contain smaller modules addressing such areas as attitude, types of vehicles and use, airbags, and crash injury experience (2003 MVOSS, Version 1, Jan 8.03 Project No. 9728a).

The first Motor Vehicle Occupant Safety Survey was conducted in 1994 by NHTSA. The 1998 survey contained numerous items from the 1994 and 1996 surveys, which afforded NHTSA the opportunity to monitor change over time in knowledge, attitudes, and (reported) behavior related to motor vehicle occupant safety. The 1998 survey also included new questions dealing with such areas as seating position of children, attitudes about risk and the utility of seat belts, warning labels for air bags, and child injury prevention. The <u>1998 Motor Vehicle Occupant Safety Survey¹</u> reported the following areas:

Seat Belt Use

• **Reported Belt Use.** Nationally, more than three-quarters (79%) of drivers said that they used their seat belt "all of the time" while driving. Ten percent of these "all the time" users immediately stated on a follow-up question that they had not worn their seat belt while driving at some time during the past day or week. Twelve percent of drivers said they used their seat belt "most of the time" while driving. Nationally, more than 70% of these "most of the time" users said on the follow-up question that they had not worn their seat belt while driving at some time in the past day or week.¹

¹ The <u>1998 Motor Vehicle Occupant Safety Survey</u>

- **Reported Compared To Observed Belt Use.** NHTSA has developed a methodology for comparing reported and observed usage. A revised self-report belt use measure, which subtracted drivers who said they had not worn their seat belt recently from the "all the time" user group, almost exactly matched the seat belt use rates obtained in a NHTSA national observation survey conducted at about the same time as the telephone survey. ¹
- Vehicle Type. In the United States, cars continued to drop as a percentage of the vehicle fleet, although they still accounted for 65% of all primary vehicles driven (versus 67% in 1996 and 71% in 1994). Pickup trucks (16%) and vans/minivans (10%) followed next in frequency.¹
- **Reported Change In Belt Use In Past Year.** When asked if their seat belt use had changed in the past 12 months, 15% of drivers nationally said it had increased. Most often, the drivers said they increased their usage because they became more aware of safety issues (53%), the seat belt law (25%), encouragement from others (23%), and not wanting a ticket (22%).¹

Reasons For Seat Belt Use And Non-Use

- **Reasons For Use.** Nationally, injury avoidance was the most frequent reason given by drivers for wearing seat belts regardless of the group to which persons belonged. However, infrequent seat belt users (77%) less often gave this as a reason than did frequent seat belt users (97%).¹
- Most Important Reason For Use. When asked which was their most important reason for wearing seat belts, two-thirds of drivers (66%) said it was injury avoidance. Following in the distance were the law (7%), habit (6%), and wanting to set a good example (5%). Infrequent users of seat belts (46%) were less likely than frequent users (68%) to cite injury avoidance as their primary reason for seat belt use, although it still was the most common reason given.
- **Reasons For Non-Use.** Among drivers who at least on occasion <u>did not</u> use their seat belt, the most frequent reasons for non-use were that they were only driving a short distance (56%) or they forgot (53%). When asked which reason for non-use was most important, forgetting (24%) ranked first and "short distance" (22%) second.
- **Differing Reasons For Non-Use Between Part Time Users And Non-Users.** Few persons said they never wore their seat belt. However, non-users' reasons for non-use differed sharply from part time users. Among part time users, the most important reasons for non-use usually related to risk perception (going only a short distance; forgetting). For non-users, their primary reasons for non-use revolved around discomfort and "other" considerations such as issues of personal freedom, concern about seat belts being dangerous, and the lack of an established habit.

Attitudes Concerning The Utility Of Seat Belts, Risk Perception, And Fatalism

• **Pressure From Group Norms.** Nationally, almost one-in-five persons (18%) either strongly (10%) or somewhat (7%) agreed that "I would feel self-conscious around my friends if I wore a seat belt and they did not." This item did not appear to be related to the level of reported seat belt use.

¹ The <u>1998 Motor Vehicle Occupant Safety Survey</u>

- **Parental Influence On Seat Belt Use.** Among persons ages 16-24, 63% either strongly (46%) or somewhat (17%) agreed that "I have a habit of wearing a seat belt because my parents insisted I wear them when I was a child." The number dropped to 36% among persons ages 25-34, and 23% among those ages 35-44, reflecting the lower belt use rates during their childhood years.
- **Differences In Attitudes By Age.** In national studies, persons ages 16-20 differed from those ages 21-64 or 65 and older on whether they agreed with the risk perception and belt utility statements. This youngest age group was more likely than the others to believe that seat belts were as likely to harm as help (48%), that an accident close to home was usually not as serious (22%), that they would feel self-conscious about wearing seat belts if their friends did not (24%), and that insurance costs would be lower if more persons wore seat belts (82%).

Comparison To Prior Year Motor Vehicle Occupant Safety Surveys

• **Reported Frequency Of Driver Seat Belt Use.** Nationally, overall reported seat belt use among drivers increased from 74% in 1994 to 76% in 1996 to 79% in 1998. In Rhode Island, seatbelt usage has also increased over time.

The second major form of data currently available is the National Occupant Protection Use Survey (NOPUS) conducted by NHTSA throughout the country. The NOPUS is an *observational survey* of safety belt use that began in 1994 and is used to measure the nation's belt use. Unlike telephone surveys that ask respondents whether they use belts, NOPUS observes actual use on the roads, and so provides a better estimate (although telephone surveys are useful for studying unobservable characteristics of use, such as a person's income level). In addition, NOPUS provides a reliable estimate of use whose error can be measured since it collects data on a probability sample of roadways. In fact, NOPUS provides the only probability-based observed measure of belt use on the nation's roads.²

While NOPUS does not provide information by age, NOPUS does provide estimates of use at the national level and at four regional levels (the Northeast, Midwest, South, and West). NOPUS cannot provide state estimates, which can be found through surveys conducted by the states' highway safety offices, whose results are published annually by NHTSA. The <u>National Occupant Protection Use Survey (NOPUS)</u>² reported the following result:

- **Observed Frequency Of Driver Seat Belt Use.** Belt use reached 75% nationwide in 2002, which is the highest rate yet observed and continues a relatively steady pattern of increase since use was first measured by a comprehensive national survey at 58 percent in 1994. States that allow more stringent enforcement of their belt use laws ("primary" states) reached a milestone of 80% belt use in 2002, and substantial gains were also seen in the Northeast and in vans and sport utility vehicles (SUVs).
- Most Important Reason For Use. Nationally, the 80% milestone in primary states is a sign of the effectiveness that the mere presence of tough laws can have on use. Rhode Island is a secondary seatbelt law state.

² National Occupant Protection Use Survey (NOPUS) 2002

- **Observed Change In Driver Seat Belt Use.** Although the Northeast remains the region with the lowest belt use, its 7-point gain to 69% makes this region much more comparable to the rest of the country. Approximately one out of every five nonusers in the Northeast in 2001 used belts in 2002, a substantial conversion rate.
- **Differences In Attitudes By Vehicle Type.** Nationally, Vans and SUVs saw a 3-point increase to 78% belt use, which is reassuring in light of recent news on SUV rollover crashes, since belts are particularly effective in such crashes. Pickups are still significantly lower at 64% belt use.³

NHTSA reports that teens⁴ have the highest fatality rate in motor vehicle crashes than any other age group.¹ There are many reasons; for instance, while teens are learning the new skills needed for driving, many frequently engage in high-risk behaviors, such as speeding and/or driving after using alcohol or drugs. Studies also have shown that teens may be easily distracted while driving.² One key reason for high traffic fatalities among this age group is that they have lower safety belt use rates than adults.³ Because teens have an increased exposure to potentially fatal traffic crashes, it is imperative that efforts to increase safety belt use among this age group be given the highest priority. In addition, the youth population has increased by more than 12 percent since 1993, and is expected to increase by another seven percent by 2005.⁴ As this age group increases as a percentage of the population, the personal and societal costs associated with deaths and injuries from motor vehicle crashes also will rise.

Teens Are At Risk

- Motor vehicle crashes are the leading cause of death for 15 to 20 year olds in the United States.⁵⁵
- In 2001, 5,341 teens were killed in passenger vehicles involved in motor vehicle crashes. Two thirds of those killed were not buckled up.⁶
- In 2001, 3,608 *drivers* 15 to 20 years old were killed in motor vehicle crashes, and an additional 337,000 were injured.⁷
- When driver fatality rates are calculated on the basis of estimated annual travel, teen drivers (16 to 19 years old) have a fatality rate that is about four times higher than the fatality rate among drivers 25 through 69 years old.
- Many high school students fail to use their safety belts even when riding with adults who are buckled up. An observational survey conducted at events at 12 Connecticut high schools found that 46 percent of high school students were not wearing their safety belts when riding with adult drivers. About half of the **unbelted** students were riding with adults who were belted.⁹
- A recent medical study examined motor vehicle fatality exposure rates and found that, per mile traveled, African American and Hispanic male teenagers (13-19 years old) are nearly twice as likely to die in a motor vehicle crash as male teenagers who are white.
- Male high school students (18 percent) report that they are more likely to rarely or never use safety belts compared with female high school students (10 percent).¹¹

³ NOPUS data, 2002 PowerPoint presentation, National Center for Statistics and Analysis, 400 Seventh St., S.W., Washington, DC 20590

⁴ For the purposes of this fact sheet, the term "teen" refers to young people ages 16-20 unless otherwise specified. See below

URITC Model

Using the information discussed in the NOPUS and MVOSS, the URITC developed a model survey tool based on the National Center for Statistics and Analysis (NCSA) Survey Criteria for use at local Rhode Island high schools and colleges. URITC completed over 15,176 paper surveys at 29 Rhode Island high schools and 3250 electronic surveys at 5 colleges. In addition, the URITC conducted 13 observational surveys at 13 school parking lots during the morning arrival period. The results of each survey were analyzed to determine disparities based on location (i.e. rural/urban), gender, age, grade, etc. The visual observational sample of Safety Belt Usage at selected schools was used to verify the reported paper survey results. The average time to complete the paper survey was 1 minute. This data provided an overall assessment for Rhode Island high schools by grouping that was compared to national rates reported by NHSTA. The development of this "model survey" and the Rhode Island results are distributed for national use.

Sample Design

The sampling objective of this study was to develop a collaborative approach toward establishing schoolbased safety belt usage rates. The collaboration involved all of the high schools in Rhode Island, The University of Rhode Island, colleges in Rhode Island, Rhode Island State Department of transportation (RIDOT) and URI Transportation Center. The data universe consisted of public high school students in grades ninth (9) thru twelfth (12) in all of Rhode Island. In addition, several catholic high schools were sampled to identify any significant variations between public and private schools and all male or all female schools. However, several public schools declined to participate in the one- minute paper survey citing problems with too many surveys being conducted during our data collection period. Surveys were also conducted at five (5) colleges within the state of Rhode Island to compare rates and attitudes over time. The observational seat belt usage survey was conducted at twelve (13) high schools within the state. The high schools were geographically distributed around the state and consisted of both small and large schools. Although one intercity school was included in the observational survey, most city schools did not allow students to drive to school and limited parking was available for observation at these schools.

The reported survey and observational survey instruments was field tested prior to collection of data and teams were trained in administering the surveys for consistency. The questions contained in the reported survey were the same questions used in the National MVOSS survey and the samples were constructed in a similar manner so that the response could be compared with the national data. The observational survey also used the NOPUS reporting format and methodology, however, the start and finish times for observation surveys varied base on the official high school start time. The reported high school questionnaire findings and comparisons are based on a sample of 15,176 high school students in Rhode Island and the verification observational survey are based on a sample of 4253 population and 2735 vehicles at thirteen high schools. The reported college questionnaire findings and comparisons are based on a sample of 3250 college students in Rhode Island and the verification observational survey are based on a sample of 897 students and 795 vehicles at one college. Rates are calculated to include both driver and front passenger usage among males and females.

	Student Population	Sample Size
High School Students	44,496	15,176
College Students	34,055	3,250
Total	78,551	18,426

Data Collection Methodology

Data collection for the high school seat belt usage survey was conducted at 29 high schools. The eightquestion paper survey was handed out by high school homeroom teachers at the start of a weekday between the months of February thru May 2004. The survey took approximately one minute to complete and the homeroom teachers then collected the surveys and returned them to the University of Rhode Island's Transportation Center for processing. The surveys were completely anonymous, however, were disaggregated by high school for further analysis. The Survey questions followed the 1998 Motor Vehicle Occupant Safety Survey that was conducted by Schulman, Ronca, & Bucuvalas, Inc. (SRBI), for NHSTA. URITC conducted a total of 15,176 paper surveys for the Rhode Island School population sample. While the survey instrument did not asked a direct question on the respondent's age, the respondent's class grade was requested allowing comparisons over grade as a surrogate for age. Based on this approach, a total of 4090 interviews were completed for 9th graders; a total of 3764 interviews were completed for 10th graders, a total of 3449 interviews were completed for 11th graders, and a total of 2664 interviews were completed for 12th graders. Because of this oversampling of the various grades, the survey can yield statewide estimates of the target populations with a high degree of confidence from which valid statewide generalizations can be made to the Rhode Island high School population.

The Observation Seat Belt Survey was conducted from February to April 2004 for ½ hour at selected schools prior to administering the paper reported survey. The Observational Survey followed the 1994 National Occupant Protection Use Survey (NOPUS) that was developed for NHSTA For each of the thirteen (13) geographical sites used for the NOPUS style moving traffic school study, schools were chosen that had separate parking lots for students. Pairs of observers recorded shoulder belt use for the driver and the right front-seat passenger. The driver and passenger's gender and the vehicle's type were also recorded. Data were collected on weekdays prior to the official start of school, which usually occurred at 7:20am. Non-use was defined as having the shoulder belt loose or behind the back or under the arm.

Because the reported questionnaire allowed for more than one response on some questions, percentages for some items may not add to 100 percent due to rounding. In addition, the number of cases involved in some of the individual analyses may not sum to the grand total who responded to the primary questionnaire item being analyzed. The reasons for this include some form of non-response on the grouping variable (e.g., "blank boxes" or Refused), or use of only selected subgroups in the analysis. The survey tool did not try to categorize responses by ethnicity or income, but this type of information is available aggregated by high school within the state of Rhode Island. For example, the percentage by race and ethnicity is independently maintained by the Rhode Island Department of Education for each school.

D. Sources of Possible Bias

The Observational Seat Belt Survey estimates measured seat belt use in daylight hours in February thru May among drivers and right front passengers of passenger vehicles. The use at some schools included student drop-offs and possible teachers in the observed sample. Although these observations were made in order to make data collection feasible, they might result in slight overestimates or Under-estimates of use and this bias cannot be quantified. Nevertheless, when the data from the observed survey were compared to reported survey information, the indications are that use might be less than reported when omitting non-use during the past week from the data. Another source of bias that cannot be quantified is some students reported their seat belts as that approached the school in an attempt to be on time.

The Reported Seat Belt Survey estimates also measured the student's attitudes toward wearing seat belts. While there is no reason that a student would not want to correctly answer the survey, and minor bias that cannot be quantified concerning gender, grade and use could be included. Size and geographic areas for possible sources of bias was reviewed for the reported seat belt survey.

School Group	Usage Rates	Male	Female
Small Schools	72%	80%	***0/0
Medium Schools	83%	82%	84%
Large Schools	85%	85%	86%
All Total	83%	83%	84%

Small RI Schools (< 800): Medium Schools (800> M<1200): Large Schools (>1200) * Sample size population less than 200

School Group	Usage Rates	Male	Female	
Rural Schools	75%	70%	80%	
Suburban Schools	85%	86%	85%	
Urban Schools	83%	81%	84%	
All Total	83%	83%	84%	

The study classifies sites as "Urban ", "Suburban", or "Rural" relative to general Rhode Island historic information. While official census data is based on population density, subjectively, Rhode Islanders consider the surrounding area of the site and its rural characteristics. However, officially designated rural or urban sites would not be interchanged.

FINDINGS – Rhode Island High Schools

Reported Usage by Rhode Island Teens (Figures 1 & 2)

Overall, 83% of RI high school students reported using their seat belts. On a follow-up question, 13.9% of reported seat belt users stated they did not wear a seat belt when in a car that day. More surprising, over 24% had not worn their seat belt in the last week.



Reducing the reported usage rate by "today 's non-use " percentage, the effective state average for this age group would be 69.5%, less than the 2003 reported average for all RI drivers (74%). Overall, males and females report seat belt usage at similar rates. The reported usage rates among males and females (82.9% and 83.6%) are very similar. However, in comparison to the results of the observational surveys (68.4% and 79%), male drivers scored significantly lower than females.

Table 1 is the reported rate at the 29 RI high schools. The average reported rate is 83 % as compared to the observed seat belt usage rate of 73.7% or 9.3% less than the reported rates of those schools. When the reported rate (83%) was compared to the reported rate reduced by "today 's non-use" percentage (69.5%), the rates differed by approximately 13.5%. This is consistent with nationally reported differences and statistics (MVOSS).

TABLE 1

HIGH SCHOOLS	REPORTED USAGE	REPORTED	DELTA
	RATE (A)	USAGE-	(A-B)
		TODAY NON-	
		USE (B)	
0.1		070/	00/
School I	95%	87%	8%
School 2	93%	84%	9%
School 3	92%	81%	11%
School 4	91%	82%	9%
School 5	90%	78%	12%
School 6	88%	78%	10%
School 7	88%	75%	13%
School 8	88%	73%	15%
School 9	87%	74%	13%
School 10	86%	70%	16%
School 11	86%	69%	17%
School 12	85%	71%	14%
School 13	85%	68%	17%
School 14	85%	66%	19%
School 15	84%	63%	21%
School 16	84%	66%	18%
School 17	84%	64%	20%
School 18	82%	65%	17%
School 19	82%	69%	13%
School 20	81%	64%	17%
School 21	81%	*****	*****
School 22	81%	*****	*****
School 23	81%	56%	25%
School 24	77%	67%	10%
School 25	76%	61%	15%
School 26	73%	65%	8%
School 27	71%	64%	7%
School 28	70%	61%	11%
School 29	69%	60%	9%

Rhode Island State	83.0%	69.5%	13.5%
Average			

****** School sample population is less than 200 and is not included in the calculation of state averages



Seat Belt Usage Rate

Usage Rate vs. Grade (Figure 3)

Juniors report the highest percentage of usage among high school students. In RI, the junior year is when most students take driver 's education, and when most students apply for a driver's license.



Figure 4

Usage Likelihood (Figure 4)

When students were asked "Why are you less likely to wear your seatbelt when there are others in the car?" 17.5% of high school students report that they are less likely to use a seat belt when driving a short distance. In the same question, only 63.1% of students reported that they always wear a seat belt.



Usage Likelihood

Figure 5

Usage Likelihood vs. Gender (Figure 5)

"Only driving a short distance" is the highest percentage answer of non-use among both males and females, (18.4% and 16.5% respectively).



Usage Likelihood



Usage Likelihood vs. Grade (Figure 6)

The likelihood of high school students to wear seat belts increases with grade, though this trend was not represented in the overall reported usage rates by grade.





Peer Pressure and Usage (Figure 7)

When asked if they are more likely, less likely, or just as likely to wear a seat belt when driving with friends as compared to driving alone, only 67.6% reported that they are just as likely to wear their seat belts.





Peer Pressure and Usage vs. Gender (Figure 8)

On question 5 when asked "Are you more likely or less likely or just as likely to wear your seat belt when driving with friend as compared to driving alone?" 70.5% of females report they are just as likely to wear a seat belt when driving with friends as compared to driving alone. Only 65% of males report the same.



Peer Pressure and Usage

Peer Pressure and Usage vs. Grade (Figure 9)

Similar to usage likelihood among different grades, peer pressure plays less of an effect on usage as students advance in grade.





Non-use Patterns (Figure 10)

13.9% of high school students report they did not wear their seat belt today (includes students that answered "no" to question 2), while 24.1% report that they did not wear their seat belt within the past week. When the "today non-use" percentage is subtracted from the reported usage rate, it (69.5%) is more representative of the usage to be observed on any given day.

Non-use Patterns





Non-use Patterns vs. Gender (Figure 11)

Just over a third of the males surveyed report that they always wear their seat belt when asked when was the last time they did not wear a seat belt. Less than 50% of females report that they always wear their seat belts.



Non-use Patterns



Non-use Patterns vs. Grade (Figure 12)

Non-use decreases with grade, but the reported usage rates that display consistent usage or so call "full time users" are still under 50% for all grades.

REASONS FOR NOT "BUCKLING UP"

Observed Seat Belt Usage of Rhode Island Teens (Table 2)

At 13 RI high schools, the average observed seat belt usage rate was 73.7% or 9.1% less than the reported rates of those schools. When the observed rate (73.7%) was compared to the reported rate reduced by "today 's non-use " percentage (71.9%), the rates differed by approximately 2%. This is consistent with nationally reported statistics (MVOSS).

Reported Usage Rate (A)	Observed Usage Rate (B)	Reported Usage Rate- Today nonuse (C)
95 %	80%	87%
93%	86%	84%
92%	70응	81%
91%	80%	82%
90%	73%	78%
88%	83%	78%
86%	78%	69%
82%	60%	65%
76%	63%	61%
73%	75%	65%
71%	76%	64%
70%	73%	61%
69%	61%	60%
82.8%	73.7%	71.9%

Driving with Friends (Refer to Figures 7 & 9)

When asked if they are just as likely to wear their seat belts when driving with friends as when they are alone, 67.6% of 9th-12th graders answered "yes". Only 11.9% said their usage would be less likely. When the same information was evaluated by grade, 9th graders were more likely to be influenced by peer pressure than 12th graders, showing a 9% difference. The major conclusion from high school students is that peers influence an individual 's likelihood of usage as well as his/her increase of usage.

Traveling a Short Distance (Refer to Figures 6)

Students reported, "**traveling a short distance**" as the number one reason why they are less likely to wear a seat belt. When asked this question, 17.5% of 9th-12th graders answered with this response. When the same information was evaluated by grade, 9th graders were even more likely to respond for this reason than all other graders, showing a response rate of 22.6%. The 12-grade response rate was only 13.2%. The major conclusion from high school students is that, "**traveling a short distance**" is the number one reason why they are less likely to wear a seat belt especially among younger students.

Promotion for Increased Usage



Figure 13

Increased Usage (Figure 13)

When students were asked, "What will increase your usage of a seat belt?" 44% of students reported that knowing someone in a crash would increase their usage of a seat belt. This was the highest percentage where more than one response could be submitted.

On the same question, 37% of students surveyed answered that the fear of getting a ticket for not buckling would be enough reason to wear a seat belt. The Click It or Ticket campaign informs drivers and passengers that failure to buckle up could result in a substantial fine and was ongoing in Rhode Island during this survey.

INTERVENTION INITIATIVES

Application of the Transtheoretical Model of Change to Teenage Seat Belt Usage

The Transtheoretical Model of Change (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992; Prochaska & Velicer, 1997) is a theoretical model of behavioral change, which has served as the foundation for developing valuable interventions to encourage health behavior change. The model describes stages and processes by which people alter a problem behavior or acquire a positive behavior. The central feature of the model is the Stages of Change. The model further describes behavioral modifications with intensely detailed variables and processes. However, for the purpose of this study, the Stages of Change will serve as the baseline interpretation of the usage rates and patterns of seat belts by Rhode Island high school students. The application of the Stages of Change will advance the design of appropriate interventions for students in different stages of the change process and will assess changes in attitude and behavior of students. Our ultimate goal is to determine which stage or stages students are in and then apply interventions to increase consistent usage of seat belts.

Below are the Stages of Change as proposed by the Transtheoretical Model as applied to student behavioral change relative to seat belt usage.

Stage 1: Pre-contemplation

Students in this stage answer "no" when asked if they wear their seat belt given only two choices, "yes" or "no." These students are generally either unaware or unconcerned about the preventive effects of buckling up. Students of this stage are not presently thinking about the benefit of seat belt usage.

Stage 2: Contemplation

Students in contemplation are aware the non-use of a seat belt is an unnecessary risk and though they may desire to make a change in their behavior, are not yet actively displaying a positive behavior. They answer "yes" when asked if they wear their seat belt and that their usage has increased in the past 12 months, but also follow with answers representative of different behaviors when asked why they are less likely to wear a seat belt when riding with others. Ultimately, students of this stage indicate that there presently are reasons why their usage is not consistent.

Stage 3: Preparation

Students in the stage of preparation are exhibiting a plan of change. Their behavior shows an awareness and desire for change, such that students answer "yes" when asked if they wear their seat belts, but also answer non-use within the past week or month.

Stage 4: Action

Students of this stage are characterized by obvious change in behavior, such that they report themselves as seat belt users and only rarely fail to buckle up, such as within the past year. Action stage users are more likely to continue onto a stage of maintenance than revert to previous behavioral stages.

Stage 5: Maintenance/Termination

At this stage, students are not likely to revert to old habits and maintain a consistent pattern of seat belt usage. They are less likely to be affected by peer pressure and less willing to ignore the usage of a belt due to inconvenience. They are in a stage of habit and have adopted a new pattern for usage, which should last throughout and beyond high school. They have adopted this change because they now recognize its benefits and make a conscious effort to protect their lives.

Description of Trans-theoretical Model Seat Belt Survey:

Stage 1: Pre-contemplation (Q3=2)

When driving or riding in a car (truck or van), do you wear your seat belt? **Answer: NO**

Stage 2: Contemplation (Q3=1) and (Q6=1, 2, 3, or 4) and (Q7=1)

When driving or riding in a car (truck or van), do you wear your seat belt? **Answer: YES**

Why are you less likely to wear your seat belt when there are others in the car? Answer: I'M WORRIED WHAT MY FRIENDS WILL THINK OF THERE ARE NOT ENOUGH SEAT BELTS IN THE VEHICLE OF I'M ONLY DRIVING A SHORT DISTANCE OF I RIDE IN THE BACK SEAT

In the past 12 months, has your use of a seat belt increased, decreased, or stayed the same? **Answer: INCREASED**

Stage 3: Preparation (Q3=1) and (Q4=2 or 3)

When driving or riding in a car (truck or van), do you wear your seat belt? **Answer: YES**

When was the last time you did not wear your seat belt? Answer: WITHIN THE PAST WEEK or WITHIN THE PAST MONTH

Stage 4: Action (Q3=1) and (Q4=4)

When driving or riding in a car (truck or van), do you wear your seat belt? **Answer: YES**

When was the last time you did not wear your seat belt? Answer: WITHIN THE PAST 12 MONTHS

Stage 5: Maintenance/Termination (Q3=1) and (Q4=5) and (Q6=5)

When driving or riding in a car (truck or van), do you wear your seat belt? **Answer: YES**

When was the last time you did not wear your seat belt? Answer: A YEAR OR MORE AGO/I ALWAYS WEAR IT

Why are you less likely to wear your seat belt when there are others in the car? **Answer: I ALWAYS WEAR A SEAT BELT**

The model was then applied to the Rhode Island High School data and also to the college student data. Individual high schools could also apply the same model to identify the various stages of behavior change necessary to develop a program of interventions. For example, if the highest number of students is ninth grader in pre-contemplation, then the intervention could be ninth grade health classes discussing driver education issues.

The tables shown below give some indication of the attitudes of students concerning seat belt usage and can be thought of as non-users, infrequent users, part-time users and full time-users. Strategies need to be developed with this in mind.

Rhode Island High School Student Data 2004

	Pre- conterr	plation	Contemplation	Prepara	tion	Action	Maintenance -Termination	TOTAL
	9 ^m	634	232	1441	24	9	860	3416
	10 th	562	198	1283	24	13	954	3240
	11 th	461	192	953	26	6	1076	2948
-								
	12 th	509	115	623	20)3	862	2312
T	OTAL	216	6 737	4300	9	61	3752	11916

Table 3

Table 3 is representative of the consolidated data for the 29 schools surveyed in Rhode Island.

	Pr conterr	e- plation	Contemplation	Preparati	on	Action	Maintenance -Termination	TOTAL
	9 th	18.5%	6.8%	42.2%	7	.3%	25.1%	
· ·	10 th	17.3%	6.1%	39.6%	7	.5%	29.4%	
	11 th	15.6%	6.5%	32.3%	9	.0%	36.5%	
	12 th	22.0%	5.0%	27.0%	8	.8%	37.2%	
T	OTAL	18.2	% 6.2%	36.1%	8	.1%	31.4%	100%

Table 4

Table 4 is the consolidated information displayed as percentages for each grade and stage. In general, precontemplation (students who said they did not wear their seatbelt) would be expected to be reduced as they take driver' education in 11^{th} grade. The so-called "infrequent Users" or contemplators stayed fairly constant averaging 6.2%.

Intervention Efforts

Developing student focus groups is the next step in promoting healthy behavioral change. The groups should be a minimum of seven students and could be developed from student organizations such as SADD, student council; school based rotary clubs, volunteer clubs, or sports clubs. The objective of the focus group is to develop events that could be conducted as interventions. The study pilot tested two efforts with assistance from two high schools. For example, students at North Kingstown High School produced message videos in their communications classes. Another intervention used at Narragansett High School was a school based "click it or ticket" program where the students developed a self-

enforcement program with fake tickets and candy give-a-ways for those buckling up. Post measurements of the Narragansett High School resulted in an observed 20% bump in seat belt usage.

Expanded Sample Population (Middle School Sample School)

In this report, high school students were targeted because national studies show that young adults of this age group are at high risk for unsafe practices and behaviors and since most students first drive during their junior year at high school, a similar survey targeting younger middle school students could investigate the behaviors of students prior to entering high school.

Targeting a younger population with positive interventions could create an earlier and more permanent behavioral change. In contrast to the high school survey, the preliminary middle school survey would focus on parental influence as a major contributor to behavior. To test the feasibility of such a study one sample school was surveyed and observed. The sample size was N=429.



Middle School Seat Belt Usage Rate

Usage Rates vs. Grade (Middle School Sample School Figure 14)

Unfortunately, the trend of the data shows seatbelt usage decreasing with grade and age. When the eight grade data is compared to the freshman high school data for this particular school, consistent results were observed of 85% reported usage.

Figure 15

Middle School Non-use Patterns



Non-Use Patterns vs. Grade (Middle School Sample School Figure 15)

Again middle school non-usage patterns show "full-time" seatbelt usage decreasing with grade and age. When the eight grade data is compared to the freshman high school data the reported "today" non-usage is even higher for 8th grade students than freshman high school students.

Figure 16





Reported Parental Seatbelt Usage (Middle School Sample School Figure 16)

The middle school students were asked about their parental seatbelt usage. The eighth grade students reported "33%" of their parents never wear a seatbelt.

FINDINGS – Rhode Island Colleges

Reported Usage by Rhode Island College Students (Figures 17 & 18)

To date, we have administered five college level surveys by electronically polling students at various Rhode Island colleges and universities. College students are an important and interesting population to sample because they, like high school students are in a major stage of social development. Interestingly, the Rhode Island college student population is a mix from various states many with primary seatbelt legislation. 10% 00% 90% YES NO Figure 17

Overall, 90% of RI college school students reported using their seat belts. On a follow-up question, 11% of reported seat belt users stated they did not wear a seat belt when in a car that day. Unlike high school students, only 14% reported they had not worn their seat belt in the last week.



Non Use Patterns

Figure 18

College Seat Belt Usage

Usage Rate vs. Grade (Figure 19)

College student usage improves as they mature. The reported lowest percentage usage was freshman. Rhode Island's college rates ranged from 80% for freshman to 87% for graduate students.



Usage Likelihood (Figure 20)

When college students were asked "Why are you less likely to wear your seatbelt when there are others in the car?" Only 10.9% of college students report that they are less likely to use a seat belt when driving a short distance. In the same question, 66.3% of college reported that they always wear a seat belt.

Usage Likelihood



Usage Likelihood vs. Gender (Figure 21)

Similar to the high school students survey, "Only driving a short distance" is the highest percentage answer of non-use among both males and females, (13% and 9% respectively), however, female students rated all of the responses equally.



Usage Likelihood vs. Grade (Figure 22)

The likelihood of college students to wear seat belts increases with college grade level. Freshmen indicated wearing a belt 68% of the time while graduate students reported usage rates of 77%. Interestingly, all grades reported over 50% that they "Always wear a seatbelt".



Peer Pressure and Usage (Figure 23)

When asked if they are more likely, less likely, or just as likely to wear a seat belt when driving with friends as compared to driving alone, 75% reported that they are just as likely to wear their seat belts as compared to high school students who reported a 67.6% rate.



Peer Pressure and Usage vs. Gender (Figure 24)

On question 5 when asked "Are you more likely or less likely or just as likely to wear your seat belt when driving with friend as compared to driving alone?" 76% of college females report they are just as likely to wear a seat belt when driving with friends as compared to driving alone. Unlike high school males, 74% of college males report they were just as likely.



Peer Pressure and Usage vs. Grade (Figure 25)

Similar to usage likelihood among high school grades, peer pressure plays less of an effect on usage as college students advance in grade.



Non-use Patterns (Figure 26)

11% of college school students report they did not wear their seat belt today, while 14% report that they did not wear their seat belt within the past week. When the "today non-use" percentage is subtracted from the reported usage rate, an "effective rate" (80%) is more representative of the usage to be observed on any given day.

Non Use Patterns



Non-use Patterns vs. Gender (Figure 27)

College males surveyed report that they always wear their seat belt 48% of the time when asked when was the last time they did not wear a seat belt. Fifty (50%) of college females reported that they always wear their seat belts.



Non-use Patterns vs. Grade (Figure 28)

College non-use decreases with grade in all cases and the reported "always" usage rates also increased. This so call "full time users" rates ranged from 47% to 68%.



REASONS FOR NOT "BUCKLING UP"

Observed Seat Belt Usage of Rhode Island University

The observed seat belt usage rate at the University of Rhode Island was 70.5% that is 3.2% less than the reported rates at the 13 high schools. When the URI observed rate (70.5%) was compared to the reported percentage (81%), the rates differed by 10.5%. This is consistent with nationally reported statistics (MVOSS) comparison of 10% difference.

URI Reported	Observed	Reported vs.
Usage Rate	Usage Rate	Observed
(A)	(B)	(C)
81%	70.5%	10.5%

Increased Usage (Figure 29)

When college students were asked, "What will increase your usage of a seat belt?" only 25.4% of students reported that knowing someone in a crash would increase their usage of a seat belt. This was significantly less than the high school students reported.

On the same question, 19.7% of students surveyed answered that the fear of getting a ticket for not buckling would be enough reason to wear a seat belt. The Click It or Ticket campaign informs drivers and passengers that failure to buckle up could result in a substantial fine and was ongoing in Rhode Island during this survey.



FIGURE 29

Increased Usage by Gender (Figure 30) Similar to the high school student survey, "Knowing someone in a crash" is the highest percentage answer among both males and females, (25% and 26% respectively).



What will increase your usage of a seat belt?

Increased Usage by Grade (Figure 31) Again similar to the high school student survey, "Knowing someone in a crash" is the highest percentage answer among all college grade levels ranging from 26% to 28%.



<u>Safety Belt Observed Usage - College Campus</u>

Observed Usage Rates on URI Campus (Table 5 & 6): As with the high school student survey, campus usage was observed at parking lots during the morning commute. The URI rate was 70.5% as compared to a URI reported rate of 81% and a statewide reported rate of 90%. This is consistent with the national trend of observations running 10% less than reported rates.

University of Rhode Island – Usage by Gender

•		-	
<u>Gender</u>	Yes	No	Total
<u>Female</u>	<u>76%</u>	<u>24%</u>	<u>443</u>
<u>Male</u>	<u>65%</u>	<u>35%</u>	<u>454</u>
<u>Total</u>	<u>70.5%</u>	<u>29.5%</u>	<u>897</u>

Rates are calculated to include both driver and front passenger usage among males and females. Of the total 897 samples, 795 are drivers (88.6%) and only 102 are passengers.

Table 5

University of Rhode Island – Overall UsageYesNoTotalDriver71.4%28.6%795Passenger60.8%39.2%102

Table 6

Application of the Transtheoretical Model of Change to College Seat Belt Usage

The Transtheoretical Model of Change (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992; Prochaska & Velicer, 1997) is again applied to college student data. Like in the high school analysis, the goal is to determine which stage or stages college students are in and then apply interventions to increase consistent usage of seat belts.

Again, table 7 is the consolidated information displayed as percentages for each grade and stage. In general, pre-contemplation (students who said they did not wear their seatbelt) was greatest for freshman students who were usually highly represented. The so-called "infrequent Users" or contemplators again stayed fairly constant averaging 4.0%, less then that reported for high school students at 6.2%.

Below are the Stages of Change as proposed by the Transtheoretical Model as applied to college student behavioral change relative to seat belt usage.

Pre- contemplation		Contemplation		Pr	Preparation		Actio	on Maintenanc -Terminatio		e n
Freshman	6.1%		2.2%		15	9%	, c	9.6%	46	1%
Sophomore	6.0%	, , ,	2.4%))	20.	5%	1	3.2%	57.	8%
Junior	7.9%	, D	5.1%)	28.	4%	1	1.9%	46.	6%
Senior	6.8%	, D	6.8%)	29.	29.8%		' .5%	48.	9%
Graduate	4.0%	,)	3.5%		24.2% 8.1%		60.	1%		
Average	6.2%		4.0%	23	.8%	10.1	1%	5	1.9%	100%

Table 7- University of Rhode Island College Student Data 2004

Demographic Comparisons

This final report presents the high school student and college student data in a variety of detailed demographic comparisons. In general, the following sub-population comparisons of observed vs. reported provides for a general comparison of the survey questions for both high school and college students.

Table 8- Reported Rates for Rhode Island

Group	Usage Rates	Male	Female	
National Rate				
Observed	80%*			
RI High Schools	83%	82.9%	83.6%	
Observed	73.7%			
RI Colleges	90%	91%	89%	
Observed	70.5%			

*Observed for 2004

CONCLUSION

In our survey, we have established a baseline for the State of Rhode Island. The survey team gathered over 14,000 paper surveys from 29 RI high schools. In addition, the survey team conducted 13 observational surveys at 13 high school parking lots during the morning arrival period. College surveys were also conducted and one survey was performed as a pilot at one Rhode Island middle school.

Using the information discussed in the NOPUS and MVOSS, the URITC developed a model survey tool based on the National Center for Statistics and Analysis (NCSA) Survey Criteria for use at local Rhode Island high schools and colleges. URITC completed 15,176 paper surveys at 29 Rhode Island high schools and 3250 electronic surveys at 5 Rhode Island colleges. In addition, the URITC conducted 13 observational surveys at 13 school parking lots during the morning arrival period. The results of each survey were analyzed to determine disparities based on location (i.e. rural/urban), gender, age, grade, etc. The visual observational sample of Safety Belt Usage at selected schools was used to verify the reported paper survey results. The average time to complete the paper survey was 1 minute. This data provided an overall assessment of Rhode Island high schools by groupings and was then compared to national rates reported by NHSTA. The development of this "model survey" and the Rhode Island results are distributed for national use.

The results of each survey were analyzed to determine differences based on location, gender, grade, etc. The observational sample of seat belt usage at selected schools was used to verify the reported paper survey results. This data is compared to national rates reported by the National Highway Traffic and Safety Administration (NHTSA).

83% of Rhode Island high school students reported that they do wear seat belts. However, the average observational usage rate is only 73.7%. Ninety (90%) of Rhode Island college students reported they wear seat belts; the actual average observational usage rate at URI is only 70.5%. Questions were designed to investigate the possible affect of peer pressure on individual usage and analyses of these questions assists in deciphering the disparity between reported and observed usage rates.

Students reported, "**traveling a short distance**" as the number one reason why they are less likely to wear a seat belt. When asked this question, 17.5% of 9th-12th graders answered with this response. When the same information was evaluated by grade, 9th graders were even more likely to respond for this reason than all other graders, showing a response rate of 22.6%. The 12-grade response rate was only 13.2%. The major conclusion from high school students is that, "**traveling a short distance**" is the number one reason why they are less likely to wear a seat belt especially among younger students.

In general the results of the survey analysis did not show significant differences based on school size. Grade results varied from freshman to seniors. The observational sample of seat belt usage at selected schools was used to verify against the reported paper survey results.

At 13 RI high schools, the average observed seat belt usage rate was 73.7% or 9.1% less than the reported rates of those schools. When the observed rate (73.7%) was compared to the reported rate reduced by "today 's non-use " percentage (71.9%), the rates differed by approximately 2%. This is consistent with nationally reported statistics (MVOSS).

When asked if they are just as likely to wear their seat belts when driving with friends as when they are alone, 67.6% of 9th-12th graders answered "yes". Only 11.9% said their usage would be less likely. When the same information was evaluated by grade, 9th graders were more likely to be influenced by peer pressure than 12th graders, showing a 9% difference. The major conclusion from high school students is that peers influence an individual 's likelihood of usage as well as his/her increase of usage.

In this study we have established a baseline for the State of Rhode Island. From these data, the intention is to achieve behavioral change, specifically, to reach a 90% usage rate among RI high school students. The results of each survey were analyzed to determine differences based on location, gender, grade, etc. The observational sample of seat belt usage at selected schools was used to verify the reported

The potential exists for other states to adopt this school based survey system. Safety Belt Usage Rates by educational institutions could be extended nationally within the NHSTA program and custom designed interventions for individual schools could then be identified A Workshop on the concept of school based rates and best practices for interventions should be offered for states transportation departments and school educators. The URITC's model can serve as a prototype model at the workshop and offered to other states.

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Observed Seat Belt Usage Rate









Observed Seat Belt Usage Rate by Female Drivers





Observed Seat Belt Usage Rate by Male Passengers

Observed Seat Belt Usage Rate by Female Passengers



Vehicle Type

Vehicle Type

Appendix xx

SCANNING SEAT BELT SURVEY QUESTIONNAIRES

Equipment

- 1. Laptop computer (Dell Inspiron 4150)
- 2. Scanner (Canon DR-2080C)
- 3. Printer (HP Deskjet 880C)

Software

1. SNAP 7 Professional (Icon will be on the desktop display)

Setting up

- 1. Make sure all the equipment is hooked up and turned on.
- 2. The printer is always on, so you will just hear it calibrate as the computer boots up.
- 3. The switch for the scanner is on the left back side, the green light at the top of scanner indicates that it is on.
- 4. The ports for the scanner and the printer will connect to the ports on the backside of the laptop.
- 5. Be sure to also connect the power pack for the laptop, if you don't, the laptop will fail and lose any unsaved information.

Getting Started!

- 1. Set aside the stack of surveys to be scanned. Make sure you know which school it is and keep organized as you scan.
- 2. Find a blank survey that has margins that match those of the tobe-scanned surveys. (Usually blank copies are close to the stack.)
- 3. Enter SNAP 7 (double click icon).
- 4. At the top will be a directory toolbar, pull down the menu and scroll to c:\documents and settings\allison fong\desktop\questionnaire results.
- 5. Once you have entered this folder, then you will see a list of surveys denoted by the name of the school. (Clue: You know you're in the correct directory if the number of variables reads 11 for the schools.)
- 6. Highlight one of the surveys and then click on the icon that is ++ at the top of the screen. This will clone the survey parameters for you.
- 7. A screen will pop-up that shows the title of the school. Click on it and enter the name of the school you are going to scan.
- 8. Then select OK.
- 9. The next screen to pop-up will ask you if you want to clone the survey data, click NO.

Calibration and Scanning

- 1. At this point, the survey should pop-up in questionnaire design mode.
- 2. Go to the menu bar and select **FILE**. Scroll down to **Printer Report**, click on it.

- 3. Click on the box next to **Use for Scanning.** Sometimes a prompt will appear asking you if you want to continue because the survey is locked, just click yes.
- 4. Click on Page Setup in this window as well, make sure that the survey is printing on 1 sheet only! (Check this by selecting print preview.)
- 5. If it does, then click print. If it does not, then you will have to adjust the margin sizes to accommodate.
- 6. As the survey is printing, go to the main toolbar and click on the icon that is a yellow rectangle. When you put your pointer over it, it will read case data. Another way to get to this new window is by going to the main toolbar, selecting View, and scrolling to Data.
- 7. Move along the menu toolbar to find the Tailor Icon. Click on it. Once the new menu box pops up, click the box next to Scanning, then click on Scanning Tailoring.
- 8. At this point you must calibrate the machine by running through the first three objectives (Input, scanner, OMR/OCR).
- 9. This involves feeding a survey through the scanner and then clicking on the center of the four corner code boxes.
- 10. Refer to the HELP menu with any questions, it is very helpful!

Safety/Survey

We are conducting an anonymous study of High School Seat Belt Usage. The survey is completely confidential.

1. What grade are you in?

 \Box 9th grade \Box 10th grade \Box 11th grade \Box 12th grade

2. What is your gender?

- \Box Male \Box Female
- 3. When driving/riding in a car (truck or van), do you wear your seat belt?
- \Box Yes \Box No

4. When was the last time you did not wear your seat belt when in a car (truck or van)?

- \Box Today \Box Within the past week \Box Within the past month
- \Box Within the past 12 months \Box A year or more ago/ I always wear it

5. Are you more likely, less likely or just as likely to wear your seat belt when driving with friends as compared to driving alone?

 \Box More likely \Box Just as likely \Box Less likely

6. Why are you less likely to wear your seatbelt when there are others in the car?

- □ I'm worried what my friends will think
 □ I'm only driving a short distance
 □ There are not enough seatbelts in the car
 □ I ride in the back seat
- \Box I always wear a seatbelt

7. In the past 12 months, has your use of seat belts increased, decreased, or stayed the same?

 \Box Increased \Box Decreased \Box Stayed the same

8. What will increase your usage of a seat belt? (Check all that apply)

a.	Becoming more aware of safety issues	□ Yes
b.	Becoming aware of the seat belt law	□ Yes
c.	Fear of getting a ticket	□ Yes
d.	Getting a seat belt ticket	□ Yes
e.	Someone you know was in a crash	□ Yes
f.	Other people encouraging you to use a seatbelt	□ Yes
g.	Other	□ Yes

Thank You!

Observational Survey

Q1	What is the vehicle type? Auto	🗅
	SUV	🗖
	Van	🗖
	Pickup	🗖
Q2	What is the driver's gender?	
	Male	🗖
	Female	🗖
Q3	Is the driver wearing a seatbelt?	
	Yes	🗖
	No	🗖
Q4	What is the passenger's gender?	
	Male	🗖
	Female	🗖
Q5	Is the passenger wearing a seatbelt?	
	Yes	🗖
	No	🗖