



Road Safety Developments in the United States

January 8, 2023

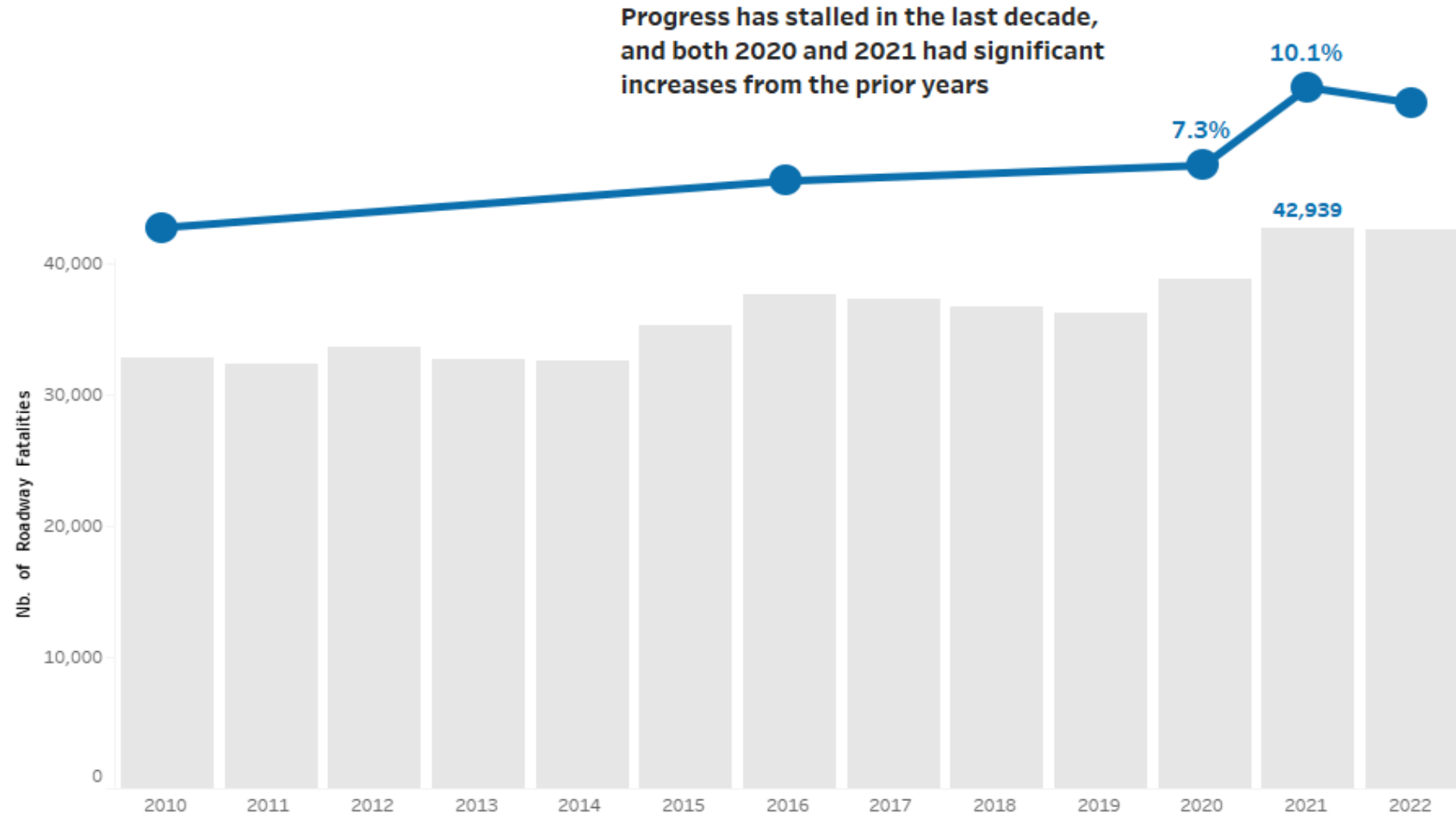
Chou-Lin Chen, Ph.D.

US DOT/NHTSA

TRB 103rd Annual Meeting, Washington DC

The Roadway Safety Crisis

An estimated 42,795 people died on America's streets, roads, and highways in 2022

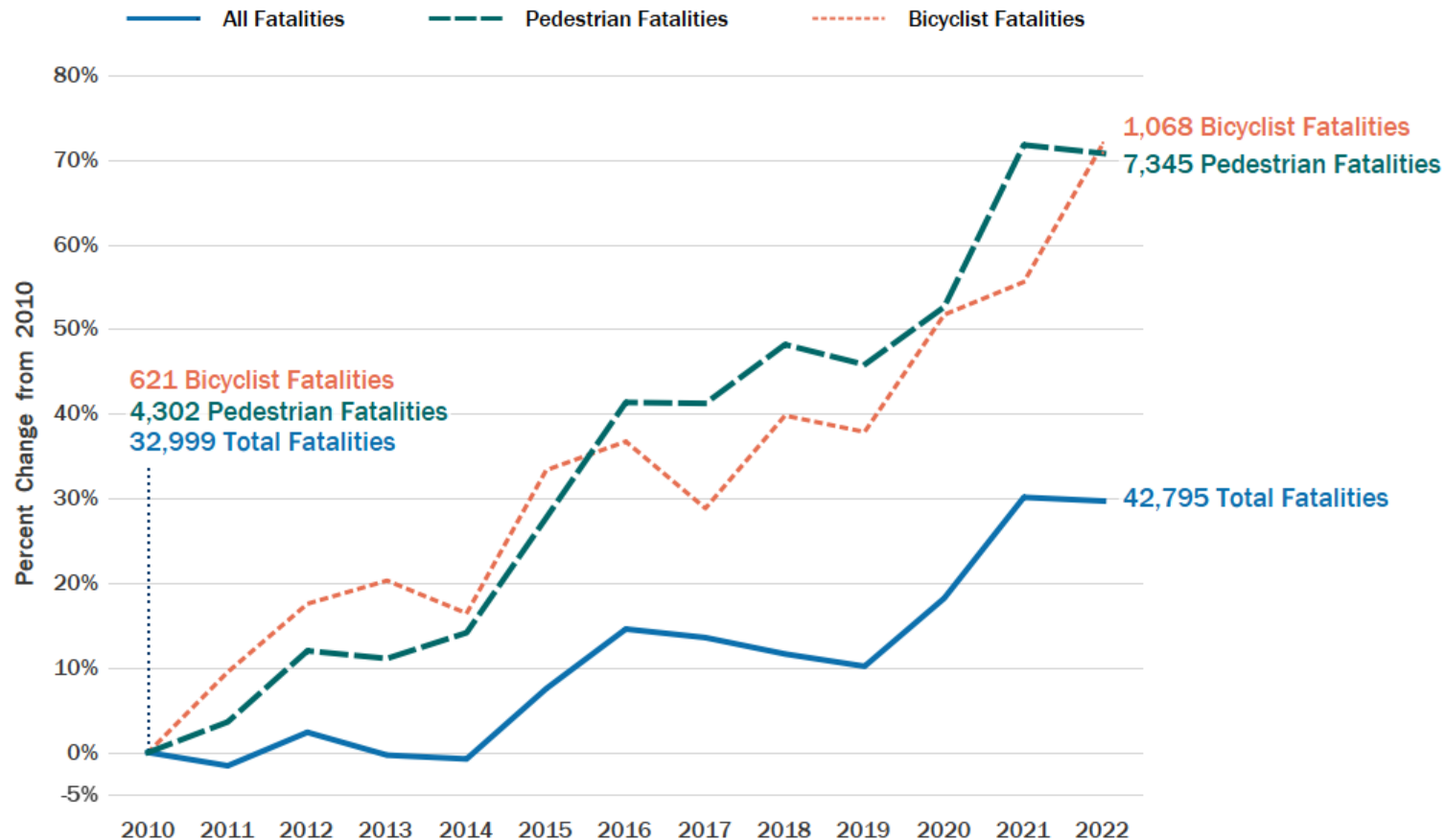




We have a National Roadway Safety Problem

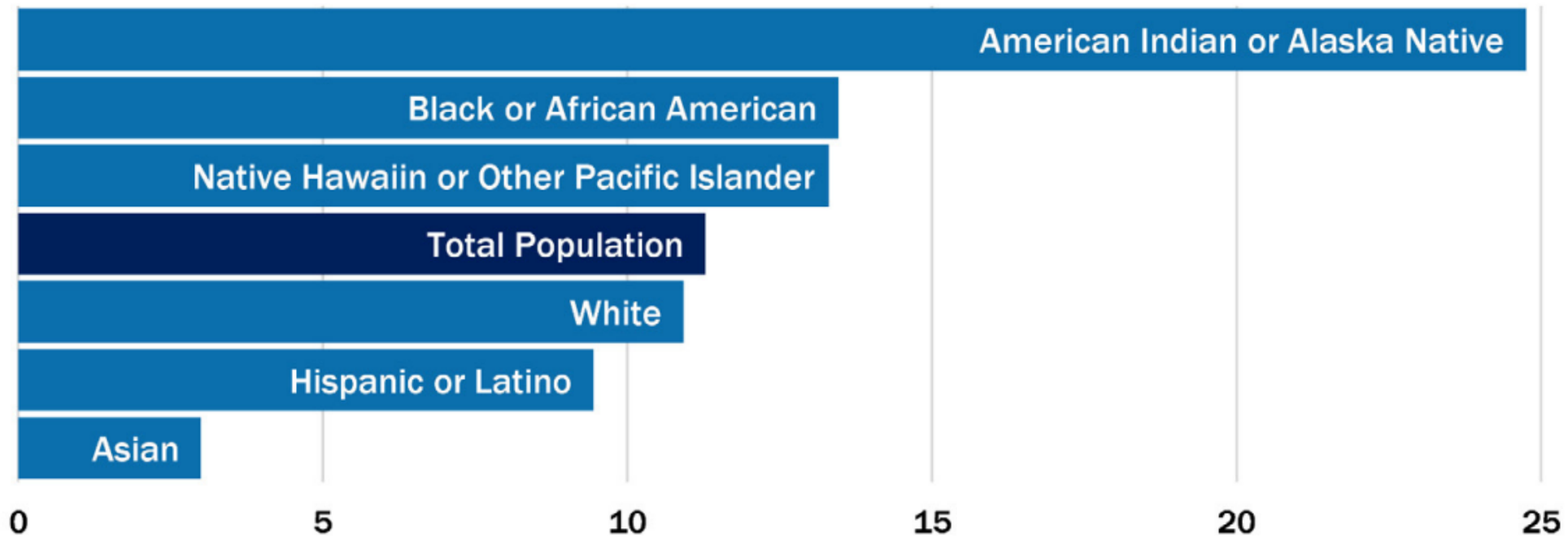
Fatalities among **all users** have been increasing.

Fatalities among **pedestrians** and **bicyclists** have been **increasing even faster.**



Source: FARS 2010-2020 Final File; 2021 Annual Report File

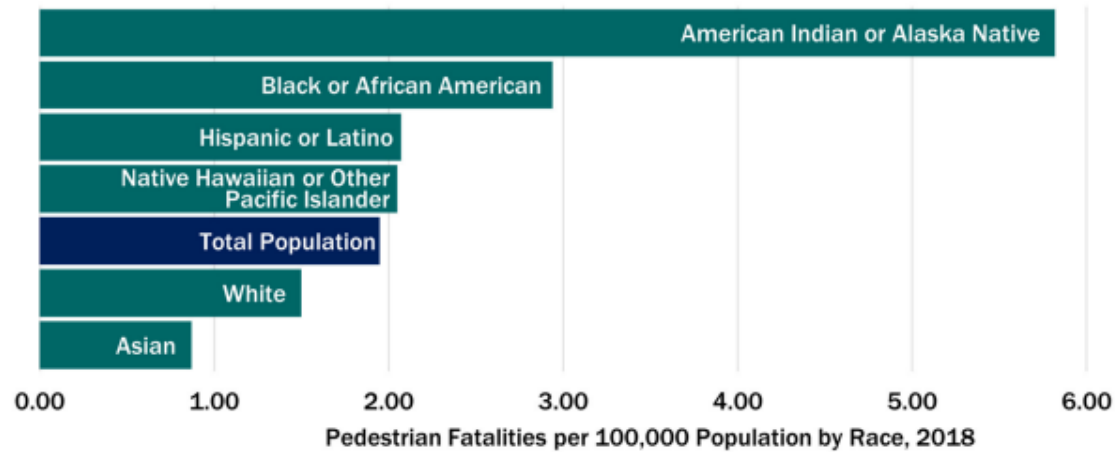
Fatalities impact communities differently...



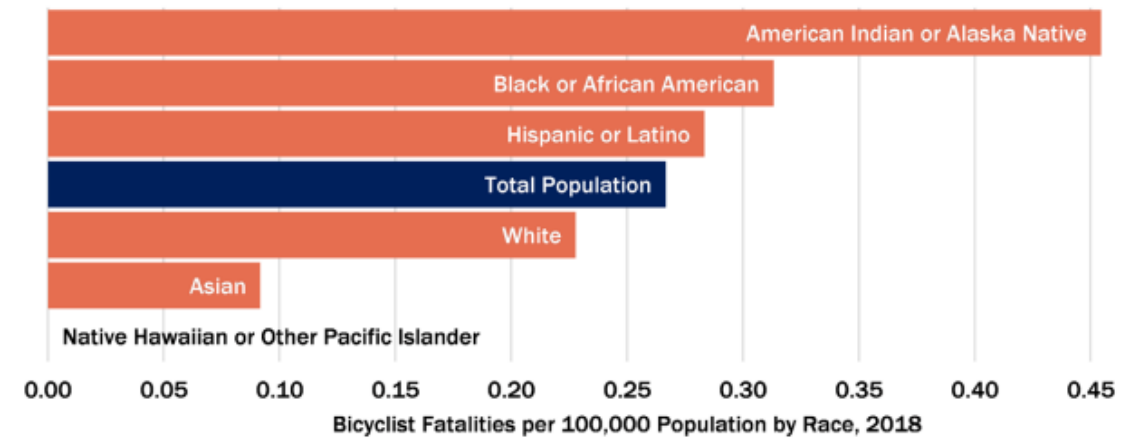
Roadway Fatalities per 100,000 Population by Race, 2018

Outcomes for people who are walking and biking also show disparate impacts

Fatalities Among Pedestrians



Fatalities Among Bicyclists



National Roadway Safety Strategy (NRSS)

U.S. DOT's comprehensive approach to significantly reducing serious injuries and deaths on our Nation's highways, roads, and streets.

- ❖ **Sets a vision and goal** for the safety of the Nation's roadways.
- ❖ **Adopts the Safe System Approach** principles to guide our safety actions.
- ❖ **Identifies new priority actions and notable changes to existing practices** and approaches that target our most significant and urgent problems, and are, therefore, expected to have the most substantial impact.
- ❖ **Call to Action** for stakeholders to commit to substantive, defined safety actions.





The USDOT adopts the **Safe System Approach**

Principles

- ❖ Deaths and serious injuries are unacceptable
- ❖ Humans make mistakes
- ❖ Humans are vulnerable
- ❖ Responsibility is shared
- ❖ Safety is proactive
- ❖ Redundancy is critical





National Roadway Safety Strategy

USDOT will leverage the funding and policies in the Bipartisan Infrastructure Law to bring this strategy to life:

- **Nearly \$13 billion in funding** for road safety including:
 - **\$5 billion** for the **Safe Streets and Roads for All** program to fund local efforts to reduce crashes and fatalities
 - **~ \$4 billion** added to Highway Safety Improvement Program
 - **~ \$4 billion** for improved data collection, vehicle safety programs, and truck safety

In the Senate of the United States,

August 10, 2021.

Resolved, That the bill from the House of Representatives (H.R. 3684) entitled “An Act to authorize funds for Federal-aid highways, highway safety programs, and transit programs, and for other purposes.”, do pass with the following

AMENDMENT:

Strike all after the enacting clause and insert the following:

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) *SHORT TITLE.*—This Act may be cited as the “In-
3 *frastructure Investment and Jobs Act*”.

4 (b) *TABLE OF CONTENTS.*—The table of contents for
5 *this Act is as follows:*

Sec. 1. Short title; table of contents.
Sec. 2. References.

DIVISION A—SURFACE TRANSPORTATION

Sec. 10001. Short title.
Sec. 10002. Definitions.
Sec. 10003. Effective date.

Visualizing Roadway Safety Nationally



In order to communicate more clearly to the public the magnitude of roadway deaths, **the Department has used available FARS data to map our highest burdens – as well as our progress – to identify where resources should be targeted** to move toward a future with zero deaths

[USDOT National Roadway Safety Strategy \(arcgis.com\)](https://www.arcgis.com)

This set of visualizations illustrates the significant impact of motor vehicle deaths in our communities. Using a national dataset of all fatal motor vehicle crashes, resulting in deaths of a driver, passenger(s), and/or vulnerable road users, we show:

- First, we share a **hotspot**-focused analysis of fatal crashes across the U.S.
- Second, we visualize the distribution of roadway **fatalities compared to the national average** by county.
- Third, we investigate places where people live to understand fatality rates by **population density**.
- Fourth, we use an analysis of **Historically Disadvantaged Communities** to visualize an equity-focused analysis of the unequal distribution of roadway fatalities.
- And finally, we visualize **Vision Zero successes** for municipalities which reported zero roadway fatalities.

Visualizing Fatalities with an Equity Lens: Census-tract Level

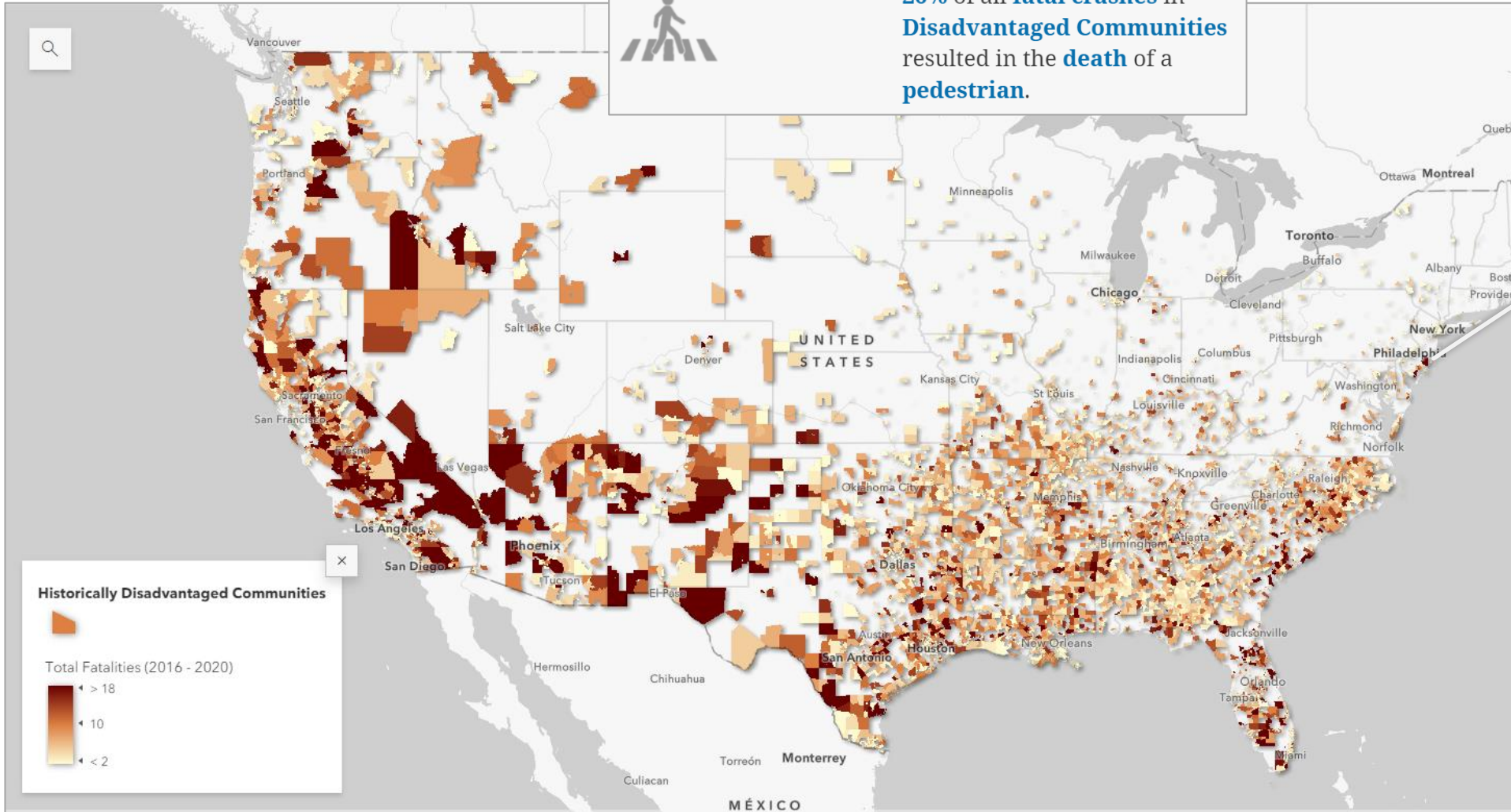
Exploring Fatalities and Equity

Of the communities in the top 20% of roadway fatalities, nearly half (43%) are Historically Disadvantaged.



26% of all fatal crashes in Disadvantaged Communities resulted in the death of a pedestrian.

There are 72,842 census tracts in the U.S. This map shows the Historically Disadvantaged Community census tracts (N = 16,514) with at least one roadway fatality reported between 2016 and 2020. A census tract is usually between 3,800 to 4,600 number of people, on average.



Historically Disadvantaged Communities

Total Fatalities (2016 - 2020)

- > 18
- < 10
- < 2

Historically Disadvantaged Communities

A census tract is identified as a Disadvantaged Community if it exceeded the 50th percentile (75th for Resilience) across at least four of the six transportation disadvantaged indicators.

State	NEW JERSEY
Census Tract Description	Census Tract 7047, Burlington County, New Jersey
Total Fatal Crashes (2016 - 2020)	20
Total Fatalities (2016 - 2020)	22
Pedestrian Fatalities (2016 - 2020)	2
Historically Disadvantaged Community	Yes
Economic Disadvantage Indicator	Yes
Environmental Disadvantage Indicator	No
Equity Disadvantage Indicator	No
Health Disadvantage Indicator	Yes
Resilience Disadvantage Indicator	Yes
Transportation Access Disadvantage Indicator	Yes

[More information](#) → on the Transportation Disadvantaged Community definition methodology and individual indicators, and USDOT Justice40 activities.

Zoom to

A Selection of U.S. DOT Major Accomplishments in 2023

- Awarded \$1.7 billion in roadway safety funding to over 1,000 local, regional, and Tribal communities through the Safe Streets and Roads for All Discretionary Grant Program.
- Advanced key rulemakings for Automatic Emergency Braking systems on passenger vehicles and heavy vehicles, speed limiters on commercial vehicles, and advanced impaired driving prevention technology in passenger vehicles.
- Updated guidance for road builders to encourage the safety of all users at all phases of project development using federal-aid funds, and promoted the use of Complete Streets designs on roadways.
- Improved guidance on speed management through an update to the manual on Uniform Traffic Control Devices and a Speed Safety Camera Guide that considers equity in its implementation.
- Proposed upgrades and a “road map” for the New Car Assessment Program (NCAP) – including adding a Pedestrian Protection Program.



Call to Action

The USDOT is committed to reducing serious and fatal injuries on the Nation's roadways, but **no one will reach this goal acting alone.**

It will require collaboration across **all levels of government, sectors, and the American people** to shift our culture towards one that treats **roadway deaths as unacceptable and preventable.**

About 120 stakeholder have committed.



Image Credit: © Sakiakova / stock.adobe.com



2023 Fatality Projections

Year	1st Quarter (Jan-Mar)	2nd Quarter (Apr-Jun)	3rd Quarter (Jul-Sep)	4th Quarter (Oct-Dec)	Total (Full Year)	1st 9 Months (Jan-Sep)
Fatalities and Percentage Change in Fatalities for the Corresponding Quarter, 1st 9 Months and Total From the Previous Year						
2020	7,901 [+0.9%]	9,164 [-0.3%]	11,358 [+13.6%]	10,584 [+13.4%]	39,007 [+7.3%]	28,423 [+5.2%]
2021	8,874 [+12.3%]	11,114 [+21.3%]	11,753 [+3.5%]	11,198 [+5.8%]	42,939 [+10.1%]	31,741 [+11.7%]
2022 [†]	9,645 [+8.7%]	10,545 [-5.1%]	11,690 [-0.5%]	10,915 [-2.5%]	42,795 [-0.3%]	31,880 [-0.4%]
2023 [†]	8,900 [-7.7%]	10,365 [-1.7%]	11,170 [-4.4%]	-	-	30,435 [-4.5%]
Fatality Rate per 100 Million Vehicle Miles Traveled (VMT)						
2020	1.08	1.43	1.44	1.42	1.34	1.32
2021	1.28	1.38	1.40	1.40	1.37	1.36
2022 [†]	1.32	1.30	1.40	1.38	1.35	1.34
2023 [†]	1.18	1.25	1.31	-	-	1.25

[†]2022 & 2023 statistical projections and rates based on these projections.

Sources: Fatalities: 2013-2020 FARS Final File, 2021 FARS Annual Report File.

VMT: FHWA September 2023 Traffic Volume Trends for 2022 & 2023 VMT.



BIL Implementation - Crash Data

Published Model Minimum Uniform Crash Criteria (MMUCC) 6th Edition on January 4, 2024

Started 2024 data collection of expanded Crash Investigation Sampling System (CISS) at 41 collection sites and including Pedestrian and Cyclist crashes

Notice of Funding Opportunity (NOFO) for State Electronic Data Collection is coming soon

Thank You!



U.S. Department
of Transportation