



2020 VERMONT SAFETY BELT USE STUDY

STATEWIDE OBSERVATION RESULTS

VERMONT STATE HIGHWAY OFFICE
BEHAVIORAL SAFETY UNIT
AGENCY OF TRANSPORTATION
WWW.GHSP.VERMONT.GOV

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Prepared for:

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BEHAVIORAL SAFETY UNIT
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2020 VERMONT SAFETY BELT USE STUDY

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[>.] Table of Contents

[1.] Background	2
[2.] Program Description	4
[3.] Data Collection Methods	4
[4.] Results	6
[5.] Discussion and Recommendations	9
[6.] References	10
 Appendix A. Sample Observation Data Collection Form	A-1
 Appendix B. Pinned Site Locations (Source: Google Maps)	B-1
 Appendix C. Raw Seat Belt Use / Observed Counts	C-1
 Appendix D. Raw Seat Belt Use Rates by Site	D-1

[>.] List of Figures and Tables

Figure 1. Vermont Statewide Seat Belt Use (2007 – 2020)	3
Figure 2. Vermont Statewide vs. National Seat Belt Use (2007 – 2020)	3
Table 1. Annual Weighted Seat Belt Use Rates 2007-2020 (% Belted)	6
Table 2. 2020 Statewide Unweighted Survey Results (% Belted)	7
Table 3. 2020 Statewide Unweighted Survey Results by County Groupings (% Belted)	8



2020 VERMONT SAFETY BELT USE STUDY

STATEWIDE OBSERVATION RESULTS

[1.] Background

This report summarizes the results of the 2020 Vermont Safety Belt Use Study. The Vermont Agency for Transportation contracted Preusser Research Group, Inc. (PRG) to collect roadside observations and prepare a final report on analyzed results for Vermont's Click It or Ticket (CIOT) seat belt campaign in 2020. This national campaign is conducted annually by the National Highway Traffic Safety Administration (NHTSA) when two weeks of heightened CIOT enforcement and media focus on CIOT surround the Memorial Day holiday. The procedures used for this study design followed Federal Register Guidelines as outlined by 23 CFR Part 1340 (Uniform Criteria for State Observational Surveys of Seat Belt Use).

The state of Vermont first participated in a multi-state pilot of CIOT in 2002. Since then, a stable statewide seat belt use rate was observed from 2009 to 2015 in Vermont, while the U.S. rate showed steady increases over the same six-year period. A sizeable drop in belt use occurred from 2015 (85.0%) to 2016 (80.4%) in Vermont. However, the past three years were all substantially higher (noting a small, but not significant) downward trend over those 3 years (see Figure 1). Over the last 3 years Vermont's rate is diverging from the rising national rate (see Figure 2).

Figure 1

VERMONT STATEWIDE SEAT BELT USE RATE 2007-2020 (WEIGHTED)

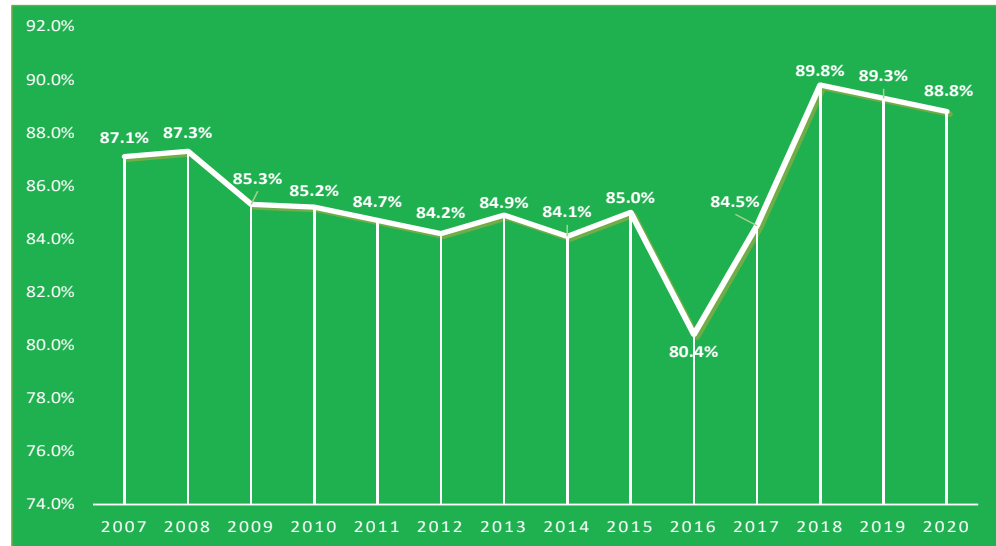
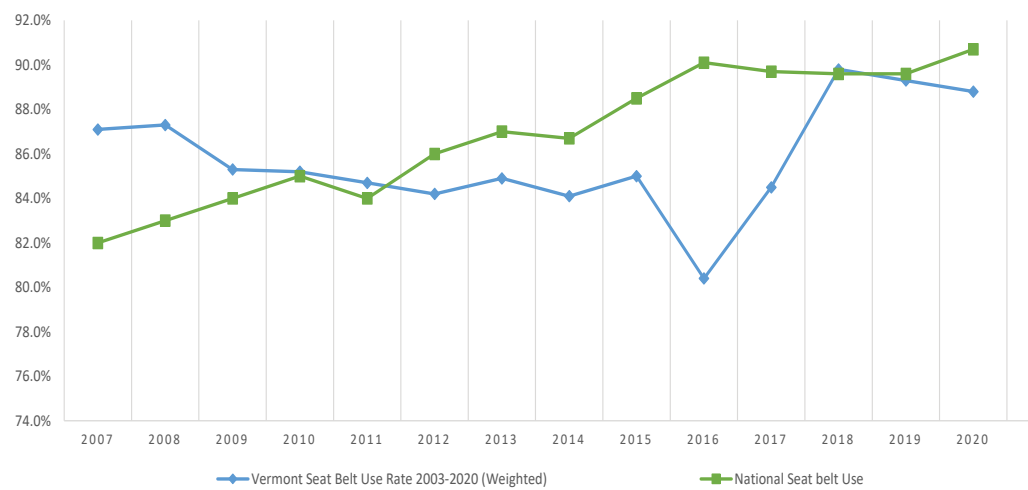


Figure 2

VERMONT STATEWIDE VS. NATIONAL SEAT BELT USE 2007-2020 (WEIGHTED)



Please note: the 2020 national rate has not been released yet; the last known national rate is included twice.

The state of Vermont uses the data from this report direct occupant protection program efforts throughout the coming year. Vermont developed and funded a CIOT Enforcement Task Force, which is periodically deployed across the major roadways in low seat belt use areas as identified by seat belt observation results. To supplement the report data, Vermont asks PRG to collect during roadside seat belt observations and track unrestrained (serious injury and fatality) crash data. Specifically, PRG looks at variations and patterns in unrestrained crash locations across times of day and days of week. Vermont is making future plans to conduct nighttime seat belt observations to assess and address lower seat belt use at night.

[2.] Program Description

NHTSA's high-visibility enforcement (HVE) model is a frequently used and proven technique to change driver behavior and enhance the effect of traffic laws. With this model, program funds pay for law enforcement overtime hours, which result in heightened levels of seat belt specific enforcement activity and an overall increase of the number of issued seat belt citations. Targeted media advertising during the campaign educates the public about laws and associated fines while also publicizing increased law enforcement efforts. This type of effort is designed to increase the public's perceived likelihood of receiving a ticket and to increase their perceptions of enforcement severity, both thought to impact adherence to the law.



Unlike prior years, the media efforts used to support the 2020 effort were limited to paid national media advertising launched by NHTSA. The programs included use of the CIOT slogan and logo. Paid media included television, radio, and online advertising as well as highway billboard signage. Seat belt observational surveys were conducted from June 22 to July 11, 2020 immediately following the conclusion of the May national CIOT program.

[3.] Data Collection Methods

Four PRG staff members, hired and trained by PRG, participated in the 2020 daytime observations, each with extensive seat belt observation experience in addition to field instruction and multiple training sessions. Training was conducted in the weeks leading up to the start of observations. Prior to any data collection, all observers went through a refresher course where the procedures were reviewed in a training session that included on-street practice. Training provided additional procedures to guide observers should a site be temporarily unusable (e.g., due to bad weather or temporary traffic disruption), unusable during this survey period (e.g., due to construction), or permanently unusable (unsafe or unobservable). These observers, working alone, performed all field data collection for this evaluation.

Daytime observations were conducted between 7:00 a.m. and 6:00 p.m. seven days a week. Each county's observations were conducted in four clusters, with roughly five sites scheduled for each day. The first observation site for a given day was randomly selected; subsequent sites were assigned in an order which provided balance by type of site and time of day while minimizing travel distance and time. For each site, the schedule specified time of day, day of week, roadway to observe, and direction of traffic to observe. Time of day was specified as one of five time periods, 7:00 – 9:00 a.m., 9:00 – 11:00 a.m., 11:00 a.m. – 2:00 p.m., 2:00 – 4:00 p.m., and 4:00 – 6:00 p.m., with a 45-minute observation period to take place for each individual site within the timeframes noted.



Observation sites were mapped in advance by the project manager. Mapping helped to identify geographic location of sites as well as the target day for observation. Advanced mapping preparation enabled observers to plan trips well ahead of time, thereby increasing efficiency in travel and labor. Each scheduled observer used GPS to reach all site locations, then referred to individual maps for instructions on where to park and stand.

In 2018, Vermont opted to redesign their survey and this new format was used in the 2020 survey. PRG conducted the redesign and submitted all new site information to NHTSA for approval. The newest design was kept as similar as possible to the previous year, but a change was made to allow weighting and site selection to be based primarily on traffic volume. The previous design, while adequate and approved, had the disadvantage of resulting in a small number of rural/low traffic volume sites having a relatively large influence on the overall seat belt use rate. The same sites were used for the 2020 observation as were used in the 2019 sites.

Seat belt use was observed for 45 minutes at each site. All data were recorded on a paper form (see **Appendix A** for sample form), noting vehicle type, driver and passenger sex, and seat belt use. Observers recorded belt use by marking the form appropriately for each person in each vehicle. Occupants were recorded as:

- **Belted** if the shoulder belt was in front of the person's shoulder
- **Unbelted** if the shoulder belt was not in front of the person's shoulder
- **Unknown** if it could not reasonably be determined whether the driver or right front passenger was belted

All passenger vehicles (cars, pickups, vans and SUVs) with a gross vehicle weight up to 10,000 pounds were observed in the survey including small commercial vehicles. Emergency vehicles (police, ambulance, fire department) were not observed. The target population was all drivers and right front seat passengers (excluding middle passengers and children harnessed in child safety seats) of vehicles traveling on public roads.

Vehicles to be observed were selected by identifying a reference point far enough down the road so that the vehicle, but not the driver, could be observed. This procedure ensured that the next vehicle to be observed was randomly selected from the traffic stream without prior knowledge of seat belt use. Only one vehicle at a time was recorded. Once the data for the selected vehicle was recorded, the observer would start recording data from the next vehicle to pass the reference point. Traffic direction was selected based on safest observation point during the 2018 survey. Observations conducted for this survey used that same direction and locations to maintain consistency.

Quality control monitors made random, unannounced visits to at least five percent of the observation sites. During these visits, the quality control monitor evaluated the observer's performance from a distance.

The quality control monitor ensured that the observer arrived on time at assigned sites, stood at the designated observation location, and carried out vehicle observations of seat belt use for the required time period.

Field coordinators developed all observer schedules, provided detailed maps and site descriptions for observation locations, and served as the main points of contact during the data collection period to address observer questions as needed regarding observation method, unexpected site issues, etc.

Completed observation forms were sent to PRG for data entry using Microsoft Excel and/or Statistical Package for Social Science (SPSS). Data cleaning procedures included 10 percent entry checks to assess entry accuracy across all data entry forms and variable frequency counts to identify ineligible entry values or outliers. Data weights were applied, and confidence interval estimations were conducted on the data using the same procedures as used in 2018. Unweighted data was used for all report results and tables. These analyses consisted of simple chi-square tests.

[4.] Results

Data collection was conducted June 22 to July 11, 2020 at 89 sites across the state. Please see **Appendix B** for a Google Maps overview of pinned locations. Four observers gathered observation data from 8,868 vehicles and 11,072 occupants including 8,868 drivers and 2,204 passengers. Drivers accounted for 80.1 percent of persons observed. Vermont drivers and front outboard passengers had a combined weighted seat belt use of 88.8 percent. The standard error rate was 0.762 percent, below the 2.5 percent threshold required by NHTSA. The total incidence of unknown observations was less than one percent (0.2 %) for all observations statewide, another NHTSA requirement.

Rates for 2007-2020 (all occupants, weighted) are found in Table 1. A considerable drop in use was observed in 2016. The 2017 use rate of 84.5 percent represents a return to a rate more consistent with those prior to 2016. The 2018 rate was much higher than any previous year's rate and similar trend was continued in 2019 and 2020. However, there was a slight decrease in the belt use in 2020. It is unclear as to whether the state experienced a significant increase in use or if the new weighting and sites reflect a higher measured use (or both). However, looking at the last three years use rate (2018, 2019, and 2020), it is possible that there was a significant increase in the use rate. Non-weighted raw counts and use rates by site location are provided in **Appendix C** and **Appendix D**.

1

Table 1

ANNUAL WEIGHTED SEAT BELT USE RATES 2007-2020 (% BELTED)

88.8%

2007	2008	2009	2010	2011	2012	2013
87.1%	87.3%	85.3%	85.2%	84.7%	84.2%	84.9%
2014	2015	2016	2017	2018	2019	2020
84.1%	85.0%	80.4%	84.5%	89.8%	89.3%	88.8%

Belt use rates for subcategories of driver, vehicle, and road types using unweighted data are shown in Table 2. Significant differences by sex were found for both drivers and passengers. Belt use rate of female drivers were eight percentage points higher than male drivers ($\chi^2(1) = 293.66$, $p < .0001$). Female passengers' use rate was also 12 percentage point higher than male passengers ($\chi^2(1) = 10.29$, $p < .001$). Among all observed occupants, belt use was 11 percentage points higher among female than male occupants ($\chi^2(1) = 287.82$, $p < .0001$).

Comparisons across vehicle types revealed a 17-percentage point difference between the highest and lowest belt use by drivers (SUV drivers at 92.0% and truck drivers at 75.0%, respectively). Differences in driver seat belt use across vehicle types was highly significant ($\chi^2(3) = 398.27$, $p < .0001$). Differences in belt use rates by passengers were also significant across vehicle type ($\chi^2(3) = 42.33$, $p < .0001$).

2

Table 2

2020 STATEWIDE UNWEIGHTED SURVEY RESULTS (% BELTED)

Variable	Driver	Passenger	Total
Sex			
Male	82.9%	82.7%	82.9%
Female	94.2%	91.8%	93.5%
Vehicle Type			
Car	91.1%	88.7%	90.7%
Truck	75.0%	81.5%	76.2%
SUV	92.0%	92.6%	92.2%
Van	91.4%	96.9%	92.7%
Time of Week			
Weekday	88.5%	89.7%	88.7%
Weekend	84.5%	87.2%	85.2%

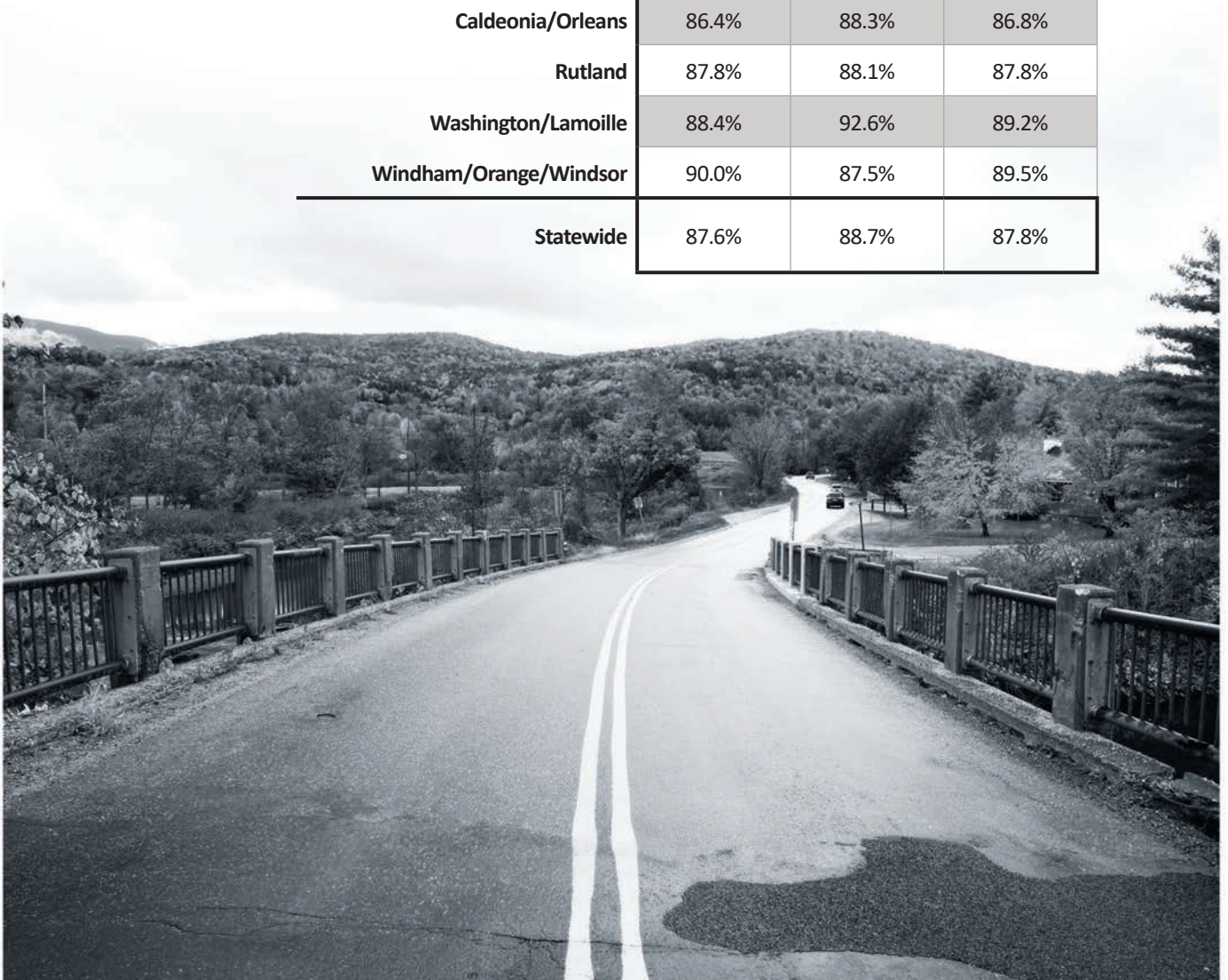
Driver belt use was significantly higher on weekdays than on weekends (88.5% and 84.5%, respectively; $\chi^2(1) = 24.16$, $p < .0001$). There was no difference in passenger use across days of the week. For all occupants, weekday use was significantly higher than weekend use ($\chi^2(1) = 24.31$, $p < .0001$).

Driver and passenger belt use rates by county are presented in Table 3. Franklin County had the lowest belt use both for drivers (79.9%) and for passengers (84.4%). Highest belt use for drivers was observed in Chittenden County (91.3%); highest belt use for passengers was observed in Washington/Lamoille County (92.6%). There were significant differences in belt use by county grouping among drivers ($\chi^2(6) = 127.66$, $p < .0001$), and for passengers ($\chi^2(6) = 17.14$, $p < .001$).

Table 3

2020 STATEWIDE UNWEIGHTED SURVEY RESULTS BY COUNTY GROUPINGS (% BELTED)

County Grouping	Driver Use	Passenger Use	Total Use
Chittenden	91.3%	91.2%	91.3%
Bennington/Addison	89.5%	89.9%	89.6%
Franklin	79.9%	84.4%	80.9%
Caldeonia/Orleans	86.4%	88.3%	86.8%
Rutland	87.8%	88.1%	87.8%
Washington/Lamoille	88.4%	92.6%	89.2%
Windham/Orange/Windsor	90.0%	87.5%	89.5%
Statewide	87.6%	88.7%	87.8%





[5.] Discussion and Recommendations

Vermont's current belt use rate is below the national average and the NHTSA-imposed target of 90 percent. Exploring methods to raise global seat belt use could include increasing enforcement, increasing awareness of driver license penalty points and fines for unbelted occupants, increasing awareness about the effectiveness of seat belt use in preventing injuries, and informing the public about the higher death rates for unbelted occupants. Populations with the lowest use rates such as males and pickup truck drivers are important populations to target for future programming efforts. Recent focus groups in another state suggest that informing occupants of the potential loss of income following injuries sustained while unbelted in a crash may motivate occupants in rural areas to buckle up (but this messaging is as yet untested).

Vermont faces several challenges in achieving seat belt use gains. The state has a largely rural population with pockets of urban areas, resulting in often large variations in use rates from county to county. In addition, several New England states contiguous to Vermont have some of the lowest use rates nationwide. New Hampshire ranked last in belt use for 2019 (70.7%) while Massachusetts ranked 45th (81.6%). Counties in Vermont contiguous to those states are prime targets for additional media and enforcement measures particularly for those roadways and communities that straddle state lines.

The introduction of nighttime seat belt use monitoring may shed light on additional areas of focus, as nighttime belt use is typically lower than daytime belt use. For instance, FARS data for the period 2012-2018 shows that belt use by fatally injured occupants of passenger vehicles is indeed much lower in nighttime crashes (52.1% belted) than in daytime crashes (74.9% belted) in the state of Vermont.

Vermont
Seat Belt Use Rate
88.8%

The 2020 use rate (88.8%) was down slightly (0.5 points) from the high use rate of 2019 (89.3%) but still up by more than 4 percentage points from the 2017 use rate (84.5%). The decrease from 2019 is not significant and therefore the 2020 rate indicates no real change from the prior year. The last three years show record high use; however, it may be that some of the gains are from the redesign and may not reflect an actual change in usage but merely a different way of measuring the rate. Looking at the current trend, the current method has led to the more stable use rates.



[6.] References

Tilton, S., Sullivan, J., Dowds, J. & Sentoff, K. (2016). Vermont 2016 Annual Seat Belt Use Survey: Final Report. Published by the UVM Transportation Research Center, TRC Report No. 17-001. January 2017.

Chaudhary, N., Chaffe, R. (2017). Vermont 2017 Annual Seat Belt Use Survey: Final Report. Published by the Preusser Research Group, Inc. for the Vermont Agency of Transportation, Governor's Highway Safety Program.

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Michelle Cisewski / Safer New Mexico Now

Design by Safer New Mexico Now



2020 VERMONT SAFETY BELT

USE STUDY

STATEWIDE OBSERVATION RESULTS

[> .] Report Prepared by:

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Electronic version available at
www.preussergroup.com and ghsp.vermont.gov

APPENDIX A

Sample Observation Data Collection Form

SITE ID NUMBER: _____ CITY: _____ OBSERVER NAME: _____

DATE: _____ - _____ - _____ DAY OF WEEK: _____

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

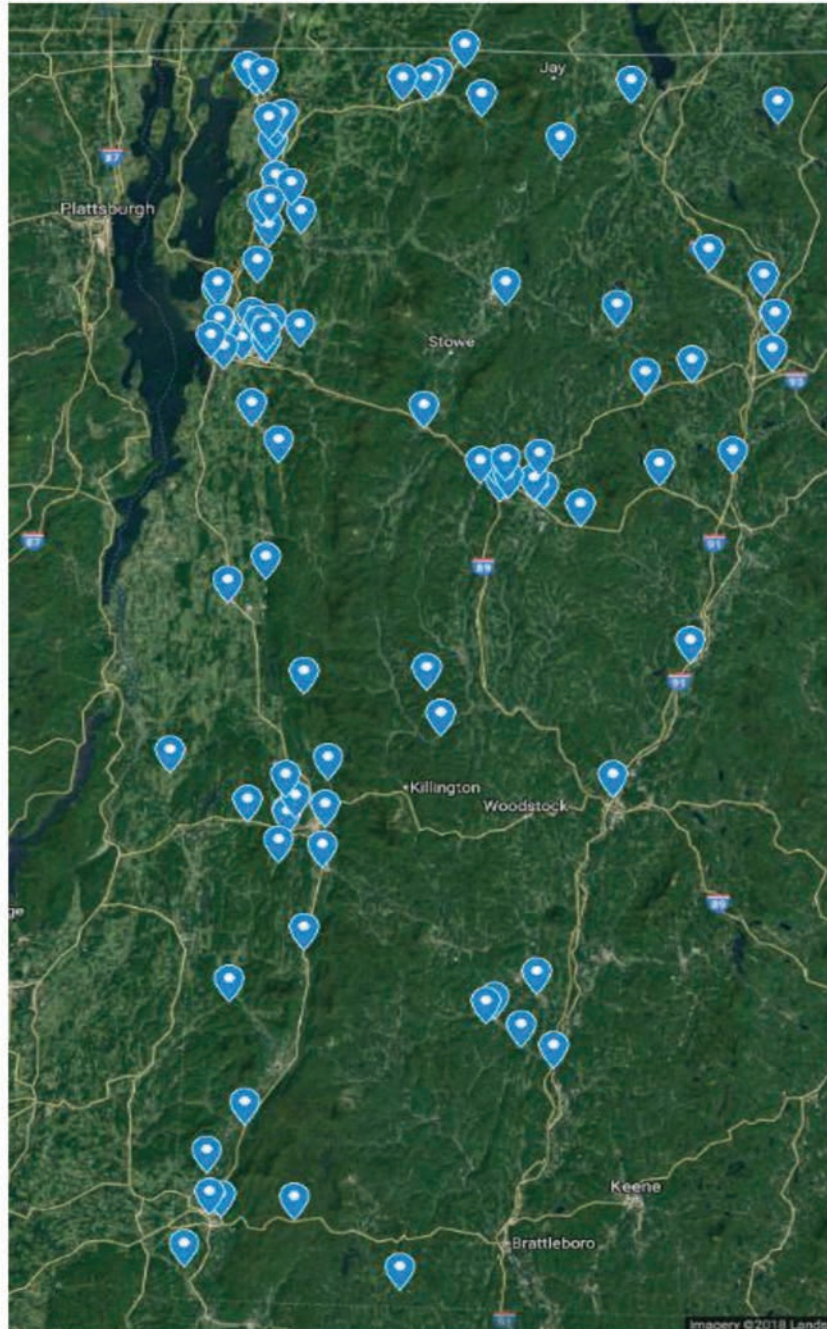
WEATHER CONDITION (circle one): 1) Clear/Sunny 2) Light Rain 3) Cloudy 4) Fog 5) Clear but wet

TRAFFIC DIRECTION: N S E W START TIME (Observation period = exactly 60 minutes): _____ AM / PM

DRIVER			PASSENGER			DRIVER			PASSENGER		
Vehicle Type	Sex	Use	Sex	Use		Vehicle Type	Sex	Use	Sex	Use	
C = Car T = Pick Up S = SUV V = Van	M = Male F = Female U = Unsure	Y = Yes N = No	M = Male F = Female U = Unsure	Y = Yes N = No U = Unsure		C = Car T = Pick Up S = SUV V = Van	M = Male F = Female U = Unsure	Y = Yes N = No	M = Male F = Female U = Unsure	Y = Yes N = No U = Unsure	
1						3					
2						6					
3						3					
4						7					
5						3					
6						8					
7						3					
8						9					
9						4					
10						0					
11						4					
12						1					
13						4					
14						2					
15						4					
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18						4					
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20						4					
21						5					
22						5					
23						6					
24						0					
25						6					
26						1					
27						6					
28						2					
29						6					
30						3					
31						4					
32						6					
33						5					
34						6					
35						6					
						7					
						0					

APPENDIX B

Pinned Site Locations (Source: Google Maps)





APPENDIX C

Raw Seat Belt Use/Observed Counts

Heading Legend:

SID = Observation Site ID Number (internal to study)

TRC ID = Observation site ID for sites observed in 2019

CG = County group

FC = Functional classification of roadway

S = Site status – Primary (P) or Back-up (B)

DVMT = Daily vehicle-miles of travel represented by the road segment

SEGID = Agency of Transportation Segment ID

Route = Agency of Transportation highway designation of roadway

CntSta = Nearest continuous traffic count station

AADT = Annualized Average Daily Traffic

π_{ifr} = Probability that a segment is included in its County Group, Functional Classification group, and Segment group

City or Town = Vermont city or town where the count site was located

Date Observed = Date observations were conducted

Driver Belted = Driver was observed wearing a seat belt

Driver Not Belted = Driver was observed not wearing a seat belt

Driver Couldn't Tell = Observer could not determine if driver was wearing a seat belt

Passenger Belted = Passenger was observed wearing a seat belt

Passenger Not Belted = Passenger was observed not wearing a seat belt

Passenger Couldn't Tell = Observer could not determine if passenger was wearing a seat belt



APPENDIX C

Raw Seat Belt Use/Observed Counts

City or Town	Date Observed	Probability of Selection	DRIVER			PASSENGER			ALL	
			Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed
Bennington	6/26/2020	0.822686292	94	12	0	48	6	0	142	160
Bennington	6/26/2020	1	108	11	0	12	3	0	120	134
Bennington	7/8/2020	0.09155583	99	6	0	21	1	0	120	127
Bennington	7/8/2020	0.182474565	181	8	0	38	3	0	219	230
Addison	6/27/2020	0.064734202	157	30	0	74	9	0	231	270
Addison	6/26/2020	0.043651903	80	14	0	7	3	0	87	104
Addison	6/26/2020	0.099129604	173	24	0	55	5	0	228	257
Bennington	6/23/2020	0.034996699	50	10	0	13	4	0	63	77
Addison	6/28/2020	0.018275381	36	13	0	19	5	0	55	73
Bennington	6/28/2020	0.078163042	36	19	0	22	8	0	58	85
Bennington	6/24/2020	0.14848657	13	0	0	3	0	0	16	16
Chittenden	6/26/2020	0.411615619	79	7	0	26	3	0	105	115
Chittenden	6/28/2020	0.164533663	29	5	0	8	3	0	37	45
Chittenden	7/7/2020	0.091444471	207	16	0	15	3	0	222	241
Chittenden	6/30/2020	0.025040038	105	31	0	7	5	0	112	148
Chittenden	6/26/2020	0.049278132	162	19	0	30	2	0	192	213
Chittenden	6/28/2020	0.038122016	45	18	0	24	3	0	69	90
Chittenden	6/29/2020	0.224300463	76	40	0	32	9	0	108	157
Chittenden	6/28/2020	0.150447656	19	3	0	11	2	0	30	35
Chittenden	6/23/2020	0.042202075	32	6	0	10	1	0	42	49
Chittenden	6/23/2020	0.085089248	155	25	0	25	4	0	180	209
Chittenden	6/30/2020	0.126893966	96	16	0	24	8	0	120	144
Chittenden	6/22/2020	0.249215313	117	8	1	15	1	0	132	142

APPENDIX C
Raw Seat Belt Use/Observed Counts

City or Town	Date Observed	Probability of Selection	DRIVER				PASSENGER				ALL	
			Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed		
Chittenden	6/25/2020	0.249631365	245	12	0	23	1	0	270	281		
Chittenden	6/24/2020	0.493437999	153	9	0	34	1	0	187	197		
Chittenden	6/27/2020	0.958376417	65	5	0	19	2	0	84	91		
Chittenden	6/27/2020	0.229036778	102	16	0	46	9	0	148	173		
Chittenden	6/24/2020	0.686486255	52	9	0	18	3	0	70	82		
Franklin	7/9/2020	1	56	3	0	12	1	0	68	72		
Franklin	7/9/2020	0.75307897	105	8	0	29	1	0	134	143		
Franklin	6/30/2020	0.321062659	81	32	0	13	6	0	94	132		
Franklin	7/8/2020	1	65	6	0	20	2	0	85	93		
Franklin	6/27/2020	0.077970181	140	19	0	55	7	0	195	221		
Franklin	6/29/2020	0.12467107	78	24	0	17	3	0	95	122		
Franklin	6/27/2020	0.102002346	35	12	0	11	2	0	46	60		
Franklin	6/29/2020	0.414467547	194	15	0	38	5	0	232	252		
Franklin	6/29/2020	0.007724837	74	10	0	27	3	0	101	114		
Franklin	6/28/2020	0.10235409	63	11	0	25	2	0	88	101		
Franklin	6/30/2020	0.116316733	179	30	0	55	5	0	234	269		
Franklin	6/24/2020	1	38	7	0	12	0	0	50	57		
Franklin	6/26/2020	0.310463945	49	8	0	19	5	0	68	81		
Franklin	6/27/2020	0.264681244	106	19	0	35	8	0	141	168		
Franklin	6/27/2020	1	79	13	0	31	6	0	110	129		
Franklin	6/27/2020	0.443162244	28	5	0	9	1	0	37	43		
Franklin	7/9/2020	0.719646841	22	1	0	4	0	0	26	27		

APPENDIX C

Raw Seat Belt Use/Observed Counts

City or Town	Date Observed	Probability of Selection	DRIVER			PASSENGER			ALL	
			Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed
Caledonia	7/9/2020	0.406021379	71	12	0	28	1	0	99	112
Caledonia	6/26/2020	0.645829207	16	3	0	6	1	0	22	26
Caledonia	7/7/2020	0.059122568	120	3	0	27	3	0	147	153
Caledonia	6/30/2020	0.221061528	99	20	0	21	5	0	120	145
Caledonia	6/28/2020	0.084401951	28	17	0	13	4	0	41	62
Orleans	6/27/2020	0.077973912	135	38	0	19	7	0	154	199
Orleans	6/26/2020	0.069394908	72	21	0	13	8	0	85	114
Caledonia	6/29/2020	0.049309469	29	8	0	8	1	0	37	46
Orleans	6/30/2020	0.088293144	38	5	0	3	0	0	41	46
Caledonia	6/28/2020	0.044165137	16	3	0	6	0	0	22	25
Caledonia	6/30/2020	0.210201396	19	2	0	3	0	0	22	24
Rutland	7/9/2020	1	16	3	0	7	1	0	23	27
Rutland	6/28/2020	1	19	5	0	3	1	0	22	28
Rutland	7/8/2020	0.108668534	94	4	0	4	0	0	98	102
Rutland	6/30/2020	0.098096765	30	9	0	2	1	0	32	42
Rutland	6/30/2020	0.179033073	16	7	0	2	0	0	18	25
Rutland	6/29/2020	0.346170421	8	7	0	2	0	0	10	17
Rutland	6/26/2020	0.164151312	54	7	0	14	1	0	68	76
Rutland	6/29/2020	0.08808892	22	4	0	1	1	0	23	28
Rutland	6/29/2020	0.025011242	44	4	0	10	2	0	54	60
Rutland	6/22/2020	0.20440677	167	5	0	25	0	0	192	197
Rutland	6/22/2020	0.103708795	306	20	1	45	2	0	351	374

APPENDIX C Raw Seat Belt Use/Observed Counts

City or Town	Date Observed	Probability of Selection	DRIVER			PASSENGER			ALL	
			Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed
Washington	6/28/2020	0.698046406	28	4	0	8	0	0	36	40
Washington	7/7/2020	0.65636725	261	12	0	34	1	0	295	308
Washington	7/7/2020	0.377259662	70	7	0	9	2	0	79	88
Washington	7/8/2020	0.099536153	93	5	0	17	2	0	110	117
Washington	6/29/2020	0.044142629	25	11	0	3	1	0	28	40
Washington	6/27/2020	0.004735154	47	26	0	18	8	0	65	99
Washington	7/10/2020	0.072072581	101	9	0	44	4	0	145	158
Washington	7/10/2020	0.043667586	55	6	0	16	1	0	71	78
Lamoille	7/10/2020	0.107815461	103	28	0	31	6	0	134	168
Washington	6/22/2020	0.263074992	160	27	0	45	1	0	205	233
Washington	7/7/2020	0.116944081	147	18	0	62	2	0	209	229
Windsor	7/11/2020	0.063199748	221	8	0	67	1	0	288	297
Orange	7/11/2020	0.121104036	225	19	0	79	2	0	304	325
Windham	7/11/2020	0.072123724	17	0	0	5	0	0	22	22
Windsor	7/11/2020	0.102190148	17	2	0	3	0	0	20	22
Orange	6/23/2020	0.131414499	42	1	0	4	0	0	46	47
Windsor	6/23/2020	0.055724501	102	15	0	24	1	0	126	142
Windham	7/10/2020	0.034316107	170	18	0	58	2	0	228	248
Windsor	7/11/2020	0.012475495	78	16	0	36	5	0	114	135
Windham	7/10/2020	0.074221297	80	11	0	18	2	0	98	111
Windsor	6/29/2020	0.016372812	74	34	0	7	4	0	81	119
Windsor	6/22/2020	0.007178075	70	5	0	13	1	0	83	89

APPENDIX D

Raw Seat Belt Use Rates by Site

SiteNum	SiteID	City or Town	Driver Raw Use Rate	Passenger Raw Use Rate	Raw Use Rate All Occupants
1101	101BAd	Bennington	88.70%	88.90%	88.80%
1102	102BAd	Bennington	90.80%	80.00%	89.60%
1201	201BAd	Woodford	91.90%	89.70%	91.30%
1202	202BAd	Sunderland	85.30%	72.70%	82.20%
1301	301BAd	Middlebury	94.20%	92.30%	94.40%
1302	302BAd	Middlebury	92.90%	96.70%	93.70%
1303	303BAd	Starksboro	85.50%	96.60%	88.40%
1401	401BAd	Pownal	84.20%	85.70%	84.60%
1402	402BAd	Goshen	84.20%	87.50%	85.20%
1403	403BAd	Rupert	79.20%	75.00%	78.60%
1404	404BAd	Shaftsbury	87.50%	100.00%	90.00%
2101	101CC	South Burlington	95.60%	97.10%	95.80%
2102	102CC	South Burlington	96.50%	98.50%	97.00%
2201	201CC	Williston	92.20%	97.50%	93.50%
2202	202CC	Essex	92.80%	95.50%	94.50%
2301	301CC	Burlington	95.80%	92.70%	95.20%
2302	302CC	Essex	92.80%	83.30%	92.10%
2303	303CC	Cholchester	77.20%	58.30%	75.70%
2401	401CC	Cholchester	71.70%	68.40%	71.20%
2402	402CC	Hinesburg	91.60%	90.90%	91.40%
2403	403CC	Williston	97.60%	90.00%	96.10%
2404	404CC	Cholchester	83.20%	80.80%	82.80%
2501	501CC	Essex Junction	95.90%	100.00%	96.10%
2502	502CC	Milton	76.90%	66.70%	76.20%
2503	503CC	Jericho	90.90%	81.80%	89.80%
2504	504CC	Burlington	94.90%	89.50%	94.00%
2505	505CC	South Burlington	100.00%	100.00%	100.00%
2506	506CC	Burlington	89.50%	100.00%	90.90%
3101	101FGI	Georgia	84.00%	89.20%	85.60%
3102	102FGI	Swanton	85.10%	70.00%	83.70%
3201	201FGI	Swanton	87.80%	91.70%	88.70%
3202	202FGI	Swanton	89.50%	93.60%	90.10%
3301	301FGI	Berkshire	71.40%	88.90%	76.70%
3302	302FGI	Enosburg	65.50%	78.10%	68.80%
3303	303FGI	Fairfax	88.10%	88.70%	88.20%
3401	401FGI	Fairfax	76.50%	85.00%	77.90%
3402	402FGI	St Albans City	74.50%	84.60%	76.70%
3403	403FGI	Montgomery	62.20%	76.50%	66.10%
3404	404FGI	St Albans City	78.00%	73.10%	77.40%
3501	501FGI	Milton	77.40%	61.90%	74.60%

SiteNum	SiteID	City or Town	Driver Raw Use Rate	Passenger Raw Use Rate	Raw Use Rate All Occupants
3502	502FGI	Fairfax	69.60%	100.00%	72.00%
3503	503FGI	Richford	53.30%	100.00%	58.80%
3504	504FGI	Swanton	88.50%	93.30%	89.50%
3505	505FGI	Enosburg Falls	69.40%	75.00%	70.00%
3506	506FGI	St Albans City	64.40%	69.20%	65.70%
4101	101NEK	Ryegate	91.80%	91.70%	91.80%
4102	102NEK	Ryegate	97.70%	100.00%	97.90%
4201	201NEK	St Johnsbury	97.20%	96.00%	88.70%
4203	203NEK	Danville	90.40%	96.70%	91.90%
4301	301NEK	Hardwick	83.30%	76.50%	81.80%
4302	302NEK	Newport	73.50%	79.20%	75.30%
4303	303NEK	Lowell	65.50%	73.30%	68.20%
4401	401NEK	Groton	100.00%	100.00%	100.00%
4402	402NEK	Morgan	86.40%	84.60%	85.70%
4404	404NEK	Lyndonville	84.20%	90.90%	85.70%
4405	405NEK	Lyndonville	86.10%	86.20%	86.10%
5101	101Rut	West Rutland	85.70%	75.00%	83.30%
5102	102Rut	West Rutland	92.80%	88.40%	92.10%
5201	201Rut	North Clarendon	88.10%	90.00%	88.60%
5202	202Rut	Danby	85.10%	92.60%	87.10%
5301	301Rut	Rutland City	85.70%	91.70%	87.00%
5302	302Rut	Benson	78.40%	88.90%	80.40%
5303	303Rut	Rutland Town	88.40%	100.00%	89.10%
5401	401Rut	Proctor	90.50%	100.00%	91.70%
5402	402Rut	West Rutland	84.20%	100.00%	88.00%
5403	403Rut	Castleton	84.60%	50.00%	82.10%
5404	404Rut	Rutland	91.70%	83.30%	90.00%
6101	101WL	Barre	97.10%	100.00%	97.50%
6102	102WL	Berlin	93.60%	95.70%	93.90%
6201	201WL	Cabot	90.20%	94.10%	91.00%
6202	202WL	Barre	78.60%	83.80%	79.80%
6301	301WL	Barre	85.60%	97.80%	88.00%
6302	302WL	Duxbury	89.10%	96.90%	91.30%
6303	303WL	East Montpelier	83.00%	87.80%	84.40%
6401	401WL	Berlin	87.90%	90.00%	88.30%
6402	402WL	Morristown	68.50%	63.60%	68.10%
6403	403WL	Berlin	93.30%	92.90%	93.30%
6404	404WL	Berlin	92.90%	93.80%	93.00%
7101	101WOW	White River	95.40%	96.00%	95.40%
7102	102WOW	Fairlee	94.50%	97.10%	94.90%
7201	201WOW	Chester	92.90%	90.50%	92.30%
7202	202WOW	Concord	86.40%	83.60%	85.50%
7301	301WOW	Chester	85.30%	85.70%	85.40%
7302	302WOW	Orange	84.40%	100.00%	87.70%
7303	303WOW	Stockbridge	86.00%	79.20%	84.00%
7401	401WOW	Halifax	84.80%	81.40%	83.90%
7402	402WOW	Springfield	85.90%	83.80%	85.30%
7403	403WOW	Belows Falls	84.90%	90.00%	86.10%
7404	404WOW	Chester	95.70%	100.00%	96.30%

2020 VERMONT SAFETY BELT USE STUDY

STATEWIDE OBSERVATION RESULTS

VERMONT STATE HIGHWAY OFFICE
BEHAVIORAL SAFETY UNIT
AGENCY OF TRANSPORTATION
WWW.GHSP.VERMONT.GOV

NOVEMBER 2020

