BOSR
Bureau of Sociological Research

Nebraska
Seat Belt Use
2022 Data Collection
Report

Prepared: September 2022

The contents of this report conform to our highest standards for data collection and reporting. If you should have any questions or concerns regarding the information reported within, please contact us.

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Introduction

In an effort to achieve greater consistency and comparability in statewide seat belt use reporting, the National Highway Traffic Safety Administration (NHTSA) issued new requirements in 2011 for observing and reporting future seat belt use. The requirements include the involvement of a qualified statistician in the sampling of specific road segments to be observed and in the data weighting process. A variety of specified operational details are also required. Each state prepares a plan that is approved by NHTSA and collects seat belt use data annually based on their approved plan. Every five years, the sample of road segments must be redrawn based upon updated information and approved by NHTSA.

In 2022, the Bureau of Sociological Research (BOSR) at the University of Nebraska - Lincoln was contracted to collect seat belt use observations and provide statistical weighting for this year's data collection. The 2022 data collection was the fourth year BOSR conducted the data collection, and the second administration where BOSR processed, weighted, and reported the data as well.

Primary contacts at each organization are listed below.
Bill Kovarik, Traffic Safety Specialist, Nebraska Department of Transportation (NDOT)
Dr. Kristen Olson, Director, BOSR, University of Nebraska - Lincoln
Kim Meiergerd, Senior Project Manager, BOSR, University of Nebraska - Lincoln

This report describes the data collection process for obtaining 2022 Nebraska seat belt use data as stipulated by the approved study design. It also includes tables with overall results showing seat belt use in Nebraska.

Sample Design

The Nebraska Seat Belt sample uses a two-stage, probability proportionate to size (PPS) design beginning with county selection and then road segment selection within the sampled counties. A new sample of road segments for use was drawn in 2022 and will be used from 2022 through 2026 when collecting seat belt use observations.

The Fatality Analysis Reporting System (FARS) data averages from 2015 to 2019 were used for crash-related fatality rates for each of Nebraska's 93 counties. Forty-one counties made up 85% of the passenger vehicle crash-related fatalities according to the data. Five additional counties had the same percentage of crash-related fatalities (1.2%) as the final county included in the 85%. As a result, all six counties with 1.2% of crash-related fatalities were eligible for selection leading to 46 counties being eligible for selection.

The 2020 Average Vehicle Miles (AVM) traveled for each county (PSU) were provided by NDOT to serve as the measure of size (MOS) at the county level. The total AVM for the 46 counties eligible for selection is 17,847.05 million. Given the sample size calculations indicated, 12 counties reached the desired standard error, the zone size for county selection is as follows:

$$Zone\ Size = \frac{Total\ MOS}{n} = \frac{17{,}847.05}{12} = 1{,}487.25$$

The cumulative AVM amounts were calculated across the eligible counties. One county was selected within each cumulative AVM of 1,487.25. Douglas County (AVM=4,134.39) and Lancaster County (AVM=2,590.25) were selected with certainty given each has higher AVM than the selection zone and 2.78 and 1.74 probabilities of selection respectively. Because the sample design allows for replacement, each county was sampled more than once. Douglas County was selected three times and Lancaster County twice. The remaining seven counties sampled were only selected once given that each had an AVM of less than the zone size, and thus a probability of selection less than one. As a result, nine counties were sampled.

A list of Nebraska road segments (SSU) was obtained from the United States Department of Transportation using TIGER data. These data are classified using the MAF/TIGER Feature Class Code (MTFCC) into Primary roads, Secondary roads, and Local roads. The length for each road segment is also included serving as the measure of size for sampling. In line with the Uniform Criteria, rural local segments, cul-de-sac, military instillation, and unnamed or private road segments were excluded. Douglas and Lancaster Counties were the only two urban counties sampled. As a result, only these two counties had local road segments sampled. Antelope, Madison, Platte, and Richardson Counties only had secondary road segments to sample after local road segments were excluded.

Road segments were stratified within county by road type. Road segments were then sampled with a proportionate stratified design. As a result, the number of road segments selected by road type for each county was proportionate to that road type's percentage of the overall size for that county. In 2022, a total of 72 road segments were sampled. Six road segments were selected for each PSU using the same process as the county selection with zone sizes. Because Douglas and Lancaster Counties were sampled more than once, each had 18 and 12 road segments sampled respectively. Two alternate sites were also selected for each county for each road type sampled.

Preparation

BOSR prepared materials, recruited and trained personnel, and scheduled data collection for the 2022 administration.

Site Verification

The Nebraska Seat Belt Survey Plan uses a sample of 72 road segments or sites spread across nine counties. Douglas County (Omaha) has 18 sampled segments while Lancaster (Lincoln) has 12. The remaining seven counties each have six sampled road segments. One site was unable to be observed in 2022 due to construction work. Another site was unable to be observed in 2022 due to a permanent road closure.

Materials Preparation

BOSR prepared maps for data collectors and provided them with the necessary field equipment, including safety vests, signs, stop watches, and clickers. Data collection forms were printed. Data collection schedules were prepared for each site and administrative procedures were documented.

Notification

Prior to BOSR carrying out their data collection, the Highway Safety Office Administrator notified city and county law enforcement agencies and the state patrol to ensure that appropriate officials in each site area would be aware of the project's purpose and dates and times of planned data collection. The administrator worked with the traffic engineering department to secure a letter for data collectors to present to law enforcement if questioned during the data collection period. NDOT worked with local divisions to ensure personnel were notified.

Data Collection Staff Training

BOSR employed five data collectors in 2022. Data collectors were responsible for between 24 and 31 sites each. Quality Control functions were carried out by one BOSR staff member.

BOSR conducted a single-day project training which was held in-person on June 1, 2022 (see the agenda in Figure 1). The training session covered data collection protocols including: how to find the observation sites; choosing an observation location; how to properly collect data; defining seat belt "use," "nonuse," and "use unknown"; what to do if data cannot be collected at a site due to road construction, weather, or other circumstances; the appropriate management and submission of collected data; and roadside safety. Field exercises were also included as a part of the training.

Responsibilities of Quality Control (QC) monitors were also reviewed at the training. QC duties include conducting unannounced site visits to a minimum of two sites for each data collector (10% of the total sites) and reviewing the data collector's field protocol. The QC Monitor met with the data collectors in the field to answer questions and to offer assistance as needed.

Data collectors were instructed as to the use of their provided materials. Data collectors were instructed to wear their bright, yellow safety vests during data collection, for instance, and to use their car's flashing lights and a light to place on top of their vehicles as needed for safety. They were also instructed in the use of their clicker counters. They were instructed to use personal phones and stop watches for timekeeping. Data collectors were provided with and instructed in the use of "Survey Crew Ahead" signs for high-speed areas and sites that did not have adequate sidewalk or pedestrian space.

Figure 1. Seat Belt Data Collector Training Agenda

June 1, 2022

- Seat Belt Survey Overview
  - Study Design
  - NHTSA Requirements
  - Data Collection Requirements
  - Definitions of Terms
- Data Collection Procedures
  - Assignments & Rescheduling
  - Low/High Volume Roadways
  - Locating Assigned Sites
  - Site Assignment Sheets & Maps
  - Data Collection & Observation Forms
  - Recording Observations
  - Recording Alternate Site Information
  - Traffic Counts
- Safety Training
  - Signage and Visibility
  - Roadway Safety
- Quality Control and QC Monitoring
- Field Practice
  - Practice Observations
  - Road Work Sign Setup

Observation Protocols and Procedures

All passenger vehicles, including commercial vehicles weighing less than 10,000 pounds, were eligible for observation. Data Collectors completed two forms in the field, the observation site form and the observation count form, which are shown in Appendices A and B. The observation site form documented descriptive information about each site. Data collectors recorded information including observation date, site location and number, alternative site data, traffic directions and lanes available and observed, start and end times for observations, and weather conditions. They were also encouraged to include notes on best parking locations, best observation locations, and any other unique situations or issues that arose.

The observation count form was used to mark seat belt use, non-use, and unknown use for drivers and right front passengers. Using the observation count form, seat belt use observations were made of all passenger vehicle drivers and right front seat occupants in the selected lane(s). The only right front seat occupants excluded from the study were child passengers traveling in child seats with harness straps. If there was no passenger in the right front seat of an observed vehicle, that information was also noted on the observation count form. Data Collectors

recorded belt use for the driver and right front seat passenger using the definitions shown in Figure 2 below. These definitions were provided in the federal regulations for this study.

Figure 2. Seat Belt Use Categories

Code	Meaning	Definition
Y	Yes, belted	The shoulder belt is in front of the person's shoulder.
N	No, unbelted	The shoulder belt is not in front of the person's shoulder.
U	Unknown	It cannot reasonably be determined whether the driver or right front passenger is belted.
NP	No passenger	There is no right front passenger present.

Scheduling

In general, two data collectors were assigned six sites in one county per workday. Based on anticipated traffic volume, some sites were assigned four data collectors and some sites were assigned one data collector. Observations were to start at the assigned times, as much as possible, and to continue for exactly 45 minutes.

Observations

The direction of travel was randomly assigned, though data collectors were allowed to observe the other direction as safety concerns or windshield glare dictated. Deviations from the randomly assigned direction were noted on the observation site form. Data collectors were allowed to observe as many lanes and directions of traffic as they were able to successfully observe. Lower volume roadways, such as county roads and streets, were observed from a field drive or other location where data collectors could safely move their vehicles from the roadway.

Whenever possible, observations for high-volume, limited access roadways were made from an overpass. Observing from an overpass allowed for comparatively easy viewing of seat belt use of both the driver and the passenger. Gravel road overpasses were preferred because of the low traffic volume, reducing safety hazards to the data collector. In some instances, observing from an overpass required moving the observation point from the specific road segment by a couple of miles. Due to the limited exit and entrance to these roadways, there were no significant changes to the observed vehicles between the assigned road segment and the observation point.

If a low volume overpass was not available, data collectors were allowed to observe traffic at an exit ramp or rest stop. In these cases, because the exit ramp/rest stop samples only a portion of the traffic passing on the main highway, an additional traffic volume count was required in order to adjust for reduced traffic. Only one rest stop/exit ramp was used in 2022. The data collectors completed a 45-minute observation period at an exit ramp. This traffic count information was recorded on the observation site form and was used to adjust the seat belt usage observation data.

Data collectors revisited any sites with zero useable observations. In 2022, one site had zero useable observations. No useable observations were made on the second attempt. As a result, the road segment was removed for 2022.

In 2022, one site was deemed to have a much higher nonresponse rate than other sites. It was determined the original observation spot was problematic. This site was revisited and a new spot was used to gather additional observations.

Alternate Sites

If unexpected construction or difficulty in locating a useable, safe place to observe required the data collector to deviate further than 2 miles (or more than one block within a city) from the selected road segment, the data collector was instructed to call the office for further guidance. If an alternate site was deemed necessary, data

collectors noted the location as an alternate site on the observation site form. For the 2022 data collection, two unanticipated alternate sites were needed. One alternate site was due to temporary road construction and the other alternate site was due to a permanent road closure.

Rescheduling

If an assigned road segment was temporarily unavailable due to a traffic crash or inclement weather, data collection was to be rescheduled to a subsequent week on the same day and at the same time. In 2022, only one site was rescheduled due to inclement weather. As a result, data were collected at this one site on the same day of the week and at the same time of day two weeks later.

Data Processing and Cleaning

The observation count forms were entered using SurVADE software with data saved on BOSR's secure networked file server. Data entry was completed by experienced data entry staff. All of the data entry staff had previous experience in data entry using SurVADE. The data entry staff was supervised by full-time BOSR project staff.

Data entry was completed in two steps. First, one data entry staff member would enter responses from a single observation form. Second, another data entry staff member would re-key the observation form and be alerted to any discrepancies with the first entry. Supervisory staff members were available to answer questions. The data entry staff are paid by the hour, not by the number of forms entered. This method of payment is used so that we can ensure the high quality of the data collected by our staff.

The data were recorded and stored on a secure server located within the Sociology Department at UNL. The data were exported from SurVADE into a Statistical Package for the Social Sciences (SPSS) system file. BOSR first removed any cases that were duplicate. BOSR also removed sites with no useable observations. The next step in data cleaning was to run frequency distributions on each of the variables in the survey and check for out-of-range values on all survey items. BOSR then checked general site information (e.g., county name, site number, page numbers, etc.) for accuracy. The final step was to make sure that for every driver observation there was either a passenger observation or the code No Passenger (NP) recorded in the dataset. In instances where NP was recorded and no driver observation was recorded for a vehicle, the observation was removed from the dataset. In instances where a vehicle had a passenger observation recorded and no driver observation recorded, the driver observation was recoded to unknown. No other validity checks were done.

The dataset was imported into a SAS system file for further processing and analysis. The belted and unbelted values were dummy coded with unknown and no passenger having different missing data values to allow for the unknown/nonresponse rate to be calculated accurately. Coding the data this way allows the belted rate to be calculated as a proportion. No imputation was conducted. Standard errors were calculated using the SAS proc surveyfreq command. This command allows for the two-stage design to be taken into account using stratum and cluster variables in addition to the weight variable.

Data Weights

A probability of selection weight was calculated for each sampled road segment. First, the probability of selection was calculated for each county. The inverse of the probability then served as the county weight. The same steps were taken for each road segment. The two weights were multiplied to account for both stages of selection.

Two adjustments were made to the initial sampling weight. First, weights for Site 506 were inflated to 12171.474549 to account for observations taking place on an exit ramp (with a traffic count of 100 vehicles observed in 1 minute and 49

seconds). Weights for Lancaster County were adjusted by the inverse of the weighted cluster response rate (1.024695) for a nonresponding site. All other weights are original sampling weights. All analyses account for the complex survey design, including the design effect due to weighting, clustering and stratification. The design effect for the overall belted rate is 5.76.

Limitations

Observations were conducted during daytime hours (i.e., sunrise to sunset) within a two-week period during the month of June with follow-up observations of two sites during July and one site during August and may exclude those that did not drive or ride in a vehicle during this time. Vehicles weighing 10,000 pounds or more and passengers that are not in the right front seat are excluded from this study. Vehicles that belong to out-of-state residents are included in this study. Seat belt usage observations may vary across individual data collectors and can be affected by weather conditions, vehicle type, and observation location. Sites in the same county were assigned to be visited on the same day to help reduce data collector travel costs; as such, county estimates reflect only one day of the week. Similarly, estimates for some days of the week reflect observations collected from sites from one county.

Questions

Any questions regarding this report or the data collected can be directed to the Bureau of Sociological Research at the University of Nebraska-Lincoln by calling (402) 472-3672 or by sending an e-mail to bosr@unl.edu.

Results

Data collection for 2022 occurred from Monday, June 6 through Tuesday, August 2, 2022. The 2022 seat belt use data collection resulted in the observation of **14,835 passenger vehicles**, with a right front seat passenger in 3,566 of those vehicles, for a total of **18,401 potential observations** of belt use. Of these 18,401 potential observations, there were 11,157 drivers and 2,730 right front passengers who were observed to be wearing seat belts (13,887 total seat belt users). Seat belts were not worn by 2,876 drivers and 676 right front passengers (3,552 total unbelted). Data collectors were unable to observe the seat belt use of 802 drivers and 160 passengers (962 total unknown use).

The **unknown use, or "nonresponse rate," is .052 or 5.2%.** This is well within the range allowed by federal regulations, which require the nonresponse rate to be below 10%.

Federal regulations require a minimum of 7,500 observations, and the 2022 total of 14,835 passenger vehicles with 18,401 observed occupants exceeds the minimum requirement.

Quality control checks were completed with each of the five data collectors to ensure compliance with project protocols. All data collectors were observed at two or more sites. In total, quality control checks were conducted at 11.1% of the sites (8 out of 72), exceeding the federal regulation that a minimum of 5% of sites be subjected to such checks.

The 2022 data were weighted based on the two-stage, stratified sample design of the 2022-2026 sample. Standard errors were calculated using the SAS proc surveyfreq command in order to take the sample design into account. These analyses were conducted by Dr. Kristen Olson, the Director of BOSR at the University of Nebraska – Lincoln.

Based upon the weighted data, **Nebraska's overall seat belt use rate for 2022 is 76.3%**, with an **estimated standard error of .008 or 0.8%.** This meets NHTSA's requirement that the standard error should be less than .025.

Tables and Appendices

Table 1 shows statewide weighted Nebraska Safety Belt Use, excluding unknown cases, for 2022.

Table 2 lists the 72 observation sites with selected characteristics and the number of belted drivers and right front passengers for each site. These data are unweighted.

Tables 3 and 4 show the seat belt use of drivers and passengers by county. Table 3 contains the number or count of each category of belt use by drivers, passengers, and total for each sampled county. Table 4 contains two types of unweighted percentages of belt use for drivers, passengers, and combined total for each county. The "% of Total Belted" is the percent of the total number of persons (both drivers and passengers) who were belted. The "% of Known Belted" removes the persons with unknown belt use from the base number, so it becomes the percent of persons with known seat belt status who were belted. Note that these percentages are unweighted and the statewide seat belt use percentage is slightly different than the weighted seat belt use percentage required by federal regulations for reporting. Nevertheless, the unweighted percentages in Table 4 enable legitimate comparisons between seat belt users/nonusers and between counties.

Tables 5 and 6 show the seat belt use of drivers and passengers by road type. Table 5 contains the number in each category and Table 6 contains unweighted percentages. Federal regulations required the new survey plan to classify road types as primary (including interstates), secondary, and local.

Table 7 contains seat belt use of drivers and passengers by day of the week. The percentages included in the table are unweighted.

Table 8 contains seat belt use of drivers and passengers by time of day. The percentages included in the table are unweighted.

Table 9 contains sample weights for each observation site as well as seat belt use for drivers and passengers (number or count). This information is used for Part B reporting purposes.

Appendix A. Observation Site Form
Appendix B. Observation Count Form
Appendix C. AAPOR Transparency Initiative Immediate Disclosure Items

Table 1. 2022 Nebraska Safety Belt Use, weighted and excluding "unknown" cases

Sample Division	N	2022 Belted Estimate (S.E. in Parentheses)	95% CI Lower	95% CI Upper
Total Sample	17439	76.3% (0.8%)	74.8%	77.9%
Drivers	14033	76.5% (0.6%)	75.3%	77.6%
Passengers	3406	75.2% (2.9%)	69.4%	80.9%

Table 2. 2022 Seat Belt Usage

Site #	County	Road Name	Road Type	Day	Start Time	Vehicle Count	Drivers Belted	Passenger Count	Passenger Belted
101	Antelope	523rd Ave	Secondary	Sunday	10:30 AM	78	66	35	25
102	Antelope	US Hwy 275	Secondary	Sunday	11:25 AM	140	116	44	37
103	Antelope	US Hwy 275	Secondary	Sunday	1:15 PM	133	102	56	40
104	Antelope	Miles St	Secondary	Sunday	2:05 PM	106	91	42	32
105	Antelope	State Hwy 14	Secondary	Sunday	3:30 PM	83	73	33	32
106	Antelope	US Hwy 20	Secondary	Sunday	4:35 PM	82	65	34	26
201	Cheyenne	I-80	Primary	Thursday	8:00 AM	180	154	81	74
202	Cheyenne	I-80	Primary	Thursday	9:14 AM	236	189	98	89
203	Cheyenne	US Hwy 30	Secondary	Thursday	10:15 AM	58	35	7	4
204	Cheyenne	US Hwy 30	Secondary	Thursday	11:10 AM	64	46	15	12
205	Cheyenne	NE Hwy 19	Secondary	Thursday	12:48 PM	30	25	9	5
206	Cheyenne	I-80	Primary	Thursday	2:05 PM	222	193	111	101
301	Dakota	I-129	Primary	Thursday	10:50 AM	556	460	138	109
302	Dakota	US Hwy 73	Secondary	Thursday	11:55 AM	250	195	67	53
303	Dakota	State Hwy 35	Secondary	Thursday	1:18 PM	108	75	26	18
304	Dakota	State Hwy 35	Secondary	Thursday	2:15 PM	132	103	40	29
305	Dakota	US Hwy 20	Secondary	Thursday	3:12 PM	253	200	62	49
306	Dakota	State Hwy 35	Secondary	Thursday	4:41 PM	159	126	29	23
401	Dodge	Lincoln Hwy	Secondary	Wednesday	8:52 AM	190	119	52	36
402	Dodge	US Hwy 275	Secondary	Wednesday	10:17 AM	205	137	57	41
403	Dodge	E Howard St	Secondary	Wednesday	11:23 AM	31	20	3	1
404	Dodge	N Broad St	Secondary	Wednesday	12:26 PM	358	255	76	50
405	Dodge	E 23rd St	Secondary	Wednesday	2:15 PM	220	154	46	31
406	Dodge	Lincoln Hwy	Primary	Wednesday	3:16 PM	157	110	33	22
501	Douglas	I-80	Primary	Tuesday	9:56 AM	1501	1217	357	295
502	Douglas	I-680	Primary	Tuesday	11:12 AM	813	582	130	111

Site #	County	Road Name	Road Type	Day	Start Time	Vehicle Count	Drivers Belted	Passenger Count	Passenger Belted
503	Douglas	State Hwy 36	Secondary	Tuesday	12:22 PM	286	199	47	39
504	Douglas	L St	Secondary	Tuesday	2:14 PM	661	462	82	50
505	Douglas	L St	Secondary	Tuesday	3:11 PM	801	463	93	76
506	Douglas	I-480 (exit ramp)	Primary	Tuesday	4:19 PM	496	367	38	33
507	Douglas	Blondo Pkwy	Local	Thursday	10:25 AM	118	92	24	15
508	Douglas	Spencer St	Local	Thursday	11:30 AM	20	12	1	1
509	Douglas	S 93rd St	Local	Thursday	12:35 PM	19	16	7	4
510	Douglas	S 99th Ave	Local	Thursday	2:15 PM	19	16	2	2
511	Douglas	S 38th Ave	Local	Thursday	3:20 PM	25	15	4	2
512	Douglas	S 37th St	Local	Thursday	4:40 PM	80	65	17	14
513	Douglas	Harrison St	Local	Wednesday	9:15 AM	4	4	0	0
514	Douglas	Brentwood Rd	Local	Wednesday	10:30 AM	12	9	3	1
515	Douglas	N 70th Ave	Local	Wednesday	11:50 AM	9	7	0	0
516	Douglas	N 60th St	Local	Wednesday	1:20 PM	392	291	61	41
517	Douglas	Jones St	Local	Wednesday	2:25 PM	9	4	3	2
518	Douglas	S 68th Plz	Local	Wednesday	3:30 PM	17	13	3	3
601	Lancaster	I-80	Primary	Monday	7:30 AM	1143	895	246	179
602	Lancaster	N 15th St	Local	Monday	8:40 AM	26	22	4	3
603	Lancaster	Cornhusker Hwy	Secondary	Monday	9:40 AM	194	129	43	19
604	Lancaster	I-80	Primary	Monday	10:35 AM	1098	947	444	357
605	Lancaster	NW 12th St	Local	Monday	12:30 PM	0	0	0	0
606	Lancaster	State Hwy 79	Secondary	Monday	1:35 PM	118	95	20	14
607	Lancaster	Newton St	Local	Monday	7:00 AM	7	5	1	1
608	Lancaster	Old Cheney Rd	Local	Monday	8:10 AM	123	93	26	13
609	Lancaster	Sutherland St	Local	Monday	9:15 AM	8	8	2	1
610	Lancaster	W Fresh Water Ln	Local	Monday	10:35 AM	11	10	1	0
611	Lancaster	Manatt St	Local	Monday	12:40 PM	6	5	0	0
612	Lancaster	Air Park Rd	Secondary	Monday	12:45 PM	32	20	4	3
701	Madison	553rd Ave	Secondary	Friday	10:40 AM	122	110	43	30
702	Madison	553rd Ave	Secondary	Friday	11:30 AM	99	80	14	10
703	Madison	US Hwy 81	Secondary	Friday	1:35 PM	255	200	51	35
704	Madison	State Hwy 32	Secondary	Friday	2:35 PM	36	30	7	6

Site #	County	Road Name	Road Type	Day	Start Time	Vehicle Count	Drivers Belted	Passenger Count	Passenger Belted
705	Madison	US Hwy 275	Secondary	Friday	3:50 PM	690	544	111	90
706	Madison	US Hwy 275	Secondary	Friday	5:15 PM	260	200	68	57
801	Platte	13th St	Secondary	Saturday	7:45 AM	110	69	35	23
802	Platte	S 9th St	Secondary	Saturday	8:42 AM	157	100	34	19
803	Platte	US Hwy 30	Secondary	Saturday	9:34 AM	170	115	54	42
804	Platte	US Hwy 30	Secondary	Saturday	10:30 AM	158	95	60	43
805	Platte	State Hwy 22	Secondary	Saturday	12:32 PM	173	110	46	34
806	Platte	US Hwy 81	Secondary	Saturday	2:18 PM	250	147	119	84
901	Richardson	630 Ave	Secondary	Friday	9:30 AM	6	1	1	0
902	Richardson	712 Rd	Secondary	Friday	10:45 AM	60	38	10	7
903	Richardson	State Hwy 8	Secondary	Friday	11:50 AM	38	17	8	4
904	Richardson	706 Rd	Secondary	Friday	1:30 PM	29	15	6	3
905	Richardson	US Hwy 75	Secondary	Friday	2:45 PM	110	89	33	20
906	Richardson	State Hwy 8	Secondary	Friday	3:45 PM	33	25	9	5
					Total	**14835**	**11157**	**3566**	**2730**

Table 3. 2022 Driver and Passenger Seat Belt Use by County (n)

	Drivers				Right Front Passengers				Total			
County	**Total**	**Belted**	**Not Belted**	**Unknown**	**Total**	**Belted**	**Not Belted**	**Unknown**	**Total**	**Belted**	**Not Belted**	**Unknown**
Antelope	622	513	105	4	244	192	49	3	866	705	154	7
Cheyenne	790	642	99	49	321	285	31	5	1111	927	130	54
Dakota	1458	1159	266	33	362	281	71	10	1820	1440	337	43
Dodge	1161	795	257	109	267	181	52	34	1428	976	309	143
Douglas	5282	3834	1088	360	872	689	163	20	6154	4523	1251	380
Lancaster	2766	2229	423	114	791	590	154	47	3557	2819	577	161
Madison	1462	1164	287	11	294	228	61	5	1756	1392	348	16
Platte	1018	636	263	119	348	245	69	34	1366	881	332	153
Richardson	276	185	88	3	67	39	26	2	343	224	114	5
Total	**14835**	**11157**	**2876**	**802**	**3566**	**2730**	**676**	**160**	**18401**	**13887**	**3552**	**962**

Table 4. 2022 Driver and Passenger Seat Belt Use by County (unweighted percentages)

	Drivers		Right Front Passengers		Total	
County	**% of Total Belted**	**% of Known Belted**	**% of Total Belted**	**% of Known Belted**	**% of Total Belted**	**% of Known Belted**
Antelope	82.5%	83.0%	78.7%	79.7%	81.4%	82.1%
Cheyenne	81.3%	86.6%	88.8%	90.2%	83.4%	87.7%
Dakota	79.5%	81.3%	77.6%	79.8%	79.1%	81.0%
Dodge	68.5%	75.6%	67.8%	77.7%	68.3%	76.0%
Douglas	72.6%	77.9%	79.0%	80.9%	73.5%	78.3%
Lancaster	80.6%	84.0%	74.6%	79.3%	79.3%	83.0%
Madison	79.6%	80.2%	77.6%	78.9%	79.3%	80.0%
Platte	62.5%	70.7%	70.4%	78.0%	64.5%	72.6%
Richardson	67.0%	67.8%	58.2%	60.0%	65.3%	66.3%
Total	**75.2%**	**79.5%**	**76.6%**	**80.2%**	**75.5%**	**79.6%**

Table 5. 2022 Seat Belt Use by Road Type (n)

	Drivers				Right Front Passengers				Total			
Road Type	**Total**	**Belted**	**Not Belted**	**Unknown**	**Total**	**Belted**	**Not Belted**	**Unknown**	**Total**	**Belted**	**Not Belted**	**Unknown**
Local	937	707	207	23	163	106	49	8	1100	813	256	31
Primary	6402	5114	978	310	1676	1370	245	61	8078	6484	1223	371
Secondary	7496	5336	1691	469	1727	1254	382	91	9223	6590	2073	560
Total	**14835**	**11157**	**2876**	**802**	**3566**	**2730**	**676**	**160**	**13887**	**3552**	**962**	**18401**

Table 6. 2022 Seat Belt Use by Road Type (unweighted percentages)

	Drivers		Right Front Passengers		Total	
Road Type	**% of Total Belted**	**% of Known Belted**	**% of Total Belted**	**% of Known Belted**	**% of Total Belted**	**% of Known Belted**
Local	75.5%	77.4%	65.0%	68.4%	73.9%	76.1%
Primary	79.9%	83.9%	81.7%	84.8%	80.3%	84.1%
Secondary	71.2%	75.9%	72.6%	76.7%	71.5%	76.1%
Total	**75.2%**	**79.5%**	**76.6%**	**80.2%**	**25.6%**	**78.7%**

Table 7. 2022 Driver and Passenger Seat Belt Use by Day of Week (n & unweighted %)

	Drivers Belted	Total Drivers	Passengers Belted	Total Passengers	% Drivers Belted	% Passengers Belted
Sunday	513	622	192	244	82.5%	78.7%
Monday	2229	2766	590	791	80.6%	74.6%
Tuesday	3290	4558	604	747	72.2%	80.9%
Wednesday	1123	1604	228	337	70.0%	67.7%
Thursday	2017	2529	604	738	79.8%	81.8%
Friday	1349	1738	267	361	77.6%	74.0%
Saturday	636	1018	245	348	62.5%	70.4%
Total	**11157**	**14835**	**2730**	**3566**	**75.2%**	**76.6%**

Table 8. 2022 Driver and Passenger Seat Belt Use by Time of Day (n & unweighted %)

	Drivers Belted	Total Drivers	Passengers Belted	Total Passengers	% Drivers Belted	% Passengers Belted
7AM to 759AM	969	1260	203	282	76.9%	72.0%
8AM to 859AM	488	676	145	197	72.2%	73.6%
9AM to 959AM	1663	2119	446	555	78.5%	80.4%
10AM to 1059AM	1999	2476	632	822	80.7%	76.9%
11AM to 1159AM	1075	1464	229	282	73.4%	81.2%
12PM to 1259PM	630	904	135	189	69.7%	71.4%
1PM to 159PM	778	1035	151	220	75.2%	68.6%
2PM to 259PM	1289	1765	357	485	73.0%	73.6%
3PM to 359PM	1443	2059	279	348	70.1%	80.2%
4PM to 459PM	623	817	96	118	76.3%	81.4%
5PM to 559PM	200	260	57	68	76.9%	83.8%
Total	**11157**	**14835**	**2730**	**3566**	**75.2%**	**76.6%**

Table 9. 2022 Sample Weights and Seat Belt Use by Observation Site: Part B Reporting Data (n)

Site ID	Site Type	Date Observed	Sample Weight*	Number of Drivers	Number of Front Passengers	Number of Occupants Belted	Number of Occupants Unbelted	Number of Occupants Unknown Belt Use
101	Secondary	6/12/2022	990.17	78	35	91	21	1
102	Secondary	6/12/2022	760.38	140	44	153	31	0
103	Secondary	6/12/2022	364.12	133	56	142	43	4
104	Secondary	6/12/2022	3166.54	106	42	123	23	2
105	Secondary	6/12/2022	265.67	83	33	105	11	0
106	Secondary	6/12/2022	491.45	82	34	91	25	0
201	Primary	6/16/2022	750.99	180	81	228	21	12
202	Primary	6/16/2022	63.57	236	98	278	29	27
203	Secondary	6/16/2022	4401.87	58	7	39	25	1
204	Secondary	6/16/2022	877.35	64	15	58	21	0
205	Secondary	6/16/2022	8456.29	30	9	30	9	0
206	Primary	6/16/2022	183.29	222	111	294	25	14
301	Primary	6/16/2022	203.21	556	138	569	109	16
302	Secondary	6/16/2022	255.8	250	67	248	59	10
303	Secondary	6/16/2022	469.1	108	26	93	36	5
304	Secondary	6/16/2022	397.92	132	40	132	32	8
305	Secondary	6/16/2022	520.27	253	62	249	64	2
306	Secondary	6/16/2022	191.8	159	29	149	37	2
401	Secondary	6/8/2022	218.33	190	52	155	47	40
402	Secondary	6/8/2022	367.15	205	57	178	53	31
403	Secondary	6/8/2022	1104.37	31	3	21	13	0
404	Secondary	6/8/2022	2222.71	358	76	305	99	30
405	Secondary	6/22/2022	843.94	220	46	185	73	8
406	Primary	6/8/2022	147.85	157	33	132	24	34
501	Primary	6/14/2022	102.28	1501	357	1512	281	65
502	Primary	6/14/2022	61.51	813	130	693	180	70
503	Secondary	6/14/2022 and 8/2/2022	55.91	286	47	238	35	60
504	Secondary	6/14/2022	4619.92	661	82	512	185	46
505	Secondary	6/14/2022	101.95	801	93	539	254	101
506	Primary (exit ramp)*	6/14/2022	2437.18	496	38	400	115	19
507	Local	6/9/2022	852.02	118	24	107	35	0
508	Local	6/9/2022	1006.37	20	1	13	7	1
509	Local	6/9/2022	671.92	19	7	20	2	4
510	Local	6/9/2022	900.28	19	2	18	3	0
511	Local	6/9/2022	423.51	25	4	17	9	3
512	Local	6/23/2022	1877.96	80	17	79	16	2
513	Local	6/8/2022	615.91	4	0	4	0	0
514	Local	6/8/2022	1459.9	12	3	10	5	0

Site ID	Site Type	Date Observed	Sample Weight*	Number of Drivers	Number of Front Passengers	Number of Occupants Belted	Number of Occupants Unbelted	Number of Occupants Unknown Belt Use
515	Local	6/8/2022	1356.25	9	0	7	2	0
516	Local	6/8/2022	3209.44	392	61	332	113	8
517	Local	6/8/2022	2076.2	9	3	6	5	1
518	Local	6/8/2022	411.47	17	3	16	4	0
601	Primary	6/6/2022	555.33	1143	246	1074	271	44
602	Local	6/6/2022	4328.73	26	4	25	5	0
603	Secondary	6/6/2022	167.49	194	43	148	55	34
604	Primary	6/6/2022	22.51	1098	444	1304	168	70
605	Local*	6/6/2022 and 7/25/2022	--	0	0	0	0	0
606	Secondary	6/6/2022	77.18	118	20	109	28	1
607	Local	6/13/2022	2978.29	7	1	6	2	0
608	Local	6/13/2022	412.67	123	26	106	33	10
609	Local	6/13/2022	6791.46	8	2	9	1	0
610	Local	6/13/2022	1025.16	11	1	10	2	0
611	Local	6/13/2022	3275.47	6	0	5	1	0
612	Secondary	6/13/2022	3177.40	32	4	23	11	2
701	Secondary	6/10/2022	208.46	122	43	140	22	3
702	Secondary	6/10/2022	211.7	99	14	90	19	4
703	Secondary	6/10/2022	311.72	255	51	235	68	3
704	Secondary	6/10/2022	1089.15	36	7	36	5	2
705	Secondary	6/10/2022	649.56	690	111	634	165	2
706	Secondary	6/10/2022	298.17	260	68	257	69	2
801	Secondary	6/11/2022	1603.39	110	35	92	51	2
802	Secondary	6/11/2022	469.05	157	34	119	43	29
803	Secondary	6/11/2022	344.1	170	54	157	46	21
804	Secondary	6/11/2022	588.69	158	60	138	55	25
805	Secondary	6/11/2022	4615.82	173	46	144	53	22
806	Secondary	6/11/2022	199.11	250	119	231	84	54
901	Secondary	6/17/2022	2466.18	6	1	1	6	0
902	Secondary	6/17/2022	580.55	60	10	45	24	1
903	Secondary	6/17/2022	1489.93	38	8	21	23	2
904	Secondary	6/17/2022	1299.34	29	6	18	17	0
905	Secondary	6/17/2022	331.77	110	33	109	32	2
906	Secondary	6/17/2022	717.69	33	9	30	12	0
			Total	**14835**	**3566**	**13887**	**3552**	**962**

Standard Error of Statewide Belt Use Rate	**0.8%**
Nonresponse Rate for the Survey Variable Seat Belt Use	**5.2%**

*Weights for Site 506 inflated to 12171.474549 to account for traffic count (100 vehicles observed in 1 minute and 49 seconds). Weights for Lancaster County adjusted by (1/0.9759) for nonresponding site by the inverse of the weighted cluster response rate. All other weights are original sampling weights.

Nebraska Seat Belt Survey

Site Form

Data Collector: _____	Date: _____ / _____ / 2022

Site Identification:

County: «PSU»	
Road Name: «Road_Name»	**County Site #: «Site_»**

Site Start and End Time:

Start time for observations: _____am/pm

End time for observations: _____am/pm

(Total observation period MUST last exactly 45 minutes)

Site Description:

Selected traffic flow direction: North South East West

Total number of lanes in selected direction: _____

Weather Conditions: **Clear** **Cloudy/PC** **Light Fog** **Light Rain**

Alternate Site Information:

Is this an alternate site (not including a recommended observation point)**?** **No** **Yes**

If yes, why was an alternate site needed?

_____

Traffic Count:

Is a traffic count required (exit ramp or rest stop)**?** **No** **Yes**

If yes,
Number of Cars: _____ **Duration: _____**

Nebraska Seat Belt Survey – Observation Form

County: _____ **Page ___ of ___**

County site #: _____

Data Collector Name: _____

Responses: Y = Yes, N = No, U = Unknown, NP = No Passenger

VEHICLE NUMBER	DRIVER SEATBELT USE			PASSENGER SEATBELT USE				VEHICLE NUMBER	DRIVER SEATBELT USE			PASSENGER SEATBELT USE			
1	Y	N	U	Y	N	U	NP	41	Y	N	U	Y	N	U	NP
2	Y	N	U	Y	N	U	NP	42	Y	N	U	Y	N	U	NP
3	Y	N	U	Y	N	U	NP	43	Y	N	U	Y	N	U	NP
4	Y	N	U	Y	N	U	NP	44	Y	N	U	Y	N	U	NP
5	Y	N	U	Y	N	U	NP	45	Y	N	U	Y	N	U	NP
6	Y	N	U	Y	N	U	NP	46	Y	N	U	Y	N	U	NP
7	Y	N	U	Y	N	U	NP	47	Y	N	U	Y	N	U	NP
8	Y	N	U	Y	N	U	NP	48	Y	N	U	Y	N	U	NP
9	Y	N	U	Y	N	U	NP	49	Y	N	U	Y	N	U	NP
10	Y	N	U	Y	N	U	NP	50	Y	N	U	Y	N	U	NP
11	Y	N	U	Y	N	U	NP	51	Y	N	U	Y	N	U	NP
12	Y	N	U	Y	N	U	NP	52	Y	N	U	Y	N	U	NP
13	Y	N	U	Y	N	U	NP	53	Y	N	U	Y	N	U	NP
14	Y	N	U	Y	N	U	NP	54	Y	N	U	Y	N	U	NP
15	Y	N	U	Y	N	U	NP	55	Y	N	U	Y	N	U	NP
16	Y	N	U	Y	N	U	NP	56	Y	N	U	Y	N	U	NP
17	Y	N	U	Y	N	U	NP	57	Y	N	U	Y	N	U	NP
18	Y	N	U	Y	N	U	NP	58	Y	N	U	Y	N	U	NP
19	Y	N	U	Y	N	U	NP	59	Y	N	U	Y	N	U	NP
20	Y	N	U	Y	N	U	NP	60	Y	N	U	Y	N	U	NP
21	Y	N	U	Y	N	U	NP	61	Y	N	U	Y	N	U	NP
22	Y	N	U	Y	N	U	NP	62	Y	N	U	Y	N	U	NP
23	Y	N	U	Y	N	U	NP	63	Y	N	U	Y	N	U	NP
24	Y	N	U	Y	N	U	NP	64	Y	N	U	Y	N	U	NP
25	Y	N	U	Y	N	U	NP	65	Y	N	U	Y	N	U	NP
26	Y	N	U	Y	N	U	NP	66	Y	N	U	Y	N	U	NP
27	Y	N	U	Y	N	U	NP	67	Y	N	U	Y	N	U	NP
28	Y	N	U	Y	N	U	NP	68	Y	N	U	Y	N	U	NP
29	Y	N	U	Y	N	U	NP	69	Y	N	U	Y	N	U	NP
30	Y	N	U	Y	N	U	NP	70	Y	N	U	Y	N	U	NP
31	Y	N	U	Y	N	U	NP	71	Y	N	U	Y	N	U	NP
32	Y	N	U	Y	N	U	NP	72	Y	N	U	Y	N	U	NP
33	Y	N	U	Y	N	U	NP	73	Y	N	U	Y	N	U	NP
34	Y	N	U	Y	N	U	NP	74	Y	N	U	Y	N	U	NP
35	Y	N	U	Y	N	U	NP	75	Y	N	U	Y	N	U	NP
36	Y	N	U	Y	N	U	NP	76	Y	N	U	Y	N	U	NP
37	Y	N	U	Y	N	U	NP	77	Y	N	U	Y	N	U	NP
38	Y	N	U	Y	N	U	NP	78	Y	N	U	Y	N	U	NP
39	Y	N	U	Y	N	U	NP	79	Y	N	U	Y	N	U	NP
40	Y	N	U	Y	N	U	NP	80	Y	N	U	Y	N	U	NP

Appendix C. AAPOR Transparency Initiative Immediate Disclosure Items

1. Describe the data collection strategies employed (e.g. surveys, focus groups, content analyses).

   Observation Protocols and Procedures

2. Name the sponsor of the research and the party(ies) who conducted it. If the original source of funding is different than the sponsor, this source will also be disclosed.

   Introduction

3. The exact wording and presentation of any measurement tool from which results are reported as well as any preceding contextual information that might reasonably be expected to influence responses to the reported results and instructions to respondents or interviewers should be included.

   Appendix A & B

4. A definition of the population under study, including location, age, other social or demographic characteristics (e.g., persons who access the internet), time (e.g., immigrants entering the US between 2015 and 2019).

   Observation Protocols and Procedures

5. Dates of data collection.

   Results

6. Explicitly state whether the sample comes from a frame selected using a probability-based methodology (meaning selecting potential participants with a known non-zero probability from a known frame) or if the sample was selected using non-probability methods (potential participants from opt-in, volunteer, or other sources).

   Sample Design

7. Probability-based sample specification should include a description of the sampling frame(s), list(s), or method(s). If a frame, list, or panel is used, the description should include the name of the supplier of the sample or list and nature of the list (e.g., registered voters in the state of Texas in 2018, pre-recruited panel or pool). If a frame, list, or panel is used, the description should include the coverage of the population, including describing any segment of the target population that is not covered by the design.

   Sample Design

8. Provide a clear indication of the method(s) by which participants were contacted, selected, recruited, intercepted, or otherwise contacted or encountered, along with any eligibility requirements and/or oversampling. Describe any use of quotas.

   Observation Protocols and Procedures

9. Provide details of any strategies used to help gain cooperation (e.g., advance contact, letters and scripts, compensation or incentives, refusal conversion contacts) whether for participation in a survey, group, panel, or for participation in a particular research project. Describe any compensation/incentives provided to research subjects and the method of delivery (debit card, gift card, cash).

   Not applicable

10. A description of all mode(s) used to contact participants or collect data or information (e.g., CATI, CAPI, ACASI, IVR, mail survey, web survey) and the language(s) offered or included.

    Observation Protocols and Procedures

11. Sample sizes (by sampling frame if more than one was used) and (if applicable) a discussion of the precision of the results. Provide sample sizes for each mode of data collection (for surveys include sample sizes for each frame, list, or panel used). For probability samples, report estimates of sampling error (often described as “the margin of error”), and discuss whether or not the reported sampling error or statistical analyses have been adjusted for the design effect due to weighting, clustering, or other factors. Reports of non-probability sample

surveys will only provide measures of precision if they are defined and accompanied by a detailed description of how the underlying model was specified, its assumptions validated and the measure(s) calculated.

Sample Design and Results

12. A description of how the weights were calculated, including the variables used and the sources of weighting parameters, if weighted estimates are reported.

Data Weights

13. Describe validity checks, where applicable, including but not limited to whether the researcher added attention checks, logic checks, or excluded respondents who straight-lined or completed the survey under a certain time constraint, any screening of content for evidence that it originated from bots or fabricated profiles, re-contacts to confirm that the interview occurred or to verify respondent's identity or both, and measures to prevent respondents from completing the survey more than once. Any data imputation or other data exclusions or replacement will also be discussed.

Data Collection Staff Training and Data Processing and Cleaning

14. Contact for obtaining more information about the study.

Questions

15. A general statement acknowledging the limitations of the design and data collection.

Limitations

Part A - State Seat Belt Use Survey Reporting Form

State: Nebraska
Calendar Year of Survey: 2022
Statewide Seat Belt Use Rate: 76.3 %

I hereby certify that:

- John Selmer P.E. Director has been designated by the Governor as the State's Highway Safety Representative (GR), and if applicable the GR has delegated the authority to sign certification in writing to William J. Kovarik, the Coordinator of the State Highway Safety Office.
- The reported Statewide seat belt use rate is based on a survey design approved by NHTSA, in writing, as conforming to the Uniform Criteria for State Observational Surveys of Seat Belt Use, 23 CFR Part 1340.
- The survey design has remained unchanged since the survey was approved by NHTSA.
- Dr. Kristen Olson, Director, BOSR UNL, a qualified survey statistician, has reviewed the seat belt use rate reported above and information reported in Part B and has determined that they meet the Uniform Criteria for State Observational Surveys of Seat Belt Use, 23 CFR Part 1340.

Signature

9/9/2022

Date

William J. Kovarik

Printed name of signing official