BOSR
Bureau of Sociological Research

# Nebraska Child Safety Seat Use 2023 Data Collection Report

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ASSOCIATION OF ACADEMIC SURVEY RESEARCH ORGANIZATIONS
AASRO

Charter Member
AAPOR Transparency Initiative
AMERICAN ASSOCIATION FOR PUBLIC OPINION RESEARCH

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

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## Introduction

In 2023, the 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 nine counties in Nebraska. The 2023 data collection was the second year BOSR conducted the data collection. BOSR prepared materials, recruited and trained personnel, and scheduled data collection for the 2023 administration.

## Sample Design

Nine counties were identified by NDOT for the project, including Buffalo, Douglas, Hall, Lancaster, Lincoln, Madison, Sarpy, Scottsbluff, and Wayne. BOSR then identified four sites per county in Douglas, Lancaster, and Sarpy Counties (urban counties) and three sites per county in Buffalo, Hall, Lincoln, Madison, Scottsbluff, and Wayne Counties (rural counties).

In each county, BOSR identified businesses, schools, childcare centers, and other local attractions (e.g., zoos, museums, parks, etc.) for data collection. Site selection and the day of week and time of day for data collection at each site was focused on maximizing the likelihood of observing vehicles with children eight years of age and younger. BOSR also selected varying types of sites within each county to help gather responses from as many different types of people as possible. BOSR then worked with each site to gather permission to collect data on their property, as needed. The NDOT Highway Safety Office Administrator worked with the traffic engineering department to secure a letter for data collectors to present if questioned during the data collection period.

## Data Collection Staff Training and Quality Control

BOSR employed three data collectors in 2023. These data collectors were responsible for between four and 13 sites each. Quality control functions were carried out by two BOSR staff members. The three data collectors were trained on the background and purpose of the study, data collection procedures, a review of the necessary forms, travel and transportation instructions, and next steps. Data collectors were monitored for quality control once during data collection.

BOSR prepared schedules for data collectors that included information about each site that was necessary for data collection (e.g., date and time of data collection, name and address of site, name and contact information for point of contact at each site, and any additional site-specific details). Data collectors were provided with the necessary field equipment, including safety vests, tablets, name tags, and NDOT safety seat information cards. Data collection forms were completed electronically through an offline Qualtrics app.

## Observation Protocols and Procedures

Data collectors observed child passengers up to eight years of age in car seats and booster seats in the front and back seats of vehicles at each selected site. When possible, data collectors would stop each vehicle to determine if any children eight years of age or younger were present in the vehicle. If one or more eligible children were present in the vehicle, information was then collected on whether or not the children were secured in their safety seat and if the children were seated in the front seat or back seat. See Figure 1 below for child safety seat data collection categories. If unable to stop vehicles at a site, data collectors would observe from a distance or ask the driver of the vehicle to verbally provide this information after they had entered or exited the vehicle. Safety seat information cards were provided by NDOT and, when possible, distributed by data collectors to vehicles with children in the eligible age range. These safety seat information cards were available in English and Spanish.

Each site was observed for a minimum of 60 minutes. After the initial 60 minutes, if the data collector did not

observe 10 vehicles with children eight years of age or younger, data collectors remained at the site until they observed 10 vehicles with children in the eligible age range or until they needed to leave for the next site. All sites in each county were observed within one day. Data were collected September 6 through September 19. Data collectors completed the Observation Count Form while in the field. This form can be found in Appendix A.

**Figure 1. Child Secured in Safety Seat Categories**

| Code | Label | Definition |
|---|---|---|
| Y | Yes, in safety seat | A child eight years of age or younger is secure in a safety seat (car seat or booster seat). |
| N | No, not in safety seat | A child eight years of age or younger is not secure in a safety seat (car seat or booster seat). |
| U | Unknown | It cannot reasonably be determined whether a child eight years of age or younger is secure in a safety seat. |
| F | Front seat | The child eight years of age or younger is in the front seat. |
| B | Back seat | The child eight years of age or younger is in the back seat. |
| N/A | Not applicable | The vehicle does not have a back seat (e.g., a pickup truck). |

## Data Processing and Cleaning

Since the observation count forms were entered directly into a computerized instrument by the data collectors, they required no additional data entry or data processing steps. The data were exported from Qualtrics into a Statistical Package for the Social Sciences (SPSS) system file. The data were then stored on a secure server located within the Sociology Department at UNL. BOSR first removed any observations that were made in error. The next step in data cleaning was to review frequency distributions for each variable in the survey and check for out-of-range values on all survey items. BOSR then checked general site information (e.g., county name, site number) for accuracy. The final step was to evaluate whether each vehicle had an observation of at least one child. When a vehicle had a child observation recorded and no seat information recorded, the seat observation was recoded to n/a. When a vehicle had a seat observation recorded and no child information recorded, the child observation was recoded to unknown.

The dataset was imported into SAS for further processing and analysis. For the secured rate, unknown observations were excluded. The secured rate is calculated as a proportion. No imputation was conducted. Because the sites were a nonprobability sample of sites in Nebraska counties, no weights were used in this analysis.

## Limitations

Only businesses, schools, childcare centers, and other local attractions (e.g., zoos, museums, parks, etc.) that allowed the data collection on their property were included in this study. Results from these sites may not necessarily be representative of child safety seat usage across Nebraska. Observations were conducted within a two-week period during the month of September and may exclude children eight years of age or younger that did not ride in a vehicle during this time. Only passenger motor vehicles such as cars, pickup trucks, minivans, and sport utility vehicles were observed. Buses and large passenger vans were excluded from this study. Vehicles that belong to out-of-state residents are included in this study. Observations may vary across individual data collectors. Sites in the same county were assigned to be visited on the same day to help reduce data collector travel costs; as such, county estimates reflect only one day of the week. Data collectors only spoke English. As a result, those who did not understand English may have been excluded from this study.

## 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 2023 Nebraska Child Safety Seat Use Survey data collection can be observed in Table 1 and Table 2 below. Of the 590 children observed, 2.9% (n=17) had a child safety/booster seat usage that was unknown and were subsequently removed from the results. Of the 573 eligible observations, 87.3% (n=500) of children were observed in child safety/booster seats. Of those in child safety/booster seats, 99.0% (n=495) were in the rear seats of the vehicles observed, 0.6% were in the front seats, and 0.4% were in vehicles that did not have a rear seat or a seat could not be determined. Of the 73 children who were not in safety/booster seats, 69.9% (n=51) were traveling in the rear seats, 30.1% (n=22) were traveling in the front seats, and 0% were in vehicles that did not have a rear seat.

When comparing rural counties versus urban counties, 60.9% of all safety/booster seat observations were made in the six rural counties (Buffalo, Hall, Lincoln, Madison, Scottsbluff, and Wayne) and 39.1% were made in the three urban counties (Douglas, Lancaster, and Sarpy). Of children observed in the six rural counties, 82.5% were in child safety/booster seats. Of the rural children in child safety/booster seats, 98.6% were in the rear seats of the vehicles observed, 0.7% were in the front seats, and 0.7% were in vehicles that did not have a rear seat. Of the children observed in the three urban counties, 94.6% were in child safety/booster seats. Of the urban children in child safety/booster seats, 99.5% were in the rear seats of the vehicles observed and 0.5% were in the front seats. Of the children not in safety/booster seats in the rural counties, 65.6% were in the rear seats, 34.4% were in the front seats, and 0% were in vehicles that did not have a rear seat. In the urban counties, of the children not in safety seat/booster seats, 91.7% were in the rear seats, 8.3% were in the front seats, and 0% were in vehicles that did not have a rear seat.

Table 1. 2023 Child Safety Seat Usage Among Known Observations

| | | | Total No. Secured in Safety Seats | | | | Total No. Not Secured in Safety Seats | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Site** | **County Type** | **Total Observations** | **Front Seat** | **Back Seat** | **N/A** | **Total** | **Front Seat** | **Back Seat** | **N/A** | **Total** |
| 1 | Rural | 13 | 0 | 13 | 0 | 13 | 0 | 0 | 0 | 0 |
| 2 | Rural | 26 | 0 | 26 | 0 | 26 | 0 | 0 | 0 | 0 |
| 3 | Rural | 16 | 0 | 16 | 0 | 16 | 0 | 0 | 0 | 0 |
| 4 | Rural | 8 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 |
| 5 | Rural | 14 | 0 | 14 | 0 | 14 | 0 | 0 | 0 | 0 |
| 6 | Rural | 10 | 0 | 9 | 0 | 9 | 0 | 1 | 0 | 1 |
| 7 | Rural | 20 | 0 | 20 | 0 | 20 | 0 | 0 | 0 | 0 |
| 8 | Rural | 6 | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 |
| 9 | Rural | 29 | 0 | 23 | 0 | 23 | 2 | 4 | 0 | 6 |
| 10 | Rural | 49 | 2 | 22 | 0 | 24 | 7 | 18 | 0 | 25 |
| 11 | Rural | 17 | 0 | 16 | 0 | 16 | 0 | 1 | 0 | 1 |
| 12 | Rural | 19 | 0 | 9 | 0 | 9 | 8 | 2 | 0 | 10 |
| 13 | Rural | 26 | 0 | 26 | 0 | 26 | 0 | 0 | 0 | 0 |
| 14 | Rural | 4 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 |
| 15 | Rural | 48 | 0 | 31 | 2 | 33 | 4 | 11 | 0 | 15 |
| 16 | Rural | 31 | 0 | 31 | 0 | 31 | 0 | 0 | 0 | 0 |
| 17 | Rural | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 18 | Rural | 12 | 0 | 9 | 0 | 9 | 0 | 3 | 0 | 3 |
| 19 | Urban | 18 | 0 | 11 | 0 | 11 | 0 | 7 | 0 | 7 |
| 20 | Urban | 23 | 0 | 23 | 0 | 23 | 0 | 0 | 0 | 0 |
| 21 | Urban | 23 | 0 | 23 | 0 | 23 | 0 | 0 | 0 | 0 |
| 22 | Urban | 22 | 0 | 22 | 0 | 22 | 0 | 0 | 0 | 0 |
| 23 | Urban | 25 | 1 | 24 | 0 | 25 | 0 | 0 | 0 | 0 |
| 24 | Urban | 13 | 0 | 13 | 0 | 13 | 0 | 0 | 0 | 0 |
| 25 | Urban | 15 | 0 | 15 | 0 | 15 | 0 | 0 | 0 | 0 |
| 26 | Urban | 22 | 0 | 19 | 0 | 19 | 1 | 2 | 0 | 3 |
| 27 | Urban | 15 | 0 | 13 | 0 | 13 | 0 | 2 | 0 | 2 |
| 28 | Urban | 15 | 0 | 15 | 0 | 15 | 0 | 0 | 0 | 0 |
| 29 | Urban | 20 | 0 | 20 | 0 | 20 | 0 | 0 | 0 | 0 |
| 30 | Urban | 13 | 0 | 13 | 0 | 13 | 0 | 0 | 0 | 0 |
| **Totals** | | **573** | **3** | **495** | **2** | **500** | **22** | **51** | **0** | **73** |

Table 2. 2023 Child Safety Seat Usage by County and Urban-Rural Classification Among Known Observations

| | Number of Observations | Percent of Observations | Percent Secured in Safety Seats Overall | Percent Not Secured in Safety Seats Overall | | Percent Secured in Safety Seats | | | Percent Not Secured in Safety Seats | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Front Seat | Back Seat | N/A | Front Seat | Back Seat | N/A |
| Buffalo | 55 | 9.6% | 100% | 0% | | 0% | 100% | 0% | 0% | 0% | 0% |
| Douglas | 86 | 15.0% | 91.9% | 8.1% | | 0% | 100% | 0% | 0% | 0% | 0% |
| Hall | 32 | 5.6% | 96.9% | 3.1% | | 0% | 100% | 0% | 0% | 100% | 0% |
| Lancaster | 75 | 13.1% | 96.0% | 4.0% | | 1.4% | 98.6% | 0% | 33.3% | 66.7% | 0% |
| Lincoln | 55 | 9.6% | 89.1% | 10.9% | | 0% | 100% | 0% | 33.3% | 66.7% | 0% |
| Madison | 85 | 14.8% | 57.6% | 42.4% | | 4.1% | 95.9% | 0% | 41.7% | 58.3% | 0% |
| Scottsbluff | 78 | 13.6% | 80.8% | 19.2% | | 0% | 96.8% | 3.2% | 26.7% | 73.3% | 0% |
| Sarpy | 63 | 11.0% | 96.8% | 3.2% | | 0% | 100% | 0% | 0% | 100% | 0% |
| Wayne | 44 | 7.7% | 93.2% | 6.8% | | 0% | 100% | 0% | 0% | 100% | 0% |
| | | | | | | | | | | | |
| Urban | 224 | 39.1% | 94.6% | 5.4% | | 0.5% | 99.5% | 0.0% | 8.3% | 91.7% | 0% |
| Rural | 349 | 60.9% | 82.5% | 17.5% | | 0.7% | 98.6% | 0.7% | 34.4% | 65.6% | 0% |
| **Total** | **573** | **100%** | **87.3%** | **12.7%** | | **0.6%** | **99.0%** | **0.4%** | **30.1%** | **69.9%** | **0%** |

## Appendix A. Observation Count Form 2023

Data Collector Name

County

Site

→

How many children (eight years old or younger) are in the vehicle?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6

← →

## Description

| | Was this child secured in a child safety seat? | | | Which part of the vehicle was this child in? | | |
|---|---|---|---|---|---|---|
| | Yes | No | Unknown | Front | Back | N/A |
| Child 1 | ○ | ○ | ○ | ○ | ○ | ○ |
| Child 2 | ○ | ○ | ○ | ○ | ○ | ○ |
| Child 3 | ○ | ○ | ○ | ○ | ○ | ○ |
| Child 4 | ○ | ○ | ○ | ○ | ○ | ○ |
| Child 5 | ○ | ○ | ○ | ○ | ○ | ○ |
| Child 6 | ○ | ○ | ○ | ○ | ○ | ○ |

← →

## Comments (Was this count recorded by observation only (vehicle did not stop), language barrier may have affected responses, etc)

← →

Select the next arrow below to finish this survey.

←

→

## Appendix B. AAPOR Transparency Initiative Immediate Disclosure Items

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

   **Observation Protocols and Procedures**

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

   **Introduction**

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

   **Appendix A**

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

   **Sample Design and Observation Protocols and Procedures**

5. Dates of data collection.

   **Observation Protocols and Procedures**

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

   **Sample Design**

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

   **Sample Design**

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

   **Sample Design and Observation Protocols and Procedures**

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

   **Sample Design**

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

    **Observation Protocols and Procedures**

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

adjusted for the design effect due to weighting, clustering, or other factors. Reports of non-probability sample surveys will only provide measures of precision if they are defined and accompanied by a detailed description of how the underlying model was specified, its assumptions validated and the measure(s) calculated.

**Sample Design**

12. 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**

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

    **Data Processing and Cleaning**

14. Contact for obtaining more information about the study.

    **Questions**

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

    **Limitations**