

## NEVADA'S TRAFFIC RESEARCH AND EDUCATION NEWSLETTER

**TREND In Focus: Nevada Non-Adjudicated Child Passenger Safety Citations (2018-2021)**

By Emily Strickler, MPH, Merika Charupoom, Ana Reyes, MS, Kalen de la Garza, Laura K. Gryder, MA, and Deborah A. Kuhls, MD

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September is National Child Passenger Safety (CPS) Month, which offers an opportunity for parents and guardians to make sure they are up to date on Nevada's CPS law, as well as to conduct an annual check that their child is using the correct restraint for their age, height, and weight. In 2020, there were 656 deaths of child occupants between the ages of 0-12 years in motor vehicle crashes in the U.S. [1].

Appropriately selected and installed Child Restraint Systems (CRS) can reduce the risk of death by as much as 71% [2]. According to the National Highway Safety Association (NHTSA), many kids 8 to 12 years old still need to use a booster seat [2]. It is important to make sure they ride in a booster seat until they outgrow the size limits of their booster, or until they are big enough for an adult seat belt to fit them properly. Appropriate progression from one CRS to the next is based on the child's age, weight, height, and product manufacturer limits to ensure restraint effectiveness in the event of a motor vehicle crash.

According to the Nevada Department of Motor Vehicles, 7 out of 10 child safety seats are installed improperly, which is why it is important to be up to date on manufacturer recalls and inspection (see page 3 for inspection site resources near you) [3]. This TREND In Focus analysis investigates the prevalence and demographics of Nevada drivers who were cited for CPS-related violations from 2018-2021 (N=2,265).

**Results****Overview**

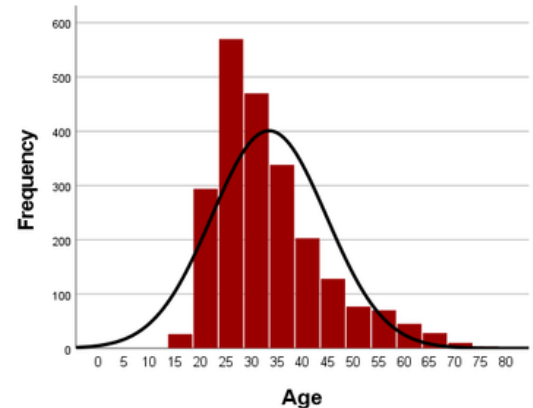
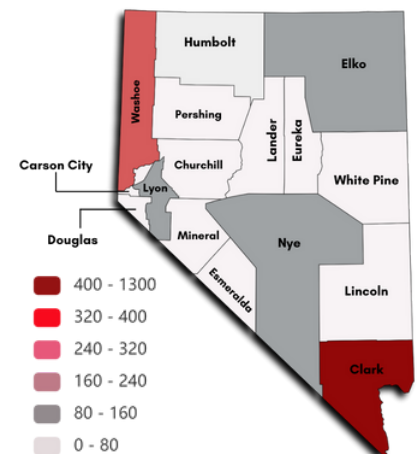
According to best practice guidelines, rear-facing car seats are used for children  $\leq 2$  years old, forward-facing seats are for children between 2-3 years old, and children ages 4-7 are typically restrained in booster seats [3]. Beginning 2022, Nevada's car seat laws were revised requiring that children under 6 years old and under 57 inches tall be restrained in a child restraint system (CRS) that is appropriate for size and weight of the child. Drivers cited for failing to secure children in proper CRS will face fines or community service hours (NRS 484B.175). From 2018-2021 there were 1,425,762 traffic citations issued by law enforcement in Nevada. Of those, 2,265 (0.16%) were CPS-Related violations.

**Demographics**

Drivers issued a CPS-related citation were on average (mean) 33.5 years of age (median 31, Interquartile Range 26-38.5 years) (Fig.1). **Approximately one-quarter (25.0%) of all CPS-related citations were issued to drivers between 26-30 years old. Women were more frequently cited than men (53.4% vs. 46.6%).** The race and ethnicity breakdown for CPS-related violation citations were: White (37.5%), Black (21.5%), Hispanic (11.0%), Asian (2.4%), and Indian (Native American) (1.4%), with 26.1% reported unknown. The majority of citations were issued in Clark County (N=1241, 55.4%) and Washoe (N=281, 12.5%). Of those citations, approximately 8 of every 10 drivers hold Nevada driver's licenses and have vehicle registered in Nevada.

**Citation Information**

Citations issued were evenly distributed throughout the week with Friday (16.1%) being the day with the most frequent citations issued, and Tuesday and Saturday the lowest (13.4%). An even distribution is also observed across violation months with the highest prevalence in August (9.6%) and May (9.5%), and lowest in December (6.6%) and November (6.8%). Approximately 3 in 10 citations were cited between 12PM and 6PM (28.3%). Traffic volume at the time of violations was primarily light (47.1%) and moderate (45.8%). The road conditions reported for majority of the citations were dry and clear (96.8%). Of those who are cited, 6 out of every 100 (n=131) issued citations were associated with a crash.

**Fig. 1 CPS-Related Violator Age****Fig. 2 CPS-Related Citation Frequency by County**

Map created with paintmaps.com

## TREND in Focus References

1. Safe Kids Worldwide. (2022). Motor Vehicle Crash Injuries Among Occupants Ages 0-12 Years in 2020. Retrieved from [https://www.safekids.org/sites/default/files/documents/fast\\_facts\\_-\\_cps\\_ages\\_0-12\\_-\\_cps\\_month\\_2022\\_0.pdf](https://www.safekids.org/sites/default/files/documents/fast_facts_-_cps_ages_0-12_-_cps_month_2022_0.pdf)
2. National Highway Traffic Safety Administration (NHTSA). (2022). Find the Right Seats. Retrieved from <https://www.nhtsa.gov/campaign/right-seat>
3. Nevada Department of Motor Vehicles (DMV). (2021). Seat Belts - Nevada DMV Traffic Safety Quick Tips. Retrieved from <https://dmv.nv.gov/pdfforms/qtbelts.pdf>



## Spotlight

### Traffic Safety Research Staff Share Findings on Nevada Non-Adjudicated Citations and More!

By Kalen de la Garza, Merika Charupoom, & Emily Strickler, MPH



#### Association of Transportation Safety Information Professionals - Traffic Records Forum 2022

In August, our team attended the 2022 Traffic Records Forum held in Denver, Colorado. Our Research Assistant Emily Strickler presented research on Nevada non-adjudicated (issued citations that have not been finalized by a court) distracted driving citations. At this meeting, our Project Director, Laura Gryder, and Emily attended workshops focusing on the Bipartisan Infrastructure Law requiring revising the definition of non-motorists to include e-bikes and electric scooters, and roundtables focused on best practices for data integration across different traffic records types. Our team was also able to attend presentations by researchers in Connecticut who are focusing on assessing equity among traffic stops in their states. Other presenters shared their work with citation data in their state, making this conference a great opportunity to learn new information and make connections with other traffic records professionals.

#### Nevada Public Health Association - Annual Conference 2022

In September, several of our research team members attended the 2022 Annual Conference for the Nevada Public Health Association (NPHA) in Las Vegas. Emily Carter, a first year medical student and one of our former student researchers, shared a presentation on *Non-Adjudicated Distracted Driving Citations* with Research Assistant Emily Strickler. Merika Charupoom, Student Researcher, shared *hospital outcomes by helmet status among pediatric trauma patients injured while riding Off-Highway Vehicles (OHV) and All-Terrain Vehicles (ATV)*. This research utilized a subset of data from our longitudinal linked crash-trauma database. Finally, Emily Strickler presented findings from a descriptive analysis of *Non-Adjudicated Traffic Control Device Violations* in Nevada from 2018-2021. Injury prevention is an important aspect of public health, and our team was honored to share our research in this forum.



Left: Emily S. presenting research on non-adjudicated distracting citations at the Traffic Records Forum.

Right: Pictures taken at NPHA of Emily C., Merika C., and Emily S. (left to right) presenting traffic safety related research.



# Community Outreach

By Kalen de la Garza, Merika Charupoom, & Emily Strickler, MPH

## Teaching the Traffic Safety Professionals of Tomorrow: National Summer Transportation Institute 2022

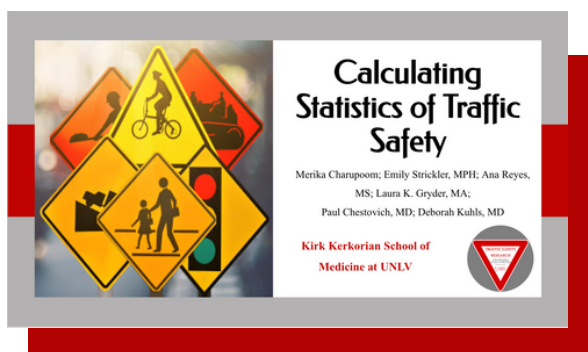
Our traffic safety research team members once again hosted a **Calculating Statistics of Traffic Safety** class during the National Summer Transportation Institute (NSTI) held by the UNLV College of Engineering in July. NSTI is a free two-week summer camp for high school students interested in STEM (Science, Technology, Engineering and Mathematics) disciplines, especially related to the transportation industry. The purpose of the program is to broaden student interest in transportation science. This summer camp has been a collaboration between UNLV's Multicultural Program for STEM and Health Sciences and the Road Equity Alliance Project (REAP) since 2014. After a two-year hiatus for in-person learning, students were able to complete their NSTI experience together on campus this year.

Our team members, Ana Reyes and Merika Charupoom, taught the students about descriptive statistics and best practices for visualizing data. As a hands on activity, students were able to work with real traffic safety data, specifically 2019 Clark County pedestrian self-reported citation data from over 800 individuals. Each student was able to identify variables of interest, form a hypothesis, manipulate the data to examine relationships, and present their results to the class. Students utilized these data to hypothesize that pedestrians face a wide variety of risk factors that can make traveling dangerous for them.



Above: Graduate Assistant Ana Reyes presents at NSTI about statistics.

Right: A screenshot of the lesson presentation for NSTI entitled "Calculating Statistics of Traffic Safety"



## September is National Child Passenger Safety Month

Is your child riding in an appropriate seat?

Below is a list of organizations that can help you and your family ensure that your child is riding in an appropriate seat for their age, weight, and height.



Several hospitals in Southern Nevada offer car seat checks including University Medical Center of Southern Nevada, Sunrise Hospital, Dignity Health, and Summerlin Hospital.

Non-profit organizations are also available for car seat check inspections like SEATS: Safety Education and Training Services in Northern Nevada and East Valley Family Services in Southern Nevada.



**For a complete list of car seat resources in your area, visit:**

<https://www.nhtsa.gov/equipment/car-seats-and-booster-seats>

- Find the right car seat for your child
- Proper Installation
- Local Inspection (English & Spanish)



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## New Student Research Staff



**Nicole Bacani**

"I am a junior majoring in Biological Sciences with a concentration in pre-professional studies. I am interested in traffic safety research because it allows me to be more involved with public health while researching a topic that is relevant to my own life."



**Vanessa Flores**

"After completing my associate's degree at College of Southern Nevada, I am pursuing a Bachelor's degree in Biology with a pre-professional concentration and a minor in Neuroscience at UNLV. As I am pursuing my way into medical school, I would like to help improve traffic safety and educate the public on the importance of being safe and responsible on the road."



**Sarah Kazemeini**

"I graduated with my B.S. in Biochemistry, and I am currently pursuing a Master's in Chemistry at UNLV. As someone who was born and raised in Nevada, I was interested in seeing how I could help contribute to the safety of my community, and I consider the ability to participate in this research as a valuable opportunity in understanding the factors and data associated with traffic safety."



**Kalen de la Garza**

"Over the past three years, majoring in Biological Sciences with a concentration in pre-professional studies, I have enjoyed learning more about public health, statistics, and public policy. I am excited to actively apply the interconnectedness of these important foundations to road user safety through the traffic safety research team."

## Our Current Projects

- Maintenance and expansion of our linked crash-trauma database.
- Secondary data sources include traffic hospital discharge data for all Nevada Road Users (UNLV CHIA) and Nevada traffic citations (NV OTS).
- Analysis of statewide Nevada Driving Under the Influence (DUI) toxicology arrest data.
- Providing data to community organizations to inform legislation and injury prevention practices.
- Evaluation of a court-ordered pedestrian safety intervention class.
- Creation, piloting, and implementation of an evaluation readiness assessment toolkit among behavioral traffic safety intervention and prevention programs.
- Various traffic injury research projects with Kirk Kerkorian School of Medicine at UNLV faculty and students.
- Creation of injury prevention education materials for social media and print.

## Our Team

- Deborah A. Kuhls, MD, FACS, FCCM - Principal Investigator
- Paul Chestovich, MD, FACS - Co-Investigator
- Laura K. Gryder, MA - Project Director
- Emily Strickler, MPH - Research Assistant
- Kavita Batra, PhD, MPH, BDS - Biostatistician
- Ana Reyes, MS - Graduate Research Assistant & English to Spanish Translator
- Merika Charupoom - Student Researcher

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- Nicole Bacani - Student Researcher
- Kalen De La Garza - Student Researcher
- Sarah Kazemeini, BS - Student Researcher
- Vanessa Flores - Student Researcher

## Check out our new website!

<https://www.unlv.edu/medicine/traffic-safety>

To see our full library of TREND newsletters, infographics, and other educational materials, visit

<https://tinyurl.com/UNLVTSafety>

Should you have any questions about the content presented within this newsletter, please contact us at:

[trafficsafety@medicine.unlv.edu](mailto:trafficsafety@medicine.unlv.edu)

Let us know what you think and what you would like to see next! Scan the QR code to complete a quick survey.



## Our Data Partners



## Our projects are supported by grant funding from



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