

Nebraska Child Safety Seat Use 2021 Data Collection Report

Prepared: September 2021

Nebraska Child Safety Seat Use Survey

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Nebraska Child Safety Seat Use Survey

2021 Data Collection

Methodology Report

September 30, 2021

Introduction

In 2021, Bureau of Sociological Research (BOSR) at the University of Nebraska – Lincoln was contracted by the Nebraska Department of Transportation (NDOT) to collect child safety seat use observations in seven counties in Nebraska. The 2021 data collection was the first year BOSR conducted the data collection.

Preparation

BOSR prepared materials, recruited and trained personnel, and scheduled data collection for the 2021 administration. Seven counties were identified by NDOT for the project, including Douglas, Lancaster, Madison, Phelps, Sarpy, Saunders, and Wayne. BOSR then identified five sites per county in Douglas and Lancaster Counties (Urban counties) and four sites per county in Madison, Phelps, Sarpy, Saunders, and Wayne Counties (Rural counties). These sites were chosen because they allow for safe data collection at intersections with high volumes of traffic. Also, at least one site in each rural county was located outside of a town or city. The sites were reviewed and approved by NDOT.

Materials Preparation

BOSR prepared maps for data collectors to understand where they were to observe traffic. Data collectors were provided with the necessary field equipment, including safety vests, vehicle lights, and stopwatch. Data collection forms were printed. Data collection schedules were prepared for each site and administrative procedures were documented.

Notification

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

Data Collection Staff Training and Quality Control

BOSR employed two data collectors in 2021. These data collectors were responsible for between nine and 33 sites each. Quality Control functions were carried out by one BOSR staff member. The two data collectors were trained on the background and purpose of the study, data collection procedures, a review of the necessary forms, COVID policies, travel and transportation instructions, and next steps. Each data collector was monitored for Quality Control twice during data collection.

Observation Protocols and Procedures

Data collectors observed child passengers up to six years of age in safety and booster seats in the front and back seats. Each site was observed for 60 minutes. The initial round of data were collected August 23 through August 27. The number of observations in Phelps, Madison, and Saunders Counties were quite low. As a result, additional data were collected in these counties September 20 through September 22. One site in both Phelps and Madison

Counties had zero observations during the initial data collection wave. These sites were replaced with another site expecting to have more observations in the second wave of data collection.

Data collectors completed two forms in the field, the Observation Site Form and the Observation Count Form, which are shown in Appendices A and B. The Observation Site Form documented descriptive information about each site. Data collectors recorded information including observation date, site location and number, traffic directions and lanes available and observed, start and end times for observations, and weather conditions.

Questions

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

Results

The results of the 2021 Nebraska Child Safety Seat Use Survey data collection can be observed in Table 1 and Table 2 below. Of the 765 children observed, 3.4% (n=26) had a child safety/booster seat usage that was unknown and were subsequently removed from the results. Of the 739 eligible observations, 73.7% of children were observed in child safety/booster seats. Of those in child safety/booster seats, 88.8% were in the rear seats of the vehicles observed, 11.0% were in the front seats, and 0.2% were in vehicles that did not have a rear seat. Of the 26.3% of children who were not in safety/booster seats, 42.8% were traveling in the rear seats, 56.2% were traveling in the front seats, and 1.0% were in vehicles that did not have a rear seat.

When comparing rural counties versus urban counties, 60.4% of all safety/booster seat observations were made in the four rural counties (Madison, Saunders, Phelps, and Wayne) and 39.6% were made in the three urban counties (Douglas, Lancaster, and Sarpy). Of children observed in the four rural counties, 75.3% were in child safety/booster seats. Of the rural children in child safety/booster seats, 86.9% were in the rear seats of the vehicles observed, 12.8% were in the front seats, and 0.3% were in vehicles that did not have a rear seat. Of the children observed in the three urban counties, 71.3% were in child safety/booster seats. Of the urban children in child safety/booster seats, 91.9% were in the rear seats of the vehicles observed and 8.1% were in the front seats. Of the children not in safety/booster seats in the rural counties, 39.1% were in the rear seats, 60.0% were in the front seats, and 0.9% were in vehicles that did not have a rear seat. In the urban counties, of the children not in safety seat/booster seats, 47.6% were in the rear seats, 51.2% were in the front seats, and 1.2% were in vehicles that did not have a rear seat.

Table 1. 2021 Child Safety Seat Usage

| Site | County Type | Total Observations | Total No. with Seats | | | | Total No. without Seats | | | |
|---------------|-------------|--------------------|----------------------|------------|----------|------------|-------------------------|-----------|----------|------------|
| | | | Front Seat | Back Seat | NA | Total | Front Seat | Back Seat | NA | Total |
| 1 | Rural | 55 | 5 | 29 | 0 | 34 | 11 | 10 | 0 | 21 |
| 2 | Rural | 8 | 1 | 6 | 0 | 7 | 0 | 1 | 0 | 1 |
| 3 | Rural | 27 | 4 | 18 | 0 | 22 | 5 | 0 | 0 | 5 |
| 4 | Rural | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Rural | 3 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 |
| 6 | Rural | 20 | 3 | 14 | 0 | 17 | 1 | 2 | 0 | 3 |
| 7 | Rural | 6 | 1 | 4 | 0 | 5 | 1 | 0 | 0 | 1 |
| 8 | Rural | 43 | 3 | 30 | 0 | 33 | 8 | 2 | 0 | 10 |
| 9 | Rural | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | Rural | 50 | 3 | 32 | 0 | 35 | 10 | 5 | 0 | 15 |
| 11 | Rural | 72 | 10 | 40 | 0 | 50 | 12 | 10 | 0 | 22 |
| 12 | Rural | 10 | 1 | 6 | 0 | 7 | 2 | 1 | 0 | 3 |
| 13 | Rural | 8 | 0 | 7 | 0 | 7 | 0 | 1 | 0 | 1 |
| 14 | Rural | 21 | 6 | 10 | 0 | 16 | 4 | 0 | 1 | 5 |
| 15 | Rural | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Rural | 12 | 2 | 8 | 0 | 10 | 2 | 0 | 0 | 2 |
| 17 | Rural | 10 | 0 | 7 | 0 | 7 | 2 | 1 | 0 | 3 |
| 18 | Rural | 12 | 2 | 7 | 0 | 9 | 0 | 3 | 0 | 3 |
| 19 | Urban | 52 | 3 | 33 | 0 | 36 | 8 | 7 | 1 | 16 |
| 20 | Urban | 66 | 5 | 42 | 0 | 47 | 7 | 12 | 0 | 19 |
| 21 | Urban | 24 | 5 | 15 | 0 | 20 | 3 | 1 | 0 | 4 |
| 22 | Urban | 19 | 1 | 7 | 0 | 8 | 9 | 2 | 0 | 11 |
| 23 | Urban | 12 | 3 | 7 | 0 | 10 | 1 | 1 | 0 | 2 |
| 24 | Urban | 22 | 0 | 18 | 0 | 18 | 1 | 3 | 0 | 4 |
| 25 | Urban | 13 | 0 | 12 | 0 | 12 | 1 | 0 | 0 | 1 |
| 26 | Urban | 4 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 |
| 27 | Urban | 5 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 0 |
| 28 | Urban | 76 | 0 | 49 | 0 | 49 | 13 | 14 | 0 | 27 |
| 29 | Rural | 37 | 0 | 24 | 0 | 24 | 7 | 6 | 0 | 13 |
| 30 | Rural | 26 | 0 | 25 | 0 | 25 | 0 | 1 | 0 | 1 |
| 31 | Rural | 4 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 |
| 32 | Rural | 22 | 0 | 20 | 1 | 21 | 1 | 0 | 0 | 1 |
| Totals | | 739 | 60 | 484 | 1 | 545 | 109 | 83 | 2 | 194 |

Table 2. 2021 Child Safety Seat Usage by County and Urban-Rural Classification

| | Number of Observations | Percent of Observations | Percent Restrained Overall | Percent Not Restrained Overall | Percent Restrained | | | Percent Not Restrained | | |
|--------------|------------------------|-------------------------|----------------------------|--------------------------------|--------------------|--------------|-------------|------------------------|--------------|-------------|
| | | | | | Front Seat | Back Seat | NA | Front Seat | Back Seat | NA |
| Douglas | 173 | 23.4% | 69.9% | 30.1% | 14.0% | 86.0% | -- | 53.8% | 44.2% | 1.9% |
| Lancaster | 120 | 16.2% | 73.3% | 26.7% | -- | 100.0% | -- | 46.9% | 53.1% | -- |
| Madison | 119 | 16.1% | 75.6% | 24.4% | 11.1% | 88.9% | -- | 69.0% | 31.0% | -- |
| Sarpy | 89 | 12.0% | 83.1% | 16.9% | -- | 98.6% | 1.4% | 53.3% | 46.7% | -- |
| Saunders | 111 | 15.0% | 72.1% | 27.9% | 21.3% | 78.8% | -- | 58.1% | 38.7% | 3.2% |
| Phelps | 93 | 12.6% | 71.0% | 29.0% | 18.2% | 81.8% | -- | 59.3% | 40.7% | -- |
| Wayne | 34 | 4.6% | 76.5% | 23.5% | 15.4% | 84.6% | -- | 50.0% | 50.0% | -- |
| | | | | | | | | | | |
| Urban | 293 | 39.6% | 71.3% | 28.7% | 8.1% | 91.9% | -- | 51.2% | 47.6% | 1.2% |
| Rural | 446 | 60.4% | 75.3% | 24.7% | 12.8% | 86.9% | 0.3% | 60.0% | 39.1% | 0.9% |
| Total | 739 | | 73.7% | 26.3% | 11.0% | 88.8% | 0.2% | 56.2% | 42.8% | 1.0% |

Appendix A. Observation Site Form 2021

Nebraska Child Safety Survey

Site Form

Data Collector: _____

Date: ____ / ____ / 2021

Site Identification:

| | |
|----------------------------------|--|
| County: «County» | ID: _____ |
| Road Name: «Road_name911» | County Site #: «County_map_inset » |

Site Start and End Time:

| |
|--|
| Start time for observations: _____ am/pm |
| End time for observations: _____ am/pm |
| <small>(Total observation period MUST last exactly 60 minutes)</small> |

Site Description:

| |
|---|
| Selected traffic flow direction: North South East West |
| Total number of lanes in selected direction: _____ |
| Weather Conditions: Clear Cloudy/PC Light Fog Light Rain |

Appendix B. Observation Count Form 2021

Nebraska Child Safety Survey – Observation Form

County: _____

Page ___ of ___

County site #: _____

ID #: _____

Data Collector ID# _____

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

| VEHICLE NUMBER | CHILD SAFETY SEAT USE | | | FRONT SEAT OR BACK SEAT | | |
|----------------|-----------------------|---|---|-------------------------|---|----|
| | Y | N | U | F | B | NA |
| 1 | Y | N | U | F | B | NA |
| 2 | Y | N | U | F | B | NA |
| 3 | Y | N | U | F | B | NA |
| 4 | Y | N | U | F | B | NA |
| 5 | Y | N | U | F | B | NA |
| 6 | Y | N | U | F | B | NA |
| 7 | Y | N | U | F | B | NA |
| 8 | Y | N | U | F | B | NA |
| 9 | Y | N | U | F | B | NA |
| 10 | Y | N | U | F | B | NA |
| 11 | Y | N | U | F | B | NA |
| 12 | Y | N | U | F | B | NA |
| 13 | Y | N | U | F | B | NA |
| 14 | Y | N | U | F | B | NA |
| 15 | Y | N | U | F | B | NA |
| 16 | Y | N | U | F | B | NA |
| 17 | Y | N | U | F | B | NA |
| 18 | Y | N | U | F | B | NA |
| 19 | Y | N | U | F | B | NA |
| 20 | Y | N | U | F | B | NA |
| 21 | Y | N | U | F | B | NA |
| 22 | Y | N | U | F | B | NA |
| 23 | Y | N | U | F | B | NA |
| 24 | Y | N | U | F | B | NA |
| 25 | Y | N | U | F | B | NA |
| 26 | Y | N | U | F | B | NA |
| 27 | Y | N | U | F | B | NA |
| 28 | Y | N | U | F | B | NA |
| 29 | Y | N | U | F | B | NA |
| 30 | Y | N | U | F | B | NA |
| 31 | Y | N | U | F | B | NA |
| 32 | Y | N | U | F | B | NA |
| 33 | Y | N | U | F | B | NA |
| 34 | Y | N | U | F | B | NA |
| 35 | Y | N | U | F | B | NA |
| 36 | Y | N | U | F | B | NA |
| 37 | Y | N | U | F | B | NA |
| 38 | Y | N | U | F | B | NA |
| 39 | Y | N | U | F | B | NA |
| 40 | Y | N | U | F | B | NA |

| VEHICLE NUMBER | CHILD SAFETY SEAT USE | | | FRONT SEAT OR BACK SEAT | | |
|----------------|-----------------------|---|---|-------------------------|---|----|
| | Y | N | U | F | B | NA |
| 41 | Y | N | U | F | B | NA |
| 42 | Y | N | U | F | B | NA |
| 43 | Y | N | U | F | B | NA |
| 44 | Y | N | U | F | B | NA |
| 45 | Y | N | U | F | B | NA |
| 46 | Y | N | U | F | B | NA |
| 47 | Y | N | U | F | B | NA |
| 48 | Y | N | U | F | B | NA |
| 49 | Y | N | U | F | B | NA |
| 50 | Y | N | U | F | B | NA |
| 51 | Y | N | U | F | B | NA |
| 52 | Y | N | U | F | B | NA |
| 53 | Y | N | U | F | B | NA |
| 54 | Y | N | U | F | B | NA |
| 55 | Y | N | U | F | B | NA |
| 56 | Y | N | U | F | B | NA |
| 57 | Y | N | U | F | B | NA |
| 58 | Y | N | U | F | B | NA |
| 59 | Y | N | U | F | B | NA |
| 60 | Y | N | U | F | B | NA |
| 61 | Y | N | U | F | B | NA |
| 62 | Y | N | U | F | B | NA |
| 63 | Y | N | U | F | B | NA |
| 64 | Y | N | U | F | B | NA |
| 65 | Y | N | U | F | B | NA |
| 66 | Y | N | U | F | B | NA |
| 67 | Y | N | U | F | B | NA |
| 68 | Y | N | U | F | B | NA |
| 69 | Y | N | U | F | B | NA |
| 70 | Y | N | U | F | B | NA |
| 71 | Y | N | U | F | B | NA |
| 72 | Y | N | U | F | B | NA |
| 73 | Y | N | U | F | B | NA |
| 74 | Y | N | U | F | B | NA |
| 75 | Y | N | U | F | B | NA |
| 76 | Y | N | U | F | B | NA |
| 77 | Y | N | U | F | B | NA |
| 78 | Y | N | U | F | B | NA |
| 79 | Y | N | U | F | B | NA |
| 80 | Y | N | U | F | B | NA |

Appendix C. AAPOR Transparency Initiative Immediate Disclosure Items

1. Who sponsored the research study. **Introduction**
2. Who conducted the research study. **Introduction**
3. The unit of analysis (e.g., a news article, broadcast, tweet, or blog posting). **Preparation; Observation Protocols and Procedures**
4. Dates of data collection. **Observation Protocols and Procedures**
5. A description of how the content analyzed was collected or obtained. This will include the source(s) used, how much content was analyzed (e.g., number and average length of articles, tweets or blog postings, news broadcasts), and criteria or decision rules used to include or exclude elements of content. **Observation Protocols and Procedures; Results**
6. The sampling approach used. If a census of the target population of content was used, that will be explicitly stated. **Preparation; Observation Protocols and Procedures**
7. A description of how the weights were calculated, including the variables used and the sources of weighting parameters, if weighted estimates are reported. **Not applicable**
8. Contact for obtaining more information about the study. **Questions**