



# WYOMING

2022 STATEWIDE SEATBELT  
SURVEY ANALYSIS

A black and white silhouette of a cowboy wearing a wide-brimmed hat, holding a lasso. The cowboy is positioned on the left side of the frame, facing right. The lasso is held in his right hand and extends across the middle of the image, with several strands of rope curving downwards and to the right. The background is a light, uniform color, creating a high-contrast silhouette effect.

## 2022 WYOMING SEATBELT SURVEY

The protocols implemented for this study were per the 2012 federal guidelines. The standards and protocols align with the Uniform Criteria for State Observational Surveys of Seatbelt Use, 23 CFR Part 1340. The 2022 survey analysis is the eighth survey conducted under the 2012 guidelines for seatbelt use in the state of Wyoming.

## Acknowledgments

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- Deb Nelson served as the project administrator.
- Lydia DeJesus assisted with project coordination and administration; observer training, coding, data entry, quality assurance procedures; and developed spreadsheets, charts, and graphs.
- Bridget White coordinated and secured the acquisition of contractors to conduct the survey observations.
- Bridget White and Vicky Peterson conducted field monitoring.
- Olivia Kudrna assisted with observer training and data compilation.

Without the dedicated people who conducted the field observations, we could not complete this survey:

Malina Bordman, Kim Brattis, Monty Byers, Lori Cole, Dixie Elder, Sandra Gabel, Casey Kauter, Donna Lucas, Mindy McKinley, Aspen Miller, Susan Parkinson, Doug Peterson, Vicky Peterson, Kayla Schear, Bryan Shannon, Amy Still, Patrick White, Bridget White.

Finally, special thanks to the staff of the Wyoming Highway Safety Program and Engineering Services for their support and help during the project period.

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# 2022 Wyoming Observers



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## Executive Summary

For the 2022 survey observation period data was collected for fifteen counties. Per the required procedures, the sample first created in 2017 reached its expiration date and required a new sampling for the 2022 data collection period. Therefore, this study represents a new baseline survey, which means that no comparisons with prior surveys or the results of those surveys are directly comparable with the 2022 estimates of seat belt use in Wyoming.

At each of the 15 selected counties, observers collected county data at nineteen sites for a total of 285 individual sites. Before the data collection period, observers attended an in-person comprehensive training session that covered the procedural components using audio, visual, and "hands-on" instruction.

The survey observation period began on June 6 and concluded on June 12, 2022. There are observations for 17,292 drivers and 6,095 passengers, totaling 23,387 vehicle occupants. Some of the main results are as follows.

- 78.3 percent of vehicle occupants were observed wearing seat belts; 21.2 percent were not belted. Belt use was uncertain for 0.5 percent of all occupants, and the standard error for the sample was 0.2 percent.
- 73.9 percent of the vehicle occupants were drivers, with a 76.9 percent rate for belt use. About a fourth of the vehicle occupants were passengers (26.1%), belted at a rate of 83.2 percent.
- Almost half of the vehicle occupants were observed in five of the fifteen counties, and eleven of the fifteen counties accounted for 90.0 percent of the observations. 10.0 percent of the observations came from the remaining four counties.
- Eight counties have seat belt use rates above the average of 78.3 percent, and seven of the fifteen counties have rates below the state average. Among those seven counties below the state average, four have rates under 70.0 percent belted. Three counties have rates of 90.0 percent or more belted. The rate for each is presented in the section on counties.
- Observations take place in sites designated rural or urban. 71.0 percent of the vehicle occupants in 2022 are in rural areas. Seat belt use for vehicle occupants is 81.2 percent belted in rural areas and 74.6 percent belted in urban areas.
- 57.6 percent of the vehicle occupants were observed in vehicles registered in Wyoming; 41.4 percent were in out-of-state vehicles. 74.4 percent of occupants in Wyoming vehicles wore seat belts, below the state average of 78.3 percent. The rate for those in out-of-state vehicles was 88.1 percent, a difference of 13.7 points higher in out-of-state vehicles.
- Six of ten occupants were in vehicles traveling on secondary roadways, which are state or federally maintained and are typically two-lane highways. They had a seat belt usage rate of 75.9 percent. Almost all the rest were on primary roadways, which are like secondary roads but include interstate and four-lane highways. 87.4 percent of those on primary roadways wore seat belts, 11.5 percent greater than occupants on secondary roadways. The "other" roads (local, rural, and city) rate was 73.1 percent, but the number of occupants is only 2.4 percent of the total sample.
- The highest seat belt use rates are on the last three days of the week: Thursday, Friday, and Saturday. The lowest rates are on Sunday and Tuesday.

- Males outnumber females in the sample by 15.2 percent, but females have a higher seat belt use rate: 84.8 percent for females and 73.5 percent for males, a difference of 11.3 percentage points.
- Occupants in automobiles and SUVs have rates slightly above the statewide average. The highest seat belt use rates are for occupants in vans (85.3% belted), and those in pickup trucks (71.5% belted) have the lowest rates by a margin of 13.5 points. These two vehicle types contained 72.4 percent of all vehicle occupants.
- Males are most likely to be in SUVs and pickup trucks, females in vans and automobiles. Females have higher rates of seat belt use in every type of vehicle. Males dominate pickup trucks and account for pickups' lowest seat belt use rate.
- Passenger rates of belt use are higher than driver use in almost all categories of all variables. Overall, 76.9 percent of drivers and 83.2 percent of passengers wore seat belts in the 2022 Wyoming survey. Drivers are 73.9 percent, and passengers are 26.1 percent of vehicle occupants, so drivers exert more influence on the calculation of rates.
- Concluding remarks address the characteristics of the sample as they relate to the overall seat belt use rate for 2022.

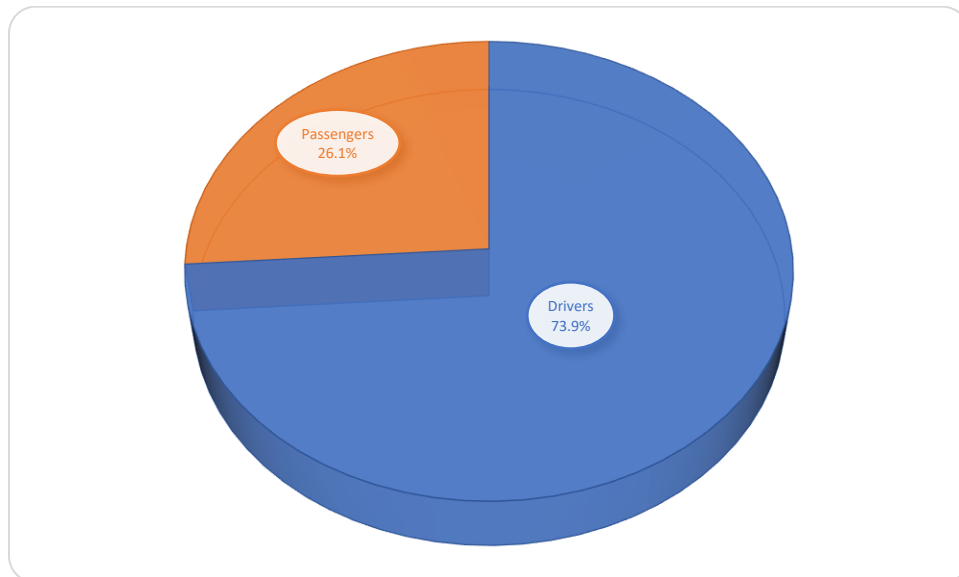


## Introduction

There are fifteen counties, each with nineteen sites – a total of 285 individual sites--where observers collected observations of seat belt use between June 6 and June 12, 2022. Fifteen observers collected observations of 17,292 drivers and 6,095 front-seat outboard passengers, totaling 23,387 vehicle occupants. Nearly three-fourths of the vehicle occupants were drivers, and about one-fourth were passengers. The following table and graph illustrate the results.<sup>1</sup>

*Table 1: Frequencies by Type of Vehicle Occupant, Wyoming 2022*

Occupant Type	Unweighted Count	Percent
Drivers	17,292	73.9%
Passengers	6,095	26.1%
All Occupants	23,388	100.0%



*Figure 1: Frequencies by Type of Vehicle Occupant, Wyoming 2022*

<sup>1</sup> The frequencies in many tables are described as “unweighted.” This means they are the raw frequencies that are unaffected by the weighting process involved in producing percentage estimates of seat belt use throughout this report. The weighting process is based on sampling probabilities calculated for each of the sites where observations are collected.

Each observer is assigned to a specific county and is armed with maps identifying site locations. The observer travels to a site, observes seat belt use for forty-five minutes, and travels to another site. The following table lists the observers, their assigned counties, the number of occupants observed, and the percent of the total occupants found in each county. The frequencies of occupants are listed in descending order with cumulative percentages.

Table 2: \*Unweighted Frequencies of Vehicle Occupants by County and Observer

Observer	County	Frequency	Percent of Sample	Cum Percent	Percent Belted
<b>Bryan Shannon</b>	Campbell	2,848	12.2%	12.2%	69.8%
<b>Monty Byers</b>	Albany	2,231	9.5%	<b>21.7%</b>	93.2%
<b>Amy Still</b>	Carbon	2,201	9.4%	<b>31.1%</b>	90.8%
<b>Kayla Schear</b>	Sweetwater	2,180	9.3%	<b>40.4%</b>	65.0%
<b>Mindy McKinley</b>	Uinta	2,052	8.8%	<b>49.2%</b>	90.4%
<b>Donna Lucas</b>	Park	1,984	8.5%	<b>57.6%</b>	69.6%
<b>Casey Krauter</b>	Fremont	1,816	7.8%	<b>65.4%</b>	79.2%
<b>Aspen Miller</b>	Converse	1,694	7.2%	<b>72.6%</b>	85.6%
<b>Doug Peterson</b>	Platte	1,515	6.5%	<b>79.1%</b>	76.9%
<b>Dixie Elder</b>	Johnson	1,281	5.5%	<b>84.6%</b>	91.6%
<b>Susan Parkinson</b>	Lincoln	1,271	5.4%	<b>90.0%</b>	77.6%
<b>Lori Cole</b>	Niobrara	780	3.3%	<b>93.4%</b>	85.6%
<b>Sandra Gabel</b>	Goshen	635	2.7%	<b>96.1%</b>	77.3%
<b>Patrick White</b>	Laramie	541	2.3%	<b>98.4%</b>	85.4%
<b>Kim Brattis</b>	Natrona	358	1.5%	<b>99.9%</b>	69.6%
	All Occupants	23,387	100.0%		78.3%

\*Sorted in Descending Order by Percent of All Occupants

From the table, almost half (49.2%) of the observations come from one-third of the counties: Campbell, Albany, Carbon, Sweetwater, and Uinta. Adding the following six counties – Park, Fremont, Converse, Platte, and Johnson – the total is 90 percent of the vehicle occupants. The remaining four counties – Niobrara, Goshen, Laramie, and Natrona – account for the last ten percent of the observations. In other words, some counties disproportionately determine the observational outcomes in Wyoming 2022, while others contribute relatively few observations.

## Observer Training, Quality Control, and Data Preparation

DLN Consulting, Inc. staff developed training and quality control techniques using the standards and protocols as identified within the Uniform Criteria for State Observational Surveys of Seat Belt Use, 23 CFR Part 1340. This section describes the relevant processes.<sup>2</sup>

For the past several years, DLN Consulting, Inc. relied on iPads to record the observations of seat belt use. The iPads are loaded with proprietary software tools to facilitate recording and reporting data compiled for analysis. Every observer, alternate, and quality control staff member received training on the procedural components using audio, visual, and "hands-on" instruction.

On the first training day, each participant practiced using the program in a classroom setting. Next, observers engaged in a mock data collection activity, completing data collection sessions. Three sessions calculated individual inter-accuracy ratios to determine observer readiness for field observations. **The average inter-accuracy ratio for the 2022 observers was 91.82 percent.**

Written tests measuring knowledge of observation rules and procedures are required under the federal guidelines. A minimum passing score of eighty percent is required for all observers, alternates, and quality control supervisors. **The 2022 observers had an overall score of 91.94 percent.**

Sites were randomly selected for reliability spot checks where monitoring occurred. Once in the field, quality control monitors conducted random spot checks on the reliability of observations. The monitors receive additional training in separate half-day sessions dedicated to a review of specific supervisory directives. Ten percent of the observation sites were monitored.

Once the survey begins, DLN Consulting, Inc. staff are on-call to assist observers with any issues. Possible issues include conditions requiring changes to alternate sites or adjustments to observational processes to ensure quality data and observer safety.

Once observers complete an electronic record of observations for a site, they transfer the data to the DLN Consulting, Inc. staff assigned the task of compiling the data. The data is reviewed for accuracy, correcting coding errors, and working with observers to resolve any issues before proceeding.

Once the data is cleaned of errors, it is moved to Excel files and reviewed for anomalies. Separate files for drivers and passengers are combined into a file of all vehicle occupants. The Excel files are loaded in SPSS (The Statistical Package for the Social Sciences), where codes are added, and any variables needed for computations are created. The data weighting procedures are developed and inserted in an SPSS subroutine, Complex Samples.<sup>3</sup> The data is then processed to produce the outcomes seen throughout this report.

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<sup>2</sup> By reliability, we mean that we take steps to ensure that we are measuring seat belt use free of observer error. The protocols and sampling techniques assure that the results are valid, that repeated surveys at the same time and under the same conditions would produce the same results.

<sup>3</sup> The Complex Samples directions are found in a "csaplan" that introduces the relevant sampling variables and directions for creating the weighting process used for every calculation of seat belt use estimates.

## Estimates of Seat Belt Use

The following estimates of seat belt use from the Wyoming seat belt survey in 2022 were calculated using the Complex Samples weighting functions in SPSS. This procedure uses the sampling methods and probabilities associated with each site to weigh the raw data for analysis. Three different estimates are presented: The first covers all vehicle occupants; subsequent estimates are for the drivers and the outboard, front-seat passengers. Added together, the drivers and passengers are the total occupants.

The following table presents the weighted estimates for all vehicle occupants and includes standard errors and confidence interval calculations.

*Table 3: Estimate of Occupant Seat Belt Use, Wyoming 2022*

Belt Use	Estimate	Standard Error	95% Confidence Interval		Unweighted Count
			Lower	Upper	
<b>Belted</b>	78.3%	0.2%	77.9%	78.8%	18,805
<b>Not Belted</b>	21.2%	0.2%	20.7%	21.6%	4,505
<b>Unsure</b>	0.5%	0.0%	0.4%	0.6%	77
<b>Total</b>	100.0%				23,387

Observers collected seat belt use data on 23,387 vehicle occupants. 78.3 percent of the occupants were observed wearing seat belts, and 21.2 percent were not belted. Observers were unsure about the belt use for less than one percent (0.5%) of the occupants. **The standard error is 0.2 percent, below the allowable standard error of 2.5 percent for the survey.** The 95 percent confidence intervals calculation produced a lower estimate of 77.9 percent and an upper estimate of 78.8 percent, a difference of less than one percent.

The following table presents the estimates of seat belt use for drivers.

*Table 4: Estimate of Driver Seat Belt Use, Wyoming 2022*

Driver Belt Use	Estimate	Standard Error	95% Confidence Interval		Unweighted Count
			Lower	Upper	
<b>Belted</b>	76.9%	0.3%	76.3%	77.5%	13,562
<b>Not Belted</b>	22.6%	0.3%	22.0%	23.1%	3,678
<b>Unsure</b>	0.5%	0.1%	0.4%	0.7%	52
<b>Total</b>	100.0%				17,292

Observers recorded seat belt use for 17,292 drivers or 73.9 percent of all vehicle occupants. 76.9 percent of the drivers wore seat belts, 22.6 percent were not belted, and observers were unsure about belt use for fewer than one percent (0.5%) of drivers. The standard error for drivers is 0.3 percent, below the allowable rate of 2.5 percent. The confidence intervals have a lower estimate of 76.3 percent and an upper estimate of 77.5 percent, a difference of 1.2 percent.

The following table presents the results for passengers.

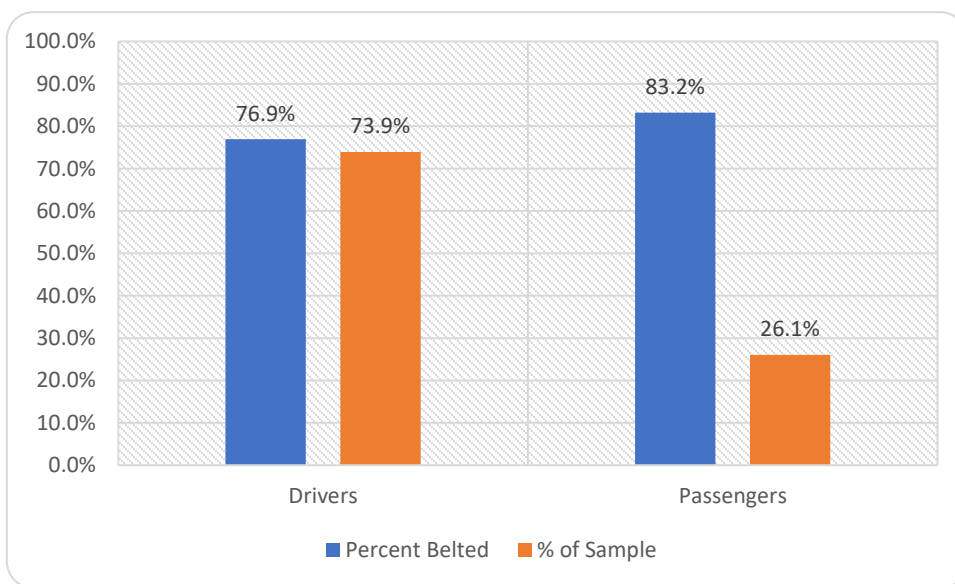
*Table 5: Estimate of Passenger Seat Belt Use, Wyoming 2022*

Passenger Belt Use	Estimate	Standard Error	95% Confidence Interval		Unweighted Count
			Lower	Upper	
<b>Belted</b>	83.2%	0.4%	82.4%	84.0%	5,243
<b>Not Belted</b>	16.5%	0.4%	15.7%	17.3%	827
<b>Unsure</b>	0.3%	0.0%	0.2%	0.4%	25
<b>Total</b>	100.0%				6,095

There are 6,095 observed passengers in the survey with a belt use rate of 83.2 percent. 16.5 percent were not belted, and observers were unsure about the belt use for less than one percent (0.3%) of the passengers. The standard error is 0.4 percent, and the confidence interval calculation shows a lower limit of 82.4 percent and an upper limit of 84.0 percent, a difference of 1.6 percent.

The following graph summarizes the seat belt usage results for drivers, passengers, and all occupants.<sup>4</sup>

*Figure 2: Estimates of Seat Belt Use for Drivers, Passengers, and All Occupants, Wyoming 2022*



<sup>4</sup> At this point, there could be a discussion of seat belt use trends in Wyoming. Because this survey is based on a new sample of counties and sites, it will serve as a baseline. Comparisons would not be appropriate.

## Estimates of Seat Belt Use by County

There are fifteen counties in the Wyoming 2022 sample. The following table lists the counties, the observers assigned to each, the unweighted frequencies for each county, and the percent of observed vehicle occupants sorted by the percent of the total sample of occupants. The cumulative percentages are also shown in the table.

*Table 6: Unweighted Frequencies of Vehicle Occupants by County and Observer*

Observer	County	Frequency	Percent of Sample	Cum Percent	Percent Belted
<b>Bryan Shannon</b>	Campbell	2,848	12.2%	12.2%	69.8%
<b>Monty Byers</b>	Albany	2,231	9.5%	<b>21.7%</b>	93.2%
<b>Amy Still</b>	Carbon	2,201	9.4%	<b>31.1%</b>	90.8%
<b>Kayla Schear</b>	Sweetwater	2,180	9.3%	<b>40.4%</b>	65.0%
<b>Mindy McKinley</b>	Uinta	2,052	8.8%	<b>49.2%</b>	90.4%
<b>Donna Lucas</b>	Park	1,984	8.5%	<b>57.6%</b>	69.6%
<b>Casey Krauter</b>	Fremont	1,816	7.8%	<b>65.4%</b>	79.2%
<b>Aspen Miller</b>	Converse	1,694	7.2%	<b>72.6%</b>	85.6%
<b>Doug Peterson</b>	Platte	1,515	6.5%	<b>79.1%</b>	76.9%
<b>Dixie Elder</b>	Johnson	1,281	5.5%	<b>84.6%</b>	91.6%
<b>Susan Parkinson</b>	Lincoln	1,271	5.4%	<b>90.0%</b>	77.6%
<b>Lori Cole</b>	Niobrara	780	3.3%	<b>93.4%</b>	85.6%
<b>Sandra Gabel</b>	Goshen	635	2.7%	<b>96.1%</b>	77.3%
<b>Patrick White</b>	Laramie	541	2.3%	<b>98.4%</b>	85.4%
<b>Kim Brattis</b>	Natrona	358	1.5%	<b>99.9%</b>	69.6%
	All Occupants	23,387	100.0%		78.3%

Some counties, especially the top five in the table, significantly influence the overall seat belt use rates more than the other counties. Almost half of the vehicle occupants (49.2%) were observed in five of the fifteen counties: Campbell, Albany, Carbon, Sweetwater, and Uinta. Add in the following six counties (Park, Fremont, Converse, Platte, Johnson, and Lincoln), and 90 percent of the occupants are accounted for in the sample. In other words, eleven of fifteen counties account for 90 percent of the occupants. That leaves 10 percent of the sample in the last four counties: Niobrara, Goshen, Laramie, and Natrona.

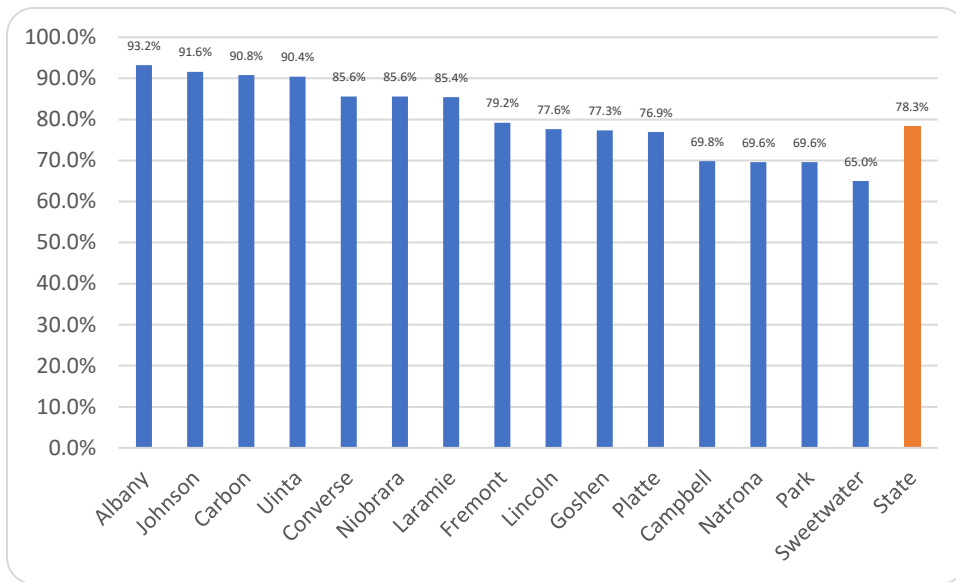
The following table presents the estimated seat belt use rates for drivers, passengers, and all vehicle occupants by county. There is an accompanying graph illustrating the rates for vehicle occupants by county.

*Table 7: Estimates of Percent Belted by County for Drivers, Passengers and Occupants, Wyoming 2022*

				Total	% of Total
County	Drivers	Passengers	Occupants	Occupants	Sample
<b>Albany</b>	91.2%	98.6%	93.2%	2,231	9.5%
<b>Campbell</b>	68.9%	72.7%	69.8%	2,848	12.2%
<b>Carbon</b>	89.6%	94.1%	90.8%	2,201	9.4%
<b>Converse</b>	83.2%	92.6%	85.6%	1,694	7.2%
<b>Fremont</b>	75.2%	89.8%	79.2%	1,816	7.8%
<b>Goshen</b>	76.6%	80.7%	77.3%	635	2.7%
<b>Johnson</b>	90.3%	94.5%	91.6%	1,281	5.5%
<b>Laramie</b>	85.3%	85.8%	85.4%	541	2.3%
<b>Lincoln</b>	75.7%	83.8%	77.6%	1,271	5.4%
<b>Natrona</b>	69.4%	70.4%	69.6%	358	1.5%
<b>Niobrara</b>	81.6%	94.4%	85.6%	780	3.3%
<b>Park</b>	66.6%	77.1%	69.6%	1,984	8.5%
<b>Platte</b>	74.9%	81.9%	76.9%	1,515	6.5%
<b>Sweetwater</b>	63.7%	68.4%	65.0%	2,180	9.3%
<b>Uinta</b>	88.4%	96.0%	90.4%	2,052	8.8%
<b>Total % Belted</b>	76.9%	83.2%	78.3%	23,387	100.0%
<b>Total Belted</b>	13,562	5,243	18,805		

Among the top five counties in terms of total occupants, three counties have rates of seat belt use at 90 percent belted or higher: Albany (93.2%), Carbon (90.8%), and Uinta (90.4%). These counties contribute significant numbers of occupants likely to wear seat belts. Campbell and Sweetwater also contribute significant numbers of occupants, but their occupants have lower seat belt use rates. In the group of the following six counties, taking the total up to 90.0 percent of the occupants, Fremont (79.2%), Converse (85.6%), Platte (79.1%), and Johnson (84.6%) have occupant belt use rates above the statewide rate of 78.3 percent. Among the last four counties, two have rates above the state average: Niobrara (85.6%) and Laramie (85.4%).

Figure 3: County Seat Belt Use Rates for Vehicle Occupants, Ranked in Descending Order





## Seat Belt Use for Selected Variables

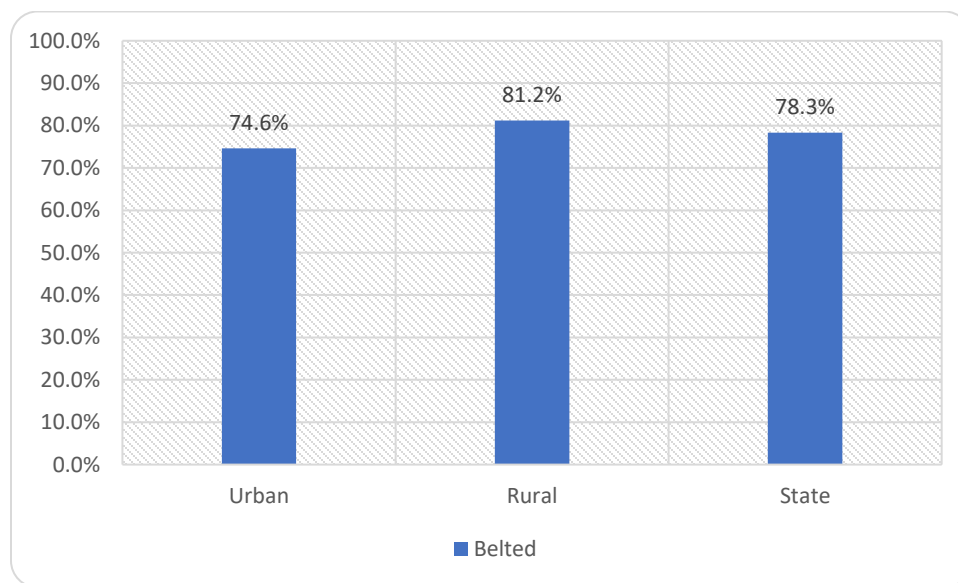
Survey observations in Wyoming are organized into variables and categories within variables. For example, some sites are pre-coded for population density (urban or rural) and the type of roadway (primary, secondary, or "other"). Occupant gender, vehicle type, vehicle registration (Wyoming or out-of-state), and the day of the week are other variables. These variables and others of interest concerning seat belt use are examined in the following section.

### Population Density

For this 2022 baseline survey, DLN staff consulted U.S. Census data and maps of sites in counties included in the survey sample to determine if the appropriate code for any given site should be urban or rural. Sites within a city of 5,000 or more are pre-coded as urban sites, while sites located in smaller cities or outside cities with fewer than 5,000 residents are rural. These codes are consistent with Wyoming's criteria for designating urban and rural sites. Wyoming is far more rural than urban, as reflected in the survey data.

For this 2022 survey, 71.0 percent of the vehicle occupants are in rural areas, and 29.0 percent are urban. Seat belt use for vehicle occupants is 81.2 percent in rural sites and 74.6 percent belted in urban sites, a difference of 6.8 percent. The following graph illustrates this result.

*Figure 4: Estimates of Occupant Seat Belt Use by Population Density, Wyoming 2022*

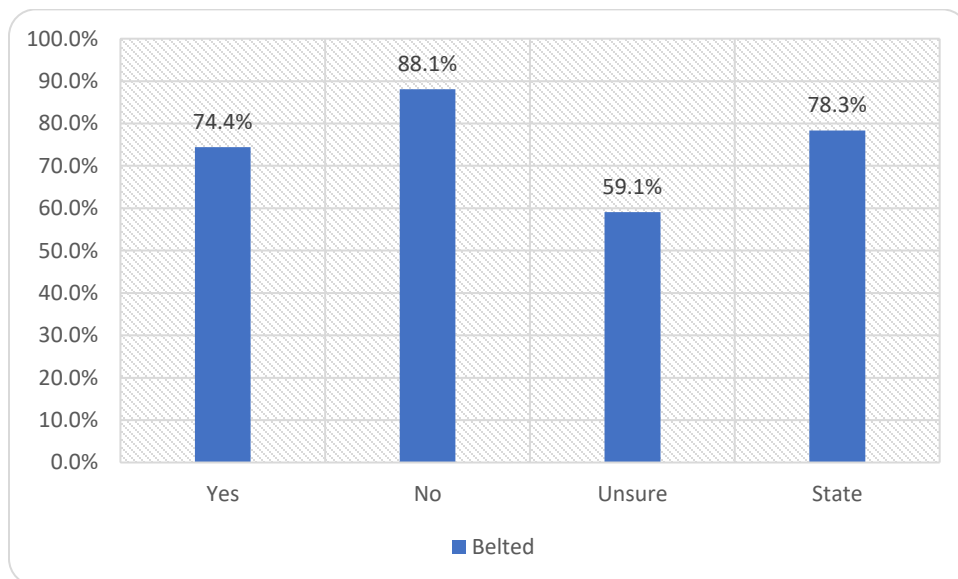


## Vehicle Registration

Observers record whether occupants are in vehicles with Wyoming or out-of-state license plates. A third category, "unsure," is recorded when observers cannot identify the registration.

For the 2022 survey, 57.6 percent of the vehicle occupants were in vehicles identified with a Wyoming registration, 41.4 percent with an out-of-state code ("No"), and observers were unsure about the vehicle registration for 1.0 percent of the vehicle occupants. 74.4 percent of the occupants in Wyoming registered vehicles were observed as belted, compared to 88.1 percent of occupants in non-Wyoming vehicles, a difference of 13.7 percent. The use rate was much lower for occupants in vehicles with an unsure registration, 59.1 percent, but they represent only 1.0 percent of the vehicle occupants. The following graph illustrates these results.

*Figure 5: Estimate of Occupant Seat Belt Use by Wyoming License, Wyoming 2022*



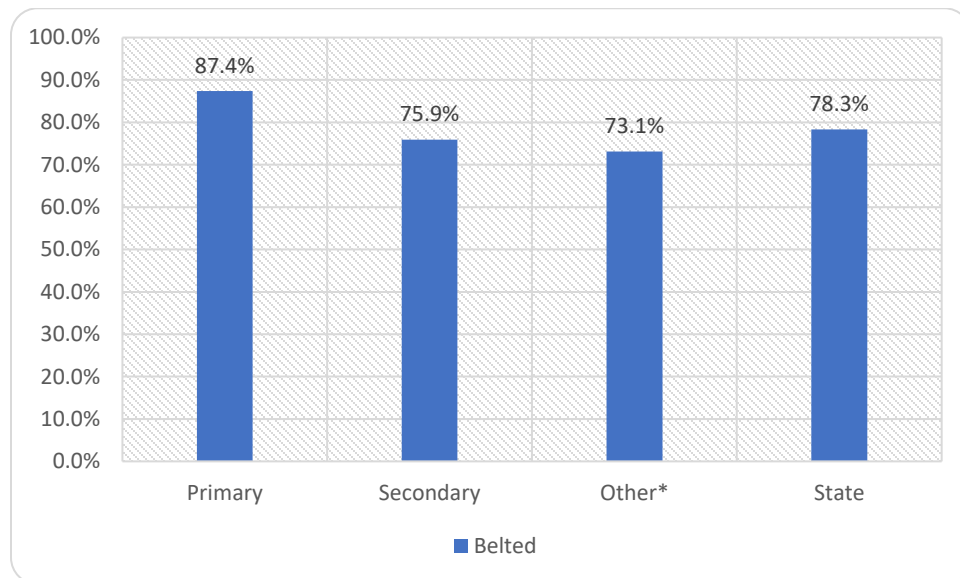
## Roadway Type

The roadway types have codes consistent with NHTSA's descriptions of the various types for each site, as follows:

- S1100 primary roadways are federally or state-maintained and include interstate and other four-lane highways. For the 2022 survey, 36.7 percent of the vehicle occupants were observed on primary roadways.
- S1200 roads are secondary, which means they are state or federally maintained and are typically two-lane highways. In this survey, 60.9 percent of the vehicle occupants were in vehicles traveling on secondary roadways.
- S1400 "other" roadways are a mix of local, rural, and city roadways that are neither primary nor secondary. All are paved roads; some are two-lane and some four-lane. The fewest occupants, 2.4 percent of the total sample, were observed on these "other" roadways.

The 2022 results show seat belt use rates of 87.4 percent of the occupants observed in vehicles on primary roads, 75.9 percent belted on secondary roadways, and 73.1 percent belted on the "other" roadways. Seat belt use is 11.5 percent higher for occupants on primary roads than for secondary ones. The following graph illustrates these results.

Figure 6: Estimate of Occupant Seat Belt Use by Roadway Type, Wyoming 2022



\* "Other" roadways are a catchall state category for local, rural roads, and city streets that are not primary or secondary roadways.

## Weekdays

During data collection, observers code observations by the day of the week. The following table presents the results of seat belt use for occupants broken down by the days of the week.

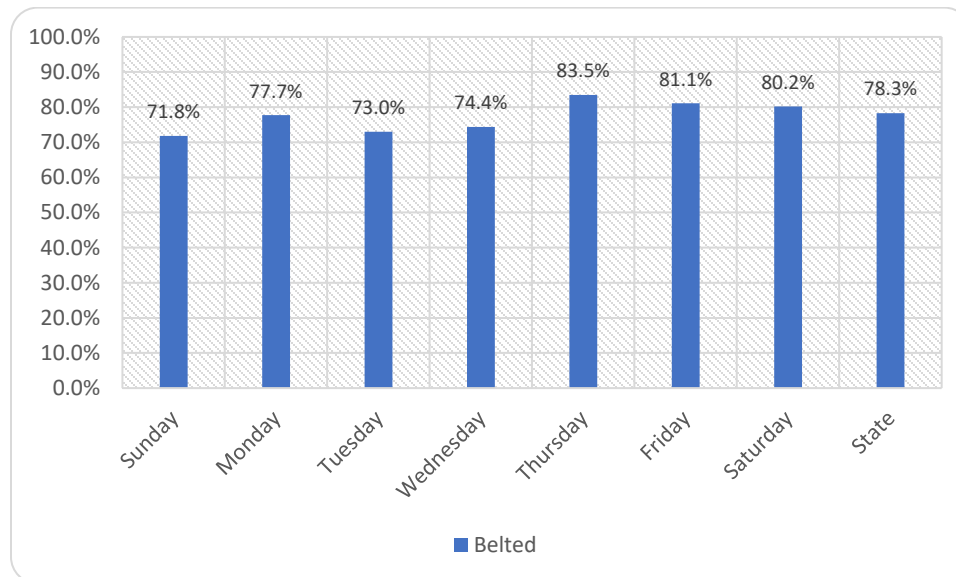
Table 8: Occupant Belt Use by Weekday, Wyoming 2022

Weekdays	Belted	Not Belted	Unsure	Unweighted Count	% of total sample
Sunday	71.8%	28.2%	0.0%	2,345	10.0%
Monday	77.7%	21.3%	1.0%	2,914	12.5%
Tuesday	73.0%	26.1%	0.9%	3,297	14.1%
Wednesday	74.4%	25.1%	0.6%	4,241	18.1%
Thursday	83.5%	16.0%	0.5%	3,436	14.7%
Friday	81.1%	18.5%	0.4%	4,940	21.1%
Saturday	80.2%	19.8%	0.0%	2,214	9.5%
State	78.3%	21.2%	0.5%	23,387	100.0%

The highest numbers of occupants were observed on Wednesdays (18.1%) and Fridays (21.1%), and those two days account for nearly 40 percent of the occupants. The fewest occupants were observed on the weekend: Saturday (9.5%) and Sunday (10.0%).

The highest seat belt use rates are on the last three days of the week: Thursday, 83.5 percent; Friday, 81.1 percent; and Saturday, 80.2 percent. The lowest recorded rates are on Sunday, 71.8 percent, and Tuesday, 73.0 percent. The following graph illustrates these results.

Figure 7: Estimate of Occupant Seat Belt Use by Weekdays, Wyoming 2022



## Occupant Gender and Vehicle Type

Occupant gender, vehicle type, and the combination of these variables produced consistent results in previous Wyoming seat belt surveys. Females typically have significantly higher rates of seat belt use than males. Female seat belt use tends to be higher in every type of vehicle. Males tend to have the lowest rates of seat belt use as occupants in pickup trucks. To determine whether this new 2022 baseline survey would show similar results, we looked at gender, vehicle type, and the combination of the two.

### Gender

The estimates of seat belt use by occupant gender are presented in the following table.

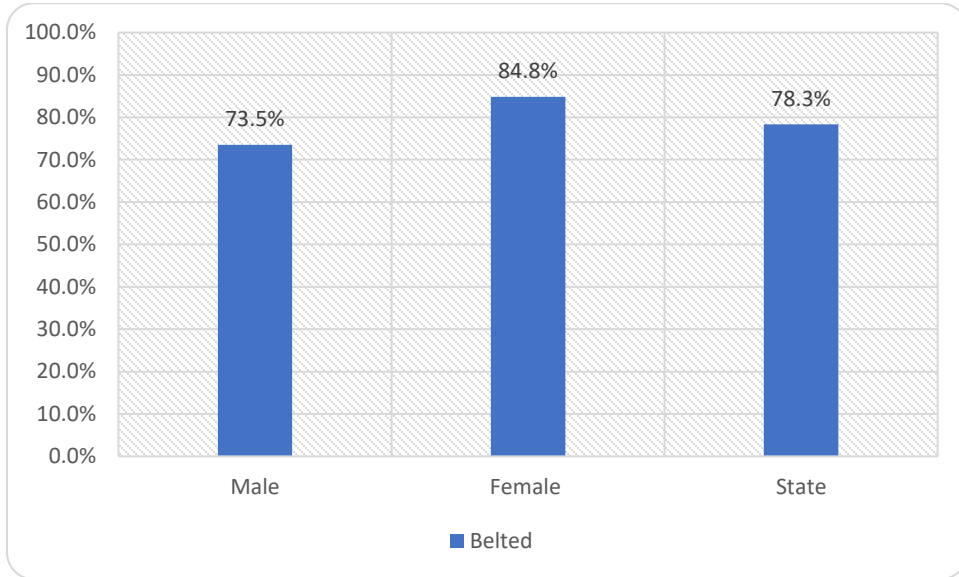
*Table 9: Estimate of Occupant Belt Use by Vehicle Type and Occupant Gender, Wyoming 2022*

Gender	Vehicle Type	Occupant Belt Use			Unweighted State	% of Count
		Belted	Count	Sample		
<b>Male</b>	Auto	76.3%	2,493	18.5%	100.0%	2,493
	Van	80.6%	3,509	26.0%	100.0%	3,509
	SUV	72.8%	794	5.9%	100.0%	794
	PU Truck	69.0%	6,684	49.6%	99.9%	6,684
	State	73.5%	13,480	100.0%	99.9%	13,480
<b>Female</b>	Auto	81.0%	2,534	25.6%	100.0%	2,534
	Van	88.8%	4,596	46.4%	100.1%	4,596
	SUV	87.1%	634	6.4%	100.0%	634
	PU Truck	79.4%	2,143	21.6%	99.9%	2,143
	State	84.8%	9,907	100.0%	100.1%	9,907

The first thing to note is that males outnumber females by a substantial margin: males are 57.6 percent of the vehicle occupants, and females are 42.4 percent, a difference of 15.2 percent. The second thing to note is that the male seat belt use rate is lower than the female rate. Males are belted at 73.5 percent, and females at a rate of 84.8 percent, a difference of 11.3 percent. Males contribute more to seat belt use rates and have a lower seat belt use rate.

The following graph illustrates occupant seat belt use by gender.

*Figure 8: Estimate of Occupant Belt Use by Occupant Gender, Wyoming 2022*



## Vehicle Type

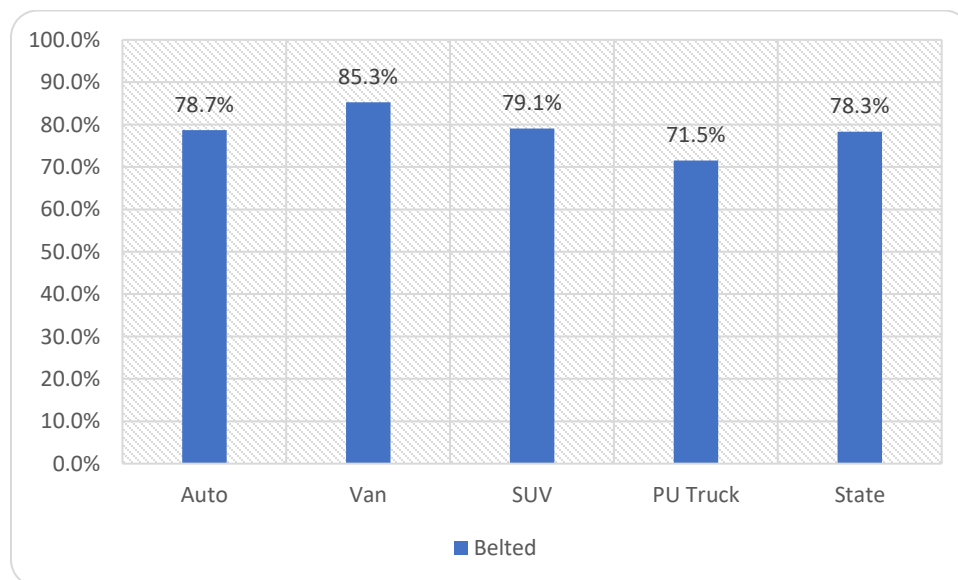
Observers record data for: automobiles, vans, sport utility vehicles (SUVs), and pickup trucks. The 2022 estimates of occupant seat belt use are presented in the following table.

Table 10: Estimate of Occupant Belt Use by Vehicle Type, Wyoming 2022

Vehicle Type	Occupant Belt Use			Unweighted Count	Percent of Sample
	Belted	Not Belted	Unsure		
<b>Auto</b>	78.7%	21.0%	0.3%	5,027	21.5%
<b>Van</b>	85.3%	14.0%	0.7%	8,105	34.7%
<b>SUV</b>	79.1%	20.9%	0.0%	1,428	6.1%
<b>PU Truck</b>	71.5%	28.0%	0.4%	8,827	37.7%
<b>State</b>	78.3%	21.2%	0.5%	23,387	100.0%

The highest belt use rate is for occupants of vans, 85.3 percent belted. The lowest rate is for occupants of pickup trucks at 71.5 percent. Occupants of automobiles and SUVs have similar rates: 78.7 in automobiles and 79.1 percent in SUVs. To put these percentages into perspective, note that vans were the vehicle for 34.7 percent of occupants, and pickup trucks contained 37.7 percent of occupants. Together, 72.4 percent of occupants were in vans and pickup trucks. However, seat belt use is very different for these two vehicle types: 85.3 percent belted in vans, and 71.5 percent belted in pickup trucks.

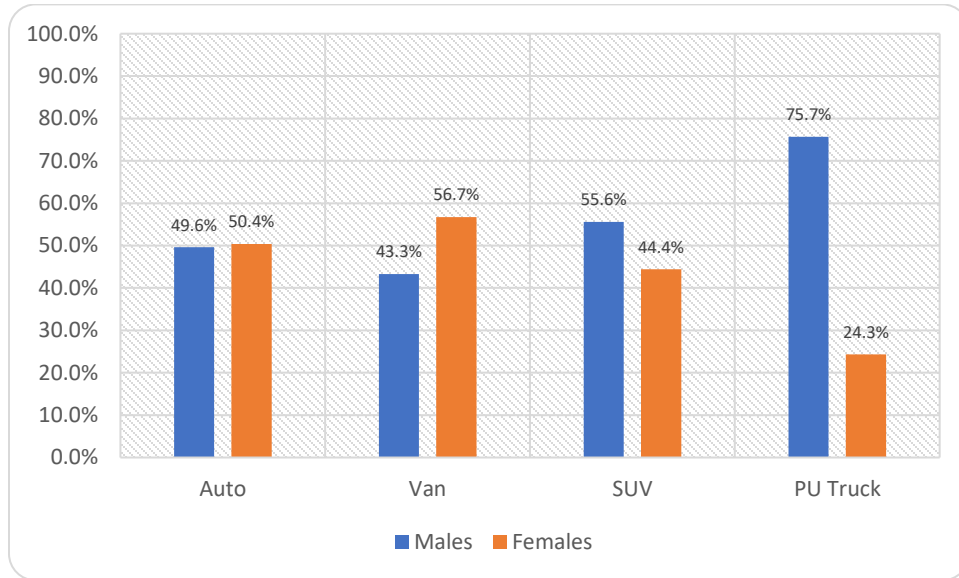
Figure 9: Estimate of Occupant Belt Use by Vehicle Type, Wyoming 2022



## Gender and Vehicle Type

The graph below depicts the percentage of male and female vehicle occupants by vehicle type.

*Figure 10: Estimate of Occupant Belt Use by Vehicle Type and Gender, Wyoming 2022*

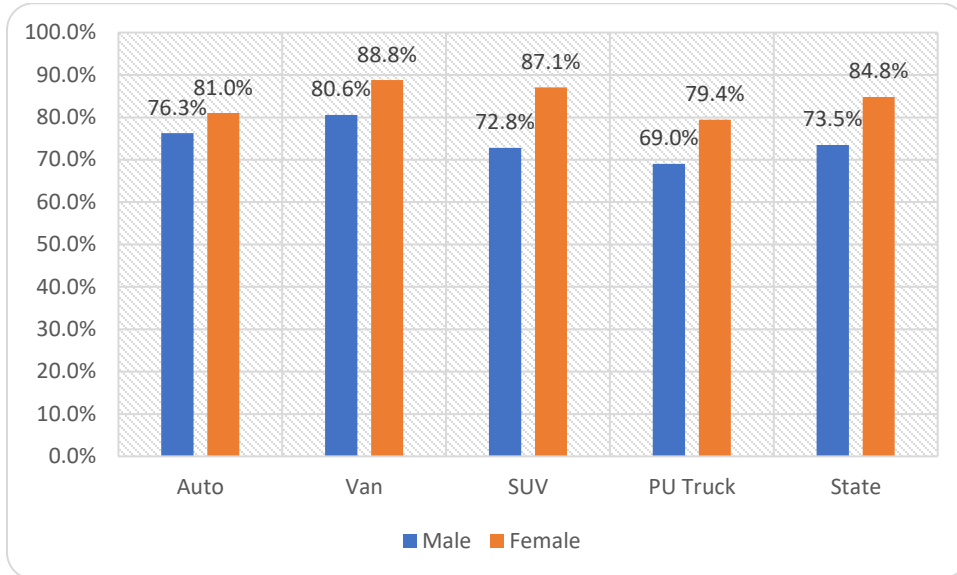


The percentage of male and female occupants is essentially the same for automobiles. There are more females (56.7%) than males (43.3%) in vans, a difference of 13.4 percent. In SUVs, the opposite pattern emerges males are 55.6 percent of the occupants, and females are 44.4 percent, a difference of 11.2 percent. However, the significant difference is the masculine character of the pickup truck: 75.7 of the occupants are male, and 24.3 percent are female, a difference of 51.4 percent.



The following graph illustrates the estimates of seat belt use by gender and vehicle type.

Figure 11: Estimate of Occupant Belt Use by Vehicle Type and Gender, Wyoming 2022



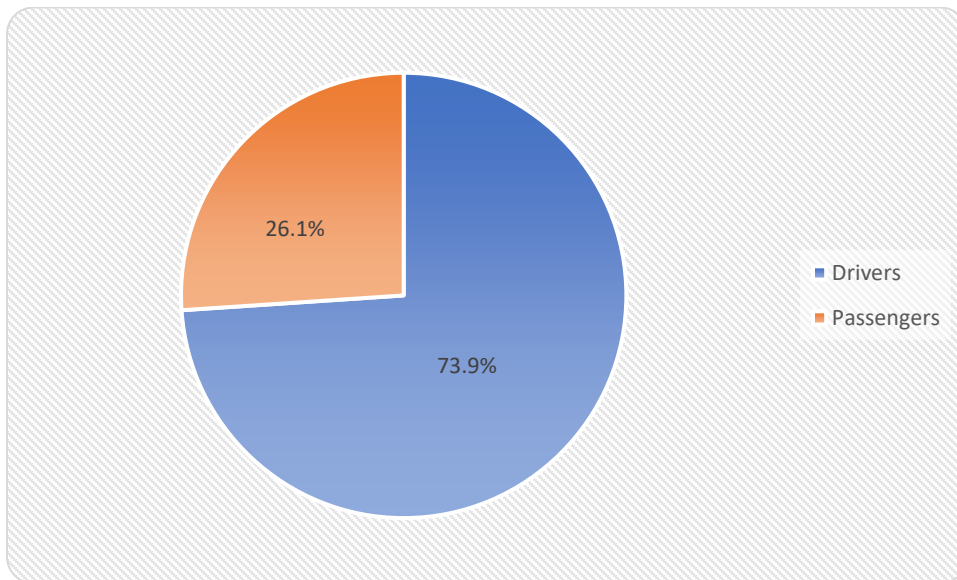
Females have higher seat belt use rates in every type of vehicle: 4.7 percent higher in automobiles, 8.2 percent higher in vans, 14.3 percent higher in SUVs, and 10.4 percent higher in pickups. The greater tendency of females to wear seat belts persists across all types of vehicles.

## Drivers and Passengers

Observers collect seat belt use data on drivers and front-seat outboard passengers, who make up the total vehicle occupants. Observations do not include middle front-seat or back-seat vehicle occupants.

For Wyoming 2022, observers collected data on 17,292 drivers and 6,095 passengers for 23,387 vehicle occupants. Drivers represented 73.9 percent and passengers represented 26.1 percent of vehicle occupants. There are almost three drivers for every passenger. About a fourth of the vehicles had both drivers and passengers. The following graph illustrates the percentages.

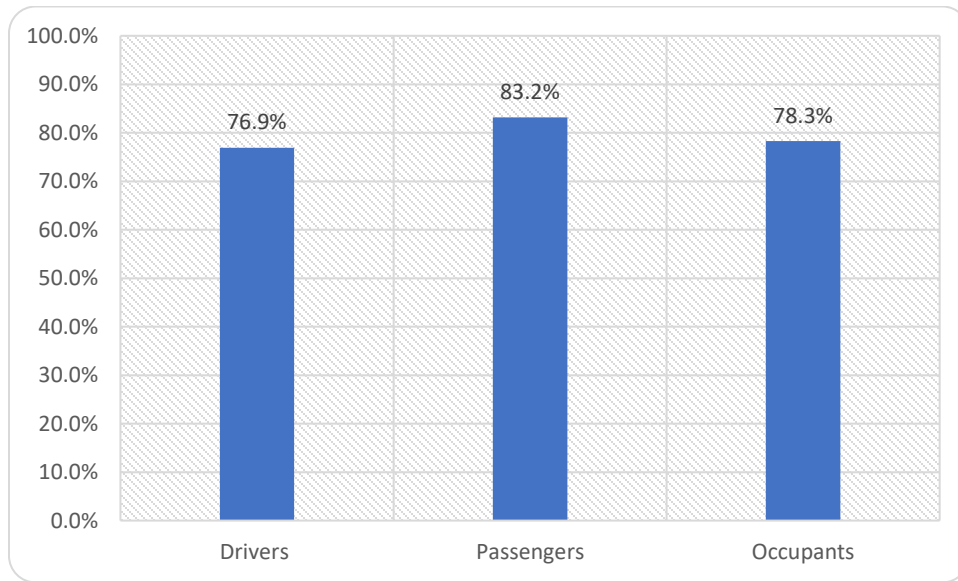
*Figure 12 Frequencies by Type of Vehicle Occupant, Wyoming 2022*



The next section of this report presents seat belt use rates for drivers and passengers. Driver and passenger belt use rates are presented by county, population density, Wyoming vehicle registration, roadway type, and vehicle type and gender combination. The overall rates are presented.

Figure 13 shows the overall rates by type of vehicle occupant.

*Figure 13 Estimates of Drivers, Passengers and All Occupants Belted, Wyoming 2022*

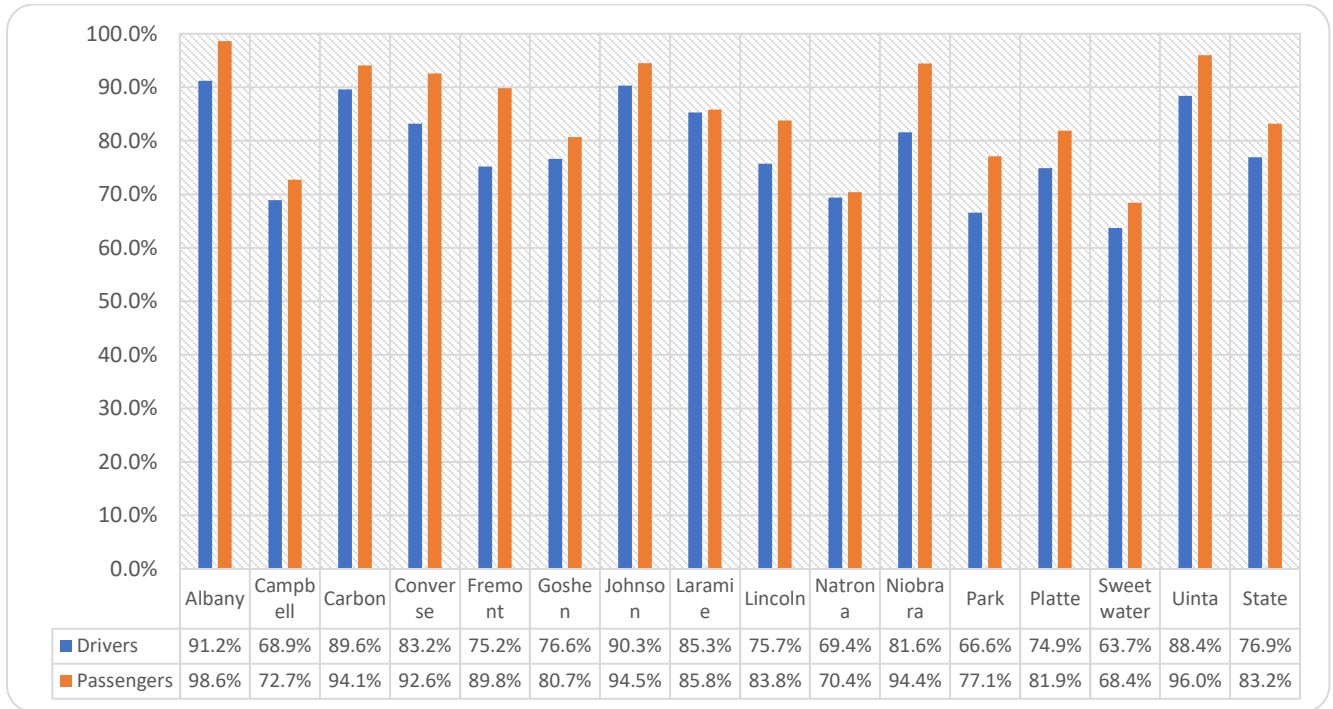


76.9 percent of drivers and 83.2 percent of passengers wore seat belts in the 2022 Wyoming survey, a difference of 6.3 percent. The higher rate for passengers raised the overall rate to 78.3 percent, despite the smaller number of passengers (26.1 percent of the sample) compared to the number of drivers (73.9 percent of the sample).

## Drivers and Passengers by County

The following figure illustrates seat belt use rates for drivers and passengers by county.

Figure 14: Estimates of Driver, Passenger and State Occupant Belt Use by County, Wyoming 2022

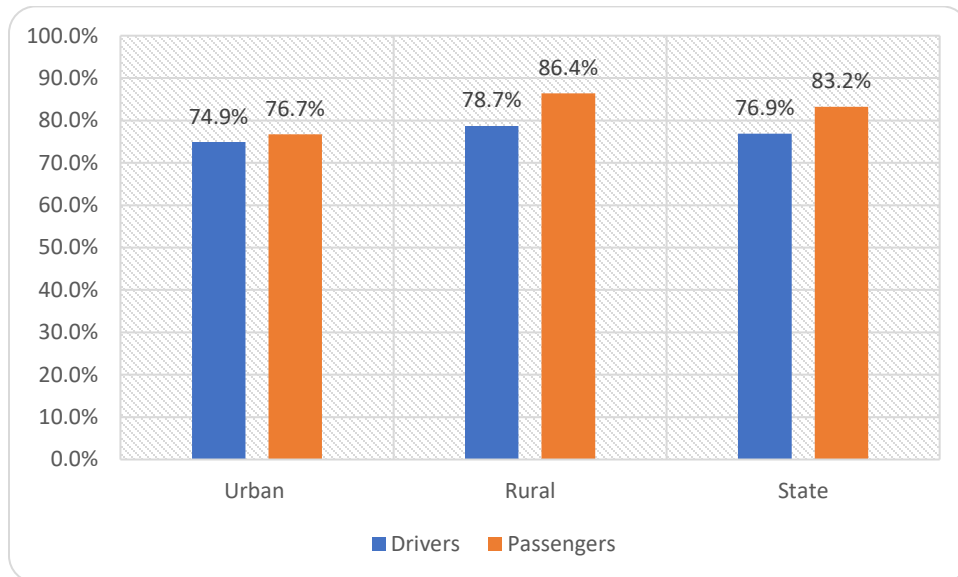


Passenger rates are typically higher than driver rates in each county, usually by less than ten percent. Passenger rates are higher than driver rates by more than ten percent in three counties: Fremont (14.6%), Niobrara (12.8%), and Park (10.5%).

## Drivers and Passengers by Population Density

The following figure illustrates seat belt use rates for drivers and passengers by population density.

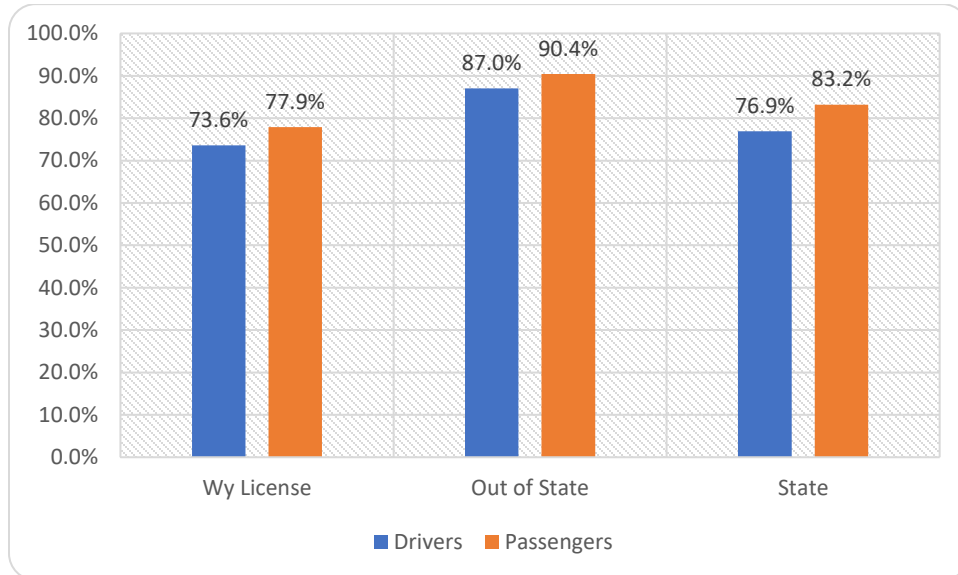
*Figure 15: Estimates of Driver, Passenger and All Occupants Belted by Population Density, Wyoming 2022*



Passenger rates are higher than driver rates in both urban and rural areas. However, the difference is more significant in rural areas (7.7%) than in urban areas (3.8%). Most of the difference in seat belt use between urban and rural vehicle occupants comes from the higher rate of passengers in rural areas.

## Drivers and Passengers by Vehicle Registration

The following figure illustrates seat belt use for drivers and passengers by vehicle registration.<sup>5</sup>



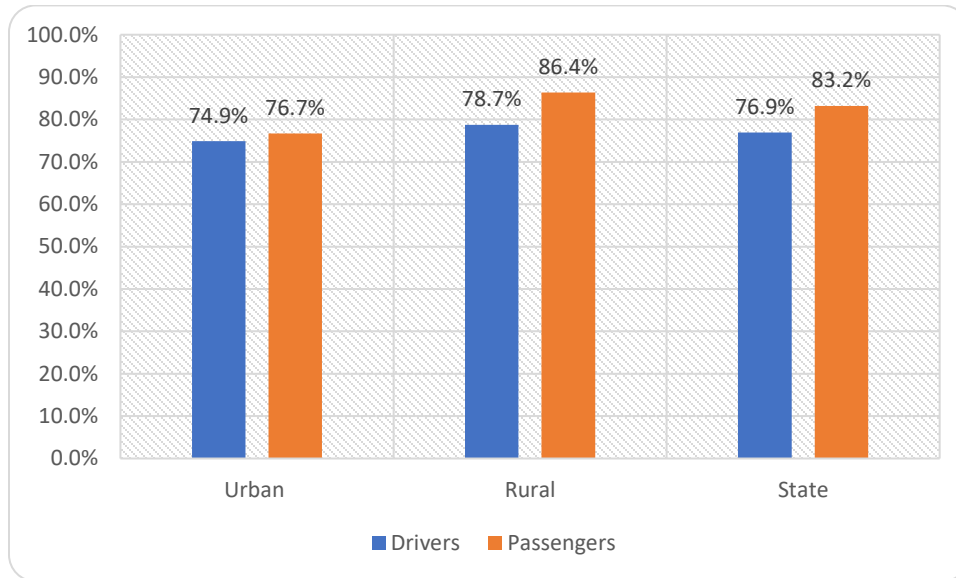
Drivers and passengers are similar in belt use in Wyoming registered and out-of-state vehicles. Wyoming drivers and passengers have rates below the state average of 78.3 percent, while both are above the state average in out-of-state vehicles. In other words, the difference for all vehicle occupants, at 6.6 percent, is more significant than the difference between drivers and passengers in Wyoming vehicles (4.3%) or out-of-state vehicles (3.4%).

<sup>5</sup> The cases where observers were unsure about license registration amounts to 1.0 percent of all occupants. Therefore, the unsure category has been omitted from the figure for the sake of clarity.

## Drivers and Passengers by Population Density

The following figure illustrates seat belt use by roadway type.

Figure 16: Estimates of Driver, Passenger and All Occupants Belted by Population Density, Wyoming 2022



Occupant belt use is above the statewide average of 78.3 percent belted in vehicles on primary roads. The rate for drivers is 86.3 percent belted and 90.4 percent belted for passengers, with an overall occupant belt use rate of 87.4 percent. Lower rates of belt use for drivers on secondary (74.5% and other roadways (72.1%) produce lower rates for all occupants: 75.9 percent on secondary and 73.1 percent on other roadways. As a result, the significantly higher rate of belt use on primary roadways for both drivers (86.3%) and passengers (90.4%) accounts for an overall state rate for all occupants (78.3%) above the rates on either secondary (75.9%) or other (73.1%) roadways.

## Drivers and Passengers by Gender and Vehicle Type

The following table presents the estimates of occupant seat belt use by vehicle type and gender.

*Table 11: Estimate of Driver, Passenger and All Occupants Belted by Gender and Vehicle Type, Wyoming 2022*

Gender	Vehicle Type	Drivers	Passengers	Occupants
<b>Male</b>	Auto	76.3%	75.9%	76.3%
	Van	80.4%	81.5%	80.6%
	SUV	72.2%	76.1%	72.8%
	Pickup	69.5%	65.5%	69.0%
	State	73.5%	73.6%	73..5%
<b>Female</b>	Auto	80.5%	82.2%	81.0%
	Van	87.3%	91.9%	88.8%
	SUV	86.9%	87.4%	87.1%
	Pickup	72.7%	86.0%	79.4%
	State	83.1%	87.8%	84.8%

The first thing to notice is that male drivers and passengers show similar seat belt use in most types of vehicles, and so do the female drivers. The percentage difference in belt use for drivers and passengers is less than five percent for males and females in all vehicle types, except for one instance: female drivers and passengers in pickup trucks. That difference is 13.3 percent, with 72.7 percent of drivers and 86.0 percent of passengers belted.

The following table presents the frequencies and percentages of occupants in pickup trucks by occupant type and gender.

*Figure 17: Frequency of Drivers and Passengers by Gender in Pickup Trucks*

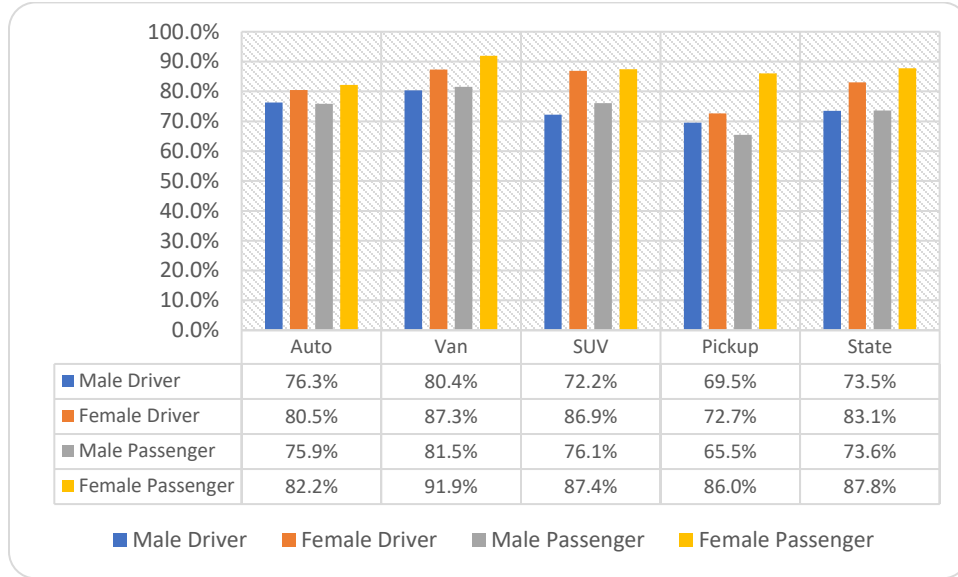
	Male	Female	Pickup Occupants
<b>Drivers</b>	5,915	920	6,835
	86.5%	13.5%	100.0%
<b>passengers</b>	769	1,223	1,992
	38.6%	61.4%	100.0%
<b>State</b>	6,684	2,143	8827
	75.7%	24.3%	100.0%



Females are 24.3 percent of pickup truck occupants, and 61.4 percent of the passengers in pickup trucks. Males are most of the pickup truck occupants, 75.7 percent, and males are most of the drivers, 86.5 percent. While the low rate of seat belt use for female drivers in pickups is an anomaly in terms of female seat belt use, the relatively small number of these females has an almost negligible effect on the overall data.

On the other hand, females have higher seat belt use rates in all types of vehicles, which is consistent for drivers and passengers. The following graph illustrates this relationship.

Figure 18: Estimate of Driver, Passenger and All Occupants Belted by Gender and Vehicle Type, Wyoming 2022



- For drivers, the female rate in automobiles is 4.2 percent higher. For passengers, the female rate is 6.3 percent higher.
- For drivers, the female rate in vans is 6.9% higher. For passengers in vans, the female rate is 10.4 percent higher.
- For drivers, the female rate is 14.7 percent higher in SUVs, and for passengers, the female rate is 11.3 percent higher.
- For drivers, the female rate is 3.2 percent higher in pickup trucks, and for passengers, the female rate is 20.5 percent higher.

## Concluding Remarks

The 2022 survey of seat belt use in Wyoming is the first year with a new sample of counties and sites. Because of the changes in the sample, the results for this year are not directly comparable with results from prior surveys. The methodologies and protocols have not changed. Therefore, this survey represents the same level of reliability and validity as previous surveys. This survey sets a baseline, and trends may emerge as future surveys utilize the current sample.

Counties are selected because they contained 85.0 percent of the traffic fatalities in Wyoming between 2016 and 2020. Evidence shows that traffic fatalities often involve no use or misuse of seat belts.<sup>6</sup> The overall rate of 78.3 percent belted may reflect that characteristic element of the sample. A brief review found the following in "Wyoming Highway Safety Behavioral Grants Program FY2021 Highway Safety Plan," on page 31:

"Wyoming's 2019 crash data showed there were 942 crashes with unbelted vehicle occupants with 469 unbelted injuries with 175 critical injuries. Eighty-six percent (86%) of fatalities occur on rural roads. Carbon, Laramie, Natrona, and Sweetwater counties have the most unbelted vehicle occupants in critical crashes."

Two comments on this quote are in order. First, 71.0 percent of the observations of seat belt use in this survey are sites designated as "rural." Second, each of the counties cited is included in this survey.

This assessment is not meant to imply that the sampling process predetermines the seat belt use rate computed for this survey. Instead, the sampling process and calculations of rates are likely to identify the counties, site characteristics, and various factors associated with higher or lower seat belt use rates.

The data analysis that informs the narrative is included in the following appendix. There are other items in the appendices that provide additional information on the data and the analysis of the data.

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<sup>6</sup> See <https://www.dot.state.wy.us/home/dotsafety/crash-data/publications.html>.

# Appendices

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# Appendix A: State Seat Belt Use Reporting Form

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state seat belt use reporting form

# State Seatbelt Use Survey Reporting Form

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PART A

State: Wyoming

Calendar Year of Survey: 2022

Statewide Seatbelt Use Rate: 78.3 Percent

I hereby certify that: The Governor designated Matthew D. Carlson, P.E. as the State's Highway Safety Representative (GR) and has the authority to sign the certification in writing.

The reported Statewide seatbelt use rate is based on a survey design that received approval by NHTSA, in writing, as conforming to the Uniform Criteria for State Observational Surveys of Seatbelt Use, 23 CFR Part 1340.

The survey design remained unchanged since NHTSA approved the survey.

Dr. James G. Leibert<sup>7</sup>, a qualified survey statistician, reviewed the seatbelt use rate reported above and information reported in Part B and determined that they meet the Uniform Criteria for State Observational Surveys of Seatbelt Use, 23 CFR Part 1340.

  
Matt Carlson (Oct 12, 2022 08:29 MDT)  
Signature

Oct 12, 2022

Date

Matthew D. Carlson, P.E.

Printed name of authorized signing official

---

<sup>7</sup> In accordance with the final rule published in Federal Register Vol. 76 No. 63, April 1, 2011, Rules and Regulations, pp. 18042-18059, DLN contracted with statistician, Dr. James G. Leibert to determine that the methods used to process the collected data met the Uniform Criteria for State Observational Surveys of Seatbelt Use, 23 CFR Part 1340. Dr. Leibert reviewed the SPSS output files and related data tables to confirm the data are accurate and true. A copy of Dr. Leibert's abbreviated resume follows.

5820 York Ave. S.  
Edina, MN. 55410

Phone 952.922.0018  
E-mail 1jleibert@gmail.com

# James G. Leibert, PhD.

Summary – Creative problem solver with knowledge of and experience in a broad array of statistical and computational tools and techniques. I understand that there is no one tool or technique that can be used for every situation. I can quickly see connections and use tools and techniques from other fields as appropriate.

## Employment

---

Research Scientist III, Minnesota Department of Human Services, Disability Services Division, St. Paul, MN. Current

Chair, Dept. of Political Science and Public Administration / Director of the Master of Public Administration Program / Dean of Graduate and Undergraduate Studies, Kazakhstan Institute of Management, Economics, and Strategic Research (KIMEP), Almaty, Republic of Kazakhstan, 2001-2002.

Associate Professor (1999-2001) / International Programs Coordinator (2000 – 2001)

Chairman of the Department of Social Sciences (1999 – 2000) \ Assistant Professor (1993-1998), Dickinson State University      Dickinson, ND, 1993-2001.

Leadership

Team Player

Problem

Solving

## Appendix B: Survey Design

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### Wyoming survey design

The Wyoming Department of Transportation Highway Safety Program in collaboration with DLN Consulting, Inc. designed the following sampling, data collection, and estimation plan. The National Highway Traffic Safety Administration accepted and approved the plan on April 24, 2012. A copy of the approval notification can be found in Appendix C.

# Seat Belt Use Survey Design for Wyoming

Sampling, Data Collection and Estimation Plan

Revised 04-03-2012



# Seat Belt Use Survey Design for Wyoming

*Sampling, Data Collection and Estimation Plan*

January 3, 2012

Revised March 7, 2012

Submitted to:

National Highway Traffic Safety Administration  
Traffic Safety Programs  
1200 New Jersey Ave, SE  
Washington, DC 20590

Submitted by:

Wyoming Department of Transportation  
Highway Safety Program  
5300 Bishop Boulevard  
Cheyenne, WY, 82009-3340

DLN Consulting, Inc.  
2493 4<sup>th</sup> Ave W  
Suite G  
Dickinson, ND 58601

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## Introduction

This document provides the details of the methods proposed for a survey of seat belt use in the State of Wyoming in 2012. These methods have been developed by Wyoming to comply with the new Uniform Criteria for State Observational Surveys of Seat Belt Use issued in 2011 by the National Highway Traffic Safety Administration (NHTSA).<sup>1</sup>

This proposal includes the following:

- The general parameters of the study design, which produced the proposed sampling frame for the survey of Wyoming seat belt use.
- The sample design, including the proposed sample size and the methods to be used for the selection of road segments.
- The proposed data collection methods, including the training of observers, and the protocols that will guide observers in data collection, and the proposed quality control procedures.
- The proposed analytical methods to be used in producing an estimate of seat belt use in Wyoming, including the statistical use of sampling weights, the methods to adjust for nonresponsive data, and the methods of variance estimation.

This plan is compliant with the Uniform Criteria and will be used for the implementation of Wyoming's 2012 seat belt survey, upon approval.

## Study Design

There are 23 counties in the State of Wyoming. Fatality Analysis Reporting System (FARS) data for the years 2005 – 2009 by county was examined to identify the counties that accounted for at least 85 per cent of the cumulative crash-related fatalities during that period of time. Five years of data was selected to produce the largest number of counties available for the sample. Sixteen of the 23 counties accounted for 87.7 percent of the fatalities during this five-year period. Table 1 lists the fatality counts, and cumulative percentage of fatalities by county in Wyoming.

Road segment data was acquired from NHTSA, as developed by the U.S. Census Bureau in the form of 2010 TIGER data, for each of the 16 counties in the sample frame. All roads, with the exception of rural local roads, non-public roads, unnamed roads, unpaved roads, vehicular trails, access ramps, cul-de-sacs, traffic circles, and service drivers. These exclusions are compliant under § 1340.5.a.2.ii. The data include the length of the road segments and the classification of the road segments by road type (MTFCC).<sup>2</sup> This classification scheme locates each road segment within three different types of roads, as follows:

- Primary roads (MTFCC Code S1100), which are generally divided, limited-access highways within the interstate highway system or under state management, and are distinguished by the presence of interchanges. These highways are accessible by ramps and may include toll highways, although there are no toll highways in Wyoming.

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<sup>1</sup> The final rule was published in Federal Register Vol. 76 No. 63, April 1, 2011, Rules and Regulations, pp. 18042 – 18059.

<sup>2</sup> The classification scheme uses the MAF/TIGER feature Class Code, or MTFCC in the database.

- Secondary roads (MTFCC Code S1200), which are main arteries, usually in the U.S. Highway, State Highway, or County Highway system. These roads have one or more lanes of traffic in each direction, may or may not be divided, and usually have at-grade intersections with many other roads and driveways. They often have both a local name and a route number.
- Local neighborhood roads, rural roads, and city streets (MTFCC Code S1400), including paved non-arterial streets, roads or byways that usually have a single lane of traffic in each direction. The roads in this class may be privately or publicly maintained. Scenic park roads would be included, as would some unpaved roads, in this classification.

This classification scheme will be used to stratify the road segments in each county. The road segments to be included in the statewide sample will be drawn from the strata within each of the selected counties.

### Sample Design

The proposed design is intended to conform to the requirements of the Uniform Criteria. The objective of the design is to generate annual estimates of occupant restraint use for adults and children using booster seats in the front seats of passenger vehicles. Wyoming intends to update the sample of data collection sites every five years in order to have survey results that reflect those counties with more than 85 percent of crash-related fatalities. The sample design described here was provided to Wyoming under a consultant agreement with DLN Consulting, Inc. and Dr. Jamil Ibriq of Dickinson State University in Dickinson, North Dakota.<sup>3</sup> The sample design is for a stratified, systematic, randomly selected sample of data collection segments, with the following detailed steps:

- All 23 counties in Wyoming were listed in descending order of the average number of motor vehicle crash-related fatalities for the period of 2005 to 2009. Fatality Analysis Reporting System (FARS) data were used to determine the number of crash-related fatalities per county. It was determined that 16 of the counties accounted for more than 85.0 percent of traffic-related fatalities.<sup>4</sup> A decision was made by the Wyoming Department of Transportation to include all 16 counties for observation in order to maximize the numbers of counties to be observed. This method used in the first sampling stage resulted in all counties in the sample being selected with certainty and a probability factor of 1. Table 1 lists Wyoming's counties, fatality counts, and cumulative fatality percentages.
- The road segments were selected randomly from all eligible segments in each of the strata in the sampled counties. The road segments were stratified on the basis of the MTFCC road type classification<sup>5</sup>. A total sample of 18 road segments was identified for each county based on the historical number of observations collected over the past five years in Wyoming. This stage of the sampling process resulted in the selection of 288 road segments (16 counties X 18 sites per county).

<sup>3</sup> Dr. Jamil Ibriq's résumé is included in Appendix A.

<sup>4</sup> The 16 counties account for 87.7 percent of traffic-related fatalities in the FARS cumulative data from 2005-2009.

<sup>5</sup> The road types, previously described, are (S1100) primary roads, (S1200) secondary roads, and (S1400) local neighborhood roads, rural roads, and city streets.

- The sampling process included the random selection of additional road segments within each road-type strata and county. These segments are part of a pool of reserve sites that can be substituted for existing segments in the sample that become unavailable due to extensive construction, weather-related problems, or other unanticipated events.
- It is expected that this process will produce approximately 28,800 observations, based on prior surveys of seat belt use in Wyoming. Given this sample size, the standard error should be less than the 2.5 percent maximum specified by the Uniform Criteria. In the event that the standard error exceeds 2.5 percent, additional observations will be collected from existing sites.
- Randomization procedures will be used to determine protocols regarding the initial road segment for observation within each county, the direction of traffic flow for observation, etc., to be described later in this proposal.

**Table 1: Wyoming's Average Motor Vehicle Crash-Related Fatalities  
By County 2005 - 2009**

STATE CODE	COUNTY NAME	Average fatality counts for 5 years	Fatality percentage within the state	Cumulative fatality percentage
Wyoming	FREMONT	20.6	12.4	12.4
Wyoming	SWEETWATER	19	11.4	23.8
Wyoming	NATRONA	13.2	7.9	31.8
Wyoming	CAMPBELL	11.8	7.1	38.9
Wyoming	LARAMIE	11.2	6.7	45.6
Wyoming	CARBON	10	6	51.7
Wyoming	ALBANY	7.6	4.6	56.2
Wyoming	JOHNSON	6.8	4.1	60.3
Wyoming	PARK	6.8	4.1	64.4
Wyoming	TETON	6.4	3.9	68.3
Wyoming	UINTA	6.4	3.9	72.1
Wyoming	SHERIDAN	5.4	3.3	75.4
Wyoming	SUBLETTE	5.4	3.3	78.6
Wyoming	LINCOLN	5.2	3.1	81.8
Wyoming	BIG HORN	5	3	84.8
Wyoming	PLATTE	4.8	2.9	87.7
Wyoming	CONVERSE	4.2	2.5	90.2
Wyoming	GOSHEN	3.3	2	92.2
Wyoming	CROOK	3.2	1.9	94.1
Wyoming	WESTON	3	1.8	95.9
Wyoming	NIOBRARA	2.8	1.7	97.6
Wyoming	HOT SPRINGS	2	1.2	98.8
Wyoming	WASHAKIE	2	1.2	100

### Sample Size and Precision

A standard error of less than 2.5% for the seat belt use estimates is required by the Final Rule. Since 2006, Wyoming has conducted annual seat belt use studies that have historically obtained standard error rates below this threshold (e.g. 1.1%, 1.2%, 0.9%, 1.0%, and 0.8% in the past five years) via

observed sample sizes between 23,404 and 27,274. These observed sample sizes have been obtained from previous sample designs using nine counties and 23 road segments per county. Therefore, since the proposed design is expected to yield a sample of about 28,800 observations (16 counties X 18 sites per county X 100 vehicles per observation site), the precision objective should be achieved without problem. In the event that the precision objective of a 2.5% or less standard error is not met, additional observations will be taken starting with sites having the fewest observations. New data will be added to existing data until the desired precision is achieved.

### **County Selection**

All 16 counties within the sample were selected with certainty. This was a decision made by the Wyoming Department of Transportation to measure seat belt use in all the top fatality counties within the state. As certainty counties, each was assigned a probability factor of 1 (16 counties selected from the 16 counties in the sample) and represented the first stage of sampling.

### **Road Segment Selection**

After determining the number of road segments in each stratum, the probabilities of selection were determined. Based on the probability calculations, no certainty road segments were identified. The road segments in each stratum in each county were then selected randomly using a simple java program. The program randomly selected a particular site from the list of eligible sites in the stratum. Once a site was selected, it was removed from the list of eligible sites in the stratum. The next site was then selected randomly from the remaining sites. This random process continued until all the sites in the stratum were selected.

**Table 2: Roadway Functional Strata by County, Road Segments Population (N), Length, and Number of Segments Selected (n)**

County		MTFCC Strata			Total
		Primary	Secondary	Local	
Albany	N	149	992	0	1141
	Length	60.639697	247.87805	0	308.517747
	n	2	16	0	18
Big Horn	N	0	1182	0	1182
	Length	0	271.087301	0	271.087301
	n	0	18	0	18
Campbell	N	267	1041	0	1308
	Length	97.912343	275.346207	0	373.25855
	n	4	14	0	18
Carbon	N	222	1311	0	1533
	Length	80.064222	419.42926	0	499.493482
	n	3	15	0	18
Fremont	N	1	1891	0	1892
	Length	0.115489	486.099588	0	486.215077
	n	0	18	0	18
Johnson	N	698	862	0	1560
	Length	234.830117	196.282768	0	431.112885
	n	8	10	0	18
Laramie	N	447	966	10768	12181
	Length	170.462425	242.350688	2127.917681	2540.730794
	n	1	1	16	18
Lincoln	N	94	1312	0	1406
	Length	34.119548	284.555377	0	318.674925
	n	1	17	0	18
Natrona	N	402	1516	11520	13438
	Length	124.83999	273.855866	1699.565696	2098.261552
	n	1	2	15	18
Park	N	0	1593	0	1593
	Length	0	365.12326	0	365.12326
	n	0	18	0	18
Platte	N	401	754	0	1155
	Length	145.526417	168.650462	0	314.176879
	n	6	12	0	18
Sheridan	N	228	1470	0	1698
	Length	85.030844	222.495535	0	307.526379
	n	2	16	0	18
Sublette	N	0	1064	0	1064
	Length	0	258.890084	0	258.890084
	n	0	18	0	18
Sweetwater	N	329	1162	0	1491
	Length	154.80921	374.258433	0	529.067643
	n	4	14	0	18
Teton	N	0	785	0	785
	Length	0	226.731063	0	226.731063
	n	0	18	0	18
Uinta	N	223	624	0	847
	Length	74.802936	132.715057	0	207.517993
	n	5	13	0	18

## Reserve Sample

In the event that an original road segment is permanently unavailable, a reserve road segment will be used for data collection. The reserve road segment sample consists of two additional road segments per original road segment selected, resulting in a reserve sample of 576 road segments. The reserve sample is generated by selecting the road segments immediately preceding and immediately following each randomly selected road segment, and constitutes the original sample. Since the road segments in the database for any road type and county are organized geographically by their longitude and latitude values, this implies that the road segments in the reserve sample for a particular road type and county are located in close proximity to each other. For example, if  $V_{j-1}$  and  $V_{j+1}$  are the same type as  $V_j$ , i.e., primary road type, and located in the same geographical region, they therefore have similar characteristics in terms of traffic flow and population mix. The reserve sample is developed using simple random sampling in which  $v$  road segments are selected from  $V$  road segments in a particular road classification and county in such a way that every possible combination of  $v$  road segments is equally likely to be the sample selected.

For the purposes of data weighting, the reserve road segments inherit all probabilities of selection and weighting components up to and including the road segment stage of selection from the original road segments actually selected.

## Data Collection

### Site Selection

Each of the road segments in the sample, including those in the reserve sample, was mapped according to the latitude and longitude of their midpoints. Observation sites were identified by the intersections that occurred within the road segment, except when there was no identifiable intersection or interchange. In the latter case, the midpoint within the road segment was selected for observation.

The data collection sites on the road segments were selected in a location approximately fifty yards from any controlled intersection. For interstate highways, data collection will occur on a ramp carrying traffic that is exiting the highway. In every case, the choice of the observation site will be based on maximizing observer safety and line of sight for reliable data collection.

The observed direction of travel was randomly assigned for each road segment. The locations of the data collection sites were described on Site Assignment Sheets for each county, and maps were developed to assist the observers and quality control monitors in travelling to the assigned locations.



## **Training**

Wyoming will hire a minimum of 16 observers, one for each county in the sample, to collect the data. Additional observers will be hired as reserve observers and to assist assigned observers in high traffic sites, defined by known traffic patterns associated with the general area of the sample sites.<sup>6</sup>

Two quality control monitors will be hired. Each will be responsible for half the state. Observers and quality control monitors will be recruited by a contracted firm with preference given to individuals who have experience in past seat belt use surveys or other field data collection. Law enforcement personnel will be excluded from the hiring base to reduce data collection bias.

There will be two quality control monitors assigned to cover the data collectors. Quality control monitors will make unannounced visits at ten percent of the total sites for purposes of determining data reliability through the separate collection of data. The quality control monitors will not serve as both observer and quality control monitor.

Training for observers and quality control monitors will be conducted at a central location in the state prior to the state's pre-survey held the last week in April each year. The training session will include lecture, classroom, and field exercises. Each observer and quality control monitor will be tested through participation at a minimum of three observation test sites to acquire an inter-observer agreement ratio.

Test sites will be selected to represent the types of sites and situations observers will encounter in the field. No actual sites in the sample of roadway segments will be used as test sites. During field training, observers and quality control monitors will record data independently on separate observation forms. Each person will document vehicle type, gender, and seat belt use of drivers and outboard front seat passengers. Individual observations will be compared to the group to calculate the agreement rate. All agreement rates must be sufficiently high (85% or higher) or additional training will be conducted.

At the conclusion of the training, observers and quality control monitors will be given a post-training quiz to ensure they understand the survey terminology, the data collection protocols, and the reporting requirements.

Quality control monitors will be given an additional half-day training session that focuses on their specific duties. These include conducting unannounced site visits to a minimum of two sites (10%) for each observer and reviewing the field protocols with the observers during the visits. The quality control monitors will be available to respond to questions and offer assistance to observers as needed.

The training syllabus can be found in Appendix D.

## **Data Collection Protocols**

Observers will collect data on the seat belt use of drivers and outboard passengers, including children in booster seats,<sup>7</sup> on the weekdays and weekends during the collection period during the first full week of

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<sup>6</sup> The definition of high traffic sites includes the number of observations in similar areas from a combination of data from prior Wyoming SBU surveys, and/or demographic information from densely populated areas.

June 2012. Data collection will occur in 45-minute observation periods between the hours of 7:00 a.m. and 6:00 p.m. Start times will be staggered to ensure that a representative number of weekday/weekend sites and rush hour/non-rush hour sites will be included. Observers will cover between four and five sites per day, depending on the accessibility of sites and the travel time needed to arrive at the sites.

All observers will have packets of maps showing the location of assigned sites and data collection forms specific to each assigned site. Additional information will include the road segment names; the location of the intersection within the road segment; the assigned date, time, and direction of travel; and any additional instructions which may apply at any given site. Sites in close geographic proximity to each other will be clustered to increase efficiency of data collection. The first site to be observed within a cluster will be chosen randomly and observations at subsequent sites will be scheduled by geographic proximity to minimize travel within the cluster. The clustering process will be designed so that an observer can cover all the sites within the cluster in a single day.

Some sites will have much heavier traffic than others. An additional observer will be assigned to sites identified as having heavy traffic patterns. One person will be responsible for the visual observation and the second observer will record the observations as verbally provided by the first observer. The objective here is to maximize coverage and minimize those observations where seat belt use cannot be determined due to the volume of traffic. The number of second observers will be determined once all sites have been physically located.

#### ***Data Collection***

All passenger vehicles, including commercial vehicles weighing less than 10,000 pounds, will be eligible for observation. Observers will be provided data collection forms, a sample of which is included in Appendix C.<sup>8</sup> Cover sheets for each site will provide for documentation of important site information, including the location of the road segment, assigned date, time, direction of traffic flow, lanes observed, start and end times, and additional information as appropriate, including weather conditions, road construction, or any other factors which might affect data collection. Observers will fill in the cover form at each site. If observers need to move to an alternate site, the reasons, along with all other information, will be detailed on the cover sheet.

For each vehicle, observers will record the type of vehicle, the gender of each driver and passenger, the belt status for each driver and passenger, and the vehicle license registration (Wyoming or out-of-state). These variables, along with belt use by county and roadway type, will be analyzed for the state of Wyoming.<sup>9</sup>

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<sup>7</sup> Front seat occupants who are child passengers traveling in child seats with harness straps will not be included in the observations.

<sup>8</sup> The sample form included in the appendix may need some modifications before data collection occurs, but any changes are likely to be minor.

<sup>9</sup> Once all statistical calculations have been completed by Dr. Ibriq, Dr. Keith Fernsler will serve as the analyst of the data. Dr. Fernsler's resume can be found in Appendix A.

Belt status for each driver and passenger will be recorded as follows:

- Belted, which is defined as an observable shoulder belt in front of the occupant's shoulder;
- Not belted, when the shoulder belt is not in front of the occupant's shoulder;
- Unknown, which is the code used for the occupant or occupants when the observer cannot determine whether the driver or outboard passenger is belted.
- A code which indicates that no passenger is present.<sup>10</sup> This code would also apply to children restrained in safety seats with harnesses.

For sites with two-way traffic, the direction of the traffic to be observed will be predetermined through a random selection process. For road segments with two or more lanes of traffic traveling in the same direction, observations will be made in the lane closest to the observer.

Generally, observations will occur from observer vehicles. The vehicles will be parked in safe locations that do not hinder normal traffic and are not a traffic hazard. The objective is for the observer to find a safe site from which drivers and front seat outboard passenger seat belt use can be determined. Other considerations include light conditions and the direction of the sun, so as to minimize glare in making observations.

In some instances, observers will not be able to collect data from their vehicles. In those cases, observers may exit the vehicle and stand as close to the intersection as is safely feasible. Whenever they make observations outside the vehicle, observers will wear safety vests and hard hats as required by Wyoming Department of Transportation policy. This safety equipment will be issued to all observers and quality control monitors by the Wyoming Department of Transportation.

### **Alternate Sites and Rescheduling**

Assigned sites on assigned days and times may not be available for a variety of reasons. When a site is temporarily unavailable due to inclement weather or a crash, data collection will be rescheduled for a similar time of day and day of week. If a site is permanently unavailable, such as on a detoured road segment or within a gated community, then an alternate site, selected as part of the reserve sample, will be used as the permanent replacement. The two alternate locations for each site will be clearly identified and listed on the Site Assignment Sheet. Observers will select one of the reserve sites at random. If the selected reserve site is also permanently unavailable, then the observer will use the second reserve site listed.

### **Quality Control**

Quality control monitors will be randomly assigned to two data collection sites within each of the sixteen counties in the Wyoming sample. At each site, the monitor will evaluate the observer's general performance and will work alongside the observer to ensure that the observer is following all survey

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<sup>10</sup> It is possible that separate lines of data for drivers and passengers during the data analysis stage may be created. This process will make it easier to combine drivers and passengers when reporting on seat belt use for all vehicle occupants.

protocols. The quality control monitor will include in the performance evaluation all or more of the following:

- Was the observer on time at the assigned sites?
- Did the observer complete the cover sheets and observation forms correctly?
- Were the observer's observations of seat belt use accurate?

The quality control monitors will prepare full reports on each of their site visits within a reasonable time after a site visit occurs. If there are problems with an observer's performance, the monitor should report these problems to the survey supervisor immediately so problems can be corrected.

Quality control monitors will be especially sensitive to any indications that an observer may have falsified data. Any such falsification will be reported by the monitor immediately so that the observer can be replaced by a reserve observer. This back-up observer will be assigned to revisit all sites where it is proven or suspected that falsification of data may have occurred.

Under normal circumstances, observers will be required to mail completed observation forms to the data entry supervisor at DLN Consulting, Inc. when observations are completed for all sites within the observer's assigned county, provided that no problems are identified by the quality control monitors for any given observer. When problems are identified, observers may be required to return forms from a given site immediately after observations are completed for that site so that the forms can be reviewed. Also, forms may need to be returned as soon as possible if either the quality control monitor or the observer encounters a large number of observations where seat belt use is coded as "unknown."

The data entry supervisor will review all returned forms from the observers to ascertain if the rate of observations coded as "unknown" for seat belt use approximates or exceeds 10 percent of the observations for any given site. If this occurs, the observer will be sent back to any such site for an additional observation period.

## **Imputation, Estimation, and Variance**

This section includes a discussion of the sampling weights and formulas; the procedures for adjustments for "nonresponse;" the estimators, with formulas; and the variance estimation.

### Imputation

No imputation will be done on missing data.

### Variance Estimation

A stratified multistage sample design has been proposed, and as such, direct variance estimation for the seat belt use estimator can be a complicated mathematical process, in addition to being time-consuming and costly. For the variance estimator, the ratio estimation procedure in *The Statistical Package for the Social Sciences (SPSS)* software package, its corresponding *Complex Sample Module for SPSS*, and the joint PSU selection probabilities to calculate the seat belt use rate and its variance will be employed.

## Estimation

The following computation is based on the NHTSA guidelines provided in [1]. NHTSA provides two seat belt rate estimators: a ratio estimator, and an estimator using road segment level VMT. DLN implements the ratio estimator to compute the seat belt rate use.

## Notation

The following notations are used in developing the seat use rate estimator

- The following are the subscripts used:
  - $c$  used for county (PSU)
  - $h$  used for road segment strata.
  - $i$  used for road segment.
  - $j$  used for time segment.
  - $k$  used for road direction.
  - $l$  used for the lane.
  - $m$  used for vehicle.
  - $n$  used for front seat occupants.
- $\pi$  denote the inclusion probability, and
  - $\pi_c$  represents the inclusion probability for a county.
  - $\pi_{hi|c}$  represents the inclusion probability for road segment.
  - $\pi_{j|chi}$  represents the inclusion probability for time segment.
  - $\pi_{k|chij}$  represents the inclusion probability for direction
  - $\pi_{l|chij}$  represents the inclusion probability for lane
  - $\pi_{m|chijl}$  represents the inclusion probability for vehicle.
- $w_{chijklm}$  denote the sampling weight for vehicle  $m$  and is computed as follows:

$$w_{chijklm} = \frac{1}{\pi_{chijklm}} \quad (1)$$

$\pi_{chijklm}$  in Equation (1) represents the overall vehicle inclusion probability which is the product of the selection probabilities at all stages in the sample design.  $\pi_{chijklm}$  is computed as follows:

$$\pi_{chijklm} = \pi_c \cdot \pi_{hi|c} \cdot \pi_{j|chi} \cdot \pi_{k|chij} \cdot \pi_{l|chij} \cdot \pi_{m|chijl}$$

- *Length* denote the length of the road segment.
- *p* denote the rate estimator.

### Nonresponse Adjustment

Given the data collection protocol described in this plan, including the provision for the use of alternate observation sites, road segments with non-zero eligible volume and yet zero observations conducted should be a rare event. Nevertheless, if eligible vehicles passed an eligible site or an alternate eligible site during the observation time but no usable data were collected for some reason, then this site will be considered as a “non-responding site.” The weight for a non-responding site will be distributed over other sites in the same road type in the same PSU. Let

$$\pi_{chi} = \pi_c \cdot \pi_{h|c}$$

be the road segment selection probability, and

$$w_{chi} = \frac{1}{\pi_{chi}}$$

be the road segment weight. The nonresponding site nonresponse adjustment factor:

$$f_{ch} = \frac{\sum_{\forall i} w_{chi}}{\sum_{\text{responding } i} w_{chi}}$$

will be multiplied to all weights of non-missing road segments in the same road type of the same county and the missing road segments will be dropped from the analysis file. However, if there were no vehicles passing the site during the selected observation time (60 minutes), then this is simply an empty block at this site and this site will not be considered as a nonresponding site, and will not require nonresponse adjustment.

In rare cases, the Nonresponse Adjustment procedure described above fails. For example, if in a county, only one road segment was drawn from a road type and that this segment was nonresponding and both alternate segments were unavailable, then the nonresponse adjustment will not work. In such a rare case, this cell would be collapsed with a cell of a different road type within the same county.

### Seat Use Rate Estimator

The first stratum rate estimator can be obtained using the following equation:

$$p_{chi} = \frac{\sum_{\forall chijklmn} w_{chijklm} \text{Length}_{chi} y_{chijklmn}}{\sum_{\forall chijklmn} w_{chijklm} \text{Length}_{chi}} \quad (2)$$

where

$$y_{gchijklmn} = \begin{cases} 1 & \text{if belt is used} \\ 0 & \text{otherwise} \end{cases} \quad (3)$$

In the proposed sample design, it is assumed that after the selecting the road segment  $i$ , the selection probabilities for all vehicles at segment  $i$  are equal. Hence,  $w_{jklm|chi}$  values for the same road segment  $i$  are equal and can be cancelled in the calculation of the first seat belt rate use estimator. Furthermore, since the  $Length_{chi}$  values for all vehicles at road segment  $i$  are the same, the length  $Length_{chi}$  can also be cancelled from the first seat belt rate use estimator. Thus, the first stratum rate estimator for road segment  $i$  that is provided in equation (2) reduces to the following:

$$p_{chi} = \frac{1}{n_{chi}} \sum_{\forall jklm \in chi} y_{chijklmn} \quad (4)$$

where  $n_{chi}$  is the sample size at road segment  $i$ .

Based on the above analysis, our design does not record amount of observation time, the number of directions, the number of lanes, and the number of vehicles passing the site  $i$ .

For the second stratum, namely the road type, the following formula is used:

$$p_{ch} = \frac{\sum_{\forall i \text{ in } h} w_{chi} \cdot Length_{chi} \cdot p_{chi}}{\sum_{\forall i \text{ in } h} w_{chi} \cdot Length_{chi}} \quad (5)$$

where

$$w_{chi} = \frac{1}{n_{chi}} \quad (6)$$

Another method can be used for the calculation of  $P_{chi}$ . Since stratified random sampling is proposed in this methodology where the sample is selected by simple random sampling, that is random sampling without replacement in each stratum, the following equation can be used to calculate the rate estimator at stratum  $h$ .

$$p_{ch} = \frac{1}{n_h} \sum_{i=1}^{n_h} p_{chi} \quad (7)$$

where  $n_h$  is number of road segments each road stratum.

For the county, the following rate estimator will be used:

$$p_c = \frac{\sum_{\forall h \text{ in } c} w_{ch} \cdot Length_{ch} \cdot p_{ch}}{\sum_{\forall h \text{ in } c} w_{ch} \cdot Length_{ch}} \quad (8)$$

where

$$w_{ch} = \frac{1}{n_{ch}} \quad (9)$$

The following equation can also be used to compute  $p_c$ .

$$p_c = \frac{1}{n_c} \sum_{i=1}^{n_c} p_{ch} \quad (10)$$

where  $n_c$  is number of road strata in the county.

For the state, the following rate estimator will be used:

$$p = \frac{\sum_{\forall c} w_c \cdot Length_c \cdot p_c}{\sum_{\forall c} w_c \cdot Length_c} \quad (11)$$

where

$$w_c = \frac{1}{\pi_c} \quad (12)$$

The following equation can also be used to compute  $p$ .

$$p = \frac{1}{n} \sum_{i=1}^n p_c \quad (13)$$

where  $n$  is number of counties in the frame.



## **Appendix A**

### **Resumés**

## Jamil Ibriq

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### **Summary**

Dr. Jamil Ibriq is an assistant professor at Dickinson State University with extensive experience in simulation modeling that involves sampling and optimization techniques. Dr. Ibriq has expertise in area of data processing and survey research methodology. Dr. Ibriq is a proficient user of many programming languages and software packages, including SPSS.

### **Education**

Ph.D., Computer Engineering, Florida Atlantic University, 2007

M.S., Computer Science, 2000

B.A. Biochemistry, University of Texas at Austin, 1979

### **Professional Associations**

IEEE

ACM

### **Computer Skills**

- Operation Systems: Windows, UNIX/LINUX, and UNIX shell scripts.
- Programming Languages: C, C++, Java, Visual Basic, SQL, Oracle PL/SQL, Motorola 68000 Assembly Language, PHP, Python, HTML, and Perl
- Software: Windows database, spreadsheet, and presentation software, TeX and LaTeX, SPSS, MatLab.

### **Publications**

- J. Ibriq, I. Mahgoub, and M. Ilyas. Handbook of Information & Communication Security chapter Secure Routing in Wireless Sensor Networks, pages 549-574. Springer, Germany, December 2010.
- J. Ibriq and I. Mahgoub, "Hierarchical Key Management Scheme for Wireless Sensor Networks," in Proceedings of the 21st IEEE International Conference on Advanced Information Networking and Applications (AINA '07) Niagara Falls, Canada, May 2007, pages 210-219.
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- J. Ibriq and I. Mahgoub, "A hierarchical key management scheme for wireless sensor networks," Technical report, Florida Atlantic University, Boca Raton, FL, April 2006.
- J. Ibriq and I. Mahgoub, "A secure hierarchical routing protocol for wireless sensor networks," in Proceedings of the 10th IEEE International Conference on Communication Systems (ICCS '06 ),Singapore, October 2006, pages 1-6.
- J. Ibriq and I. Mahgoub, "Cluster-based Routing in Wireless Sensor Networks: Issues and Challenges," in Proceedings of the 2004 International Symposium on Performance Evaluation of Computer and Telecommunication Systems San Jose, CA, July 2004, pages 759 –766.

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### CURRENT EMPLOYMENT ACTIVITIES

Research Analyst, Evaluation Research, both quantitative and qualitative. Survey and Observational Research. Focus Group Design and Analysis. Data Analysis and Report Writing. Resident Analyst at DLN Consulting, Inc., 1999 – Present.

### EDUCATION AND PROFESSIONAL ACTIVITIES

AB ('67) and MA ('72) Indiana University, Bloomington, IN; Ph.D. University of Montana, 1979.

College Teaching from 1968 – 1973 and 1978 - 2008 at St. Ambrose College (Iowa), Marycrest College (Iowa), Christopher Newport College (Virginia), and Dickinson State University. Several Bush Foundation Faculty Development Awards at Dickinson State; Social Science Department Chair (five years); DSU Professor Emeritus, 2008 – Present.

Membership in American Sociological Association (1976 – Present); Charter Member of ASA Teaching Resource Center; Author of two editions of the manual for Deviant Behavior courses. American Association of Public Opinion Research membership, 2003 – Present.

Knowledge of Microsoft Word and Excel, the Statistical Package for the Social Sciences; analysis of Census Data; and knowledge of the General Social Survey.

Specializations in sociology include methodology, theory, deviant behavior, criminology, sociological practice and public sociology.

### RECENT CONSULTING ACTIVITIES

Wyoming seat belt pre-surveys and main surveys, research design and methodology development, data analysis, report writing (Wyoming Department of Transportation, 2006-2011; currently assisting in development of 2011 methodology under new Federal rules.

North Dakota Workforce Safety and Insurance, Employer and Injured Worker Surveys; research design, data analysis, and report writing; 2009 – present.

Focus group design, observation, analysis and report writing on topic of underage drinking (youth, law enforcement, educators, university students),

Community Action Partnership.

Alcohol, Tobacco and Other Drugs, data analysis and report writing, Dickinson  
Community Action Program.

North Dakota Seat Belt Use Surveys: Research design and data analysis  
consultation, 1999-2009, including major redesign in 2006; report writing;  
data analysis using SPSS.

#### CURRENT COMMUNITY SERVICE

Roughrider Country Kiwanis Club; First Congregational Church, UCC; North Dakota  
Public Employees Association.

#### REFERENCES

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**Appendix B**

**Selected Road Segments within Each County and Their Probabilities of Selection**

STATEFP	COUNTYFP	MTFCC	FULLNAME	TID	Alt_Name	DIVROAD	DECKEDROAD	Longitude	Latitude	SegLen_Mi	SRSWOR
56	1	S1100	I-80	168749730	US Hwy 30	Y	N	-105.378496	41.145686	0.831622	0.01342282
56	1	S1100	I-80	604512124		N	N	-105.976683	41.455622	0.185331	0.01342282
56	1	S1200	US Hwy 30	604512235	US Hwy 30	N	N	-105.613789	41.436288	0.487287	0.01612903
56	1	S1200	S3rd St	168748704	US Hwy 287	N	N	-105.591913	41.28322	0.082576	0.01612903
56	1	S1200	State Hwy 130	168722835		N	N	-106.287656	41.350363	0.427204	0.01612903
56	1	S1200	S3rd St	604506806	US Hwy 287	N	N	-105.594072	41.294338	0.176844	0.01612903
56	1	S1200	Snowy Range Rd	168750353	State Hwy 130	N	N	-106.138426	41.297205	0.029432	0.01612903
56	1	S1200	N3rd St	168757040	N 3rd St	N	N	-105.591733	41.328609	0.047988	0.01612903
56	1	S1200	State Hwy 13	168722017		N	N	-106.005865	41.719918	0.045972	0.01612903
56	1	S1200	N3rd St	604510122	N 3rd St	N	N	-105.589465	41.349592	0.023102	0.01612903
56	1	S1200	Snowy Range Rd	168738815	State Hwy 130	N	N	-105.695098	41.328608	0.311022	0.01612903
56	1	S1200	Happy Jack Rd	168744760	State Hwy 210	N	N	-105.309387	41.191091	0.653912	0.01612903
56	1	S1200	Bus I-80	168756901	US Hwy 30	N	N	-105.568899	41.309599	0.005935	0.01612903
56	1	S1200	State Hwy 10	168745008		N	N	-105.994902	41.032165	0.213298	0.01612903
56	1	S1200	US Hwy 30	168737539	US Hwy 30	N	N	-105.618617	41.445781	0.55288	0.01612903
56	1	S1200	State Hwy 11	168755506		N	N	-105.438008	41.239964	0.011093	0.01612903
56	1	S1200	State Hwy 210	604505747		N	N	-106.090934	41.193713	0.3791	0.01612903
56	1	S1200	N4th St	168755958	Co Rd 67	N	N	-105.975505	41.75157	0.062117	0.01612903
56	3	S1200	US Hwy 14 E	605633431		N	N	-107.749401	44.549772	0.01933	0.01522843
56	3	S1200	US Hwy 14A E	180494288		NA	NA	-108.222314	44.854737	0.237779	0.01522843
56	3	S1200	US Hwy 14A E	180493968		NA	NA	-108.320407	44.840598	0.062603	0.01522843
56	3	S1200	US Hwy 14A E	605624056		NA	NA	-108.354114	44.840581	0.053415	0.01522843
56	3	S1200	State Hwy 32	180493545		N	N	-108.415772	44.800116	0.006963	0.01522843
56	3	S1200	State Hwy 32	605621594		N	N	-108.587279	44.732075	0.173849	0.01522843
56	3	S1200	US Hwy 14	180484672		N	N	-108.015517	44.49378	0.057181	0.01522843
56	3	S1200	State Hwy 30	605616914		N	N	-108.339589	44.417795	0.321328	0.01522843
56	3	S1200	3rd St E	180505210	US Hwy 310	N	N	-108.46286	44.87988	0.015607	0.01522843
56	3	S1200	US Hwy 14 Alt	626936823		Y	N	-108.016292	44.79296	0.353805	0.01522843
56	3	S1200	US Hwy 16	180500795		N	N	-107.224785	44.177728	0.893127	0.01522843
56	3	S1200	US Hwy 14 Alternate Rte	180501932		N	N	-108.376118	44.839933	0.099877	0.01522843
56	3	S1200	US Hwy 310	180490602		N	N	-108.584372	44.89102	0.036785	0.01522843
56	3	S1200	State Hwy 32	180506937		N	N	-108.49826	44.776846	0.166397	0.01522843
56	3	S1200	State Hwy 433	180507017		N	N	-107.938854	44.197309	0.474787	0.01522843
56	3	S1200	Mars hall St	180508412	State Hwy 31	N	N	-107.962173	44.274582	0.04248	0.01522843
56	3	S1200	State Hwy 433	180499656		N	N	-107.979944	44.249642	0.248082	0.01522843
56	3	S1200	C St	180485070	State Hwy 36	N	N	-108.041229	44.381112	0.071452	0.01522843

56	5	51100	I-90	I-90	607415957	I-90	NA	NA	-105.248589	44.294692	0.2338	0.01498127
56	5	51100	I-90	I-90	607413318	I-90	NA	NA	-105.383825	44.295056	0.565923	0.01498127
56	5	51100	I-90	US Hwy 14	146326960	US Hwy 14	N	N	-105.352327	44.289556	0.032443	0.01498127
56	5	51100	I-90	US Hwy 14	146347844	US Hwy 14	N	N	-105.378563	44.294171	0.039906	0.01498127
56	5	51200	State Hwy 59	State Hwy 59	146348156	State Hwy 59	N	N	-105.526384	44.352279	0.035885	0.01344861
56	5	51200	E 2nd St	E 2nd St	146325159	E 2nd St	N	N	-105.489034	44.292555	0.006099	0.01344861
56	5	51200	US Hwy 14	State Hwy 59	146349851	State Hwy 59	N	N	-105.529311	44.296796	0.051126	0.01344861
56	5	51200	State Hwy 50	State Hwy 50	146329404	State Hwy 50	N	N	-105.62461	44.181178	0.128849	0.01344861
56	5	51200	State Hwy 50	State Hwy 50	146334309	State Hwy 50	N	N	-105.724815	43.993419	0.268938	0.01344861
56	5	51200	State Hwy 50	State Hwy 50	146353809	State Hwy 50	N	N	-105.719015	44.07693	0.152303	0.01344861
56	5	51200	State Hwy 59	State Hwy 59	607395191	State Hwy 59	N	N	-105.464887	44.022166	0.220383	0.01344861
56	5	51200	State Hwy 50	State Hwy 50	146333806	State Hwy 50	N	N	-105.750504	43.925684	0.026796	0.01344861
56	5	51200	US Hwy 14	US Hwy 16	146321054	US Hwy 16	N	N	-105.538015	44.391359	0.066024	0.01344861
56	5	51200	State Hwy 50	State Hwy 50	146353348	State Hwy 50	N	N	-105.711349	44.114846	0.837201	0.01344861
56	5	51200	State Hwy 51	State Hwy 51	607406131	State Hwy 51	N	N	-105.283045	44.288769	0.020793	0.01344861
56	5	51200	US Hwy 14	State Hwy 59	146346688	State Hwy 59	N	N	-105.530279	44.30921	0.060938	0.01344861
56	5	51200	State Hwy 59	State Hwy 59	635532528	State Hwy 59	N	N	-105.44592	43.969271	0.227319	0.01344861
56	5	51200	State Hwy 387	State Hwy 387	146342308	State Hwy 387	N	N	-105.979091	43.5588	0.24863	0.01344861
56	7	51100	I-80	I-80	611197576	I-80	N	N	-106.521149	41.752786	0.67332	0.01351351
56	7	51100	I-80	I-80	148702972	I-80	N	N	-106.948342	41.751102	0.026198	0.01351351
56	7	51100	I-80	I-80	148729076	I-80	Y	N	-107.373738	41.786936	0.145819	0.01351351
56	7	51200	3rd St	US Hwy 287	622138133	US Hwy 287	N	N	-107.22921	41.807878	0.184918	0.01144165
56	7	51200	State Hwy 70	State Hwy 70	148737136	State Hwy 70	N	N	-107.034068	41.156663	0.828525	0.01144165
56	7	51200	State Hwy 789	State Hwy 789	148752555	State Hwy 789	N	N	-107.730909	41.291091	1.697048	0.01144165
56	7	51200	State Hwy 130	State Hwy 130	148712671	State Hwy 130	N	N	-106.760293	41.392624	0.460732	0.01144165
56	7	51200	State Hwy 130	State Hwy 130	148715207	State Hwy 130	N	N	-106.651357	41.343293	0.077775	0.01144165
56	7	51200	State Hwy 230	State Hwy 230	148718040	State Hwy 230	N	N	-106.610856	41.172584	0.416111	0.01144165
56	7	51200	State Hwy 220	State Hwy 220	148695417	State Hwy 220	N	N	-107.243952	42.428181	0.229884	0.01144165
56	7	51200	N Higley Blvd	US Hwy 287 Byp	148729803	US Hwy 287 Byp	N	N	-107.215405	41.795669	0.069431	0.01144165
56	7	51200	State Hwy 72	State Hwy 72	148707454	State Hwy 72	N	N	-106.453685	41.718692	0.74372	0.01144165
56	7	51200	Lincoln Hwy	US Hwy 30	148702076	US Hwy 30	N	N	-106.277868	41.901903	1.701502	0.01144165
56	7	51200	State Hwy 230	State Hwy 230	148743798	State Hwy 230	N	N	-106.701352	41.218277	0.116587	0.01144165
56	7	51200	State Hwy 789	State Hwy 789	148736405	State Hwy 789	N	N	-107.693147	41.220518	0.326679	0.01144165
56	7	51200	State Hwy 230	State Hwy 230	148714894	State Hwy 230	N	N	-106.776349	41.255209	0.053899	0.01144165
56	7	51200	State Hwy 487	State Hwy 487	148727630	State Hwy 487	N	N	-106.186809	42.097454	1.894335	0.01144165
56	7	51200	State Hwy 130	State Hwy 130	148716025	State Hwy 130	N	N	-106.496624	41.32687	0.364838	0.01144165

56	13	S1200	Fremont St	628694209	Fremont St	N	N	-108.739361	42.824433	0.041387	0.00951877
56	13	S1200	US Hwy 287	148440001	State Hwy 789	N	N	-108.355944	42.651302	0.917551	0.00951877
56	13	S1200	S Fifth St	148435856	S Fifth St	N	N	-108.735391	42.833345	0.075688	0.00951877
56	13	S1200	US Hwy 287	634121244	US Hwy 287	N	N	-107.749138	42.488102	0.108102	0.00951877
56	13	S1200	US Hwy 26	148495718		N	N	-108.567709	43.112365	0.083409	0.00951877
56	13	S1200	US Hwy 26	148494149	US Hwy 26	N	N	-109.43973	43.416155	0.271117	0.00951877
56	13	S1200	US Hwy 20	148486152	State Hwy 789	N	N	-108.160355	43.394654	0.521853	0.00951877
56	13	S1200	Blue Sky Hwy	148473776	Blue Sky Hwy	N	N	-108.766271	43.086613	0.493145	0.00951877
56	13	S1200	US Hwy 26	148485578	US Hwy 26	N	N	-109.940564	43.65715	0.666155	0.00951877
56	13	S1200	Gas Hillis Rd	148433925	State Hwy 136	N	N	-108.336608	42.993204	0.029512	0.00951877
56	13	S1200	US Hwy 26	148495394		N	N	-108.879131	43.224349	0.382653	0.00951877
56	13	S1200	US Hwy 20	148468455	State Hwy 789	N	N	-108.115049	43.35974	0.359517	0.00951877
56	13	S1200	US Hwy 26	148486961		N	N	-108.920264	43.213638	0.606161	0.00951877
56	13	S1200	US Hwy 287	148429899	State Hwy 789	N	N	-107.580341	42.462137	0.201633	0.00951877
56	13	S1200	US Hwy 20	148448781	US Hwy 20	N	N	-107.689438	43.151979	0.292919	0.00951877
56	13	S1200	Missouri Valley Rd	148470962	Missouri Valley Rd	N	N	-108.610016	43.214772	0.456474	0.00951877
56	13	S1200	State Hwy 789	148433053		N	N	-108.53074	42.911615	0.035458	0.00951877
56	13	S1200	State Hwy 789	148432511		N	N	-108.569408	42.910442	0.085218	0.00951877
56	19	S1100	I- 25	624471389	I- 25	Y	N	-106.646302	43.995016	0.300971	0.01146132
56	19	S1100	I- 25	147364609	US Hwy 87	Y	N	-106.533561	43.598253	0.116223	0.01146132
56	19	S1100	I- 25	147364620	US Hwy 87	Y	N	-106.608497	43.644685	0.809497	0.01146132
56	19	S1100	I- 90	635198026		Y	N	-106.160823	44.212252	0.230765	0.01146132
56	19	S1100	I- 90	635203662		Y	N	-106.306087	44.217749	0.201378	0.01146132
56	19	S1100	I- 90	147303287		Y	N	-106.156158	44.212943	0.018582	0.01146132
56	19	S1100	I- 90	147364484		Y	N	-106.390326	44.235006	0.124988	0.01146132
56	19	S1100	I- 90	147365807		Y	N	-106.104178	44.219162	0.078479	0.01146132
56	19	S1200	Sussex Rd	147321002	Sussex Rd	N	N	-106.297982	43.698467	0.019054	0.01160093
56	19	S1200	N Main St	624035496	State Hwy 196	N	N	-106.697436	44.360852	0.066349	0.01160093
56	19	S1200	N Main St	147299782	State Hwy 196	N	N	-106.698941	44.34753	0.093436	0.01160093
56	19	S1200	Old Hwy 87	147375368	Old Hwy 87	N	N	-106.70217	44.152286	0.414683	0.01160093
56	19	S1200	Sussex Rd	147320405	State Hwy 1002	N	N	-106.52221	43.69458	0.231502	0.01160093
56	19	S1200	US Hwy 16	147301629		N	N	-106.917457	44.161293	0.182867	0.01160093
56	19	S1200	US Hwy 16	147301697		N	N	-106.92537	44.233648	0.042325	0.01160093
56	19	S1200	US Hwy 16	147330545		N	N	-106.686296	44.354195	0.03269	0.01160093
56	19	S1200	US Hwy 16	617881865		N	N	-106.7265	44.341227	0.069923	0.01160093
56	19	S1200	Sussex Rd	147320871	State Hwy 1002	N	N	-106.373653	43.706753	0.085488	0.01160093



56	21	S1100	I- 25	62238802	I- 25	N	N	-104.838174	41.198768	0.794488	0.00223714
56	21	S1200	E Four Mile Rd	624043730	E Four Mile Rd	N	N	-104.811166	41.189258	0.093536	0.0010352
56	21	S1400	Draper Rd	160176358		N	N	-104.822959	41.096529	0.061319	0.00148588
56	21	S1400	Harriman Rd	160145448	Co Rd 102	N	N	-105.255088	41.000815	0.014499	0.00148588
56	21	S1400	Hrsig Rd	160162024	Hrsig Rd	N	N	-105.164265	41.552454	0.505235	0.00148588
56	21	S1400	E 5th St	160151376		N	N	-104.793841	41.128595	0.05956	0.00148588
56	21	S1400	Foothills Rd	160148179		N	N	-104.773765	41.169918	0.052044	0.00148588
56	21	S1400	Clear View Cir	160171828		N	N	-104.797632	41.199493	0.174119	0.00148588
56	21	S1400	Jack Rabbit Rd	160148102		N	N	-104.772682	41.195892	0.201315	0.00148588
56	21	S1400	Douglas St	160148214		N	N	-104.769206	41.167367	0.028956	0.00148588
56	21	S1400	E 20th St	160149935		N	N	-104.810315	41.138992	0.061455	0.00148588
56	21	S1400	Bus Park	160172654	Bus Park	N	N	-104.057737	41.182368	0.016854	0.00148588
56	21	S1400	Carroll Ave	160147641		N	N	-104.827405	41.165087	0.123116	0.00148588
56	21	S1400	Monroe Ave	160152283		N	N	-104.758935	41.135548	0.125386	0.00148588
56	21	S1400	Co Rd 138	160160311		N	N	-104.566438	41.120511	0.223542	0.00148588
56	21	S1400	McDonald Rd	160176882		N	N	-105.067974	41.152391	0.087434	0.00148588
56	21	S1400	McAllister Ln	160179037		N	N	-104.808831	41.174821	0.015039	0.00148588
56	21	S1400	Military Rd	608318324		N	N	-104.885953	41.13547	0.003858	0.00148588
56	23	S1100	US Hwy 30	611001502		NA	NA	-110.063887	41.684366	0.185933	0.0106383
56	23	S1200	Hwy 238	130299361	State Hwy 238	N	N	-110.997509	42.736914	0.321042	0.01295732
56	23	S1200	US Hwy 30	130309240		N	N	-110.975366	41.842883	2.388625	0.01295732
56	23	S1200	US Hwy 26	130324547	US Hwy 89A	N	N	-111.02474	43.180649	0.251294	0.01295732
56	23	S1200	US Hwy 89	130316044	US Hwy 89A	N	N	-111.017462	43.167187	0.031132	0.01295732
56	23	S1200	US Hwy 26	130316740	US Hwy 89	N	N	-110.933792	43.191983	0.115793	0.01295732
56	23	S1200	Hwy 236	611004110	State Hwy 236	N	N	-110.961819	42.692569	0.058369	0.01295732
56	23	S1200	US Hwy 189	611001556		N	N	-110.571305	41.633032	0.036267	0.01295732
56	23	S1200	State Hwy 89	635503417		N	N	-111.046599	42.347346	0.288851	0.01295732
56	23	S1200	Hwy 237	130297921	State Hwy 237	N	N	-110.950765	42.793945	0.227784	0.01295732
56	23	S1200	State Hwy 239	619637613		N	N	-111.030837	42.982527	0.060775	0.01295732
56	23	S1200	US Hwy 30	130324450		N	N	-110.954794	41.923748	0.658579	0.01295732
56	23	S1200	US Hwy 89	611008956	US Hwy 89A	N	N	-111.025859	43.13296	0.053011	0.01295732
56	23	S1200	State Hwy 235	130301475		N	N	-110.242527	42.261535	0.421719	0.01295732
56	23	S1200	US Hwy 30	130301732		N	N	-110.981435	42.153542	0.502008	0.01295732
56	23	S1200	US Hwy 26	130316677	US Hwy 89	N	N	-110.943822	43.192256	0.401259	0.01295732
56	23	S1200	US Hwy 89	611008950	US Hwy 89A	N	N	-111.026041	43.133785	0.062243	0.01295732
56	23	S1200	US Hwy 189	130303332		N	N	-110.185824	42.179875	0.328363	0.01295732

56	25	S1100	I- 25	149010081	I- 25	N	N	-106.335419	43.056092	0.413891	0.00248756
56	25	S1200	Cy Ave	149022110	Cy Ave	N	N	-106.366423	42.82324	0.017426	0.00131926
56	25	S1400	Cole Creek Rd	149038958	Cole Creek Rd	N	N	-106.188882	42.891713	0.027375	0.00131926
56	25	S1400	Co Rd 607	149017131		N	N	-106.154287	42.66765	0.463712	0.00130208
56	25	S1400	EA St	607727858		N	N	-106.300759	42.85147	0.033396	0.00130208
56	25	S1400	Star Ln	617962807		NA	NA	-106.340114	42.849249	0.007403	0.00130208
56	25	S1400	S 5th Ave	149021251		N	N	-106.392876	42.84351	0.0661	0.00130208
56	25	S1400	Gooder Ave	149019813		N	N	-106.45744	42.894276	0.202048	0.00130208
56	25	S1400	Lakeshore Dr	607699609	Lakeshore Dr	N	N	-106.778388	42.529729	0.036057	0.00130208
56	25	S1400	E 13th St	149024110		N	N	-106.313672	42.837542	0.017916	0.00130208
56	25	S1400	Co Rd 602	149026356		N	N	-106.225292	42.853349	0.012091	0.00130208
56	25	S1400	N 6 Mile Rd	149020050	Co Rd 119	N	N	-106.434416	42.899062	0.408276	0.00130208
56	25	S1400	Second St	607727056		N	N	-106.365773	42.841959	0.030995	0.00130208
56	25	S1400	Oregon Trl	148992543	Turkey Track Rd	N	N	-107.479794	42.473862	0.38719	0.00130208
56	25	S1400	Missouri Ave	607718345	Missouri Ave	N	N	-106.29305	42.83014	0.109077	0.00130208
56	25	S1400	N East St	149039592		N	N	-106.24357	43.414304	0.02002	0.00130208
56	25	S1400	Goose Egg Cir	607701450		N	N	-106.515294	42.760538	0.070234	0.00130208
56	25	S1400	Granada Ave	617963960		N	N	-106.342498	42.814829	0.029059	0.00130208
56	29	S1200	Beartooth Hwy	612523424	US Hwy 212	N	N	-109.633519	44.922577	1.645067	0.01129944
56	29	S1200	Chief Joseph Hwy	612522810	Chief Joseph Hwy	N	N	-109.644082	44.866408	0.069016	0.01129944
56	29	S1200	N Fork Hwy	627160085	US Hwy 14	N	N	-109.619865	44.463599	0.38333	0.01129944
56	29	S1200	Rd 18	149194387	Badger Basin Rd	N	N	-108.916337	44.703963	0.240759	0.01129944
56	29	S1200	N Fork Hwy	149206406	US Hwy 14	N	N	-109.911367	44.482239	0.238308	0.01129944
56	29	S1200	E Entrance Rd	626966347	US Hwy 14	N	N	-110.363413	44.560993	0.680702	0.01129944
56	29	S1200	17th St	612520875	17th St	N	N	-109.054089	44.51858	0.033156	0.01129944
56	29	S1200	Hwy 114	612522765	Hwy 114	N	N	-108.665672	44.875669	0.469234	0.01129944
56	29	S1200	US Hwy 14 Alt	624469118		N	N	-108.683333	44.77285	0.003999	0.01129944
56	29	S1200	Ln 13	612517654	State Hwy 295	N	N	-108.750575	44.695729	0.017968	0.01129944
56	29	S1200	W Coulter Ave	149194643	W US Hwy 14A	N	N	-108.781521	44.744254	0.145786	0.01129944
56	29	S1200	Powell Hwy	612521823	Powell Hwy	N	N	-108.926863	44.679533	0.055645	0.01129944
56	29	S1200	State Hwy 120	149212941		N	N	-108.823272	44.12936	0.036804	0.01129944
56	29	S1200	State Hwy 294	149202036	State Hwy 294	N	N	-109.016527	44.855058	0.095278	0.01129944
56	29	S1200	Rd 9	612468763	Hwy 295	N	N	-108.759993	44.7847	0.219583	0.01129944
56	29	S1200	US Hwy 191	149216474		N	N	-111.055155	44.933339	0.096348	0.01129944
56	29	S1200	W Coulter Ave	625076103	W US Hwy 14A	N	N	-108.776052	44.745846	0.085806	0.01129944
56	29	S1200	R 9	612522218	Rd 9	N	N	-108.759912	44.741851	0.051305	0.01129944

56	31	S1100	I- 25	160436166	I- 25	N	N	-105.033471	42.488013	0.150221	0.01496259
56	31	S1100	I- 25	606897806	I- 25	NA	NA	-105.002408	42.181889	0.336848	0.01496259
56	31	S1100	I- 25	604828586	I- 25	N	N	-104.828994	41.694975	1.05719	0.01496259
56	31	S1100	I- 25	606897551	I- 25	NA	NA	-104.791379	41.788735	0.107012	0.01496259
56	31	S1100	I- 25	604829666	I- 25	NA	NA	-105.048003	42.280869	0.749704	0.01496259
56	31	S1100	I- 25	618035322	I- 25	NA	NA	-104.96093	42.014929	0.189146	0.01496259
56	31	S1200	N Pioneer Rd	604823280	N Pioneer Rd	N	N	-104.750109	41.89528	0.703969	0.01591512
56	31	S1200	Hartville Hwy	160432353	State Hwy 270	N	N	-104.724922	42.320239	0.333096	0.01591512
56	31	S1200	Lake Side Dr	604817760	Lake Side Dr	N	N	-104.747501	42.33979	1.191051	0.01591512
56	31	S1200	US Hwy 26	624031047		N	N	-104.847177	42.248395	0.091746	0.01591512
56	31	S1200	W Whalen St	604820352	US Hwy 26	N	N	-104.748604	42.269744	0.140121	0.01591512
56	31	S1200	State Hwy 34	160445492		N	N	-105.082689	41.953594	0.428089	0.01591512
56	31	S1200	N Wheatland Hwy	160445589	State Hwy 320	N	N	-104.936079	42.12393	0.519234	0.01591512
56	31	S1200	Glendo Hwy	160431220	S Glendo Hwy	N	N	-104.992648	42.360525	0.223112	0.01591512
56	31	S1200	Hartville Hwy	160441567	State Hwy 270	N	N	-104.694803	42.501143	0.777523	0.01591512
56	31	S1200	el Rancho Rd	604820453	el Rancho Rd	N	N	-105.049222	42.271762	0.09635	0.01591512
56	31	S1200	Slater Rd	160442550	State Hwy 314	N	N	-104.830403	41.871476	0.442447	0.01591512
56	31	S1200	Iron Mountain Rd	160425201	State Hwy 211	N	N	-104.836275	41.756586	0.136607	0.01591512
56	33	S1100	I-90	629143491		NA	NA	-106.936971	44.802617	0.025825	0.00877193
56	33	S1100	I-90	634774573		NA	NA	-106.828618	44.582922	3.868549	0.00877193
56	33	S1200	US Hwy 14	147411270	US Hwy 16	N	N	-106.534251	44.567071	0.032397	0.01088435
56	33	S1200	Big Goose Rd	147421444	State Hwy 331	N	N	-107.062538	44.76667	0.019143	0.01088435
56	33	S1200	E 5th St	605384408	State Hwy 336	N	N	-106.955285	44.806844	0.031902	0.01088435
56	33	S1200	US Hwy 14	147398734		N	N	-107.364785	44.799827	0.737105	0.01088435
56	33	S1200	Coffeen Ave	147408472	Coffeen Ave	N	N	-106.94748	44.736972	0.051388	0.01088435
56	33	S1200	Front St	147409609	US Hwy 14	N	N	-106.382235	44.637732	0.032159	0.01088435
56	33	S1200	US Hwy 14	147400215		N	N	-107.500689	44.714898	0.029523	0.01088435
56	33	S1200	State Hwy 345	1473996185		N	N	-107.321543	44.948465	0.756063	0.01088435
56	33	S1200	N Piney Rd	147420545	N Piney Rd	N	N	-106.900559	44.578041	0.177454	0.01088435
56	33	S1200	US Hwy 87	605368387		N	N	-106.885561	44.63175	0.031174	0.01088435
56	33	S1200	Fish Hatchery Rd	147419891	State Hwy 194	N	N	-106.918967	44.568667	0.147106	0.01088435
56	33	S1200	Big Goose Rd	147399687	State Hwy 331	N	N	-107.070202	44.7648	0.393307	0.01088435
56	33	S1200	State Hwy 335	147408335		N	N	-106.980318	44.700411	0.029008	0.01088435
56	33	S1200	US Hwy 14	147398523		N	N	-107.476861	44.77952	0.069219	0.01088435
56	33	S1200	W Loucks St	614721355	W Loucks St	N	N	-106.973517	44.796617	0.05157	0.01088435
56	33	S1200	Main St	147417308	Main St	N	N	-107.262715	44.871275	0.020451	0.01088435

56	35	S1200	Big Piney Calpet Rd	149346148	Big Piney Calpet Rd	N	N	-110.283783	42.393018	0.195383	0.01691729
56	35	S1200	Big Piney Calpet Rd	149347154	Big Piney Calpet Rd	N	N	-110.284863	42.37851	0.385055	0.01691729
56	35	S1200	State Hwy 352	149330874	State Hwy 352	N	N	-109.989113	42.956827	0.497131	0.01691729
56	35	S1200	State Hwy 352	149342158	State Hwy 352	N	N	-110.023781	43.098791	0.126517	0.01691729
56	35	S1200	Bloomfield Ave	617103316	Bloomfield Ave	NA	NA	-109.879699	42.882772	0.190991	0.01691729
56	35	S1200	US Hwy 189	614284845	US Hwy 189	N	N	-110.409656	43.20366	0.12783	0.01691729
56	35	S1200	State Hwy 352	631784199	State Hwy 352	N	N	-109.989064	42.97478	0.225948	0.01691729
56	35	S1200	Big Piney Calpet Rd	149328921	Big Piney Calpet Rd	N	N	-110.290572	42.358646	0.278765	0.01691729
56	35	S1200	Middle Piney Rd	149319272	Middle Piney Rd	N	N	-110.285006	42.538177	0.847708	0.01691729
56	35	S1200	Big Piney Calpet Rd	149327486	Big Piney Calpet Rd	N	N	-110.282524	42.387895	0.261669	0.01691729
56	35	S1200	State Hwy 354	611631792	State Hwy 354	N	N	-110.124057	42.890585	0.348304	0.01691729
56	35	S1200	State Hwy 353	149335729	State Hwy 353	N	N	-109.714446	42.749503	0.046943	0.01691729
56	35	S1200	Big Piney Calpet Rd	149349722	Big Piney Calpet Rd	N	N	-110.28701	42.453728	0.154211	0.01691729
56	35	S1200	State Hwy 352	149348298	State Hwy 352	N	N	-110.024543	43.100778	0.158921	0.01691729
56	35	S1200	Fox Willow Dr	624696401	Fox Willow Dr	NA	NA	-109.863534	42.858926	0.039994	0.01691729
56	35	S1200	US Hwy 189	149341811	US Hwy 191	N	N	-110.167302	43.096316	0.195055	0.01691729
56	35	S1200	State Hwy 353	149343493	State Hwy 353	N	N	-109.509085	42.67973	0.040054	0.01691729
56	35	S1200	US Hwy 191	611631778	US Hwy 191	N	N	-110.070024	42.890439	0.046435	0.01691729
56	37	S1100	I-80	624231944	I-80	NA	NA	-108.780959	41.678094	0.163315	0.01215805
56	37	S1100	I-80	633104230	US Hwy 30	N	N	-109.316632	41.554826	0.039476	0.01215805
56	37	S1100	I-80 Interstate Rmp	149499689	I-80 Interstate Rmp	N	N	-109.587987	41.555451	0.259911	0.01215805
56	37	S1100	I-80	149487238	I-80	N	N	-108.066013	41.661045	0.136447	0.01215805
56	37	S1200	US Hwy 191	618328344	US Hwy 191	N	N	-109.437956	42.043985	0.338956	0.01204819
56	37	S1200	State Hwy 374	149511333	State Hwy 374	N	N	-109.482509	41.541523	0.131587	0.01204819
56	37	S1200	Uinta Dr	149500497	Uinta Dr	N	N	-109.472709	41.511854	0.0531	0.01204819
56	37	S1200	State Hwy 414	149464554	State Hwy 414	N	N	-109.985213	41.027126	0.131917	0.01204819
56	37	S1200	State Hwy 28	149493695	State Hwy 28	N	N	-109.808056	41.858995	0.147627	0.01204819
56	37	S1200	Lower Farson Cutoff Rd	149492132	California-Mormon Emigr	N	N	-109.666317	41.965696	0.038819	0.01204819
56	37	S1200	Dewar Dr	149503912	Dewar Dr	N	N	-109.226073	41.584776	0.04782	0.01204819
56	37	S1200	US Hwy 191	149496622	US Hwy 191	N	N	-109.325226	41.744334	0.329502	0.01204819
56	37	S1200	Pilot Butte Ave	611877695	Pilot Butte Ave	NA	NA	-109.216939	41.59261	0.030201	0.01204819
56	37	S1200	State Hwy 430	149458823	State Hwy 430	N	N	-108.78958	41.049775	0.243255	0.01204819
56	37	S1200	US Hwy 191	149461346	State Hwy 373	N	N	-109.310187	41.437909	1.183344	0.01204819
56	37	S1200	State Hwy 372	149495742	State Hwy 374	N	N	-109.591055	41.555985	0.056765	0.01204819
56	37	S1200	D St	149502711	State Hwy 430	N	N	-109.2125	41.581594	0.037972	0.01204819
56	37	S1200	State Hwy 430	149457693	State Hwy 430	N	N	-108.836841	41.204642	0.057298	0.01204819

56	39	S1200	Grand Loop Rd	130447128	US Hwy 89	N	N	-110.647369	44.4336	0.335289	0.02292994
56	39	S1200	State Hwy 22	130412425		N	N	-111.023765	43.531226	0.014713	0.02292994
56	39	S1200	W Broadway Ave	626815081	US Hwy 26	N	N	-110.767775	43.479528	0.008592	0.02292994
56	39	S1200	US Hwy 26	130414136	US Hwy 26	N	N	-110.747679	43.393058	0.052961	0.02292994
56	39	S1200	US Hwy 26	130440602	US Hwy 26	N	N	-110.519893	43.822999	0.705899	0.02292994
56	39	S1200	State Hwy 22	235945248		N	N	-111.044466	43.542907	0.121907	0.02292994
56	39	S1200	N Cache St	130449024	US Hwy 26	N	N	-110.762232	43.489123	0.002913	0.02292994
56	39	S1200	Grand Loop Rd	130410308	US Hwy 89	N	N	-110.849699	44.487252	0.476339	0.02292994
56	39	S1200	US Hwy 26	130442142	US Hwy 26	N	N	-110.140642	43.785674	0.058013	0.02292994
56	39	S1200	US Hwy 26	130414163	US Hwy 26	N	N	-110.745142	43.384441	0.015347	0.02292994
56	39	S1200	US Hwy 26	130416881	US Hwy 26	N	N	-110.179349	43.812532	0.085526	0.02292994
56	39	S1200	John D Rockefeller Jr Pkwy	625696810	US Hwy 89	N	N	-110.632246	43.929951	0.644068	0.02292994
56	39	S1200	US Hwy 26	633121288	US Hwy 26	N	N	-110.748242	43.394564	0.107092	0.02292994
56	39	S1200	Grand Loop Rd	130435259	US Hwy 20	N	N	-110.418215	44.54549	0.012986	0.02292994
56	39	S1200	N Moose Wilson Rd	130421972	N Moose Wilson Rd	N	N	-110.846204	43.500474	0.111366	0.02292994
56	39	S1200	W Broadway Ave	626815080	US Hwy 26	N	N	-110.767992	43.479487	0.01271	0.02292994
56	39	S1200	US Hwy 189	130430099	US Hwy 189	Y	N	-110.730176	43.322355	0.075306	0.02292994
56	39	S1200	John D Rockefeller Jr Pkwy	130438888	US Hwy 89	N	N	-110.617709	43.904563	0.02257	0.02292994
56	41	S1100	I-80	160262564		N	N	-110.424833	41.332567	0.082322	0.02242152
56	41	S1100	I-80	160262989		N	N	-110.382457	41.349435	0.884846	0.02242152
56	41	S1100	I-80	160263878		N	N	-110.369274	41.354538	0.581572	0.02242152
56	41	S1100	I-80	160276521		N	N	-110.449606	41.328957	0.025325	0.02242152
56	41	S1100	I-80 Bus	625848180		N	N	-110.374475	41.316471	0.467979	0.02242152
56	41	S1200	State Hwy 150	160278118	State Hwy 150	N	N	-110.948574	41.26097	0.069808	0.02083333
56	41	S1200	State Hwy 89	160256726	State Hwy 89 N	N	N	-111.041282	41.406968	0.045853	0.02083333
56	41	S1200	State Hwy 414	160278610		N	N	-110.336637	41.272014	0.050479	0.02083333
56	41	S1200	State Hwy 414	160276641		N	N	-110.32857	41.269014	0.002005	0.02083333
56	41	S1200	State Hwy 89	160259758	State Hwy 89 N	N	N	-110.982831	41.297753	0.059565	0.02083333
56	41	S1200	State Hwy 414	160269401		N	N	-110.421784	41.048317	0.287048	0.02083333
56	41	S1200	State Hwy 412	160258496		N	N	-110.423572	41.4321	0.102188	0.02083333
56	41	S1200	State Hwy 410	160266210		N	N	-110.493857	41.1882	0.094194	0.02083333
56	41	S1200	US Hwy 189	160257875		N	N	-110.625197	41.430625	0.935336	0.02083333
56	41	S1200	Carter Cutoff Rd	160258469	Carter Cutoff Rd	N	N	-110.441935	41.452999	0.052881	0.02083333
56	41	S1200	State Hwy 414	160269069		N	N	-110.178426	41.097522	0.74704	0.02083333
56	41	S1200	State Hwy 150	606738273	State Hwy 150 S	N	N	-110.953165	41.262237	0.015361	0.02083333
56	41	S1200	State Hwy 89	160275943		N	N	-110.957224	41.281488	0.07992	0.02083333

**Appendix C**

**Sample Data Collection Form and Cover Sheet**

WYDOT SEAT BELT SURVEY DATA COLLECTION FORM	
Observer _____	Total # of observation pages: _____
County _____	Date: _____
Site # _____	
Site Location _____	

Alternate Site Information	
Available alternate sites:	
1. _____	
2. _____	
Is this an alternate site?	Yes      No      (Please circle response)
If yes, which site was selected?	1      2      (Please circle response)
Please provide reason for using alternate site:	
_____	
_____	
_____	

Site Description	
Please circle your responses:	
Assigned traffic flow	North      South      East      West
Number of lanes in this direction: _____	
Weather conditions	clear/sunny      cloudy      light fog      light rain      light snow
Observation Site start and end times:	
Start Time: _____ AM    PM	End Time: _____ AM    PM
<b><u>(Total observation period MUST last EXACTLY 45 minutes)</u></b>	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	

Vehicle Type				WY License			
(1) Auto	(2) Van	(3) SUV	(4) PU	(1) Y	(2) N	(9) Unsure	
Driver	(1) M	(2) F	(1) Y	(2) N	(3) UK		
Pass.	(1) M	(2) F	(1) Y	(2) N	(3) UK	(4) NP	



**Appendix D**  
**Training Syllabus**

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## Day One

### Welcome and introduction of all participants

- Trainers
- Employer
- Highway Safety Office Personnel
- Observers
- Alternate (reserve) observers
- Quality Control Monitors

### Distribution of equipment

- Checklist of materials, including WYDOT authorization letter, safety materials, all forms & observation materials

### Survey overview

- Steps
- Importance of Data Collection process

### Data Collection Techniques

- Definition of vehicles
- Definition of passengers & belt/booster seat use
- Weekday/weekend
- Heavy traffic v. light traffic
  - Use of second observers
- Weather conditions
- Observation duration

### Scheduling and Rescheduling

- Site assignment sheet
- Daylight observation
- Problems encountered because of temporary impediments (i.e., weather)
- Permanent problems at data collection sites

### Site locations

- Site location & description sheet
- Parking
- Interstate ramps and surface streets
- Direction of travel/number of observed lanes
- Non-intersection requirement
- Alternate site selection

### Data Collection Forms

- Cover sheet
- Recording observations
- Recording temporary problems/weather conditions
- Recording alternate site information

### Safety and Security

### Field Testing

- Practice field site
-

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**Day Two (AM)**

**Review of maps**

- Locating all sites on county maps

**Shipment of Forms and materials**

- Review materials
- Essential timeline

**Timesheet and expense reporting**

**Field Testing**

- 3 Test Sites

**Post Training Quiz**

**Day Two (PM)**

**Quality Control Training**

- Review of randomly selected QC sites
  - Checklist of field protocols to address during site
  - Inter-observer agreement ratio testing
  - Procedures in cases of suspected or confirmed data falsification
  - Reporting
-



## Appendix C: NHTSA Approval

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NHTSA approval and final review

# State Seatbelt Survey Plan

## NHTSA Final Review

Wyoming  
Version 4

Requirement Type	Design Requirement	Status	Comments
Statistical	1 Are the sampling units, with measures of size, defined and compliant with 1340.5.a?	Compliant	16 counties account for approximately 85% of the passenger vehicle crash-related fatalities according to FARS data averages for the period 2005 to 2009 (p.4).
GIS	2 Is the source for the sample frame road segments specified and compliant with 1340.5.a.2.i?	Compliant	Westat supplied 2010 TIGER data (p.4).
Statistical	3 If there are any exclusions to the sampling frame, are they specified and compliant with 1340.5.a.2.ii?	Compliant	Wyoming exercised the available exclusion option and removed rural local roads in counties that are not within Metropolitan Statistical Areas (MSAs), and other non-public roads, unnamed roads, unpaved roads, vehicular trails, access ramps, cul-de-sacs, traffic circles, and service drivers from the dataset (p.4).
Statistical	4 Are the stratification methods for each stage of sampling defined along with a description of methods that were used for allocating the sample units into the strata?	Compliant	1) County: 16 of 23 counties accounted for 85% of the traffic-related fatalities; all 16 counties were selected for the sample (p.5). 2) Road segment: Stratified by MTFCC road classification into three groups (Primary, Secondary, and Local) (pp.4-5).
Statistical	5 Is the method used for selecting road segments for observation sites specified and compliant with 1340.5.b?	Compliant	Segments were sampled by random sampling (p.5). The reserve sample segments were also selected SRS within a particular road classification and county (p.9).
Statistical	6 Is there a list of all observation sites and their probabilities of selection?	Compliant	A list of sites is found in Appendix B (p.23). The probabilities represent an SRS.
Statistical	7 Is there an explanation of how the sample sizes were determined? Is that explanation compliant with section 1340.5.d?	Compliant	Based on historical data, the state estimates a total of 28,800 vehicle observations (16 counties * 18 sites in each county * 100 observations per site) (pp.6-7).

Requirement Type	Design Requirement	Status	Comments
Operational	8 Is the process of assigning observation sites to observation time periods explained? Is it compliant with 1340.6?	Compliant	All observations will be conducted during weekdays and weekends between 7 a.m. and 6 p.m. (p.11). Sites within relatively close geographic proximity will be assigned as data collection clusters. The first site within each cluster will be assigned a random day and time for completion. All other sites within a cluster will be assigned to the same day and scheduled in order of operational efficiency (p.11).
Statistical	9 Is the state statistician named and his/her qualifications described? Does the statistician meet the requirements in 1340.8.c?	Compliant	The statistician's resume is Appendix A (p.19).
Operational	10 Is an observation period defined?	Compliant	45 minutes (p.11)
Operational	11 Are the procedures used to reschedule and substitute observation sites specified and compliant with 1340.5.c?	Compliant	When a site is temporarily unavailable, data collection will be rescheduled for a similar day of the week and time of day. In the event that the site is permanently unworkable, an alternate site, selected as part of the reserve sample, will be used as a permanent replacement (p.12).
Statistical	12 Are the procedures for collecting additional data to reduce the nonresponse rate specified and compliant with 1340.9.f.2?	Compliant	If a site exceeds 10% nonresponse, data collectors will be sent back to that site for an additional observation period (p.13).
Operational	13 Are the data collection procedures described?	Compliant	Data collection will primarily be performed by single observers, except at high volume sites where two data collectors will be assigned (p.11). The observed direction of traffic will be predetermined and randomly assigned (p.12). The appropriate vehicles, occupants, belt use definitions, and data elements are included in the survey (pp.10-12).
Operational	14 Are the number of observers and quality control monitors specified?	Compliant	16 data collectors and 2 QC Monitors will be hired (p.10). QC Monitors will visit 2 sites per county (or 11%) (p.10). Training will take place prior to data collection, during the last week of April (p.10). The training agenda is Appendix D (p.35).
Statistical	15 Is there a description of how the seat belt use rate estimate will be calculated?	Compliant	A ratio estimator will be used (pp.15-16).
Statistical	16 Is there a description of how the variance will be calculated? Is it compliant with 1340.9.g?	Compliant	Complex Sample Module for SPSS will be used to calculate the variance (p.13).

Requirement Type	Design Requirement	Status	Comments
Statistical	17 If any imputation is planned, are the methods specified and compliant with 1340.9.c?	Compliant	No imputation is planned (p.13).
Statistical	18 Are the weighting procedures appropriate for the design, including base weights, and adjustments for observation sites with no usable data, and specified and compliant with 1340.9.d and 1340.9.e?	Compliant	Weights and estimators are appropriate for the SRS design (pp.14-17). The nonresponse adjustment is also appropriate for the proposed plan (p.15).
Statistical	19 If the standard error exceeds 2.5 percentage points, are the procedures to reduce it specified and compliant with 1340.9.g?	Compliant	If the standard error exceeds 2.5%, more data will be collected from existing sites (p.6).





U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

Region 8  
Colorado, Nevada, North Dakota,  
South Dakota, Utah, Wyoming

12300 West Dakota Avenue  
Suite 140  
Lakewood, CO 80228  
Phone: 720-963-3100  
Fax: 720-963-3124

February 9, 2017

Kenneth Ledet, Grants Manager  
Highway Safety Behavioral Program  
Wyoming Department of Transportation  
5300 Bishop Boulevard  
Cheyenne, WY 52009

Dear Ken:

NHTSA has completed its review of your Uniform Criteria for State Observational Surveys of Seat Belt Use Certification form and supporting documentation, evaluating the four requirements related to the re-selection of observation sites listed in 1340.10 of the Final Rule. We are pleased to inform you that your re-selection is fully compliant with the Uniform Criteria for State Observational Surveys of Seat Belt Use.

Sincerely,

Gina Mia Espinosa-Salcedo  
Regional Administrator

cc: Karson James

## Uniform Criteria for State Observational Surveys of Seat Belt Use

Per the required procedures, the sample first created in 2017 reached its expiration date and necessitated a new sampling. What follows is the certification form submitted for NHTSA approval.

#### 1. Contact Information

State/Territory	Wyoming (WY)
Name	Debra Nelson
Address	2493 4 <sup>th</sup> Ave West, Ste G
City	Dickinson
State	ND
Zip Code	58601
Email	dnelson@dlnconsulting.com
Phone	701.483.2801

#### 2. Verification

Sample Design Verification	Yes
Date Plan Approved	4/2012

#### 3. Road Segment Sampling Frame

Was TIGER used as the road segment sampling frame?	Yes
Data Source Name and Year	
Road Segment Sampling Frame	Yes

#### 4. Exclusions

Was the optional 85% fatality exclusion implemented?	Yes
Specify data source and years of data used.	FARS
Range	2015 – 2019
Other Data Source	
Was the optional rural local roads exclusion implemented?	Yes
Were the optional road types exclusions implemented?	No

### 5. Stages of Selection

How many stages of selection?

2 Stages

Specify the definition of units

Select Unit	Specify your own Unit Value	Str
County	Locked for reading	No
Road segment	Locked for reading	Yes

### 6. Probabilities of Selection

Probabilities of selection

Probability Proportional to Size (

Specify measure of size

Number of road segments in each

### 7. Additional Information

Describe any characteristics of your design that require additional explanation.

### 8. Design Characteristics

If you changed the Design Plan since the 2016-2017 road segment reselection, select what you c

Road segment sample Yes

Counties covered via the fatality exclusion Yes

County sample Yes

Stratification (in definition of strata, number of strata, or allocation to strata) Yes

Other design elements (stages, MOS) No

Attach Files No

Attachments [Road Segment Sample and Allocation Table.xlsx](#)

FARS (2015-2019)

State	County	Average fatality counts for 5 years	State=Wyoming	Fatality percentage within the state	Cumulative fatality percentage
Wyoming	LARAMIE	9.8	11	11	11
Wyoming	CARBON	9.2	10.4	21.4	21.4
Wyoming	FREMONT	9	10.1	31.5	31.5
Wyoming	NATRONA	8.8	9.9	41.4	41.4
Wyoming	SWEETWATER	6.8	7.7	49.1	49.1
Wyoming	ALBANY	4.8	5.4	54.5	54.5
Wyoming	LINCOLN	4.8	5.4	59.9	59.9
Wyoming	CONVERSE	3.8	4.3	64.2	64.2
Wyoming	CAMPBELL	3.6	4.1	68.2	68.2
Wyoming	PLATTE	3.6	4.1	72.3	72.3
Wyoming	UINTA	3.6	4.1	76.4	76.4
Wyoming	JOHNSON	2.6	2.9	79.3	79.3
Wyoming	PARK	2.4	2.7	82	82
Wyoming	NIobrara	2.2	2.5	84.5	84.5
Wyoming	GOSHEN	2	2.3	86.7	86.7
Wyoming	SHERIDAN	2	2.3	89	89
Wyoming	WESTON	2	2.3	91.2	91.2
Wyoming	BIG HORN	1.8	2	93.2	93.2
Wyoming	HOT SPRINGS	1.6	1.8	95	95
Wyoming	TETON	1.4	1.6	96.6	96.6
Wyoming	SUBLETTE	1.2	1.4	98	98
Wyoming	WASHAKIE	1	1.1	99.1	99.1
Wyoming	CROOK	0.8	0.9	100	100
Wyoming	UNKNOWN	0	0	100	100

# Appendix D: Data Tables

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Detailed table of collected data

## County Data

Estimates of Percent Belted by County for Drivers, Passengers and Occupants, Wyoming 2022					
				Total	% of Total
County	Drivers	Passengers	Occupants	Occupants	Sample
Albany	91.2%	98.6%	93.2%	2,231	9.5%
Campbell	68.9%	72.7%	69.8%	2,848	12.2%
Carbon	89.6%	94.1%	90.8%	2,201	9.4%
Converse	83.2%	92.6%	85.6%	1,694	7.2%
Fremont	75.2%	89.8%	79.2%	1,816	7.8%
Goshen	76.6%	80.7%	77.3%	635	2.7%
Johnson	90.3%	94.5%	91.6%	1,281	5.5%
Laramie	85.3%	85.8%	85.4%	541	2.3%
Lincoln	75.7%	83.8%	77.6%	1,271	5.4%
Natrona	69.4%	70.4%	69.6%	358	1.5%
Niobrara	81.6%	94.4%	85.6%	780	3.3%
Park	66.6%	77.1%	69.6%	1,984	8.5%
Platte	74.9%	81.9%	76.9%	1,515	6.5%
Sweetwater	63.7%	68.4%	65.0%	2,180	9.3%
Uinta	88.4%	96.0%	90.4%	2,052	8.8%
<b>Total % Belted</b>	76.9%	83.2%	78.3%	23,387	100.0%
<b>Total Belted</b>	13,562	5,243	18,805		

Unweighted Frequency of Occupants and Percent of Sample by Observer & County					
Observer	County	Frequency	% of Sample	Cum %	% Belted
Bryan Shannon	Campbell	2,848	12.2%	12.2%	69.8%
Monty Byers	Albany	2,231	9.5%	21.7%	93.2%
Amy Still	Carbon	2,201	9.4%	31.1%	90.8%
Kayla Schear	Sweetwater	2,180	9.3%	40.4%	65.0%
Mindy McKinley	Uinta	2,052	8.8%	49.2%	90.4%
Donna Lucas	Park	1,984	8.5%	57.6%	69.6%
Casey Krauter	Fremont	1,816	7.8%	65.4%	79.2%
Aspen Miller	Converse	1,694	7.2%	72.6%	85.6%
Doug Peterson	Platte	1,515	6.5%	79.1%	76.9%
Dixie Elder	Johnson	1,281	5.5%	84.6%	91.6%
Susan Parkinson	Lincoln	1,271	5.4%	90.0%	77.6%
Lori Cole	Niobrara	780	3.3%	93.4%	85.6%
Sandra Gabel	Goshen	635	2.7%	96.1%	77.3%
Patrick White	Laramie	541	2.3%	98.4%	85.4%
Kim Brattis	Natrona	358	1.5%	99.9%	69.6%
	All Occupants	23,387	100.0%		78.3%

General Estimates for Drivers, Passengers, Occupants

<b>Estimate of Occupant Seat Belt Use, Wyoming 2022</b>					
<b>Belt Use</b>	Estimate	Standard	95% Confidence Interval		Unweighted
		Error	Lower	Upper	Count
<b>Belted</b>	78.3%	0.2%	77.9%	78.8%	18,805
<b>Not Belted</b>	21.2%	0.2%	20.7%	21.6%	4,505
<b>Unsure</b>	0.5%	0.0%	0.4%	0.6%	77
<b>Total</b>	100.0%				23,387

<b>Estimate of Driver Seat Belt Use, Wyoming 2022</b>					
<b>Belt Use</b>	Estimate	Standard	95% Confidence Interval		Unweighted
		Error	Lower	Upper	Count
<b>Belted</b>	76.9%	0.3%	76.3%	77.5%	13,562
<b>Not Belted</b>	22.6%	0.3%	22.0%	23.1%	3,678
<b>Unsure</b>	0.5%	0.1%	0.4%	0.7%	52
<b>Total</b>	100.0%				17,292

<b>Estimate of Passenger Seat Belt Use, Wyoming 2022</b>					
<b>Belt Use</b>	Estimate	Standard	95% Confidence Interval		Unweighted
		Error	Lower	Upper	Count
<b>Belted</b>	83.2%	0.4%	82.4%	84.0%	5,243
<b>Not Belted</b>	16.5%	0.4%	15.7%	17.3%	827
<b>Unsure</b>	0.3%	0.0%	0.2%	0.4%	25
<b>Total</b>	100.0%				6,095



<b>Frequencies by Type of Vehicle Occupant, Wyoming 2022</b>			
	Drivers	Passengers	All Occupants
<b>Percent Belted</b>	76.9%	83.2%	78.3%
<b>Unweighted Total</b>	17,292	6,095	23,387
<b>% of Occupants</b>	73.9%	26.1%	100.0%

<b>Frequencies by Type of Vehicle Occupant, Wyoming 2022</b>		
	Unweighted Count	Percent
<b>Drivers</b>	17,292	73.9%
<b>Passengers</b>	6,095	26.1%
<b>All Occupants</b>	23,388	100.0%

<b>Estimate of Occupant Seat Belt Use, Wyoming 2022</b>					
<b>Belt Use</b>	Estimate	Standard Error	95 % Confidence Interval		Unweighted Count
			Lower	Upper	
<b>Belted</b>	78.3%	0.2%	77.9%	78.8%	18,805
<b>Not Belted</b>	21.2%	0.2%	20.7%	21.6%	4,505
<b>Unsure Total</b>	0.5%	0.0%	0.4%	0.6%	77
<b>Total</b>	100.0%				23,387

<b>Estimate of Driver Seat Belt Use, Wyoming 2022</b>					
<b>Belt Use</b>	Estimate	Standard Error	95 % Confidence Interval		Unweighted Count
			Lower	Upper	
<b>Belted</b>	76.9%	0.3%	76.3%	77.5%	13,562
<b>Not Belted</b>	22.6%	0.3%	22.0%	23.1%	3,678
<b>Unsure Total</b>	0.5%	0.1%	0.4%	0.7%	52
<b>Total</b>	100.0%				17,292

<b>Estimate of Passenger Seat Belt Use, Wyoming 2022</b>					
<b>Belt Use</b>	Estimate	Standard Error	95 % Confidence Interval		Unweighted Count
			Lower	Upper	
<b>Belted</b>	83.2%	0.4%	82.4%	84.0%	5,243
<b>Not Belted</b>	16.5%	0.4%	15.7%	17.3%	827
<b>Unsure Total</b>	0.3%	0.0%	0.2%	0.4%	25
<b>Total</b>	100.0%				6,095

<b>Estimates of Seat Belt Use for Drivers, Passengers, and All Occupants, Wyoming 2022</b>			
	Drivers	Passengers	All Occupants
<b>Percent Belted</b>	76.9%	83.2%	78.3%
<b>% of Sample</b>	73.9%	26.1%	100.0%
<b>Unweighted Total</b>	17,292	6,095	23,387

## 2022 County Variables

Estimates of Occupant Seat Belt Use by Population Density, Wyoming 2022					
Population	Occupant Belt Use			Unweighted Count	% Sample
Density	Belted	Not Belted	Unsure		
Urban	74.6%	24.8%	0.6%	6,789	29.0%
Rural	81.2%	18.5%	0.4%	16,598	71.0%
State	78.3%	21.2%	0.5%	23,387	100.0%

Estimate of Occupant Seat Belt Use by Wyoming License, Wyoming 2022					
Wyoming	Occupant Belt Use			Unweighted Count	% Sample
License	Belted	Not Belted	Unsure		
Yes	74.4%	25.0%	0.6%	13,469	57.6%
No	88.1%	11.7%	0.3%	9,679	41.4%
Unsure	59.1%	40.6%	0.3%	239	1.0%
State	78.3%	21.2%	0.5%	23,387	100.0%

Estimate of Occupant Seat Belt Use by Roadway Type, Wyoming 2022					
Roadway	Occupant Belt Use			Unweighted Count	% Sample
Type	Belted	Not Belted	Unsure		
Primary	87.4%	12.4%	0.2%	8,594	36.7%
Secondary	75.9%	23.7%	0.4%	14,238	60.9%
Other*	73.1%	25.8%	1.1%	555	2.4%
State	78.3%	21.2%	0.5%	23,387	100.0%

\*"Other" roadways are a catchall State category for local, rural roads, and city streets that are not primary or secondary roadways.

Estimate of Occupant Seat Belt Use by Occupant Gender, Wyoming 2022					
Occupant	Occupant Belt Use			Unweighted Count	% Sample
Gender	Belted	Not Belted	Unsure		
Male	73.5%	25.7%	0.7%	13,480	57.6%
Female	84.8%	15.1%	0.2%	9,907	42.4%
State	78.3%	21.2%	0.5%	23,387	100.0%

<b>Estimate of Occupant Seat Belt Use by Vehicle Type, Wyoming 2022</b>					
<b>Vehicle Type</b>	<b>Occupant Belt Use</b>			<b>Unweighted Count</b>	<b>% Sample</b>
	<b>Belted</b>	<b>Not Belted</b>	<b>Unsure</b>		
<b>Auto</b>	78.7%	21.0%	0.3%	5,027	21.5%
<b>Van</b>	85.3%	14.0%	0.7%	8,105	34.7%
<b>SUV</b>	79.1%	20.9%	0.0%	1,428	6.1%
<b>Pickup Truck</b>	71.5%	28.0%	0.4%	8,827	37.7%
<b>State</b>	78.3%	21.2%	0.5%	23,387	100.0%

<b>Estimate of Occupant Belt Use by Type of Weather, Wyoming 2022</b>					
<b>Weather</b>	<b>Occupant Belt Use</b>			<b>Unweighted Count</b>	<b>% Sample</b>
	<b>Belted</b>	<b>Not Belted</b>	<b>Unsure</b>		
<b>Clear/Sunny</b>	77.1%	22.3%	0.6%	17,160	73.4%
<b>Cloudy</b>	81.9%	17.8%	0.3%	5,991	25.6%
<b>Light Rain</b>	52.7%	47.0%	0.4%	199	0.9%
<b>Occasional Rain</b>	77.8%	22.2%	0.0%	37	0.2%
<b>State</b>	78.3%	21.2%	0.5%	23,387	100.0%

<b>Estimate of Occupant Belt Use by Number of Lanes Observed, Wyoming 2022</b>					
<b>Lanes</b>	<b>Occupant Belt Use</b>			<b>Unweighted Count</b>	<b>% Sample</b>
	<b>Belted</b>	<b>Not Belted</b>	<b>Unsure</b>		
<b>One Lane</b>	74.7%	24.7%	0.6%	9,727	41.6%
<b>Two Lanes</b>	81.7%	17.9%	0.3%	13,660	58.4%
<b>State</b>	78.3%	21.2%	0.5%	23,387	100.0%

<b>Estimate of Occupant Belt Use by Time of Observation, Wyoming 2022</b>					
<b>Time</b>	<b>Occupant Belt Use</b>			<b>Unweighted Count</b>	<b>% Sample</b>
	<b>Belted</b>	<b>Not Belted</b>	<b>Unsure</b>		
<b>7:30-9:30 AM</b>	74.1%	25.5%	0.4%	4,285	18.3%
<b>9:30-11:30 AM</b>	82.6%	17.2%	0.2%	6,680	28.6%
<b>11:30 AM-1:30 PM</b>	78.9%	20.5%	0.7%	6,865	29.4%
<b>1:30-3:30 PM</b>	75.9%	23.3%	0.8%	4,004	17.1%
<b>3:30-5:30 PM</b>	83.2%	16.3%	0.5%	1,553	6.6%
<b>State</b>	78.3%	21.2%	0.5%	23,387	100.0%

<b>Estimate of Occupant Belt Use by Direction of Observation, Wyoming 2022</b>					
<b>Direction</b>	<b>Occupant Belt Use</b>			<b>Unweighted Count</b>	<b>% Sample</b>
	<b>Belted</b>	<b>Not Belted</b>	<b>Unsure</b>		
<b>North</b>	77.4%	21.6%	1.0%	5,702	24.4%
<b>South</b>	78.2%	21.3%	0.4%	5,141	22.0%
<b>East</b>	76.0%	23.7%	0.2%	6,685	28.6%
<b>West</b>	82.5%	17.0%	0.4%	5,859	25.1%
<b>State</b>	78.3%	21.2%	0.5%	23,387	100.0%

<b>Occupant Belt Use by Weekday, Wyoming 2022</b>					
<b>Weekdays</b>	<b>Occupant Belt Use</b>			<b>Unweighted Count</b>	<b>% Sample</b>
	<b>Belted</b>	<b>Not Belted</b>	<b>Unsure</b>		
<b>Sunday</b>	71.8%	28.2%	0.0%	2,345	10.0%
<b>Monday</b>	77.7%	21.3%	1.0%	2,914	12.5%
<b>Tuesday</b>	73.0%	26.1%	0.9%	3,297	14.1%
<b>Wednesday</b>	74.4%	25.1%	0.6%	4,241	18.1%
<b>Thursday</b>	83.5%	16.0%	0.5%	3,436	14.7%
<b>Friday</b>	81.1%	18.5%	0.4%	4,940	21.1%
<b>Saturday</b>	80.2%	19.8%	0.0%	2,214	9.5%
<b>State</b>	78.3%	21.2%	0.5%	23,387	100.0%

<b>Estimate of Occupant Seat Belt Use by Occupant Gender, Wyoming 2022</b>					
<b>Occupant Gender</b>	<b>Occupant Belt Use</b>			<b>Unweighted Count</b>	<b>% Sample</b>
	<b>Belted</b>	<b>Not Belted</b>	<b>Unsure</b>		
<b>Male</b>	73.5%	25.7%	0.7%	13,480	57.6%
<b>Female</b>	84.8%	15.1%	0.2%	9,907	42.4%
<b>All</b>	78.3%	21.2%	0.5%	23,387	100.0%

Estimate of Occupant Seat Belt Use by Vehicle Type, Wyoming 2022						
Vehicle Type	Occupant Belt Use				Unweighted Count	% Sample
	Belted	Not Belted	Unsure	Total		
<b>Auto</b>	78.7%	21.0%	0.3%	100.0%	5,027	21.5%
<b>Van</b>	85.3%	14.0%	0.7%	100.0%	8,105	34.7%
<b>SUV</b>	79.1%	20.9%	0.0%	100.0%	1,428	6.1%
<b>Pickup Truck</b>	71.5%	28.0%	0.4%	99.9%	8,827	37.7%
<b>Total</b>	78.3%	21.2%	0.5%	100.0%	23,387	100.0%

Percent of Males and Females by Vehicle Type, Wyoming 2022			
Vehicle Type	Males	Females	Difference
<b>Auto</b>	49.6%	50.4%	0.8%
<b>Van</b>	43.3%	56.7%	13.4%
<b>SUV</b>	55.6%	44.4%	-11.2%
<b>PU Truck</b>	75.7%	24.3%	-51.4%

Estimate of Occupant Belt Use by Vehicle Type and Occupant Gender, Wyoming 2022						
Gender Type	Vehicle Type	Occupant Belt Use			Unweighted Count	% of Sample
		Belted	Not Belted	Unsure		
<b>Male</b>	Auto	76.3%	23.2%	0.5%	2,493	18.5%
	Van	80.6%	18.0%	1.4%	3,509	26.0%
	SUV	72.8%	27.2%	0.0%	794	5.9%
	PU Truck	69.0%	30.4%	0.5%	6,684	49.6%
	Total	73.5%	25.7%	0.7%	13,480	100.0%
<b>Female</b>	Auto	81.0%	18.8%	0.2%	2,534	25.6%
	Van	88.8%	11.1%	0.2%	4,596	46.4%
	SUV	87.1%	12.8%	0.1%	634	6.4%
	PU Truck	79.4%	20.4%	0.1%	2,143	21.6%
	Total	84.8%	15.1%	0.2%	9,907	100.0%

Estimate of Occupant Belt Use by Vehicle Type and Gender, Wyoming 2022			
Vehicle	Gender Type		
Type	Male	Female	Difference
Auto	76.3%	81.0%	4.7%
Van	80.6%	88.8%	8.2%
SUV	72.8%	87.1%	14.3%
PU Truck	69.0%	79.4%	10.4%
Total	73.5%	84.8%	11.3%

Percent Belted for Drivers and Passengers by Gender and Vehicle Type						
	Drivers		Diff	Passengers		Diff
	Male	Female		Male	Female	
Auto	76.3%	80.5%	4.2%	75.9%	82.2%	6.3%
Van	80.4%	87.3%	6.9%	81.5%	91.9%	10.4%
SUV	72.2%	86.9%	14.7%	76.1%	87.4%	11.3%
Pickup	69.5%	72.7%	3.2%	65.5%	86.0%	20.5%
Total	73.5%	83.1%	9.6%	73.6%	87.8%	14.2%

Estimate of Occupant Belt Use by Vehicle Type and Occupant Gender, Wyoming 2022						
Gender	Vehicle Type	Occupant Belt Use			Unweighted Count	% of Sample
		Belted	Not Belted	Unsure		
Male	Auto	76.3%	23.2%	0.5%	2,493	18.5%
	Van	80.6%	18.0%	1.4%	3,509	26.0%
	SUV	72.8%	27.2%	0.0%	794	5.9%
	PU Truck	69.0%	30.4%	0.5%	6,684	49.6%
	Total	73.5%	25.7%	0.7%	13,480	100.0%
Female	Auto	81.0%	18.8%	0.2%	2,534	25.6%
	Van	88.8%	11.1%	0.2%	4,596	46.4%
	SUV	87.1%	12.8%	0.1%	634	6.4%
	PU Truck	79.4%	20.4%	0.1%	2,143	21.6%
	Total	84.8%	15.1%	0.2%	9,907	100.0%

## Vehicle Type & Gender

Estimate of Occupant Belt Use by Occupant Gender, Wyoming 2022					
Gender	Occupant Belt Use			Unweighted Count	% Sample
	Belted	Not Belted	Unsure		
Male	73.5%	25.7%	0.7%	13,480	57.6%
Female	84.8%	15.1%	0.2%	9,907	42.4%
State	78.3%	21.2%	0.5%	23,387	100.0%

Estimate of Occupant Belt Use by Vehicle Type, Wyoming 2022					
Vehicle Type	Occupant Belt Use			Unweighted Count	% Sample
	Belted	Not Belted	Unsure		
Auto	78.7%	21.0%	0.3%	5,027	21.5%
Van	85.3%	14.0%	0.7%	8,105	34.7%
SUV	79.1%	20.9%	0.0%	1,428	6.1%
PU Truck	71.5%	28.0%	0.4%	8,827	37.7%
State	78.3%	21.2%	0.5%	23,387	100.0%

Estimate of Occupant Belt Use by Vehicle Type and Occupant Gender, Wyoming 2022						
Gender	Vehicle Type	Occupant Belt Use			Unweighted Count	% of Sample
		Belted	Not Belted	Unsure		
Male	Auto	76.3%	23.2%	0.5%	2,493	18.5%
	Van	80.6%	18.0%	1.4%	3,509	26.0%
	SUV	72.8%	27.2%	0.0%	794	5.9%
	PU Truck	69.0%	30.4%	0.5%	6,684	49.6%
	State	73.5%	25.7%	0.7%	13,480	100.0%
Female	Auto	81.0%	18.8%	0.2%	2,534	25.6%
	Van	88.8%	11.1%	0.2%	4,596	46.4%
	SUV	87.1%	12.8%	0.1%	634	6.4%
	PU Truck	79.4%	20.4%	0.1%	2,143	21.6%
	State	84.8%	15.1%	0.2%	9,907	100.0%



<b>Estimate of Occupant Belt Use by Vehicle Type and Gender, Wyoming 2022</b>			
<b>Vehicle Type</b>	<b>Gender</b>		<b>Difference</b>
	<b>Male</b>	<b>Female</b>	
<b>Auto</b>	76.3%	81.0%	4.7%
<b>Van</b>	80.6%	88.8%	8.2%
<b>SUV</b>	72.8%	87.1%	14.3%
<b>PU Truck</b>	69.0%	79.4%	10.4%
<b>State</b>	73.5%	84.8%	11.3%

<b>Number of Male and Female Occupants by Vehicle Type, Wyoming 2022</b>			
<b>Vehicle Type</b>	<b>Male</b>	<b>Female</b>	<b>Occupants</b>
	<b>Number</b>	<b>Number</b>	
	<b>Percent</b>	<b>Percent</b>	
<b>Auto</b>	2,493	2,534	5,027
	49.6%	50.4%	100.0%
<b>Van</b>	3,509	4,596	8,105
	43.3%	56.7%	100.0%
<b>SUV</b>	794	634	1,428
	55.6%	44.4%	100.0%
<b>PU Truck</b>	6,684	2,143	8,827
	75.7%	24.3%	100.0%

<b>Percent of Males and Females by Vehicle Type, Wyoming 2022</b>			
<b>Vehicle Type</b>	<b>Males</b>	<b>Females</b>	<b>Difference</b>
<b>Auto</b>	49.6%	50.4%	0.8%
<b>Van</b>	43.3%	56.7%	13.4%
<b>SUV</b>	55.6%	44.4%	-11.2%
<b>PU Truck</b>	75.7%	24.3%	-51.4%

<b>Frequencies by Type of Vehicle Occupant, Wyoming 2022</b>		
<b>Occupant</b>	<b>Unweighted Count</b>	<b>Percent of Occupants</b>
<b>Drivers</b>	17,292	73.9%
<b>Passengers</b>	6,095	26.1%
<b>All</b>	23,387	100.0%

<b>Estimates of Driver, Passenger and State Occupant Belt Use by County, Wyoming 2022</b>				
	Percent Belted			
<b>County</b>	Drivers	Passengers	All Occupants	State
<b>Albany</b>	91.2%	98.6%	93.2%	2,231
<b>Campbell</b>	68.9%	72.7%	69.8%	2,848
<b>Carbon</b>	89.6%	94.1%	90.8%	2,201
<b>Converse</b>	83.2%	92.6%	85.6%	1,694
<b>Fremont</b>	75.2%	89.8%	79.2%	1,816
<b>Goshen</b>	76.6%	80.7%	85.6%	635
<b>Johnson</b>	90.3%	94.5%	85.4%	1,281
<b>Laramie</b>	85.3%	85.8%	79.2%	541
<b>Lincoln</b>	75.7%	83.8%	78.3%	1,271
<b>Natrona</b>	69.4%	70.4%	77.6%	358
<b>Niobrara</b>	81.6%	94.4%	77.3%	780
<b>Park</b>	66.6%	77.1%	76.9%	1,984
<b>Platte</b>	74.9%	81.9%	69.8%	1,515
<b>Sweetwater</b>	63.7%	68.4%	69.6%	2,180
<b>Uinta</b>	88.4%	96.0%	69.6%	2,052
<b>State</b>	76.9%	83.2%	78.3%	23,387
	13,562	5,243	18,805	

<b>Estimates of Driver, Passenger and All Occupants Belted by Population Density, Wyoming 2022</b>			
<b>Population</b>	Drivers	Passengers	Occupants
<b>Urban</b>	74.9%	76.7%	74.6%
<b>Rural</b>	78.7%	86.4%	81.2%
<b>State</b>	76.9%	83.2%	78.3%

<b>Estimates of Drivers, Passengers and All Occupants Belted by Registration Type, Wyoming 2022</b>			
<b>Wy License</b>	Drivers	Passengers	Occupants
<b>Wy License</b>	73.6%	77.9%	78.4%
<b>Out of State</b>	87.0%	90.4%	88.7%
<b>Unsure</b>	52.2%	88.6%	68.5%
<b>State</b>	76.9%	83.2%	80.2%

<b>Estimates of Drivers, Passengers and All Occupants Belted by Roadway Type, Wyoming 2022</b>			
<b>Roadway</b>	<b>Drivers</b>	<b>Passengers</b>	<b>Occupants</b>
<b>Primary</b>	86.3%	90.4%	87.4%
<b>Secondary</b>	74.5%	80.9%	75.9%
<b>Other</b>	72.1%	77.2%	73.1%
<b>State</b>	76.9%	83.2%	78.3%

<b>Estimate of Driver, Passenger and All Occupants Belted by Gender and Vehicle Type, Wyoming 2022</b>					
<b>Gender</b>	<b>Vehicle Type</b>	<b>Percent Belted</b>			<b>Diff passenger-dr</b>
		<b>Drivers</b>	<b>Passengers</b>	<b>Occupants</b>	
<b>Male</b>	Auto	76.3%	75.9%	76.3%	-0.4%
	Van	80.4%	81.5%	80.6%	1.1%
	SUV	72.2%	76.1%	72.8%	3.9%
	Pickup	69.5%	65.5%	69.0%	-4.0%
	State	73.5%	73.6%	73.5%	0.1%
<b>Female</b>	Auto	80.5%	82.2%	81.0%	1.7%
	Van	87.3%	91.9%	88.8%	4.6%
	SUV	86.9%	87.4%	87.1%	0.5%
	Pickup	72.7%	86.0%	79.4%	13.3%
	State	83.1%	87.8%	84.8%	4.7%

<b>Percent Belted for Drivers and Passengers by Gender and Vehicle Type</b>						
<b>Vehicle</b>	<b>Drivers</b>		<b>Diff</b>	<b>Passengers</b>		<b>Diff</b>
	<b>Male</b>	<b>Female</b>		<b>Male</b>	<b>Female</b>	
<b>Auto</b>	76.3%	80.5%	4.2%	75.9%	82.2%	6.3%
<b>Van</b>	80.4%	87.3%	6.9%	81.5%	91.9%	10.4%
<b>SUV</b>	72.2%	86.9%	14.7%	76.1%	87.4%	11.3%
<b>Pickup</b>	69.5%	72.7%	3.2%	65.5%	86.0%	20.5%
<b>State</b>	73.5%	83.1%	9.6%	73.6%	87.8%	14.2%

Appendix E: Observer Field Test Ratings

Field Test Scores by Observer

Observer Written Exam & Field Observations
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<b>County</b>	<b>Observer</b>	<b>Written</b>	<b>Test 1</b>	<b>Test 2</b>	<b>Test 3</b>	<b>AVG 1-3</b>
<b>Monty Byers</b>	Albany	100.00	95.39	69.72	100.00	91.28
<b>Bryan Shannon</b>	Campbell	100.00	100.00	88.52	94.90	95.86
<b>Amy Still</b>	Carbon	100.00	92.92	100.00	84.80	94.43
<b>Aspen Miller</b>	Converse	90.00	82.86	100.00	89.90	90.69
<b>Sandra Gabel</b>	Fremont	95.00	82.80	97.93	100.00	93.93
<b>Casey Krauter</b>	Goshen	90.00	92.31	97.76	94.90	93.74
<b>Dixie Elder</b>	Johnson	90.00	81.00	96.30	90.90	89.55
<b>Patrick White</b>	Laramie	85.00	99.50	92.37	84.80	90.42
<b>Susan Parkinson</b>	Lincoln	85.00	97.73	98.95	89.90	92.90
<b>Kim Brattis</b>	Natrona	95.00	80.41	86.41	94.90	89.18
<b>Lori Cole</b>	Niobrara	95.00	99.48	98.94	85.90	94.83
<b>Donna Lucas</b>	Park	95.00	97.70	92.11	90.90	93.93
<b>Doug Peterson</b>	Platte	90.00	76.47	87.93	89.90	86.08
<b>Kayla Schear</b>	Sweetwater	85.00	94.16	69.30	100.00	87.12
<b>Mindy McKinley</b>	Uinta	85.00	95.19	100.00	84.80	91.25
<b>Malina Bordman</b>	Alternate 1	90.00	92.97	100.00	89.90	93.22
<b>Bridget White</b>	WY Cor	95.00	100.00	96.30	94.90	96.55
<b>Vicky Peterson</b>	QC2	90.00	84.29	76.92	100.00	87.80
<b>State Averages</b>		91.94	91.40	91.64	92.29	91.82

# Appendix F: SBU Unknown Rate

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Seat belt Survey Unknown Rates

<b>County</b>	<b>County Code</b>	<b>Unknown Driv+Pass</b>	<b>Total Obsv. Driv+Pass</b>	<b>County Rate</b>
<b>Albany</b>	1	0	2231	0.000000
<b>Campbell</b>	5	51	2848	0.017907
<b>Carbon</b>	7	0	2201	0.000000
<b>Converse</b>	9	8	1694	0.004723
<b>Fremont</b>	13	0	1816	0.000000
<b>Goshen</b>	15	2	635	0.003150
<b>Johnson</b>	19	1	1281	0.000781
<b>Laramie</b>	21	4	541	0.007394
<b>Lincoln</b>	23	3	1271	0.002360
<b>Natrona</b>	25	3	358	0.008380
<b>Niobrara</b>	27	1	780	0.001282
<b>Park</b>	29	4	1984	0.002016
<b>Platte</b>	31	0	1515	0.000000
<b>Sweetwater</b>	37	0	2180	0.000000
<b>Uinta</b>	41	0	2052	0.000000
<b>State</b>		77	23387	0.003292

## Appendix G: Reporting requirements

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### Data Collected at Observation Sites

1. Standard Error of Statewide Belt Use Rate: 0.2 percent
2. Nonresponse Rate as provided in §1340.9 (f)
  - a. Nonresponse rate for the survey variable seat belt use: 0.32924 percent



PART B-DATA COLLECTED AT OBSERVATION SITES

Site ID	Site type <sup>1</sup>	Date observed	Sample weight	Number of drivers	Number of front passengers	Number of occupants <sup>2</sup> belted	Number of occupants unbelted	Number of occupants with unknown belt use
168738863	Original	6/9/2022	155.4726368	80	26	98	8	0
618090881	Original	6/10/2022	583.090379	267	79	335	11	0
168738951	Original	6/11/2022	155.4726368	88	31	109	10	0
168738951	Original	6/11/222	155.4726368	16	7	22	1	0
168743933	Original	6/10/2022	155.4726368	112	54	157	9	0
604510122	Original	6/8/2022	155.4726368	79	17	89	7	0
636266628	Original	6/11/2022	155.4726368	64	29	85	8	0
168727108	Original	6/6/2022	155.4726368	17	5	19	3	0
639960014	Original	6/7/2022	155.4726368	5	1	4	2	0
647793927	Original	6/9/2022	155.4726368	68	16	66	18	0
168722890	Original	6/12/2022	155.4726368	66	40	105	1	0
636738163	Original	6/8/2022	583.090379	146	66	198	14	0
168745002	Original	6/12/2022	155.4726368	0	0	0	0	0
604510697	Original	6/8/2022	155.4726368	39	6	35	10	0
604511968	Original	6/7/2022	583.090379	138	56	185	9	0
618003358	Original	6/9/2022	155.4726368	41	13	49	5	0
638770241	Original	6/10/2022	155.4726368	189	85	254	20	0
604518973	Original	6/7/2022	583.090379	169	82	240	11	0
604511219	Original	6/6/2022	155.4726368	27	7	32	2	0
146318369	Original	6/12/2022	148.5398532	9	6	11	4	0
146318928	Original	6/11/2022	148.5398532	23	6	19	10	0
146325041	Original	6/8/2022	148.5398532	371	80	259	183	9
146332284	Original	6/6/2022	148.5398532	76	29	72	30	3
146346598	Original	6/8/2022	148.5398532	304	65	245	120	4
146351640	Original	6/8/2022	148.5398532	258	57	202	111	2
146353423	Original	6/6/2022	148.5398532	128	34	118	41	3
607392873	Original	6/10/2022	792.4244225	232	75	223	82	2
607394482	Original	6/6/2022	148.5398532	59	21	58	19	3
607397168	Original	6/7/2022	148.5398532	30	13	29	11	3
607399730	Original	6/7/2022	148.5398532	36	8	37	6	1
607414582	Original	6/9/2022	792.4244225	147	87	201	29	4
607420517	Original	6/11/2022	148.5398532	17	6	18	5	0
607422111	Original	6/12/2022	148.5398532	6	1	5	2	0
607423196	Original	6/9/2022	148.5398532	26	7	21	12	0
641839236	Original	6/10/2022	792.4244225	145	87	191	38	3

643208992	Original	6/8/2022	148.5398532	302	33	214	109	12
643426599	Original	6/11/2022	148.5398532	0	0	0	0	0
652125140	Original	6/7/2022	148.5398532	40	24	52	10	2
148701934	Original	6/11/2022	226.711102	15	5	16	4	0
148702564	Original	6/11/2022	226.711102	22	11	31	2	0
148718040	Original	6/8/2022	226.711102	32	8	28	12	0
148722817	Original	6/12/2022	226.711102	38	16	52	2	0
148725602	Original	6/12/2022	226.711102	25	10	30	5	0
148731116	Original	6/6/2022	635.1626016	238	72	300	10	0
148751796	Original	6/8/2022	226.711102	20	8	26	2	0
148752599	Original	6/7/2022	226.711102	27	6	29	4	0
611192000	Original	6/7/2022	226.711102	11	5	14	2	0
617621426	Original	6/6/2022	226.711102	178	53	203	28	0
619629104	Original	6/10/2022	635.1626016	230	85	304	11	0
619629110	Original	6/10/2022	635.1626016	153	75	222	6	0
634320705	Original	6/9/2022	226.711102	67	23	58	32	0
636227537	Original	6/7/2022	226.711102	17	7	22	2	0
637994487	Original	6/11/2022	226.711102	21	10	30	1	0
638994654	Original	6/9/2022	226.711102	22	14	26	10	0
639992876	Original	6/10/2022	635.1626016	244	79	310	13	0
639993367	Original	6/6/2022	226.711102	97	8	68	37	0
639993412	Original	6/10/2022	635.1626016	178	71	236	13	0
146971717	Original	6/10/2022	162.1192225	72	44	93	23	0
146980885	Original	6/12/2022	162.1192225	43	15	55	3	0
146980941	Original	6/12/2022	162.1192225	60	21	74	7	0
146984416	Original	6/12/2022	162.1192225	27	11	32	6	0
146990132	Original	6/11/2022	162.1192225	44	14	47	11	0
146993382	Original	6/8/2022	162.1192225	6	3	6	3	0
146995457	Original	6/11/2022	162.1192225	53	14	49	18	0
146999038	Alternate	6/9/2022	162.1192225	1	1	2	0	0
147014967	Original	6/7/2022	162.1192225	49	7	36	19	1
606571356	Original	6/8/2022	350.6557262	154	45	172	26	1
606571652	Original	6/7/2022	350.6557262	121	46	152	14	1
606572602	Original	6/9/2022	162.1192225	7	3	5	5	0
606575905	Original	6/7/2022	162.1192225	44	9	21	32	0
606578118	Original	6/6/2022	162.1192225	7	1	3	4	1
606586736	Original	6/9/2022	350.6557262	214	58	240	30	2
626153799	Original	6/9/2022	350.6557262	144	49	185	7	1
633115075	Original	6/10/2022	350.6557262	201	83	268	15	1
636229512	Original	6/6/2022	162.1192225	3	1	2	2	0
649775037	Original	6/11/2022	162.1192225	15	4	15	4	0
148431962	Original	6/7/2022	172.4137931	48	14	48	14	0
148441014	Original	6/8/2022	172.4137931	10	3	12	1	0
148441775	Original	6/10/2022	172.4137931	20	10	29	1	0

148441785	Original	6/10/2022	172.4137931	27	10	30	7	0
148445311	Original	6/7/2022	172.4137931	63	32	85	10	0
148454705	Original	6/8/2022	172.4137931	30	13	35	8	0
148456852	Original	6/8/2022	172.4137931	25	9	31	3	0
148463881	Original	6/6/2022	172.4137931	64	35	85	14	0
148472048	Original	6/12/2022	172.4137931	103	53	127	29	0
148475885	Original	6/12/2022	172.4137931	134	73	186	21	0
148475919	Original	6/11/2022	172.4137931	121	40	132	29	0
148477019	Original	6/12/2022	172.4137931	84	25	85	24	0
631779194	Original	6/10/2022	172.4137931	55	31	74	12	0
635177424	Original	6/6/2022	172.4137931	46	16	41	21	0
636257484	Original	6/11/2022	172.4137931	56	21	58	19	0
639775718	Original	6/9/2022	639775718	248	56	211	93	0
641181624	Original	6/9/2022	172.4137931	86	14	52	48	0
641181863	Original	6/6/2022	172.4137931	0	0	0	0	0
649865571	Original	6/11/2022	172.4137931	96	45	118	23	0
159764187	Original	6/12/2022	111.7318436	1	0	1	0	0
159764392	Original	6/12/2022	111.7318436	0	0	0	0	0
159771454	Original	6/6/2022	111.7318436	29	6	29	6	0
159772596	Original	6/7/2022	111.7318436	12	1	12	1	0
159772678	Original	6/7/2022	111.7318436	10	3	8	4	1
159773125	Original	6/7/2022	111.7318436	83	25	77	31	0
159774918	Original	6/8/2022	111.7318436	72	12	55	29	0
159775310	Original	6/10/2022	111.7318436	14	1	13	2	0
159775373	Original	6/9/2022	111.7318436	46	11	54	3	0
159781512	Original	6/8/2022	111.7318436	67	6	70	3	0
159782598	Original	6/6/2022	111.7318436	39	21	38	22	0
604867100	Original	6/12/2022	111.7318436	7	1	7	1	0
604880877	Original	6/11/2022	111.7318436	41	11	37	15	0
604881016	Original	6/11/2022	111.7318436	1	0	0	1	0
604888294	Original	6/9/2022	111.7318436	15	0	7	8	0
606772650	Original	6/8/2022	111.7318436	59	8	60	6	1
619631067	Original	6/7/2022	111.7318436	4	1	3	2	0
634917921	Original	6/11/2022	111.7318436	10	3	7	6	0
647671818	Original	6/10/2022	111.7318436	11	4	13	2	0
147285886	Original	6/10/2022	268.4924151	4	2	5	1	0
147290433	Original	6/12/2022	268.4924151	69	40	104	5	0
147298892	Original	6/6/2022	268.4924151	12	3	13	2	0
147300370	Original	6/7/2022	268.4924151	31	6	21	16	0
147309909	Original	6/10/2022	268.4924151	5	3	6	2	0
147313872	Original	6/9/2022	368.8063582	77	28	94	10	1
147319715	Original	6/12/2022	268.4924151	3	0	0	3	0
147320451	Original	6/11/2022	268.4924151	9	2	7	4	0
147324875	Original	6/7/2022	268.4924151	7	2	8	1	0

147331905	Original	6/12/2022	268.4924151	4	3	6	1	0
147332534	Original	6/9/2022	268.4924151	38	8	38	8	0
147345807	Original	6/8/2022	368.8063582	0	0	0	0	0
147364519	Original	6/7/2022	368.8063582	65	33	95	3	0
147364534	Original	6/10/2022	368.8063582	188	80	250	18	0
147364570	Original	6/9/2022	368.8063582	56	23	75	4	0
624033356	Original	6/9/2022	368.8063582	81	38	114	5	0
635204131	Original	6/8/2022	368.8063582	57	39	91	5	0
638998128	Original	6/6/2022	268.4924151	87	45	119	13	0
641989342	Original	6/11/2022	368.8063582	87	46	126	7	0
160141886	Original	6/6/2022	1703.722634	0	0	0	0	0
160145209	Original	6/6/2022	1703.722634	5	1	3	3	0
160147996	Original	6/9/2022	1703.722634	119	24	127	15	1
160148711	Original	6/10/2022	1703.722634	3	0	2	1	0
160156099	Original	6/8/2022	1703.722634	16	5	18	3	0
160157250	Original	6/12/2022	1703.722634	1	0	1	0	0
160157704	Original	6/11/2022	28571.42857	119	19	132	6	0
160160330	Original	6/11/2022	29325.5132	5	4	7	2	0
160166319	Original	6/12/2022	1703.722634	3	2	3	2	0
160167102	Original	6/7/2022	1703.722634	2	0	1	1	0
160172171	Original	6/9/2022	1703.722634	1	0	1	0	0
160174678	Original	6/9/2022	1703.722634	114	20	110	23	1
636255571	Original	6/8/2022	1703.722634	0	0	0	0	0
636256531	Original	6/12/2022	1703.722634	0	0	0	0	0
636729272	Original	6/8/2022	1703.722634	1	0	0	1	0
636730637	Original	6/11/2022	1703.722634	2	1	2	1	0
637803008	Original	6/7/2022	1703.722634	2	1	3	0	0
641124702	Original	6/10/2022	1703.722634	15	10	22	2	1
644921860	Original	6/7/2022	1703.722634	34	12	35	10	1
130298740	Original	6/10/2022	150.3759398	259	49	192	114	2
130299908	Original	6/9/2022	150.3759398	46	16	60	2	0
130303875	Original	6/9/2022	150.3759398	13	2	5	10	0
130306292	Original	6/7/2022	150.3759398	20	6	23	3	0
130308829	Original	6/7/2022	150.3759398	4	0	4	0	0
130310824	Original	6/6/2022	150.3759398	26	8	31	2	1
130314675	Original	6/6/2022	150.3759398	3	0	2	1	0
130319689	Original	6/10/2022	150.3759398	2	0	1	1	0
611002737	Original	6/8/2022	150.3759398	19	4	22	1	0
611004068	Original	6/10/2022	150.3759398	136	30	129	37	0
611004702	Original	6/8/2022	150.3759398	5	2	1	6	0
611008709	Original	6/12/2022	150.3759398	137	65	180	22	0
611008801	Original	6/12/2022	150.3759398	174	79	203	50	0
611010520	Original	6/7/2022	150.3759398	12	4	16	0	0
611010998	Original	6/6/2022	150.3759398	12	4	16	0	0

611011332	Original	6/11/2022	150.3759398	24	5	18	11	0
611011802	Original	6/12/2022	150.3759398	20	4	13	11	0
627036887	Original	6/6/2022	150.3759398	48	15	60	3	0
636283143	Original	6/11/2022	150.3759398	15	3	10	8	0
149015741	Original	6/12/2022	3023.431595	0	0	0	0	0
149017914	Original	6/12/2022	3023.431595	7	4	2	9	0
149021284	Original	6/10/2022	3023.431595	5	2	3	4	0
149021340	Original	6/10/2022	3023.431595	167	27	151	42	1
149023224	Original	6/8/2022	3023.431595	6	1	7	0	0
149025690	Original	6/8/2022	3023.431595	5	2	2	5	0
149026050	Original	6/6/2022	3023.431595	2	0	2	0	0
149036602	Original	6/7/2022	3023.431595	0	0	0	0	0
607701209	Original	6/11/2022	3023.431595	19	5	16	8	0
607706998	Original	6/11/2022	3023.431595	8	1	5	4	0
607725194	Original	6/8/2022	3023.431595	3	0	2	1	0
607745764	Original	6/9/2022	3023.431595	3	0	2	1	0
607752264	Original	6/11/2022	3023.431595	10	4	13	1	0
616592941	Original	6/7/2022	3023.431595	16	2	4	14	0
619767525	Original	6/8/2022	3023.431595	8	2	9	1	0
645248806	Original	6/9/2022	3023.431595	14	2	12	4	0
645250521	Original	6/6/2022	3023.431595	5	2	5	2	0
645429047	Original	6/6/2022	3023.431595	13	0	7	5	1
649767068	Original	6/7/2022	3023.431595	13	0	7	5	1
160334025	Original	6/10/2022	52.91005291	5	2	4	3	0
160334140	Original	6/10/2022	52.91005291	5	2	5	2	0
160335469	Original	6/7/2022	52.91005291	24	11	35	0	0
160337121	Original	6/10/2022	52.91005291	8	5	8	5	0
160337706	Original	6/9/2022	52.91005291	61	22	61	22	0
160337890	Original	6/9/2022	52.91005291	61	21	50	31	1
160340671	Original	6/8/2022	52.91005291	12	6	17	1	0
160343402	Original	6/6/2022	52.91005291	26	15	40	1	0
160343488	Original	6/6/2022	52.91005291	19	12	30	1	0
160345307	Original	6/6/2022	52.91005291	87	59	141	5	0
160345416	Original	6/7/2022	52.91005291	43	23	65	1	0
160347401	Original	6/7/2022	52.91005291	79	33	111	1	0
160348556	Original	6/11/2022	52.91005291	3	0	2	1	0
160348563	Original	6/11/2022	52.91005291	4	1	2	3	0
160348662	Original	6/12/2022	52.91005291	2	1	2	1	0
160349376	Original	6/12/2022	52.91005291	10	2	12	0	0
160351777	Original	6/9/2022	52.91005291	47	20	59	8	0
607029259	Original	6/8/2022	52.91005291	6	4	7	3	0
629141912	Original	6/8/2022	52.91005291	30	9	17	22	0
149180660	Original	6/10/2022	173.9130435	39	14	38	15	0
149185417	Original	6/7/2022	173.9130435	98	78	171	5	0

149186709	Original	6/9/2022	173.9130435	33	8	40	1	0
149193121	Original	6/12/2022	173.9130435	94	49	71	72	0
149194246	Original	6/11/2022	173.9130435	9	3	6	6	0
149194593	Original	6/12/2022	173.9130435	60	29	40	49	0
149195125	Original	6/11/2022	173.9130435	48	13	31	30	0
149195916	Original	6/10/2022	173.9130435	96	27	91	32	0
149215207	Original	6/6/2022	173.9130435	124	31	112	41	2
149204979	Original	6/8/2022	173.9130435	143	33	116	60	0
149210530	Original	6/9/2022	173.9130435	31	7	32	6	0
149214639	Original	6/9/2022	173.9130435	48	31	62	16	1
612521051	Original	6/10/2022	173.9130435	57	13	55	15	0
612521597	Original	6/8/2022	173.9130435	134	53	134	52	1
612521622	Original	6/8/2022	173.9130435	165	53	174	44	0
614772268	Original	6/12/2022	173.9130435	83	35	80	38	0
636258227	Original	6/6/2022	173.9130435	7	1	4	4	0
625177708	Original	6/7/2022	173.9130435	32	23	46	9	0
639001485	Original	6/12/2022	173.9130435	132	50	77	105	0
160423647	Original	6/7/2022	366.2668254	129	56	138	47	0
160423732	Original	6/7/2022	366.2668254	115	48	132	31	0
160425500	Original	6/6/2022	168.9617302	1	0	0	1	0
160429210	Original	6/9/2022	168.9617302	5	4	6	3	0
160432818	Original	6/12/2022	168.9617302	31	14	29	16	0
160433472	Original	6/11/2022	168.9617302	57	29	69	17	0
160437396	Original	6/9/2022	366.2668254	151	70	183	38	0
160441132	Original	6/11/2022	168.9617302	75	39	72	42	0
160445645	Original	6/8/2022	168.9617302	55	9	35	29	0
604817624	Original	6/12/2022	168.9617302	23	18	33	8	0
604821509	Original	6/10/2022	168.9617302	25	6	17	14	0
604824280	Original	6/7/2022	366.2668254	103	26	106	23	0
604828880	Original	6/6/2022	168.9617302	8	1	6	3	0
604832972	Original	6/8/2022	168.9617302	17	4	11	10	0
606896274	Original	6/7/2022	168.9617302	20	7	9	18	0
633079056	Original	6/9/2022	366.2668254	83	24	80	27	0
636250523	Original	6/10/2022	168.9617302	8	1	8	1	0
638072672	Original	6/12/2022	168.9617302	24	14	35	3	0
639807648	Original	6/8/2022	366.2668254	155	60	192	23	0
149464552	Original	6/9/2022	254.6311032	44	22	41	25	0
149464581	Original	6/9/2022	254.6311032	0	0	0	0	0
149475478	Original	6/10/2022	254.6311032	65	30	69	26	0
149479278	Original	6/10/2022	254.6311032	79	31	68	42	0
149485073	Original	6/7/2022	553.4340583	110	32	95	47	0
149491408	Original	6/12/2022	254.6311032	13	9	12	10	0
149493811	Original	6/11/2022	254.6311032	14	8	9	13	0
149502295	Original	6/8/2022	254.6311032	227	43	161	109	0

149504310	Original	6/6/2022	553.4340583	166	63	166	63	0
149513299	Original	6/12/2022	254.6311032	6	1	4	3	0
618327230	Original	6/10/2022	254.6311032	56	27	50	33	0
618327614	Original	6/6/2022	553.4340583	129	47	130	46	0
618328315	Original	6/10/2022	254.6311032	66	24	51	39	0
618328331	Original	6/9/2022	254.6311032	14	8	18	4	0
618328388	Original	6/11/2022	553.4340583	198	98	188	108	0
633104861	Original	6/7/2022	553.4340583	174	64	140	98	0
634701819	Original	6/7/2022	553.4340583	171	69	167	73	0
637958402	Original	6/6/2022	254.6311032	8	2	3	7	0
646130968	Original	6/8/2022	254.6311032	42	20	45	17	0
160257919	Original	6/9/2022	132.1964439	24	8	32	0	0
160260118	Original	6/6/2022	368.7723568	135	43	178	0	0
160260328	Original	6/8/2022	368.7723568	126	44	166	4	0
160263191	Original	6/11/2022	132.1964439	57	14	59	12	0
160265104	Original	6/7/2022	132.1964439	17	4	20	1	0
160268998	Original	6/12/2022	132.1964439	21	9	30	0	0
160269191	Original	6/12/2022	132.1964439	76	50	124	2	0
160277885	Original	6/6/2022	132.1964439	87	18	92	13	0
160278319	Original	6/7/2022	132.1964439	123	28	130	21	0
160278593	Original	6/10/2022	132.1964439	42	16	44	14	0
606036141	Original	6/6/2022	132.1964439	172	45	139	78	0
606039533	Original	6/8/2022	368.7723568	149	63	208	4	0
623883922	Original	6/10/2022	132.1964439	30	15	43	2	0
627006231	Original	6/10/2022	132.1964439	155	52	178	29	0
636254190	Original	6/9/2022	368.7723568	136	79	208	7	0
637983427	Original	6/11/2022	132.1964439	5	1	6	0	0
638334180	Original	6/11/2022	132.1964439	20	10	26	4	0
638525027	Original	6/7/2022	132.1964439	15	7	20	2	0
647556320	Original	6/9/2022	368.7723568	112	44	153	3	0
				17292	6095	18805	4505	77

Standard Error of Statewide Belt Use Rate<sup>3</sup>: 0.2 percent

Nonresponse Rate as provided in §1340.9 (f)

Nonresponse rate for the survey variable seat belt use: 0.32924 percent

<sup>1</sup>Identify if the observation site is an original observation site or an alternate observation site.

<sup>2</sup>Occupants refer to both drivers and passengers

<sup>3</sup>The standard error may not exceed 2.5 percent





GET

FILE='E:\Wy SBU 22\Last Excel with Population Correction\Occupants with Urban Rural Correction.sav'.  
DATASET NAME DataSet1 WINDOW=FRONT.  
DISPLAY DICTIONARY.

**File Information: Occupants File, WY 2022**

[DataSet1] E:\Wy SBU 22\Last Excel with Population Correction\Occupants with Urban Rural Correction.sav

**Variable Information**

Variable	Position	Label	Measurement Level	Role	Column Width	Alignment
InclProbOfRoadType	1	InclProbOfRoadType	Scale	Input	12	Right
TLID	2	TLID	Scale	Input	12	Right
SRSWOR	3	SRSWOR	Scale	Input	12	Right
County	4	County	Nominal	Input	12	Right
Site#	5	Site #	Nominal	Input	12	Right
Population	6	Population	Nominal	Input	12	Right
Roadway	7	Roadway	Scale	Input	12	Right
weight	8	weight	Scale	Input	12	Right
day	9	Weekday	Nominal	Input	12	Right
observer	10	Observer	Nominal	Input	12	Right
weather	11	Weather	Nominal	Input	12	Right
lanes	12	Lanes	Nominal	Input	12	Right
direction	13	Road Direction	Nominal	Input	1	Left
occupGender	14	Gender	Nominal	Input	12	Right
occupBelt	15	Seat Belt Use	Nominal	Input	12	Right
carType	16	Vehicle Type	Nominal	Input	12	Right
wyPlate	17	WY License	Nominal	Input	12	Right
timeStamp	18	Time	Nominal	Input	12	Right
SRSWORinvert	19	SRSWORinvert	Scale	Input	14	Right
Roadway2	20	Roadway2	Nominal	Input	10	Right

Variable Information

Variable	Print Format	Write Format
InclProbOfRoadType	F12.4	F12.4
TLID	F12	F12
SRSWOR	F12.4	F12.4
County	F12	F12
Site#	F12	F12
Population	F12	F12
Roadway	F12	F12
weight	F12.4	F12.4
day	F12	F12
observer	F12	F12
weather	F12	F12
lanes	F12	F12
direction	A1	A1
occupGender	F12	F12
occupBelt	F12	F12
carType	F12	F12
wyPlate	F12	F12
timeStamp	F12	F12
SRSWORinvert	F12.4	F12.4
Roadway2	F8	F8

Variables in the working file

Variable Values

Value		Label
County	1	Albany
	5	Campbell
	7	Carbon
	9	Converse
	13	Fremont
	15	Goshen
	19	Johnson
	21	Laramie
	23	Lincoln
	25	Natrona
	27	Niobrara
	29	Park
	31	Platte
	37	Sweetwater
Population	41	Uinta
	1	Urban
day	2	Rural
	1	Sunday
	2	Monday
	3	Tuesday
	4	Wednesday
	5	Thursday
	6	Friday
observer	7	Saturday
	1	Donna Lucas
	23	Monty Byers
	35	Kayla Schear
	41	Patrick White
	44	Doug Peterson
	47	Dixie Elder
	51	Susan Parkinson
	69	Lori Cole
	80	Bryan Shannon
	83	Mindy McKinley
86	Amy Still	
87	Sandra Gabel	
88	Casey Krauter	

**Variable Values**

Value		Label
	89	Kim Brattis
	90	Malina Boardman
weather	1	Clear/Sunny
	2	Cloudy
	3	Foggy
	4	Light Rain
	5	Snow/Ice
	6	Heavy Rain
	7	Occasional Rain
lanes	1	One Lane
	2	Two Lanes
direction	1	North
	2	South
	3	East
	4	West
occupGender	1	Male
	2	Female
occupBelt	1	Belted
	2	Not Belted
	3	Unsure
	4	PU Truck
carType	1	Auto
	2	Van
	3	SUV
	4	PU Truck
wyPlate	1	Yes
	2	No
	9	Unsure
timeStamp	1	7:30-9:30 AM
	2	9:30-11:30 AM
	3	11:30-1:30 PM
	4	1:30-3:30 PM
	5	3:30-5:30 PM

**Variable Values**

Value	Label
Roadway2 11	S1100-Primary Road
12	S1200-Secondary Road
14	S1400-Local/Rural/City

Report prepared by:

