VERMONT
AGENCY OF TRANSPORTATION

20/21 VERMONT SAFETY BELT USE STUDY

STATEWIDE OBSERVATION RESULTS

VERMONT STATE HIGHWAY SAFETY OFFICE
BEHAVIORAL SAFETY UNIT

AGENCY OF TRANSPORTATION
WWW.GHSP.VERMONT.GOV

NOVEMBER 2021

E. MONTPELIER 7
ST. JOHNSBURY 34
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TO
EAST
INTERSTATE
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2
NORTH
VERMONT
12
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302
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NO PARKING THIS SIDE OF STREET

20 VERMONT SAFETY BELT USE STUDY 21

STATEWIDE OBSERVATION RESULTS

List of Figures and Tables

The State of Vermont uses the data from this report to 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.

1 BACKGROUND

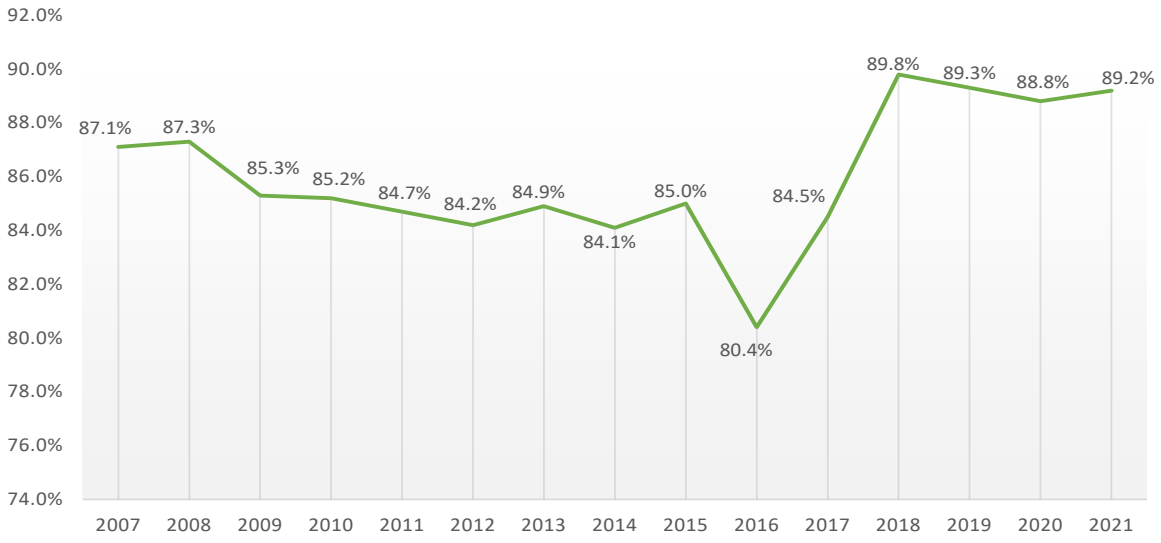
VERMONT
SAFETY BELT USE STUDY

This report summarizes the results of the 2021 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 2021. 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 has diverged from the rising national rate (see Figure 2).

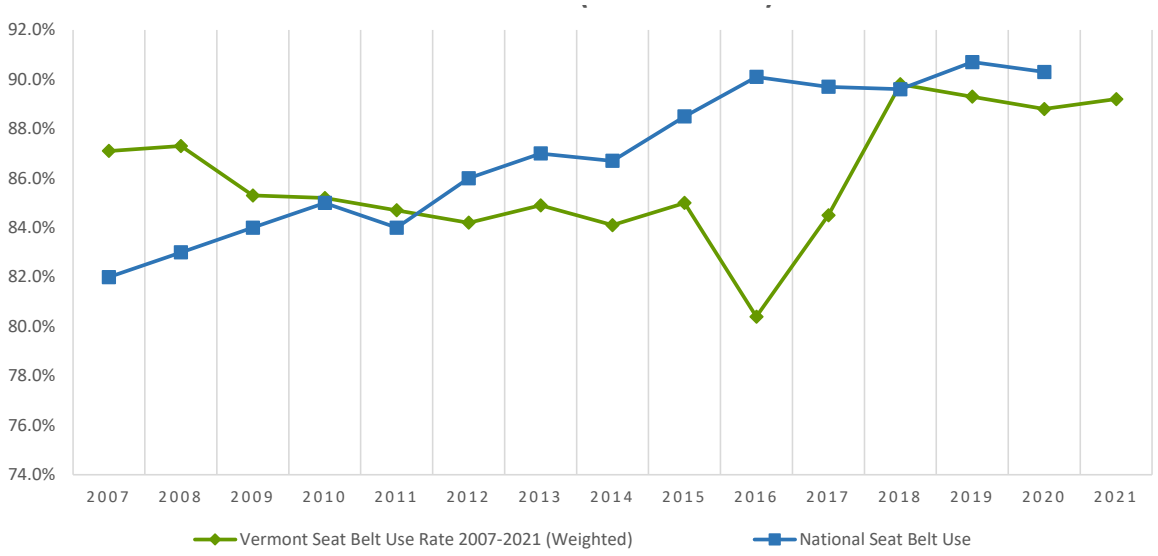
F.1

FIGURE 1
Vermont Statewide Seat Belt Use 2007-2021 (Weighted)



F.2

FIGURE 2
Vermont Statewide vs. National Seat Belt Use 2007-2021 (Weighted)



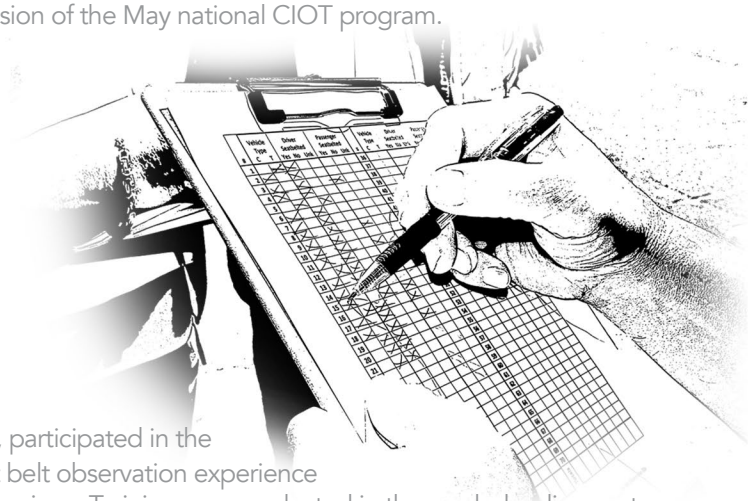
Note: the 2021 national rate was unavailable at the time of this report.

2 PROGRAM DESCRIPTION

VERMONT
SAFETY BELT USE STUDY

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 increase their perceptions of enforcement severity, both thought to impact adherence to the law.

The program media 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 4 to 17, 2021 immediately following the conclusion of the May national CIOT program.



3 DATA COLLECTION METHODS

VERMONT
SAFETY BELT USE STUDY

Three PRG staff members, hired and trained by PRG, participated in the 2021 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 of the day was randomly selected from the cluster sites; 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 2021 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 sites used for the 2021 observations were identical to those used in the 2020 observations. More information on statistical sampling methodology and overall sample weight calculations is available upon request.

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 location 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

VERMONT
SAFETY BELT USE STUDY

Data collection was conducted June 4 to June 17, 2021, at 89 sites across the state. Please see **Appendix B** for a Google Maps overview of pinned locations. Three observers gathered observation data from 9,500 vehicles and 11,832 occupants including 9,500 drivers and 2,332 passengers. Drivers accounted for 80.3 percent of persons observed. Vermont drivers and front outboard passengers had a combined weighted seat belt use of 89.2 percent. The standard error rate was 0.666 percent, below the required 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 2007-2021 (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, 2020 and 2021. However, there was a slight increase in the belt use in 2021. It is unclear 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 four years use rate (2018, 2019, 2020 and 2021), 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**.

T.1

TABLE 1
Annual Weighted Seat Belt Use Rates 2007-2021 (% Belted)

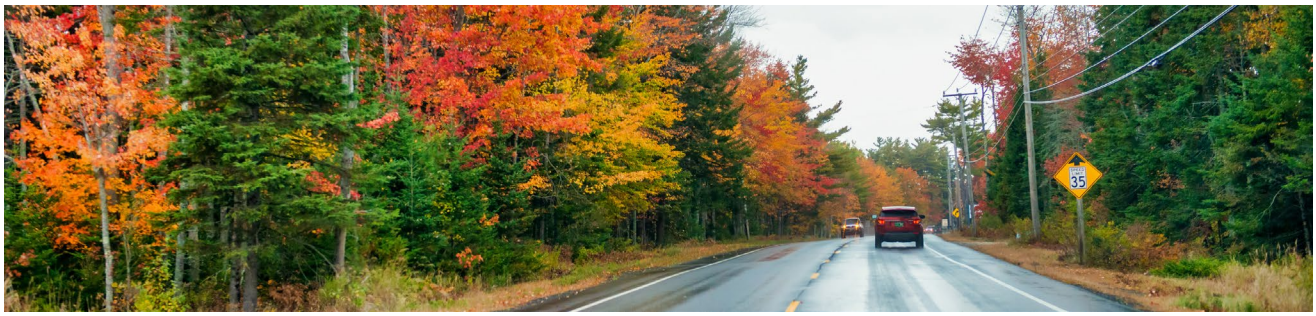
2007	2008	2009	2010	2011	2012	2013	2014
87.1%	87.3%	85.3%	85.2%	84.7%	84.2%	84.9%	84.1%

2015	2016	2017	2018	2019	2020	2021
85.0%	80.4%	84.5%	89.8%	89.3%	88.8%	89.2%

2021 Seat Belt Use Rate
89.2%

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 ten percentage points higher than male drivers ($X^2(1)$ =218.69, p <.0001). Female passengers' use rate was also 9 percentage point higher than male passengers ($X^2(1)$ =38.59, p <.0001). Among all observed occupants, belt use was 10 percentage points higher among female than male occupants ($X^2(1)$ =254.90, p < .0001).

Comparisons across vehicle types revealed a 15-percentage point difference between the highest and lowest belt use by drivers (car drivers at 91.2% and truck drivers at 76.2%, respectively). Differences in driver seat belt use across vehicle types was highly significant ($X^2(3)$ =303.58, p < .0001). Differences in belt use rates by passengers were also significant across vehicle type (X^2(3) =26.00, p < .0001).



T.2

TABLE 2
2021 Statewide Unweighted Survey Results (% Belted)

Variable	Driver	Passenger	Total
Sex			
Male	83.1%	82.5%	83.0%
Female	93.3%	91.3%	92.7%
Vehicle Type			
Car	91.2%	89.6%	90.9%
Truck	76.2%	81.4%	77.1%
SUV	89.2%	90.1%	89.4%
Van	87.8%	91.8%	88.8%
Time of Week			
Weekday	88.6%	90.4%	88.9%
Weekend	84.2%	84.4%	84.2%

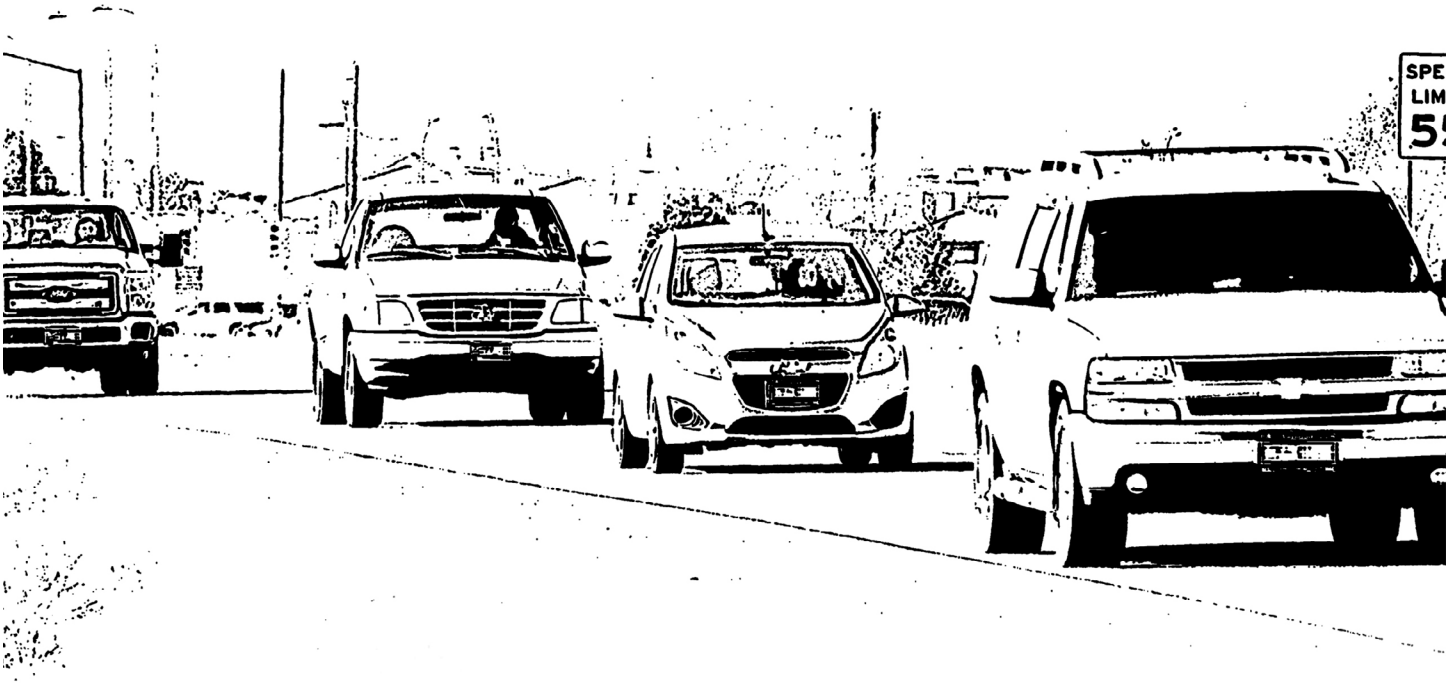
Driver belt use was significantly higher on weekdays than on weekends (88.6% and 84.2%, respectively; X^2(1) =31.94 p < .0001). Passenger belt use was also significantly higher on weekdays than on weekends (90.4% and 84.4%, respectively; X^2(1) =18.3 p < .0001). There was no difference in passenger use across days of the week. For all occupants, weekday use was significantly higher (+5 percentage points) than weekend use (X^2(1) =47.09, 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 (77.7%) and for passengers (78.6%). Highest belt use for both drivers and passengers was observed in Chittenden County (93.0% and 93.1%, respectively). There were significant differences in belt use by county grouping among drivers ($x^2(6) = 229.56$, $p < .0001$), and for passengers ($x^2(6) = 56.37$, $p < .0001$).

T.3

TABLE 3
2021 Statewide Unweighted Survey Results by County Groupings (% Belted)

County Grouping	Driver Use	Passenger Use	Total Use
Chittenden	93.0%	93.1%	93.0%
Bennington/Addison	88.7%	91.0%	89.2%
Franklin	77.7%	78.6%	77.9%
Caldeonia/Orleans	88.3%	90.5%	88.9%
Rutland	85.7%	85.1%	85.6%
Washington/Lamoille	88.6%	90.6%	89.0%
Windham/Orange/Windsor	88.6%	89.0%	88.7%
Statewide	87.4%	88.2%	87.6%



5 DISCUSSION AND RECOMMENDATIONS

VERMONT
SAFETY BELT USE STUDY

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.

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 2020 (72.4%) while Massachusetts ranked 45th (81.6%) in 2019. 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.

The 2021 use rate (89.2%) was increased slightly (0.4 points) from the use rate of 2020 (88.8%). The increase from 2020 is not significant and therefore the 2021 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

VERMONT
SAFETY BELT USE STUDY

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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STATEWIDE OBSERVATION RESULTS

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VERMONT STATE HIGHWAY SAFETY OFFICE
BEHAVIORAL SAFETY UNIT
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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 C = Car T = Pick Up S = SUV V = Van	**Sex** M = Male F = Female U = Unsure	**Use** Y = Yes N = No	**Sex** M = Male F = Female U = Unsure	**Use** Y = Yes N = No U = Unsure		**Vehicle Type** C = Car T = Pick Up S = SUV V = Van	**Sex** M = Male F = Female U = Unsure	**Use** Y = Yes N = No	**Sex** M = Male F = Female U = Unsure	**Use** Y = Yes N = No U = Unsure
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2						37					
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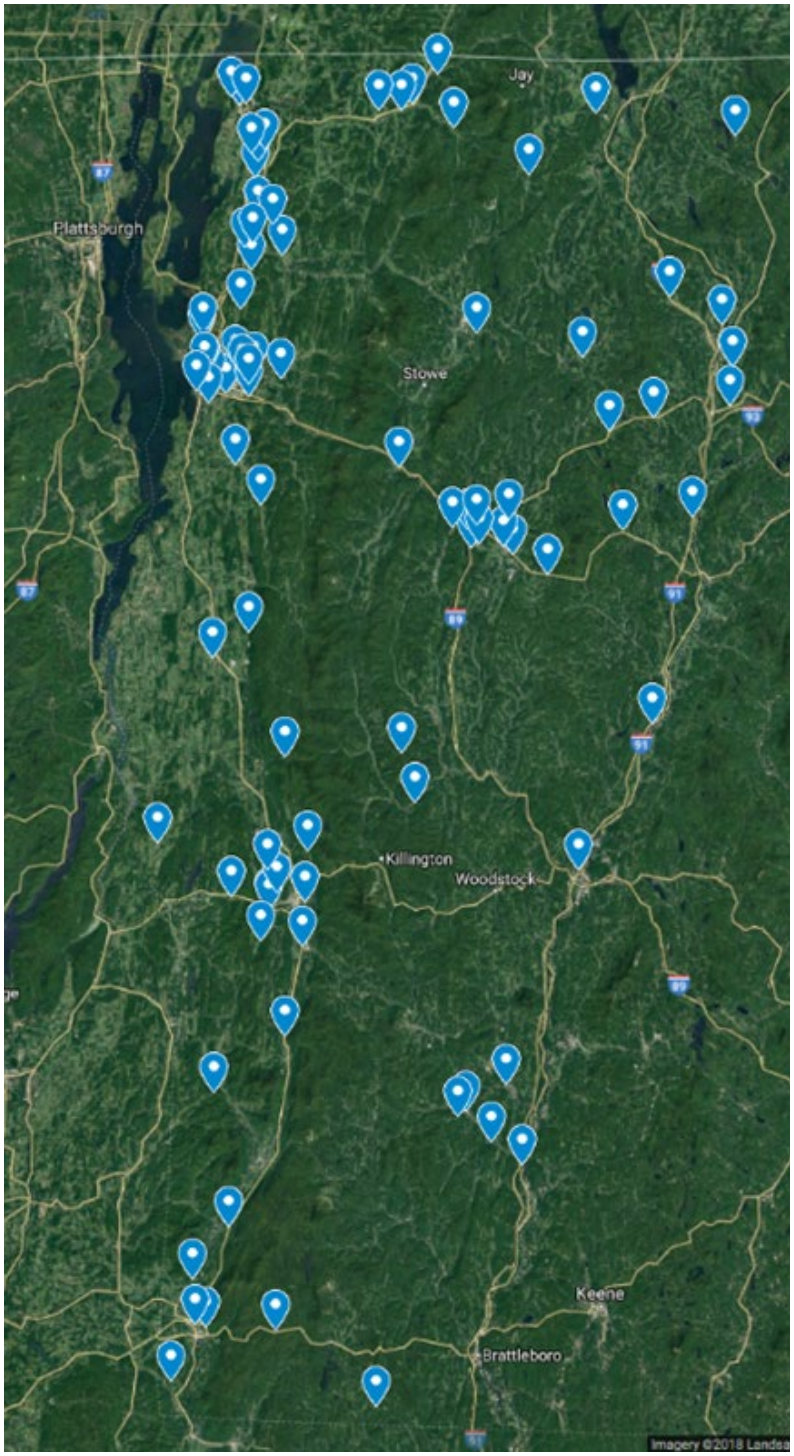
APPENDIX B

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 2021

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

πifr = 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

			DRIVER			PASSENGER			ALL	
City or Town	Date Observed	Probabilty of Selection	Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed
Bennington	6/9/2021	1	187	20	0	29	3	0	216	239
Bennington	6/9/2021	0.09155583	74	11	0	23	1	0	97	109
Bennington	6/9/2021	0.182474565	56	6	0	24	2	0	80	88
Addison	6/5/2021	0.064734202	56	4	0	12	2	0	68	74
Addison	6/4/2021	0.043651903	98	6	0	25	0	0	123	129
Addison	6/4/2021	0.099129604	83	16	0	27	4	0	110	130
Bennington	6/10/2021	0.034996699	10	3	0	1	0	0	11	14
Addison	6/6/2021	0.018275381	17	1	0	5	0	0	22	23
Bennington	6/6/2021	0.078163042	27	5	0	16	3	0	43	51
Bennington	6/16/2021	0.14848657	28	7	0	3	1	0	31	39
Chittenden	6/9/2021	0.411615619	261	13	0	20	0	0	281	294
Chittenden	6/6/2021	0.164533663	325	15	0	99	6	0	424	445
Chittenden	6/15/2021	0.091444471	213	8	0	64	4	0	277	289
Chittenden	6/8/2021	0.025040038	108	6	0	10	3	0	118	127
Chittenden	6/4/2021	0.049278132	207	11	0	47	3	0	254	268
Chittenden	6/6/2021	0.038122016	187	13	0	19	2	0	206	221
Chittenden	6/7/2021	0.224300463	295	39	0	91	11	0	386	436
Chittenden	6/6/2021	0.150447656	98	16	0	10	1	0	108	125
Chittenden	6/10/2021	0.042202075	73	2	0	13	2	0	86	90
Chittenden	6/10/2021	0.085089248	134	7	0	26	0	0	160	167
Chittenden	6/8/2021	0.126893966	55	24	0	13	1	1	68	94
Chittenden	6/14/2021	0.249215313	128	5	0	11	0	0	139	144

APPENDIX C
Raw Seat Belt Use/Observed Counts

			DRIVER			PASSENGER			ALL	
City or Town	Date Observed	Probabilty of Selection	Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed
Chittenden	6/16/2021	0.493437999	83	8	0	23	1	0	106	115
Chittenden	6/5/2021	0.958376417	72	4	0	16	0	0	88	92
Chittenden	6/5/2021	0.229036778	31	0	0	14	0	0	45	45
Chittenden	6/16/2021	0.686486255	42	2	0	7	1	0	49	52
Franklin	6/17/2021	1	182	41	0	62	16	0	244	301
Franklin	6/17/2021	0.75307897	110	27	0	22	9	0	132	168
Franklin	6/8/2021	0.321062659	163	33	0	15	2	0	178	213
Franklin	6/9/2021	1	126	23	0	25	1	0	151	175
Franklin	6/5/2021	0.077970181	41	17	0	16	4	0	57	78
Franklin	6/7/2021	0.12467107	83	36	0	23	4	0	106	146
Franklin	6/5/2021	0.102002346	130	44	0	51	15	0	181	240
Franklin	6/7/2021	0.414467547	111	28	0	22	4	0	133	165
Franklin	6/7/2021	0.007724837	49	13	0	10	6	0	59	78
Franklin	6/6/2021	0.10235409	41	20	0	7	7	0	48	75
Franklin	6/8/2021	0.116316733	119	45	0	23	8	0	142	195
Franklin	6/16/2021	1	72	19	0	13	3	0	85	107
Franklin	6/9/2021	0.310463945	13	7	0	2	2	0	15	24
Franklin	6/5/2021	0.264681244	5	4	0	2	0	0	7	11
Franklin	6/5/2021	1	53	10	0	5	2	0	58	70
Franklin	6/5/2021	0.443162244	24	10	0	3	1	0	27	38
Franklin	6/17/2021	0.719646841	57	18	0	22	4	0	79	101

APPENDIX C
Raw Seat Belt Use/Observed Counts

			DRIVER			PASSENGER			ALL	
City or Town	Date Observed	Probabilty of Selection	Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed
Caledonia	6/9/2021	0.645829207	46	5	0	7	1	0	53	59
Caledonia	6/15/2021	0.059122568	117	7	0	36	3	0	153	163
Caledonia	6/8/2021	0.221061528	143	17	0	41	4	0	184	205
Caledonia	6/6/2021	0.084401951	58	9	0	16	1	0	74	84
Orleans	6/5/2021	0.077973912	44	13	0	24	6	0	68	87
Orleans	6/4/2021	0.069394908	37	10	0	17	5	0	54	69
Caledonia	6/7/2021	0.049309469	9	0	0	2	0	0	11	11
Orleans	6/8/2021	0.088293144	29	4	0	14	0	0	43	47
Caledonia	6/6/2021	0.044165137	25	2	0	7	0	0	32	34
Caledonia	6/8/2021	0.210201396	25	2	0	39	5	0	64	71
Rutland	6/17/2021	1	97	17	0	26	4	0	123	144
Rutland	6/6/2021	1	176	32	0	48	10	0	224	266
Rutland	6/9/2021	0.108668534	97	17	0	32	3	0	129	149
Rutland	6/8/2021	0.098096765	85	19	0	36	7	1	121	148
Rutland	6/8/2021	0.179033073	159	26	0	34	7	0	193	226
Rutland	6/7/2021	0.346170421	31	3	0	8	2	0	39	44
Rutland	6/4/2021	0.164151312	72	6	0	7	1	0	79	86
Rutland	6/7/2021	0.08808892	16	3	0	3	0	0	19	22
Rutland	6/7/2021	0.025011242	24	5	0	9	1	0	33	39
Rutland	6/14/2021	0.20440677	37	9	0	2	2	0	39	50
Rutland	6/14/2021	0.103708795	49	6	0	17	2	0	66	74

APPENDIX C
Raw Seat Belt Use/Observed Counts

			DRIVER			PASSENGER			ALL	
City or Town	Date Observed	Probabilty of Selection	Belted	Not Belted	Couldn't Tell	Belted	Not Belted	Couldn't Tell	Total Belted	Total Successfully Observed
Washington	6/15/2021	0.65636725	303	19	0	59	2	0	362	383
Washington	6/15/2021	0.377259662	46	2	0	16	0	0	62	64
Washington	6/9/2021	0.099536153	115	17	0	26	1	0	141	159
Washington	6/7/2021	0.044142629	222	54	0	55	12	0	277	343
Washington	6/5/2021	0.004735154	166	29	0	42	4	0	208	241
Washington	6/11/2021	0.072072581	92	10	0	41	6	0	133	149
Washington	6/11/2021	0.043667586	80	11	0	21	3	0	101	115
Lamoille	6/11/2021	0.107815461	76	21	0	16	3	0	92	116
Washington	6/14/2021	0.263074992	69	6	0	18	3	0	87	96
Washington	6/15/2021	0.116944081	52	3	0	6	0	0	58	61
Windsor	6/12/2021	0.063199748	205	8	0	34	0	1	239	248
Orange	6/12/2021	0.121104036	120	6	0	20	0	0	140	146
Windham	6/12/2021	0.072123724	51	10	0	13	4	0	64	78
Windsor	6/12/2021	0.102190148	109	22	0	51	5	0	160	187
Orange	6/10/2021	0.131414499	79	6	0	16	1	0	95	102
Windsor	6/12/2021	0.012475495	100	38	0	39	7	0	139	184
Windham	6/11/2021	0.074221297	137	13	0	44	13	0	181	207
Windsor	6/7/2021	0.016372812	12	3	0	5	0	0	17	20
Windsor	6/14/2021	0.007178075	32	2	0	12	0	0	44	46

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	86.52%	90.00%	87.16%
1102	102BAd	Bennington	90.34%	90.63%	90.38%
1201	201BAd	Woodford	87.06%	95.83%	88.99%
1202	202BAd	Sunderland	90.32%	92.31%	90.91%
1301	301BAd	Middlebury	93.33%	85.71%	91.89%
1302	302BAd	Middlebury	94.23%	100.00%	95.35%
1303	303BAd	Starksboro	83.84%	87.10%	84.62%
1401	401BAd	Pownal	76.92%	100.00%	78.57%
1402	402BAd	Goshen	94.44%	100.00%	95.65%
1403	403BAd	Rupert	84.38%	84.21%	84.31%
1404	404BAd	Shaftsbury	80.00%	75.00%	79.49%
2101	101CC	South Burlington	95.26%	100.00%	95.58%
2102	102CC	South Burlington	95.59%	94.29%	95.28%
2201	201CC	Williston	96.38%	94.12%	95.85%
2202	202CC	Essex	94.74%	76.92%	92.91%
2301	301CC	Burlington	94.95%	94.00%	94.78%
2302	302CC	Essex	93.50%	90.48%	93.21%
2303	303CC	Cholchester	88.32%	89.22%	88.53%
2401	401CC	Cholchester	85.96%	90.91%	86.40%
2402	402CC	Hinesburg	97.33%	86.67%	95.56%
2403	403CC	Williston	95.04%	100.00%	95.81%
2404	404CC	Cholchester	69.62%	86.67%	72.34%
2501	501CC	Essex Junction	96.24%	100.00%	96.53%
2502	502CC	Milton	88.10%	83.33%	87.50%
2503	503CC	Jericho	91.21%	95.83%	92.17%
2504	504CC	Burlington	94.74%	100.00%	95.65%
2505	505CC	South Burlington	100.00%	100.00%	100.00%
2506	506CC	Burlington	95.45%	87.50%	94.23%
3101	101FGI	Georgia	81.61%	79.49%	81.06%
3102	102FGI	Swanton	80.29%	70.97%	78.57%
3201	201FGI	Swanton	83.16%	88.24%	83.57%
3202	202FGI	Swanton	84.56%	96.15%	86.29%
3301	301FGI	Berkshire	70.69%	80.00%	73.08%
3302	302FGI	Enosburg	69.75%	85.19%	72.60%
3303	303FGI	Fairfax	74.71%	77.27%	75.42%
3401	401FGI	Fairfax	79.86%	84.62%	80.61%
3402	402FGI	St Albans City	79.03%	62.50%	75.64%
3403	403FGI	Montgomery	67.21%	50.00%	64.00%
3404	404FGI	St Albans City	72.56%	74.19%	72.82%
3501	501FGI	Milton	79.12%	81.25%	79.44%

SiteNum	SiteID	City or Town	Driver Raw Use Rate	Passenger Raw Use Rate	Raw Use Rate All Occupants
3502	502FGI	Fairfax	65.00%	50.00%	62.50%
3503	503FGI	Richford	55.56%	100.00%	63.64%
3504	504FGI	Swanton	84.13%	71.43%	82.86%
3505	505FGI	Enosburg Falls	70.59%	75.00%	71.05%
3506	506FGI	St Albans City	76.00%	84.62%	78.22%
4101	101NEK	Ryegate	92.11%	100.00%	94.55%
4102	102NEK	Ryegate	90.20%	87.50%	89.83%
4201	201NEK	St Johnsbury	94.35%	92.31%	93.87%
4203	203NEK	Danville	89.38%	91.11%	89.76%
4301	301NEK	Hardwick	86.57%	94.12%	88.10%
4302	302NEK	Newport	77.19%	80.00%	78.16%
4303	303NEK	Lowell	78.72%	77.27%	78.26%
4401	401NEK	Groton	100.00%	100.00%	100.00%
4402	402NEK	Morgan	87.88%	100.00%	91.49%
4404	404NEK	Lyndonville	92.59%	100.00%	94.12%
4405	405NEK	Lyndonville	85.94%	88.64%	86.63%
5101	101Rut	West Rutland	85.09%	86.67%	85.42%
5102	102Rut	West Rutland	84.62%	82.76%	84.21%
5201	201Rut	North Clarendon	86.96%	91.43%	88.00%
5202	202Rut	Danby	81.73%	83.72%	82.31%
5301	301Rut	Rutland City	85.95%	82.93%	85.40%
5302	302Rut	Benson	91.18%	80.00%	88.64%
5303	303Rut	Rutland Town	92.31%	87.50%	91.86%
5401	401Rut	Proctor	84.21%	100.00%	86.36%
5402	402Rut	West Rutland	82.76%	90.00%	84.62%
5403	403Rut	Castleton	80.43%	50.00%	78.00%
5404	404Rut	Rutland	89.09%	89.47%	89.19%
6101	101WL	Barre	97.22%	100.00%	97.66%
6102	102WL	Berlin	94.10%	96.72%	94.52%
6201	201WL	Cabot	95.83%	100.00%	96.88%
6202	202WL	Barre	87.12%	96.30%	88.68%
6301	301WL	Barre	80.43%	82.09%	80.76%
6302	302WL	Duxbury	85.13%	91.30%	86.31%
6303	303WL	East Montpelier	90.20%	87.23%	89.26%
6401	401WL	Berlin	87.91%	87.50%	87.83%
6402	402WL	Morristown	78.35%	84.21%	79.31%
6403	403WL	Berlin	92.00%	85.71%	90.63%
6404	404WL	Berlin	94.55%	100.00%	95.08%
7101	101WOW	White River	96.24%	97.14%	96.37%
7102	102WOW	Fairlee	95.24%	100.00%	95.89%
7201	201WOW	Chester	83.61%	76.47%	82.05%
7202	202WOW	Concord	83.21%	91.07%	85.56%
7301	301WOW	Chester	92.94%	94.12%	93.14%
7302	302WOW	Orange	92.31%	100.00%	94.34%
7303	303WOW	Stockbridge	83.61%	77.78%	82.28%
7401	401WOW	Halifax	72.46%	84.78%	75.54%
7402	402WOW	Springfield	91.33%	77.19%	87.44%
7403	403WOW	Belows Falls	80.00%	100.00%	85.00%
7404	404WOW	Chester	94.12%	100.00%	95.65%

VERMONT
AGENCY OF TRANSPORTATION

20/21 VERMONT SAFETY BELT USE STUDY

STATEWIDE OBSERVATION RESULTS

VERMONT STATE HIGHWAY SAFETY OFFICE
BEHAVIORAL SAFETY UNIT
AGENCY OF TRANSPORTATION
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NOVEMBER 2021