

Nebraska Vulnerable Road User (VRU) Assessment

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SPEAKER INTRODUCTION

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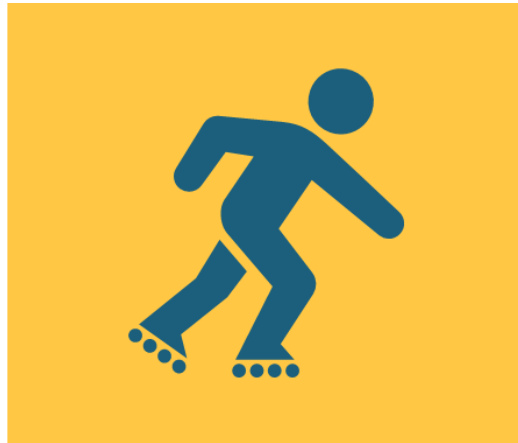
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WHO IS A VULNERABLE ROAD USER?

- Anyone who walks, bikes, or rolls on or across Nebraska roads



GOALS OF THIS ASSESSMENT


- Identify contributing factors that lead to VRU crashes
- Develop strategies that, when implemented, make progress towards our goal of eliminating fatal and serious injury crashes for VRUs
- Integrate assessment into the Nebraska Strategic Highway Safety Plan (SHSP)



SHSP OVERVIEW

- The Strategic Highway Safety Plan (SHSP) is an overarching document that uses data to identify areas of critical emphasis and lays out strategies for improving safety.
- SHSP has a goal of eliminating fatalities and serious injuries.


Nebraska Strategic Highway Safety Plan



September 2022

Guidance 2022-2026

EDUCATION ENFORCEMENT ENGINEERING EMS



Fatal Crashes Involving Alcohol Impairment

How Significant is the Problem?
 On Nebraska roadways, there were 341 fatal crashes during 2011-2015 classified as "alcohol-related." These crashes resulted in 367 fatalities, an average of 73 fatalities per year. This accounts for approximately 34% of all traffic fatalities during the five year period.

What is the Nebraska Goal?
 Nebraska's goal is to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. This is expected to save 54 lives annually. To achieve the goal, the annual alcohol-impaired fatalities need to be reduced by 18.

What are the Contributing Factors?

Road and Area Type

- Alcohol-impaired fatalities were primarily in rural areas (258 of 367, 70%) and 80% were outside of Omaha and Lincoln.
- Combining rural and urban roadways, local roads accounted for over half of all alcohol-impaired fatalities (200 of 367, 55%). The road type with the second highest number of fatalities was state-numbered highways with 20% (71 of 367). Six percent (22 of 367) of alcohol-impaired fatalities were on Interstate routes.

Jurisdiction Classification	Rural	Urban
Interstates	4%	2%
U.S. Highways	14%	5%
State Highways	17%	2%
Local Roads	34%	20%
Total by Area Type	69%	29%

Location

- 24% (87 of 367) of alcohol-impaired fatalities occurred at an intersection.

Top 5 Counties

County	Fatal Crashes	Fatalities
Douglas	68 (20%)	71 (19%)
Lancaster	28 (8%)	29 (8%)
Scotts Bluff	13 (4%)	13 (4%)
Cass	10 (3%)	12 (3%)
Gage	8 (2%)	11 (3%)

Crash Type

- More than half of alcohol-impaired fatalities were the result of single vehicle run-off-the-road crashes (235 of 367, 64%). Overall, single vehicle crashes accounted for 82% (302 of 367) of alcohol-impaired fatalities. Angle crashes accounted for 8% of fatalities.

Crash Type	Alcohol-Related Fatalities	Total Fatalities
Single Vehicle: Run-off-the-Road	235 (64%)	465 (43%)
Single Vehicle: Other	37 (10%)	115 (11%)
Rear End and Sideswipe (Same)	25 (7%)	96 (9%)
Head-On and Sideswipe (Opposite)	34 (9%)	159 (15%)
Angle	30 (8%)	201 (19%)
Left-Turn (Leaving)	6 (2%)	39 (4%)

Run-of-the-Road Crashes Overturned

Crash Type	Fatalities	Percentage
Overturned	122	52%
Tree	42	18%
Utility Pole	14	6%
Fence	11	5%
Ditch	10	4%
Other	36	15%
Total	235	



ZERO



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SHARED RESPONSIBILITY

ROAD USERS AND ROAD STEWARDS

ACHIEVE ZERO FATALITIES TOGETHER

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2022-2026 SHSP CRITICAL EMPHASIS AREAS



Increasing Seat Belt Usage



Reducing Roadway/Lane Departure Crashes



Reducing Impaired Driving Crashes



Reducing Intersection Crashes



Reducing Young Driver Crashes



Reducing Older Driver Crashes



Reducing Non-Motorist Crashes

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Reducing Non-Motorist Crashes



REDUCING NON-MOTORIST CRASHES

Goal

- To achieve Nebraska's fatality and serious injury goals, the number of annual non-motorist fatalities needs to be reduced by 2. The number of non-motorist serious injuries needs to be reduced by 18 per year.

Data/Significance

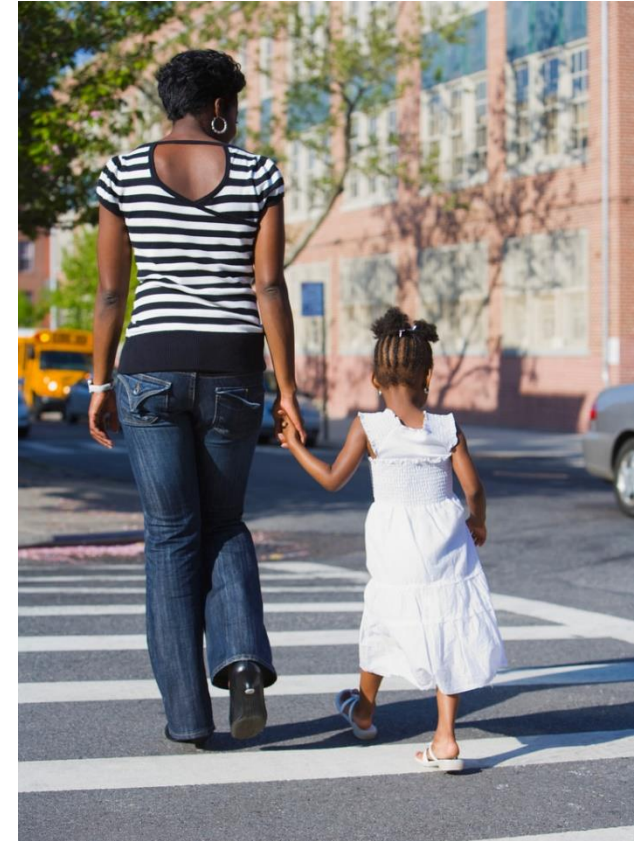
- On Nebraska roadways, there were 623 fatal and serious injury crashes during 2016-2020 that involved a non-motorist. This accounts for **8% of all traffic fatalities and serious injuries** during the five-year period.

Strategy Review

- High Visibility Crosswalk Markings
- Rectangular Rapid Flashing Beacons
- Roundabouts
- Road Diets
- ADA Ramps & Curb Extensions
- Crosswalk Overhead Lighting

HERE'S HOW WE'LL DO IT

- Use existing data to understand the types of opportunities areas for safety improvement
- Listen to the stakeholders' experiences and identify barriers
- Develop systemic safety improvement strategies to apply those opportunities areas

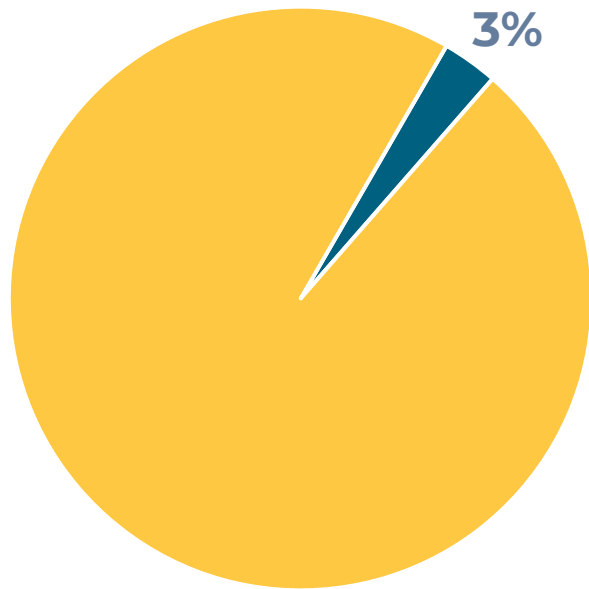




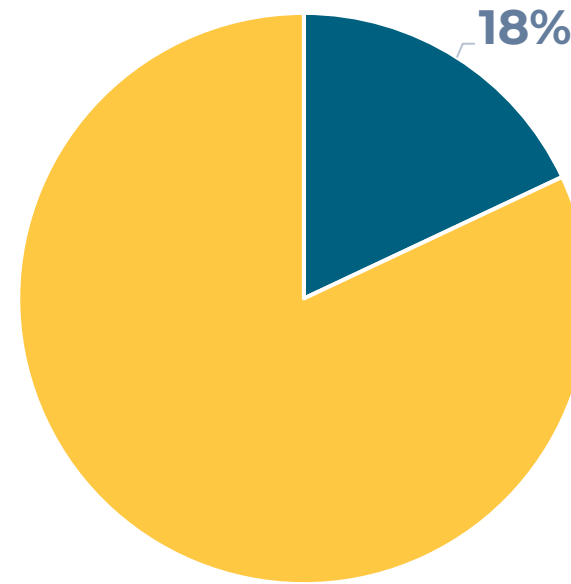
HERE'S WHAT WE KNOW RIGHT NOW

CRASH SEVERITY

All Crashes



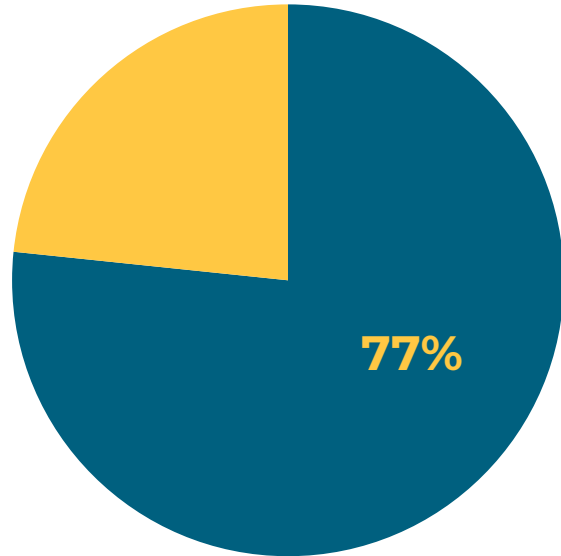
VRU Crashes



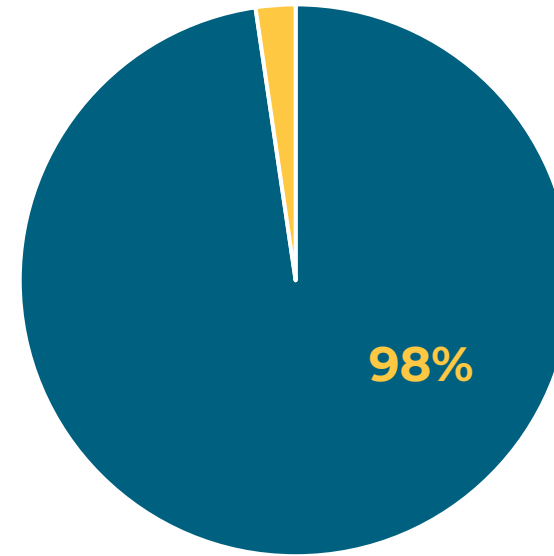
- Severe Crashes
- Other Crashes

CRASH LOCATION – URBAN/RURAL

All Crashes



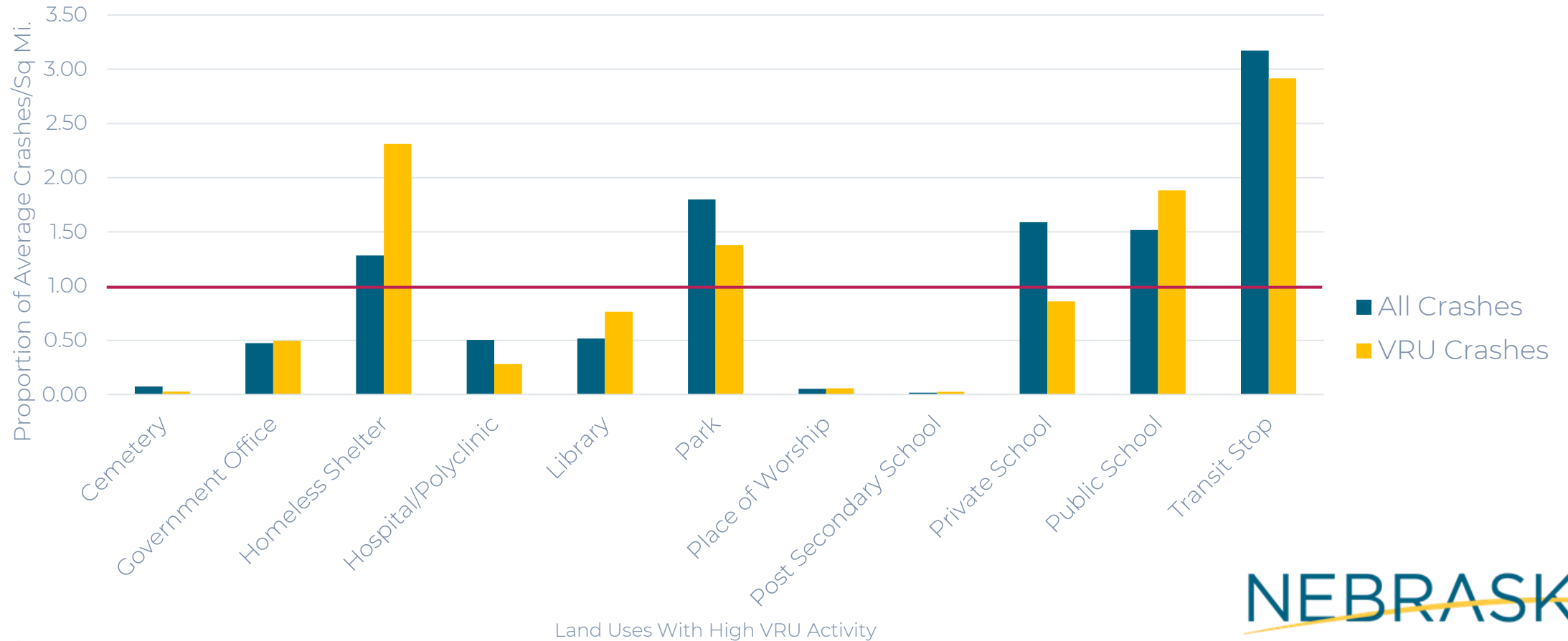
VRU Crashes



- Urban
- Rural

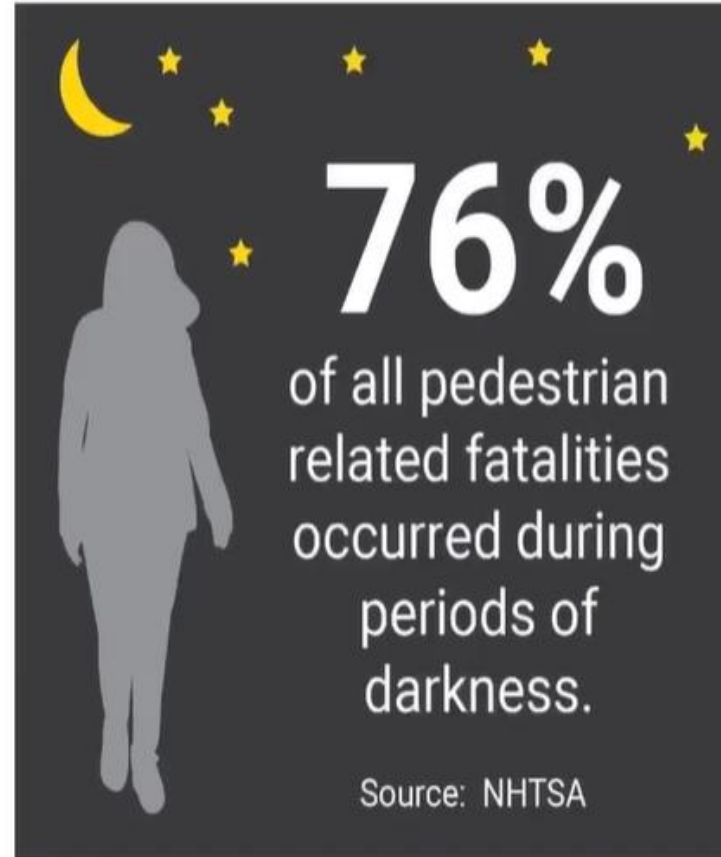
CRASH LOCATION – LAND USES

Crashes Near High VRU Land Uses (Fatal & Injury Only)



Source: Nebraska DOT, US Census

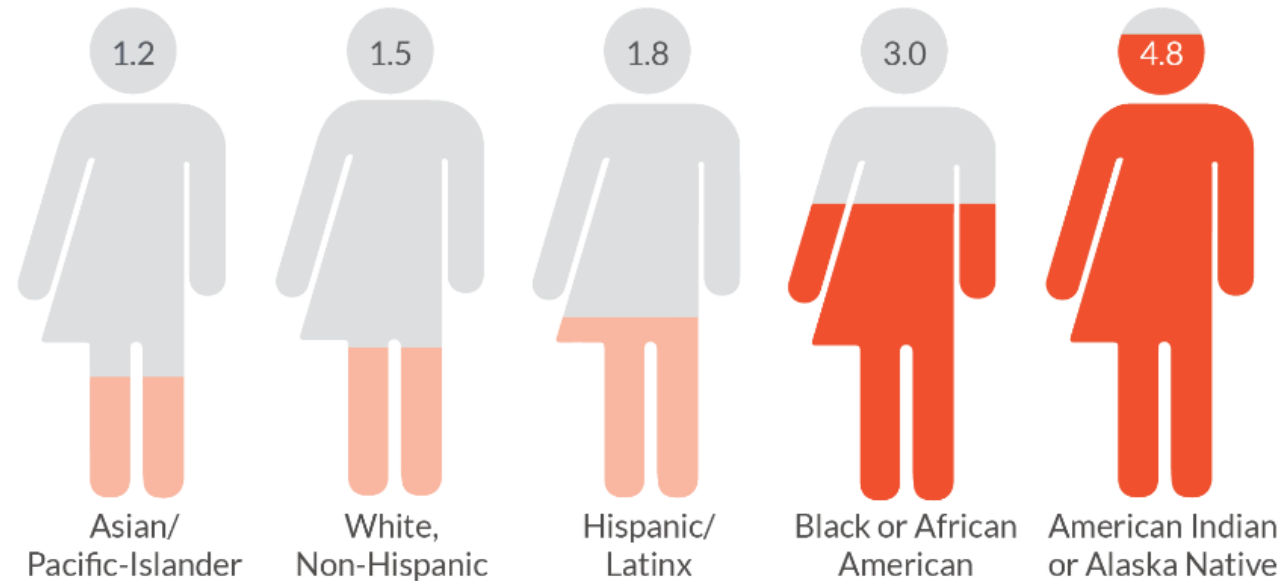
CRASHES BY TIME OF DAY



CRASHES BY RACE & ETHNICITY

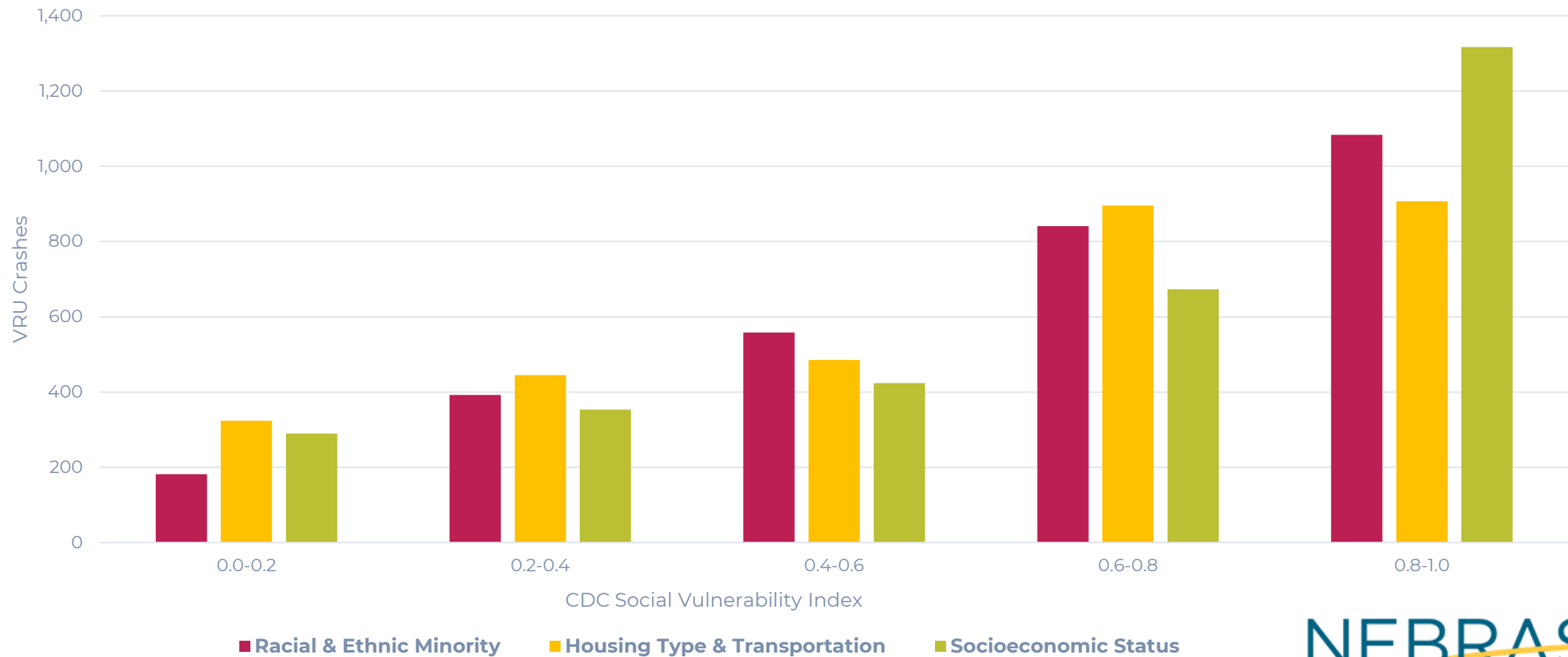
People of color, particularly Native and Black Americans, are more likely to die while walking than any other race or ethnic group

Pedestrian deaths per 100,000 by race & ethnicity (2016-2020)



SOCIAL VULNERABILITY

Number of VRU Crashes by Socially Vulnerable Census Tracts



Source: Center for Disease Control and Prevention (CDC)

WHAT HAS WORKED FOR OTHER PLACES

- Anticipating and accommodating human errors
- Keeping crash impact energy on the human body within tolerable levels
- Proactively identifying safety improvement opportunities
- Building in redundancy through layers of protection
- Sharing responsibility for achieving zero deaths
- Separating users in time and space
- Increasing visibility



HERE'S WHERE YOU COME IN!



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TELL US...

- What are we missing?
- What is your experience?
- What are your safety concerns and barriers to walking, biking, and rolling?



HERE'S HOW TO CONTRIBUTE



- Visit with our staff at the stations to share your experiences
- Complete our survey
- Share the survey with others

MOVING FORWARD

- Incorporate your comments into analysis
- VRU Assessment will supplement the SHSP
- Updated with the SHSP
- Data will be reviewed annually between major updates to track strategy effectiveness
- Major update to SHSP/VRU Assessment in 2027



MORE INFORMATION



[NDOT.INFO/SHSP](https://ndot.info/shsp)



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THANK YOU



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