BUREAU OF SOCIOLOGICAL RESEARCH

Seat Belt Use 2024 Data Collection Report

Summary Report

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Seat Belt Use 2024 Data Collection Report

This report was prepared by the staff of the Bureau of Sociological Research (BOSR) at the University of Nebraska-Lincoln. The following individuals have contributed to this report. Each contributor played an integral role in the production of this document.

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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 2024, 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 2024 data collection was the sixth year BOSR conducted the data collection, and the fourth administration where BOSR processed, weighted, and reported the data as well.

Primary contacts at each organization are listed below.
Bill Kovarik, Highway Safety Administrator, Nebraska Department of Transportation (NDOT)
Dr. Kristen Olson, Director, BOSR, University of Nebraska - Lincoln
Kim Meiergerd, Assistant Director for Operations, BOSR, University of Nebraska - Lincoln

This report describes the data collection process for obtaining 2024 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 2024 administration. The same 72 sampled road segments used in 2022 and 2023 were again used in 2024.

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 2024 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, stopwatches, tally counters, vehicle lights, and tablets. Data collection forms were accessed electronically through an offline Qualtrics app. Data collection schedules were prepared for each site and administrative procedures were documented.

Notification

Prior to BOSR conducting 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 primary data collectors and one secondary data collector in 2024. Primary data collectors were responsible for between 20 and 35 sites each. The secondary data collector was assigned 6 sites. Quality Control functions were conducted by one BOSR staff member.

BOSR conducted a single-day project training which was held in-person on May 28, 2024 (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.

Figure 1. Seat Belt Data Collector Training Agenda

May 28, 2024

- 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

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 tally 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.

Observation Protocols and Procedures

All passenger vehicles, including commercial vehicles weighing less than 10,000 pounds, were eligible for observation. Using the provided tablets and Qualtrics offline data collection app, data collectors completed two forms in the field, the observation site form and the observation count form. These forms 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	Label	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 three 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. The site order for each day were flipped compared to the 2023 observation schedule in order to observe the same sites at different times per day.

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 2024. 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.

In 2024, 20 sites were deemed to have a much higher unbelted or unknown rate compared to observations at other sites and observations at the same sites in 2022 and 2023. These sites were revisited to gather new observations and the original. Data collectors also revisited any sites with zero useable observations. In 2024, one site had zero useable observations. Useable observations were made on the second attempt. As a result, the road segment was not removed for 2024.

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 2024 data collection, one alternate site was needed 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 2024, no sites were rescheduled due to inclement weather.

Data Processing and Cleaning

Since the observation count forms were entered directly into a computerized instrument by the data collectors, they required no additional data entry or data processing steps. The data were exported from Qualtrics into a Statistical Package for the Social Sciences (SPSS) system file. The data were then stored on a secure server located within the Sociology Department at UNL. BOSR first removed any observations that were made in error. BOSR also removed sites with no useable observations. The next step in data cleaning was to review frequency distributions for 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, date, time, etc.) for accuracy. The final step was to evaluate whether each vehicle had a driver observation and either a passenger observation or the code No Passenger (NP) recorded. When a vehicle had a passenger observation recorded and no driver observation recorded, the driver observation was recoded to unknown.

The dataset was imported into SAS for further processing and analysis. For the belted rate, unknown and no passenger observations were excluded from the belted and unbelted values. The unknown/nonresponse rate was calculated based only on driver observations and confirmed passenger observations (excluding the no passenger observations). The belted rate is calculated as a proportion. No imputation was conducted. Weighted estimates and standard errors were calculated using the SAS proc surveyfreq command. This command allows for the two-stage design to be taken into account using appropriate stratum, cluster and weight variables.

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.

One adjustment was made to the initial sampling weight. First, weights for Site 506 were inflated to 14836.73 to account for observations taking place on an exit ramp (with a traffic count of 100 vehicles observed in 2 minutes and 6 seconds). 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 21.04.

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 extending into a third week in the month of June 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 2024 occurred from Monday, June 3 through Friday, July 5, 2024. The 2024 seat belt use data collection resulted in the observation of 12,376 passenger vehicles, with a right front seat passenger in 2,951 of those vehicles, for a total of 15,327 potential observations of belt use. Of these 15,327 potential observations, there were 9,976 drivers and 2,354 right front passengers who were observed to be wearing seat belts (12,330 total seat belt users). Seat belts were not worn by 2,072 drivers and 392 right front passengers (2,464 total unbelted). Data collectors were unable to observe the seat belt use of 328 drivers and 205 passengers (533 total unknown use).

The unknown use, or "nonresponse rate," is .035 or 3.5%. 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 2024 total of 12,376 passenger vehicles with 15,327 observed occupants exceeds the minimum requirement.

Quality control checks were completed with each of the 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 19.4% of the sites (14 out of 72), exceeding the federal regulation that a minimum of 5% of sites be subjected to such checks.

The 2024 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, and Mia Bourek, a project analyst at BOSR at the University of Nebraska – Lincoln.

Based upon the weighted data, Nebraska's overall seat belt use rate for 2024 is 80.2%, with an estimated standard error of .015 or 1.5%. 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 2024.

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.

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 for the start of data collection. 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. 2024 Nebraska Safety Belt Use, weighted and excluding "unknown" cases

Sample Division	N	2024 Belted Estimate (S.E. in Parentheses)	95% CI Lower	95% CI Upper
Total Sample	14794	80.2% (1.5%)	77.2%	83.2%
Drivers	12048	80.3% (1.9%)	76.4%	84.1%
Passengers	2746	80.2% (1.7%)	76.9%	83.5%

Table 2. 2024 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	10:20 AM	41	38	20	20
102	Antelope	US Hwy 275	Secondary	Sunday	11:15 AM	69	59	26	21
103	Antelope	US Hwy 275	Secondary	Sunday	12:45 PM	85	79	27	27
104	Antelope	Miles St	Secondary	Sunday	1:45 PM	67	57	15	15
105	Antelope	State Hwy 14	Secondary	Sunday	3:10 PM	24	22	9	9
106	Antelope	US Hwy 20	Secondary	Sunday	4:15 PM	36	31	15	15
201	Cheyenne	I-80	Primary	Thursday	7:54 AM	92	86	49	45
202	Cheyenne	I-80	Primary	Thursday	9:10 AM	100	96	58	51
203	Cheyenne	US Hwy 30	Secondary	Thursday	10:30 AM	48	32	16	12
204	Cheyenne	US Hwy 30	Secondary	Thursday	11:25 AM	84	69	22	20
205	Cheyenne	NE Hwy 19	Secondary	Thursday	12:40 PM	45	39	20	17
206	Cheyenne	I-80	Primary	Thursday	1:48 PM	111	111	55	50
301	Dakota	I-129	Primary	Tuesday	10:25 AM	234	203	57	49
302	Dakota	US Hwy 73	Secondary	Tuesday	11:25 AM	138	122	32	26
303	Dakota	State Hwy 35	Secondary	Tuesday	1:05 PM	51	41	11	11
304	Dakota	State Hwy 35	Secondary	Tuesday	2:00 PM	63	52	21	18
305	Dakota	US Hwy 20	Secondary	Tuesday	3:05 PM	81	71	20	17
306	Dakota	State Hwy 35	Secondary	Tuesday	4:20 PM	54	40	12	12
401	Dodge	Lincoln Hwy	Secondary	Wednesday	8:50 AM	51	34	8	4
402	Dodge	US Hwy 275	Secondary	Wednesday	10:15 AM	200	156	45	38
403	Dodge	E Howard St	Secondary	Wednesday	11:20 AM	51	35	12	3
404	Dodge	N Broad St	Secondary	Wednesday	12:20 PM	364	249	70	40
405	Dodge	Lincoln Hwy	Secondary	Wednesday	2:05 PM	53	39	7	5
406	Dodge	Lincoln Hwy	Primary	Wednesday	3:05 PM	554	398	68	39
501	Douglas	I-80	Primary	Tuesday	9:40 AM	1900	1650	526	469

Site #	County	Road Name	Road Type	Day	Start Time	Vehicle Count	Drivers Belted	Passenger Count	Passenger Belted
502	Douglas	I-680	Primary	Tuesday	11:00 AM	1762	1569	374	329
503	Douglas	State Hwy 36	Secondary	Tuesday	12:25 PM	187	144	28	20
504	Douglas	L St	Secondary	Tuesday	2:05 PM	258	189	52	37
505	Douglas	L St	Secondary	Tuesday	3:05 PM	665	511	165	105
506	Douglas	I-480	Primary	Tuesday	4:16 PM	361	298	112	85
507	Douglas	Blondo Pkwy	Local	Thursday	10:15 AM	172	119	27	14
508	Douglas	Spencer St	Local	Thursday	11:25 AM	42	27	5	3
509	Douglas	S 93rd St	Local	Thursday	12:25 PM	33	22	7	4
510	Douglas	S 99th Ave	Local	Thursday	2:10 PM	33	28	7	4
511	Douglas	S 38th Ave	Local	Thursday	3:15 PM	62	41	9	9
512	Douglas	S 37th St	Local	Thursday	4:20 PM	376	233	42	24
513	Douglas	Harrison St	Local	Wednesday	9:00 AM	9	9	0	0
514	Douglas	Brentwood Rd	Local	Wednesday	10:15 AM	5	3	0	0
515	Douglas	N 70th Ave	Local	Wednesday	11:20 AM	4	4	1	0
516	Douglas	N 60th St	Local	Wednesday	1:05 PM	242	200	39	32
517	Douglas	Jones St	Local	Wednesday	2:10 PM	9	9	0	0
518	Douglas	S 68th Plz	Local	Wednesday	3:15 PM	10	10	0	0
601	Lancaster	I-80	Primary	Monday	7:20 AM	830	672	118	92
602	Lancaster	N 15th St	Local	Monday	8:40 AM	11	9	0	0
603	Lancaster	Cornhusker Hwy	Secondary	Monday	9:25 AM	97	65	19	12
604	Lancaster	I-80	Primary	Monday	10:37 AM	345	307	129	115
605	Lancaster	NW 12th St	Local	Monday	12:25 PM	6	4	1	1
606	Lancaster	State Hwy 79	Secondary	Monday	1:35 PM	67	52	9	5
607	Lancaster	Newton St	Local	Monday	7:00 AM	3	2	0	0
608	Lancaster	Old Cheney Rd	Local	Monday	8:10 AM	153	127	13	12
609	Lancaster	Sutherland St	Local	Monday	9:10 AM	10	7	0	0
610	Lancaster	W Fresh Water Ln	Local	Monday	10:20 AM	2	1	0	0
611	Lancaster	Manatt St	Local	Monday	12:35 PM	4	2	0	0
612	Lancaster	Air Park Rd	Local	Monday	1:40 PM	16	13	0	0
701	Madison	553rd Ave	Secondary	Friday	10:45 AM	207	160	57	42
702	Madison	553rd Ave	Secondary	Friday	11:45 AM	224	177	46	24
703	Madison	US Hwy 81	Secondary	Friday	1:50 PM	228	164	33	24
704	Madison	State Hwy 32	Secondary	Friday	2:50 PM	68	36	13	7

Site #	County	Road Name	Road Type	Day	Start Time	Vehicle Count	Drivers Belted	Passenger Count	Passenger Belted
705	Madison	US Hwy 275	Secondary	Friday	4:05 PM	248	171	69	51
706	Madison	US Hwy 275	Secondary	Friday	5:15 PM	182	121	31	11
801	Platte	13th St	Secondary	Saturday	7:30 AM	69	54	18	12
802	Platte	S 9th St	Secondary	Saturday	8:30 AM	125	103	47	37
803	Platte	US Hwy 30	Secondary	Saturday	9:25 AM	115	96	47	45
804	Platte	US Hwy 30	Secondary	Saturday	10:20 AM	88	65	37	30
805	Platte	State Hwy 22	Secondary	Saturday	12:00 PM	117	100	51	46
806	Platte	US Hwy 81	Secondary	Saturday	1:10 PM	133	101	85	59
901	Richardson	630 Ave	Secondary	Friday	9:25 AM	2	1	0	0
902	Richardson	712 Rd	Secondary	Friday	10:35 AM	25	17	1	1
903	Richardson	State Hwy 8	Secondary	Friday	11:40 AM	30	19	3	1
904	Richardson	706 Rd	Secondary	Friday	1:20 PM	36	25	4	2
905	Richardson	US Hwy 75	Secondary	Friday	2:30 PM	100	75	31	26
906	Richardson	State Hwy 8	Secondary	Friday	3:30 PM	9	5	0	0
Total						**12376**	**9976**	**2951**	**2354**

Table 3. 2024 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	322	286	34	2	112	107	4	1	434	393	38	3
Cheyenne	480	433	44	3	220	195	23	2	700	628	67	5
Dakota	621	529	92	0	153	133	20	0	774	662	112	0
Dodge	1273	911	306	56	210	129	24	57	1483	1040	330	113
Douglas	6130	5066	923	141	1394	1135	217	42	7524	6201	1140	183
Lancaster	1544	1261	260	23	289	237	43	9	1833	1498	303	32
Madison	1157	829	267	61	249	159	38	52	1406	988	305	113
Platte	647	519	93	35	285	229	19	37	932	748	112	72
Richardson	202	142	53	7	39	30	4	5	241	172	57	12
Total	**12376**	**9976**	**2072**	**328**	**2951**	**2354**	**392**	**205**	**15327**	**12330**	**2464**	**533**

Table 4. 2024 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	88.8%	89.4%	95.5%	96.4%	90.6%	91.2%
Cheyenne	90.2%	90.8%	88.6%	89.4%	89.7%	90.4%
Dakota	85.2%	85.2%	86.9%	86.9%	85.5%	85.5%
Dodge	71.6%	74.9%	61.4%	84.3%	70.1%	75.9%
Douglas	82.6%	84.6%	81.4%	83.9%	82.4%	84.5%
Lancaster	81.7%	82.9%	82.0%	84.6%	81.7%	83.2%
Madison	71.7%	75.6%	63.9%	80.7%	70.3%	76.4%
Platte	80.2%	84.8%	80.4%	92.3%	80.3%	87.0%
Richardson	70.3%	72.8%	76.9%	88.2%	71.4%	75.1%
Total	80.6%	82.8%	79.8%	85.7%	80.5%	83.3%

Table 5. 2024 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	1202	870	310	22	151	103	38	10	1353	973	348	32
Primary	6289	5390	784	115	1546	1324	176	46	7835	6714	960	161
Secondary	4885	3716	978	191	1254	927	178	149	6139	4643	1156	340
Total	**12376**	**9976**	**2072**	**328**	**2951**	**2354**	**392**	**205**	**15327**	**12330**	**2464**	**533**

Table 6. 2024 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	72.4%	73.7%	68.2%	73.0%	71.9%	73.7%
Primary	85.7%	87.3%	85.6%	88.3%	85.7%	87.5%
Secondary	76.1%	79.2%	73.9%	83.9%	75.6%	80.1%
Total	80.6%	82.8%	79.8%	85.7%	80.4%	83.3%

Table 7. 2024 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	286	322	107	112	88.8%	95.5%
Monday	1261	1544	237	289	81.7%	82.0%
Tuesday	4890	5754	1178	1410	85.0%	83.6%
Wednesday	1146	1552	161	250	73.8%	64.4%
Thursday	903	1198	253	317	75.4%	79.8%
Friday	971	1359	189	288	71.5%	65.6%
Saturday	519	647	229	285	80.2%	80.4%
Total	9976	12376	2354	2951	80.6%	79.8%

Table 8. 2024 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	814	994	149	185	81.9%	80.5%
8AM to 859AM	273	340	53	68	80.3%	77.9%
9AM to 959AM	1924	2233	577	650	86.2%	88.8%
10AM to 1059AM	1101	1367	321	389	80.5%	82.5%
11AM to 1159AM	2081	2404	427	521	86.6%	82.0%
12PM to 1259PM	639	841	155	204	76.0%	76.0%
1PM to 159PM	764	951	198	251	80.3%	78.9%
2PM to 259PM	428	584	97	131	73.3%	74.0%
3PM to 359PM	1058	1405	179	271	75.3%	66.1%
4PM to 459PM	773	1075	187	250	71.9%	74.8%
5PM to 559PM	121	182	11	31	66.5%	35.5%
Total	9976	12376	2354	2951	80.6%	79.8%

Table 9. 2024 Sample Weights and Seat Belt Use by Observation Site: Part B Reporting Data (n)

Site ID	Road Type	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	Original	6/9/2024	990.17	41	20	58	3	0
102	Secondary	Original	6/9/2024	760.38	69	26	80	13	2
103	Secondary	Original	6/9/2024	364.12	85	27	106	5	1
104	Secondary	Original	6/9/2024	3166.54	67	15	72	10	0
105	Secondary	Original	6/9/2024	265.67	24	9	31	2	0
106	Secondary	Original	6/9/2024	491.45	36	15	46	5	0
201	Primary	Original	6/13/2024	750.99	92	49	131	10	0
202	Primary	Original	6/13/2024	63.57	100	58	147	11	0
203	Secondary	Original	6/13/2024	4401.87	48	16	44	16	4
204	Secondary	Original	6/13/2024	877.35	84	22	89	16	1
205	Secondary	Original	6/13/2024	8456.29	45	20	56	9	0
206	Primary	Original	6/13/2024	183.29	111	55	161	5	0
301	Primary	Original	6/11/2024	203.21	234	57	252	39	0
302	Secondary	Original	6/11/2024	255.8	138	32	148	22	0
303	Secondary	Original	6/11/2024	469.1	51	11	52	10	0
304	Secondary	Original	6/11/2024	397.92	63	21	70	14	0
305	Secondary	Original	6/11/2024	520.27	81	20	88	13	0
306	Secondary	Original	6/11/2024	191.8	54	12	52	14	0
401	Secondary	Original	6/5/2024 and 6/19/2024	218.33	51	8	38	18	3
402	Secondary	Original	6/5/2024 and 6/19/2024	367.15	200	45	194	36	15
403	Secondary	Original	6/5/2024 and 6/19/2024	1104.37	51	12	38	16	9
404	Secondary	Original	6/5/2024 and 6/19/2024	2222.71	364	70	289	115	30
405	Secondary	Original	6/5/2024 and 6/19/2024	843.94	53	7	44	10	6
406	Primary	Original	6/5/2024 and 6/19/2024	147.85	554	68	437	135	50
501	Primary	Original	6/11/2024 and 6/18/2024	102.28	1900	526	2119	247	60
502	Primary	Original	6/11/2024 and 6/18/2024	61.51	1762	374	1898	215	23
503	Secondary	Original	6/11/2024	55.91	187	28	164	22	29
504	Secondary	Original	6/11/2024	4619.92	258	52	226	78	6

Site ID	Road Type	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
505	Secondary	Original	6/11/2024	101.95	665	165	616	189	25
506	Primary	Original	6/11/2024	14836.73	361	112	383	81	9
507	Local	Original	6/6/2024 and 6/13/2024	852.02	172	27	133	53	13
508	Local	Original	6/6/2024 and 6/13/2024	1006.37	42	5	30	17	0
509	Local	Original	6/6/2024 and 6/13/2024	671.92	33	7	26	11	3
510	Local	Original	6/6/2024 and 6/13/2024	900.28	33	7	32	6	2
511	Local	Original	6/6/2024 and 6/13/2024	423.51	62	9	50	21	0
512	Local	Original	6/6/2024 and 6/13/2024	1877.96	376	42	257	149	12
513	Local	Original	6/5/2024	615.91	9	0	9	0	0
514	Local	Original	6/5/2024	1459.9	5	0	3	2	0
515	Local	Original	6/5/2024	1356.25	4	1	4	1	0
516	Local	Original	6/5/2024	3209.44	242	39	232	48	1
517	Local	Original	6/5/2024	2076.2	9	0	9	0	0
518	Local	Original	6/5/2024	411.47	10	0	10	0	0
601	Primary	Original	6/3/2024	541.95	830	118	764	171	13
602	Local	Original	6/3/2024	4224.41	11	0	9	2	0
603	Secondary	Original	6/3/2024	163.45	97	19	77	30	9
604	Primary	Original	6/3/2024	21.97	345	129	422	46	6
605	Local	Original	6/3/2024 and 6/10/2024	548.7	6	1	5	2	0
606	Secondary	Original	6/3/2024	75.32	67	9	57	16	3
607	Local	Original	6/10/2024	2906.51	3	0	2	1	0
608	Local	Original	6/10/2024	402.72	153	13	139	26	1
609	Local	Original	6/10/2024	6627.79	10	0	7	3	0
610	Local	Original	6/10/2024	1000.45	2	0	1	1	0
611	Local	Alternate	6/10/2024	3196.53	4	0	2	2	0
612	Local	Original	6/10/2024	3100.82	16	0	13	3	0
701	Secondary	Original	6/7/2024 and 7/5/2024	208.46	207	57	202	33	29
702	Secondary	Original	6/7/2024 and 7/5/2024	211.7	224	46	201	51	18

Site ID	Road Type	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
703	Secondary	Original	6/7/2024 and 7/5/2024	311.72	228	33	188	48	25
704	Secondary	Original	6/7/2024 and 7/5/2024	1089.15	68	13	43	34	4
705	Secondary	Original	6/7/2024 and 7/5/2024	649.56	248	69	222	88	7
706	Secondary	Original	6/7/2024 and 7/5/2024	298.17	182	31	132	51	30
801	Secondary	Original	6/8/2024	1603.39	69	18	66	20	1
802	Secondary	Original	6/8/2024	469.05	125	47	140	15	17
803	Secondary	Original	6/8/2024	344.1	115	47	141	21	0
804	Secondary	Original	6/8/2024	588.69	88	37	95	17	13
805	Secondary	Original	6/8/2024	4615.82	117	51	146	22	0
806	Secondary	Original	6/8/2024	199.11	133	85	160	17	41
901	Secondary	Original	6/14/2024	2466.18	2	0	1	1	0
902	Secondary	Original	6/14/2024	580.55	25	1	18	8	0
903	Secondary	Original	6/14/2024	1489.93	30	3	20	9	4
904	Secondary	Original	6/14/2024	1299.34	36	4	27	9	4
905	Secondary	Original	6/14/2024	331.77	100	31	101	26	4
906	Secondary	Original	6/14/2024	717.69	9	0	5	4	0
Total					**12376**	**2951**	**12330**	**2464**	**533**
Standard Error of Statewide Belt Use Rate									**0.015**
Nonresponse Rate for the Survey Variable Seat Belt Use									**3.5%**

*Weights for Site 506 inflated to 14836.728896 to account for traffic count (100 vehicles observed in 2 minute and 6 seconds).

Appendix A. Observation Site Form 2024

Data Collector Name

Date

→

County

Road Name

County Site #

← →

Observation Start Time

AM/PM

AM

PM

←

→

Observation Stop Time

AM/PM

AM

PM

←

→

Traffic Flow Direction(s) Observed

- [ ] North
- [ ] South
- [ ] East
- [ ] West

Total Number of Lanes in Direction(s) Observed

Total Number of Lanes Observed in Direction(s) Observed

← →

Weather Condition(s)

- [ ] Clear
- [ ] Cloudy/PC
- [ ] Light Fog
- [ ] Light Rain

Is this an alternate site (not including a recommended observation point)?

- ( ) Yes
- ( ) No

← →

Is a traffic count required (exit ramp or rest stop)?

- ( ) Yes
- ( ) No

← →

If “Yes” was selected in “Is this an alternate site (not including a reocmmended observation point)?”

Why was an alternate site needed?

←

→

If “Yes” was selected in “Is a traffic count required (exit ramp or rest stop)”

Number of Cars

Duration

←

→

Additional Notes/Comments

Appendix B. Observation Count Form 2024

Data Collector Name

County

County Site Number

→

The following block of questions repeats up to Vehicle 2000.

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

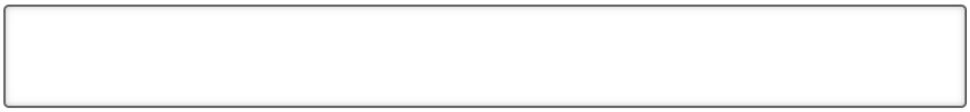
	DRIVER SEATBELT USE			PASSENGER SEATBELT USE			
	Y	N	U	Y	N	U	NP
Vehicle 1	○	○	○	○	○	○	○
Vehicle 2	○	○	○	○	○	○	○
Vehicle 3	○	○	○	○	○	○	○
Vehicle 4	○	○	○	○	○	○	○
Vehicle 5	○	○	○	○	○	○	○
Vehicle 6	○	○	○	○	○	○	○
Vehicle 7	○	○	○	○	○	○	○
Vehicle 8	○	○	○	○	○	○	○
Vehicle 9	○	○	○	○	○	○	○
Vehicle 10	○	○	○	○	○	○	○
Vehicle 11	○	○	○	○	○	○	○
Vehicle 12	○	○	○	○	○	○	○
Vehicle 13	○	○	○	○	○	○	○
Vehicle 14	○	○	○	○	○	○	○
Vehicle 15	○	○	○	○	○	○	○
Vehicle 16	○	○	○	○	○	○	○
Vehicle 17	○	○	○	○	○	○	○
Vehicle 18	○	○	○	○	○	○	○
Vehicle 19	○	○	○	○	○	○	○
Vehicle 20	○	○	○	○	○	○	○

If you have not yet observed for the full 45 minutes and need more observation rows, skip this question. If you have observed for the full 45 minutes select "End of Survey."

End of Survey ○

← →

By clicking the next arrow, you will submit your survey, if there are any changes that are needed, click the back arrow and make those before submitting. Please use the text entry box to describe any issues you encountered while observing.



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