



Evaluating Disparities in Traffic Fatalities by Race, Ethnicity, and Income

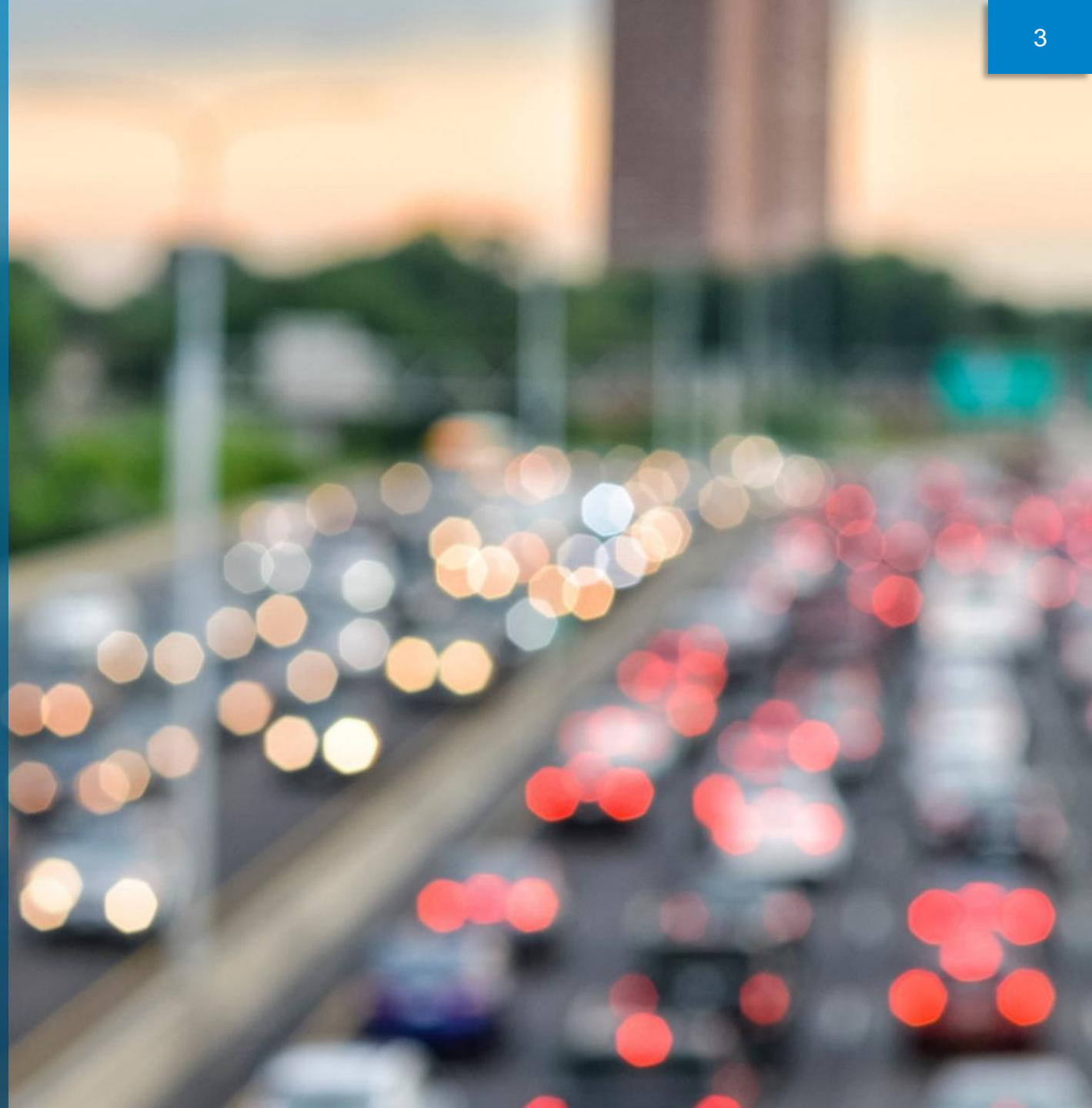
*Tribal Motor Vehicle Safety Summit
Tom Bragan*

November 2022

Agenda

- 1 Introduction
- 2 Data Sources
- 3 Findings
- 4 Limitations & Conclusion
- 5 Technical Assistance

Introduction





DOT HS 813 188

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813188>

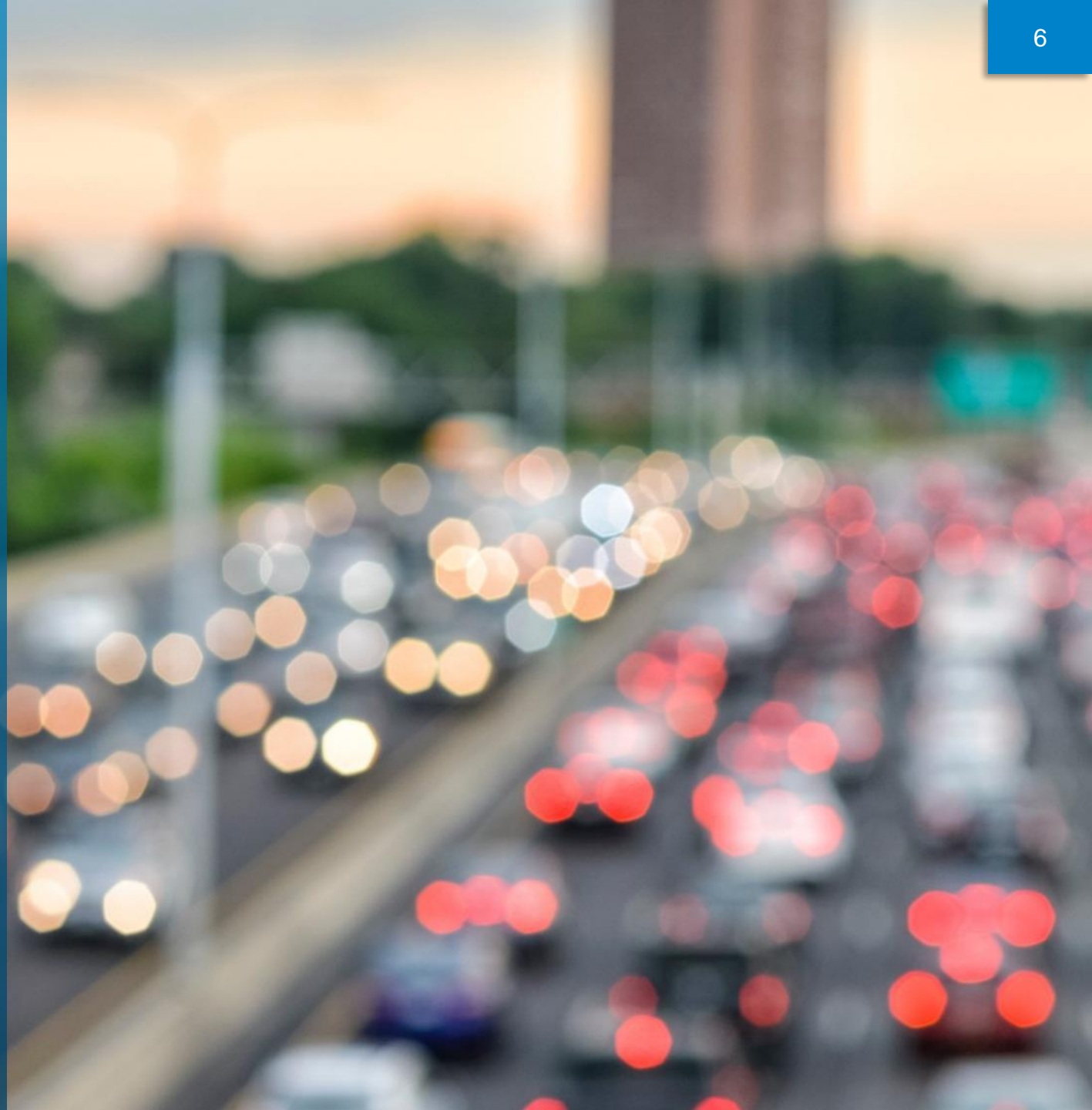
.....

This analysis was prompted by Executive Order 13985 on January 20, 2021, on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.

Introduction

- Equity is a challenging topic; motor vehicle traffic crashes are complex events.
- We are seeking answers to questions about safety outcomes:
 - How crashes occur
 - Where crashes occur
 - When crashes occur
- This analysis...
 - only applies to fatal crashes.
 - is not intended to determine cause or blame.
 - presents a lot of information and poses many more questions requiring further research and analysis.
 - is a first look at Race/Ethnicity within the context of traffic safety equity and was published with available data.

Data Sources



Fatality Analysis Reporting System (FARS) Final Files

- FARS contains data on every fatal motor vehicle traffic crash within the 50 States, the District of Columbia, and Puerto Rico.
 - To be included in FARS, a traffic crash must involve a motor vehicle traveling on a public trafficway that results in the death of a vehicle occupant or a nonoccupant within 30 days of the crash.
- Although FARS includes crashes on Tribal lands, it doesn't capture all fatal crashes as reporting varies depending on the specific jurisdiction.
- Race and Hispanic Origin data
 - Collected from death certificates, therefore only for fatalities.
- FARS Final Files used instead of FARS Annual Report Files (ARF)

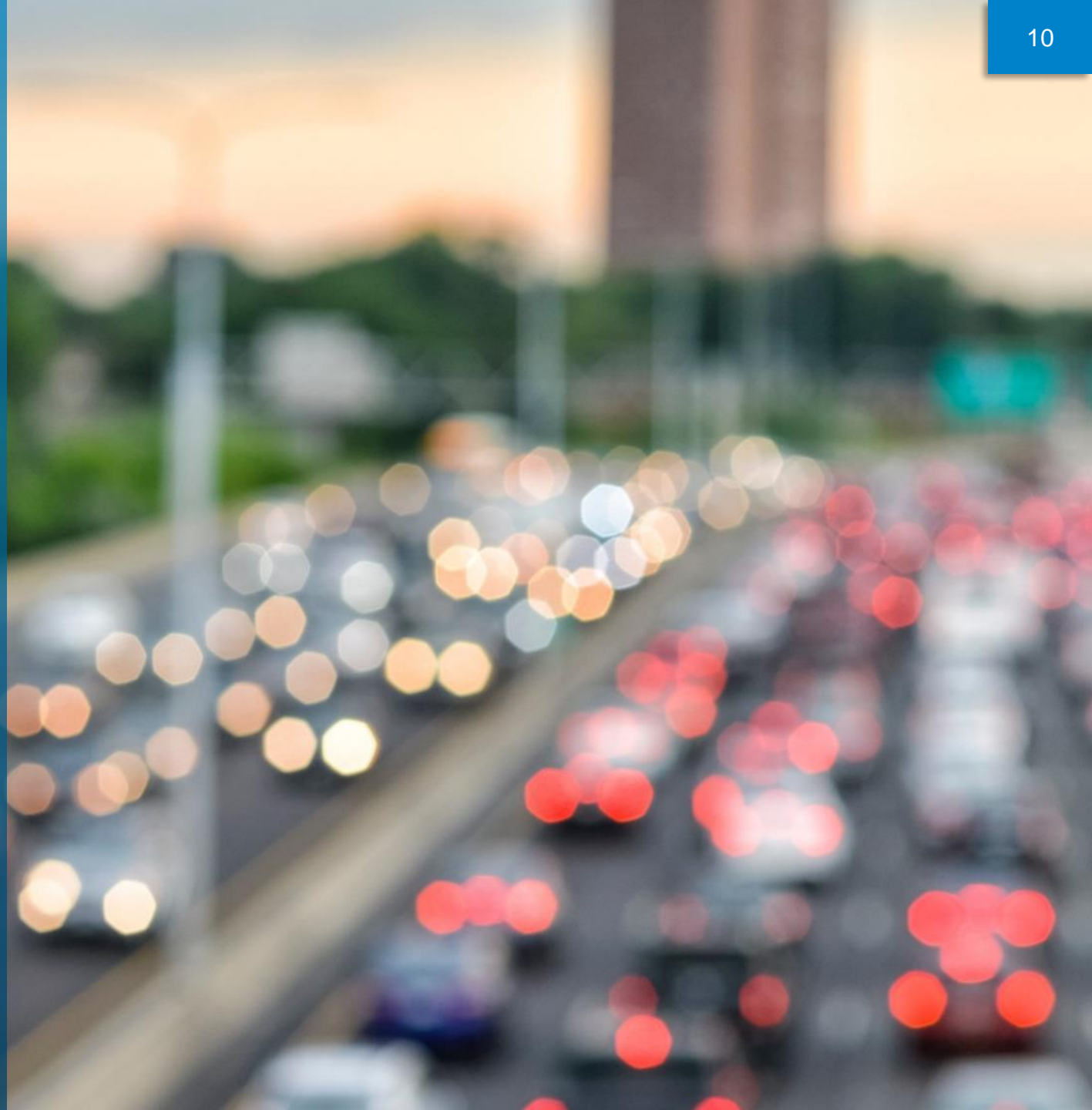
Additional Data Sources

- **Observation Surveys:** NHTSA's [National Occupant Protection Use Survey](#) (NOPUS) and [National Survey of the Use of Booster Seats](#) (NSUBS)
- **Mortality Data:** Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) [Mortality Data](#)
- **Per Capita Income:** [Bureau of Economic Analysis](#) (BEA)
- **Exposure Data:** Population from [Census Bureau](#) and FHWA's [National Household Travel Survey](#) (NHTS)

FARS Race/Ethnicity Group Definitions

- **Hispanic or Latino:** Mexican, Puerto Rican, Cuban, Central or South American, European Spanish, or Other Hispanic Origin
- **American Indian or Alaska Native:** American Indian or Alaska Native, Non-Hispanic or Unknown if Hispanic
- **Asian:** Asian, Non-Hispanic or Unknown if Hispanic
- **Black or African American:** Black or African-American, Non-Hispanic
- **Native Hawaiian or Other Pacific Islander:** Native Hawaiian (includes part Hawaiian) or Other Pacific Islander, Non-Hispanic or Unknown if Hispanic
- **White:** White, Non-Hispanic
- **Multiple Races:** Individual races not specified (e.g. “mixed”), Non-Hispanic or Unknown if Hispanic
- **All Others:** Includes White, Unknown if Hispanic; African-American, Unknown if Hispanic; Non-Hispanic, Unknown Race; and all Other Races, Non-Hispanic or Unknown if Hispanic
- **Unknown:** Unknown

Findings



National Traffic Fatalities, Population, and Traffic Fatality Rates, 2018

Race-Ethnicity	Traffic Fatalities	Population	Traffic Fatality Rate per 100K Population
Hispanic or Latino	5,632 (15%)	59,639,869 (18%)	9.44
AIAN	599 (2%)	2,420,241 (1%)	24.75
Asian	557 (2%)	18,545,428 (6%)	3.00
Black or African American	5,503 (15%)	40,860,704 (13%)	13.47
NHPI	78 (0.2%)	586,163 (0.2%)	13.31
White	21,572 (59%)	197,535,202 (60%)	10.92
Total*	36,835 (100%)	326,687,501 (100%)	11.28

Sources: FARS 2018 Final File; Population – Census Bureau

*Includes other and unknown race-ethnicity groups.

Summary of Travel Outcomes Relative to White Travelers, 2017 and 2018

Travel Outcomes Relative to White Travelers	Hispanic or Latino	AIAN	Asian	Black or African American	NHPI
Fatalities per Person Mile Traveled (any mode), 2017	1.00	2.80	0.37	1.63	0.67
Fatalities per Person Mile in a Passenger Vehicle, 2017	0.96	2.64	0.32	1.71	0.64
Fatalities per Population, 2018	0.86	2.11	0.27	1.23	1.22

Sources: FARS 2017-2018 Final Files; 2017 NHTS

Summary of Travel Outcomes Relative to White Travelers, 2017 and 2018 (Continued)

Travel Outcomes Relative to White Travelers	Hispanic or Latino	AIAN	Asian	Black or African American	NHPI
Fatalities per Mile Walked,* 2017	1.06	5.09	0.43	2.08	1.23
Pedestrian Fatalities per Population, 2018	1.38	3.42	0.58	1.97	1.37

Sources: FARS 2017-2018 Final Files; 2017 NHTS
*Includes all miles walked, not just those near a road.

Total Traffic Fatalities and Alcohol-Impaired-Driving Fatalities, by Race-Ethnicity, 2018

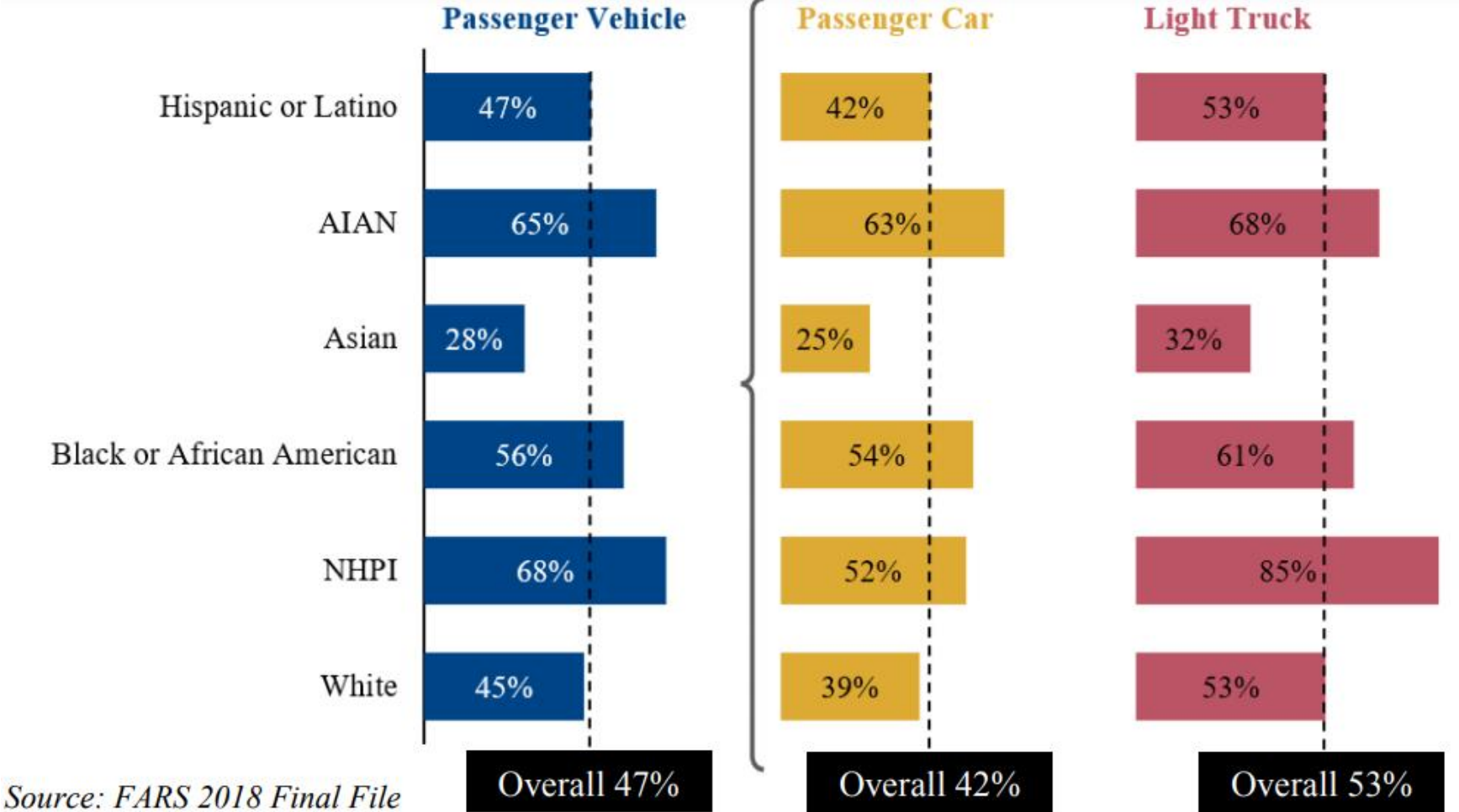
Race-Ethnicity	Traffic Fatalities	Alcohol-Impaired-Driving Fatalities	
		Number	Percent
Hispanic or Latino	5,632	1,974	35
AIAN	599	232	39
Asian	557	119	21
Black or African American	5,500	1,767	32
NHPI	78	24	30
White	21,572	5,802	27
Total*	36,835	10,710	29

Source: FARS 2018 Final File

*Includes other and unknown race-ethnicity groups.

Note: NHTSA imputes alcohol test results when unknown. These statistics don't imply causation of crash or fatalities.

Unrestrained Passenger Vehicle Occupant Fatalities, by Race-Ethnicity and Vehicle Type, 2018



Source: FARS 2018 Final File
Note: Based on known restraint use.

Total Traffic Fatalities and Speeding-Related Traffic Fatalities, by Race-Ethnicity, 2018

Race-Ethnicity	Traffic Fatalities	Speeding-Related Traffic Fatalities	
		Number	Percent
Hispanic or Latino	5,632	1,569	28
AIAN	599	168	28
Asian	557	136	24
Black or African American	5,500	1,550	28
NHPI	78	37	47
White	21,572	5,398	25
Total*	36,835	9,579	26

Source: FARS 2018 Final File

*Includes other and unknown race-ethnicity groups.

Note: These statistics don't imply causation of crash or fatalities.

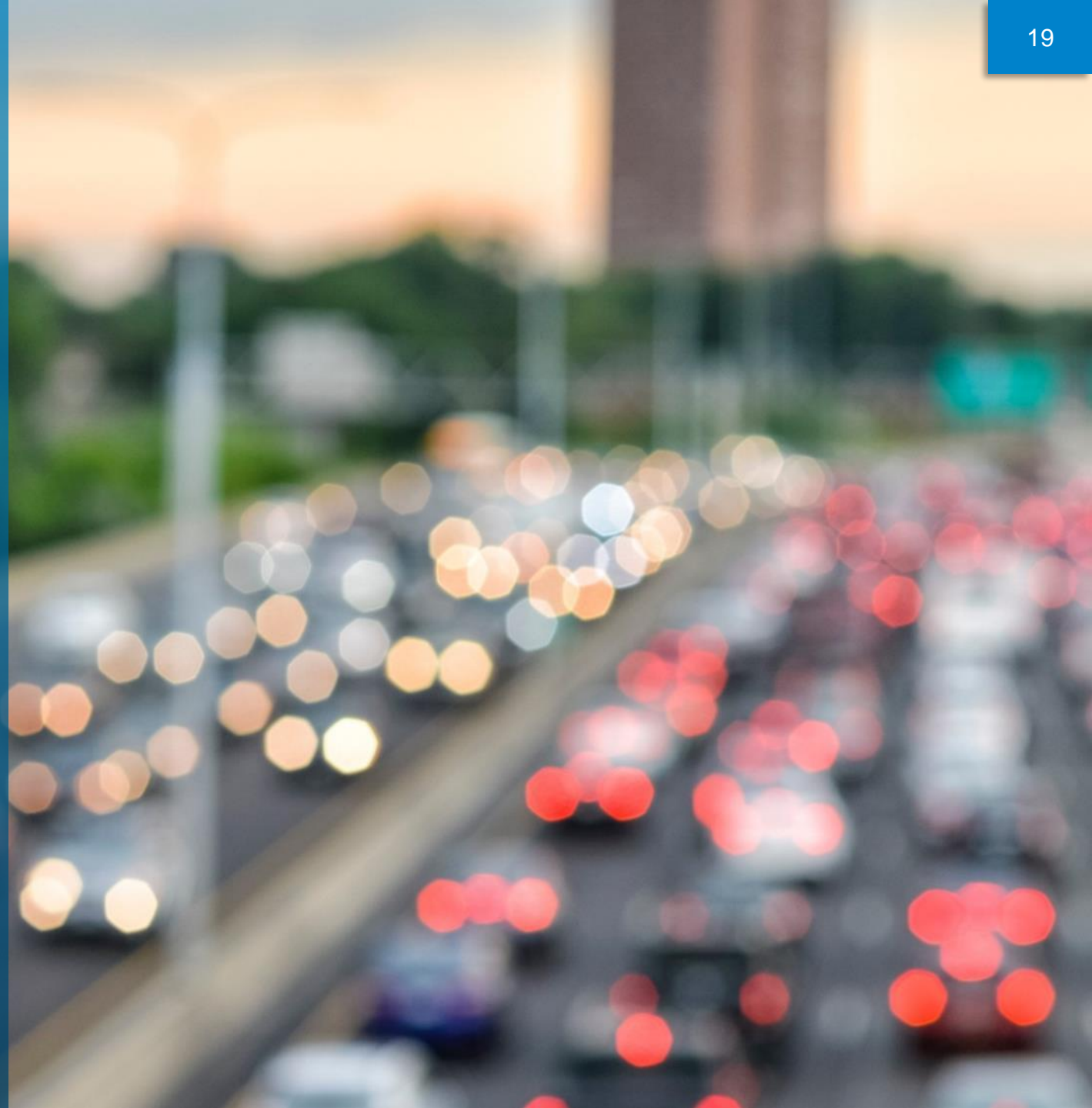
Additional Findings

- AIAN people traveled by passenger vehicle about 30 percent more than white people did.
- More than 20 percent of AIAN traffic fatalities occurred at least 15 miles outside urban areas; higher than any other group.
- The median age for AIAN pedestrian fatalities was 38, the youngest age of any race-ethnicity group.

Economic Findings



Limitations & Conclusion



Limitations

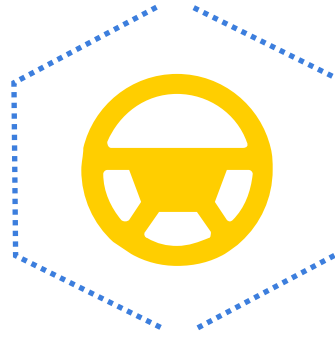
Race and ethnicity reporting differs by source

Multi-racial people could be misrepresented

FARS contains unknown values for race and ethnicity

Conclusion

- Different race-ethnicity populations face different travel circumstances and risks.
- Some race-ethnicity groups tend to travel more, use different modes of travel, or may travel more often in urban areas.
- Risky behaviors like not using restraints, alcohol-impairment, and speeding, that affect the chances of safe travel may impact some populations more than others.
- AIAN people had the highest fatality rates under any measure.



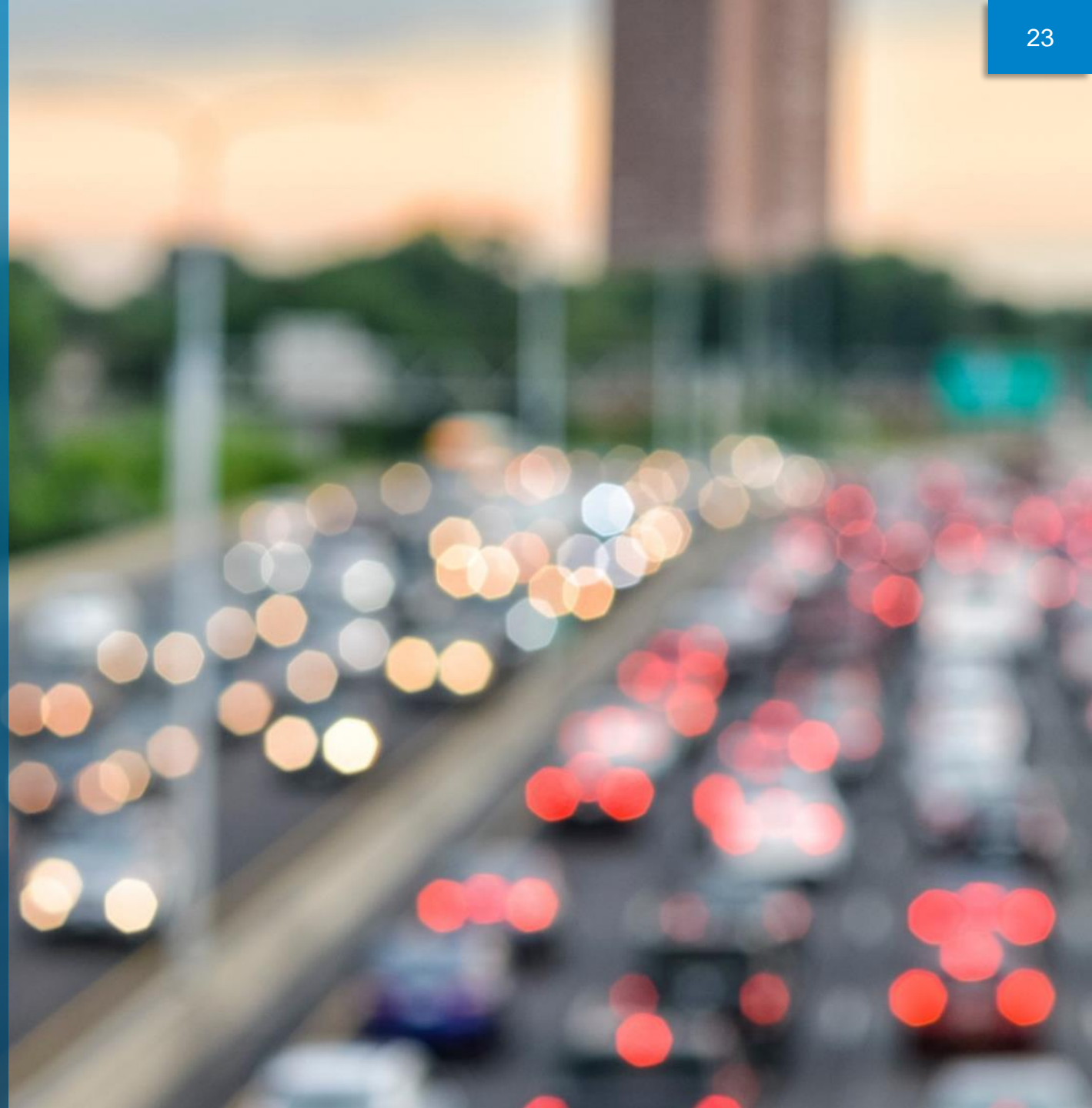
Acknowledgements

Jacob Enriquez
Donna Glassbrenner
Gabrielle Herbert
Tonja Lindsey

Leah Reish
Umesh Shankar
Raj Subramanian
Caitlin Webb

Glassbrenner, D., Herbert, G., Reish, L., Webb, C., & Lindsey, T., (2022, September). *Evaluating disparities in traffic fatalities by race, ethnicity, and income* (Report No. DOT HS 813 188). National Highway Traffic Safety Administration. Available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813188>

Technical Assistance



NHTSA Technical Assistance

- **Tribal Crash Reporting Toolkit** (<https://www.tribalsafety.org/tribal-crash-reporting-toolkit>)
 - Crash form – PDF-based and MMUCC compatible
 - Crash database – No software purchase required; SQL based
 - Police Instruction – How-to guide for crash form and MMUCC
 - Quality Control – Methods and means to ensuring accurate data
 - Data Analysis – How to use your crash data
 - Facts & Fictions – Benefits of collecting crash data and the “fake news” or common misunderstandings

GO Teams – Customized technical assistance to address the data-related need of Tribal agencies (<https://www.tribalsafety.org/funding>)



THANK YOU

QUESTIONS?

Tom Bragan, NHTSA Traffic Records Division, tom.bragan@dot.gov