# An Analysis of Traffic Fatalities by Race and Ethnicity

**GHSA**
**Governors Highway Safety Association** ®
The States' Voice on Highway Safety

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# Contents

# Acknowledgments

# INTRODUCTION

The Governors Highway Safety Association (GHSA) is a national leader in traffic safety and is committed, through leadership, culture change, training and accountability, to contribute to reforms that help achieve racial justice and equity. As part of this effort, GHSA contracted with Sam Schwartz Consulting to review relevant research and data that provide a better understanding of the impact of fatal traffic crashes on Black, Indigenous and People of Color (BIPOC) and identify actions states and communities can take to advance equity in traffic safety.

The goal of this research is to support ongoing efforts by GHSA and its members, the State Highway Safety Offices (SHSO), who are tasked with addressing speeding, impaired driving and other behavioral safety issues that contribute to traffic crashes. SHSOs also work with their engineering counterparts to address the role of infrastructure in traffic crashes. The combined focus on behavioral and infrastructure countermeasures is intended to prevent injuries, save lives and support equitable outcomes. This report is part of a broader GHSA focus on equity and builds on the association's September 2020 news release that outlined steps GHSA and the SHSOs and their partners can take to help fight racism in traffic enforcement and more equitably address highway safety needs.[1]

This report includes the following:

1. Key findings of previous research

2. Analysis of nationwide fatality data by race for the most recent five-year period (2015-2019)

3. Conclusions

4. Actions for consideration by the SHSOs and/or additional research GHSA may wish to conduct based on the conclusions

This report is meant to inform decisions regarding traffic enforcement and safety education. The data analysis shows overrepresentation of minorities in crashes, including those involving fatalities. Minority groups experience historic racism, socioeconomic status, and access to housing, education, health care, employment that all have public health and transportation impacts.[2] Therefore, overrepresentation of minorities in crashes should not be viewed simply as a function of race.

**A note regarding language that refers to race:** Race is a sensitive subject, and a variety of terms are used to refer to race. Original writing in this report follows the Associated Press (AP) Stylebook section on race-related coverage, which does not capitalize "white" when referring to race.[3] GHSA uses the terminology Black, Indigenous and People of Color (BIPOC), which has become more widely accepted over the past year.[4] The race-oriented terminology that appears in the previous research discussed in this report has not been changed; it is the original terminology used by the source's researchers. GHSA and the authors of this report recognize that language that refers to race evolves over time and can inadvertently be offensive in certain contexts.

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1   https://www.ghsa.org/resources/news-releases/Equity-In-Traffic-Enforcement20

2   https://www.cdc.gov/healthequity/racism-disparities/index.html

3   https://www.apstylebook.com/race-related-coverage

4   https://www.msn.com/en-us/news/us/bipoc-what-does-it-mean-and-where-does-it-come-from/ar-BB169qSg

# KEY FINDINGS OF PREVIOUS RESEARCH

Numerous studies have examined the extent to which BIPOC are disproportionately represented in traffic crashes, as well as characteristics of these crashes. The studies cited and summarized below do not represent a complete and thorough literature review on this topic, but rather provide a brief, high-level summary of key research findings that provide specific and relatively recent information regarding the extent to which BIPOC are disproportionately involved in traffic crashes.

## Motor Vehicle Traffic-Related Pedestrian Deaths – U.S., 2001–2010
### (Naumann and Beck, 2013)

To determine traffic-related pedestrian death rates per 100,000 by sex, age group and race/ethnicity, the Centers for Disease Control and Prevention (CDC) analyzed 2001–2010 data from the National Vital Statistics System (NVSS). Race/ethnicity was coded into five mutually exclusive categories: American Indian/Alaskan Native, Asian/Pacific Islander, Black, Hispanic and white. Findings of the study include:

- American Indian/Alaskan Native populations, among both males (7.73) and females (2.22), had the highest annualized, age-adjusted traffic-related pedestrian death rates of all races/ethnicities.

- Hispanic and Black males had the next highest death rates (3.93 and 3.73, respectively), followed by Asian/Pacific Islander males (1.96). Asian/Pacific Islander females had the second highest death rate (1.46), followed by Black females (1.31) and Hispanic females (1.27).

- Among both males (1.78) and females (0.79), white females had the lowest pedestrian death rates. By urbanization level, among both males (2.90) and females (1.23), those living in large central metropolitan areas had the highest pedestrian death rates.

- For males ages 15–24, 25–34, 35–44 and 45–54, racial/ethnic disparity patterns generally were similar. In each of these age groups, the highest death rates were among American Indian/Alaskan Native men (range: 8.13–11.72), followed by Black men (2.29–5.97) and Hispanic men (2.61–4.60). White men (range: 1.66–2.28) and Asian/Pacific Islander men (0.70–1.36) had the lowest death rates.

- For males aged 75–84 and ≥85 years, the death rate for Hispanic (11.05 and 14.70, respectively) and Asians/Pacific Islander men (12.30 and 20.53, respectively) were statistically greater than the death rates for white men (3.61 and 5.41, respectively) and Black men (6.78 and 6.95, respectively).

- American Indian/Alaskan Native females also had the highest death rates for each of the age groups 15–24, 25–34, 35–44 and 45–54 years. Across those age groups, the death rate for American Indian/Alaskan Native women ranged from 2.29 to 4.17, while the rate was 0.96–1.88 for Black women (range: 0.96–1.88). Hispanic women (range: 0.62–1.15), white women (range: 0.68–0.86) and Asian/Pacific Islander (range: 0.55–0.97) women had similar death rates.

- For females aged 75–84 and ≥85 years, the death rate for Hispanic women (5.33 and 4.03, respectively) and Asian/Pacific Islander women (8.82 and 6.87, respectively) were statistically greater than the death rates for white women (2.06 and 2.02, respectively) and Black women (1.94 and 1.36, respectively).

## Fatal Injuries Among Children by Race and Ethnicity — United States, 1999–2002
(Bernard et. al, 2018)

This study reviewed fatal injury data from death certificates for 1999-2002 reported through the CDC's National Vital Statistics System and found that:

- American Indian/Alaska Native and Black infants aged <1 year had consistently higher total injury death rates than other racial/ethnic populations. Both populations had more than twice the rate of injury death compared with white infants. American Indian/Alaska Native infants had the highest rate of motor vehicle traffic death.

- American Indian/Alaska Native children ages 1-9 and 10-19 had the highest rate of traffic death.

## Ethnicity and Alcohol-Related Fatalities: 1990-1994
(Voas et al., 2000)

This study used data from the National Center for Health Statistics and Fatality Analysis Reporting System (FARS) to compare the percentage of each ethnic group's fatal crashes that were alcohol-related (defined as "at least one active road user involved had a BAC > 0.00"). The following findings were reported:

- Native American populations had the highest percentage of alcohol-involved driver, passenger and pedestrian fatalities of any ethnic group.

- Mexican American populations had the highest alcohol-related fatality rates among all four types of road users – drivers, passengers, pedestrians and bicyclists.

- African American people generally had the same rate of alcohol involvement for drivers and passengers as Caucasian American people, but the former had a slightly higher rate for pedestrians and cyclists.

- Among Hispanic people, Cuban American people stood out for their low percentage of alcohol-related driver, passenger and pedestrian fatalities.

- Asian-Pacific Islander people had distinctly lower rates of alcohol-related fatalities for all categories of road users.

## Analysis of Pedestrian Injury, Built Environment, Travel Activity and Social Equity
### (McGowan, 2021)

In October 2020, the Oregon Transportation Commission adopted its Strategic Action Plan which identifies equity as one of three priorities. In support of this initiative, the Oregon Department of Transportation prepared a technical memo highlighting the key findings of active research being performed to better understand factors that result in disparate pedestrian injury outcomes for different sociodemographic groups. Key findings include the following:

- Using FARS data, age-based rates were calculated for each race and ethnicity showing that BIPOC experience a disproportionate fatal injury burden with Black people experiencing the greatest disparity. The next greatest disparity was found among American Indian and Alaskan Native peoples, followed by Latinx people. Asian people also have a higher rate of pedestrian injury than the state average.

- Analysis of pedestrian injuries by Oregon Census tract shows that in places where low-income populations and BIPOC are more concentrated there are measurably higher levels of vehicle traffic and higher speed arterials. People in these communities walk, take transit and bicycle to work at higher rates than communities with fewer low-income people and BIPOC. In addition to this work travel behavior, communities with a greater concentration of poverty and BIPOC have more transit stops and are likely to use transit for non-work travel more than communities with fewer transit stops. Combined, the higher walking activity in areas with more traffic moving at higher speeds is likely precipitating the pedestrian fatal injury rate disparity between tracts.

## Socioeconomic Differences in Road Traffic Injuries During Childhood and Youth: A Closer Look at Different Kinds of Road Users
### (Hasselberg, et. al, 2001)

Beyond race, socioeconomic status can influence the risk of motor vehicle crash involvement. This study investigated socioeconomic differences in traffic injuries among Swedish children and adolescents, and whether this applies to the same extent to all categories of road users. This was a closed population-based cohort study that used the 1985 Swedish Population and Housing Census. All children aged 0-15 years of age in 1985 (approximately 1.5 million subjects) were monitored for five categories of road traffic injuries over eight years and divided into seven socioeconomic groups based on parental socioeconomic status. Odds ratios and population attributable risks were computed using the children of intermediate and high-level salaried employees as the reference group. The researchers determined:

- The injury risks of pedestrians and bicyclists were 20% to 30% higher among the children of manual workers than those of intermediate and high-level salaried employees.

- Socioeconomic differences were greatest for injuries involving motorized vehicles: mopeds, motorcycles and cars.

- Socioeconomic differences in road traffic injuries are substantial.

- Socioeconomic injury-risk differentials increase when young people use motorized vehicles.
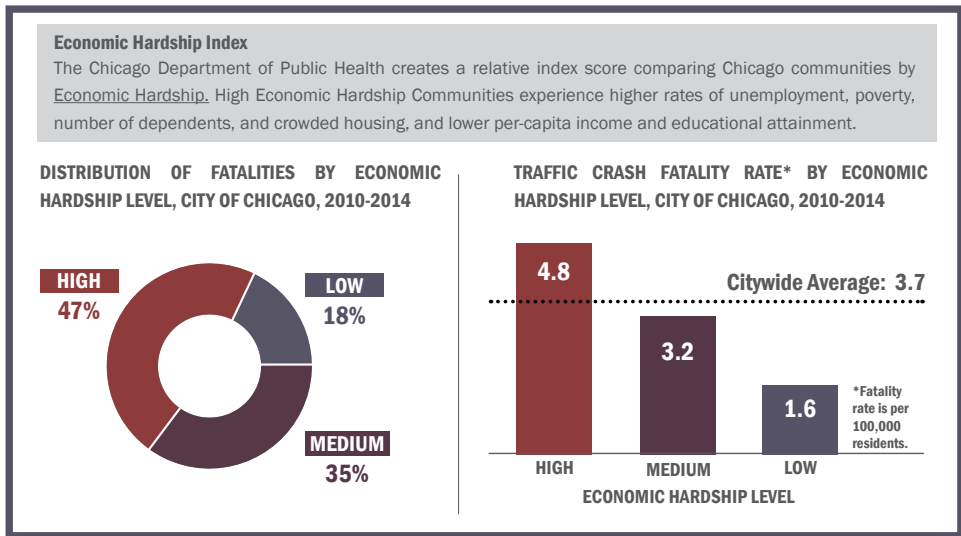
## Vision Zero Chicago: Action Plan 2017-2019
### (City of Chicago, 2017)

The City of Chicago's 2017 Vision Zero Action Plan included a reference to public health data that show traffic crashes affect Chicago communities unequally. As illustrated below, Chicagoans who live in areas of high economic hardship have an increased risk of being in a severe crash and die in traffic crashes more often and at a higher rate than other city residents.

## VISION ZERO DATA ANALYSIS

Figure 1: Page 17 of Chicago's Vision Zero Action Plan

**Chicagoans living in communities of high economic hardship die in traffic crashes more often and at a higher rate than other Chicagoans.**

**Economic Hardship Index**
The Chicago Department of Public Health creates a relative index score comparing Chicago communities by Economic Hardship. High Economic Hardship Communities experience higher rates of unemployment, poverty, number of dependents, and crowded housing, and lower per-capita income and educational attainment.

**DISTRIBUTION OF FATALITIES BY ECONOMIC HARDSHIP LEVEL, CITY OF CHICAGO, 2010-2014**

HIGH 47%
LOW 18%
MEDIUM 35%

**TRAFFIC CRASH FATALITY RATE\* BY ECONOMIC HARDSHIP LEVEL, CITY OF CHICAGO, 2010-2014**

4.8 HIGH
3.2 MEDIUM
1.6 LOW
Citywide Average: 3.7
ECONOMIC HARDSHIP LEVEL
\*Fatality rate is per 100,000 residents.

**Chicagoans of color are more at risk of dying in a traffic crash than white Chicagoans.**

**TRAFFIC CRASH FATALITY RATE\* BY RACE, CITY OF CHICAGO, 2010-2014**

5.6 BLACK
3.5 LATINO
2.5 WHITE
Citywide Average: 3.7
\*Fatality rate is per 100,000 residents.

**DISTRIBUTION OF FATALITIES BY RACE, CITY OF CHICAGO, 2010-2014**

LATINO 26%
WHITE 25%
BLACK 49%

**Black Chicagoans are more than twice as likely to be killed in a traffic crash than white Chicagoans, and almost half of all fatal crash victims are black.**

# ANALYSIS OF NATIONWIDE FATALITY DATA BY RACE

To further examine whether BIPOC are disproportionately represented in fatal traffic crashes, analysis was conducted using FARS and population data to compute traffic fatalities per 100,000 population by race and ethnicity for the following categories of traffic deaths:

- Total traffic deaths
- Daytime total traffic deaths
- Nighttime total traffic deaths
- Speeding-related traffic deaths
- Traffic deaths involving police pursuit

- Pedestrian deaths
- Pedestrian hit and run deaths
- Bicyclist deaths
- Nighttime bicyclist deaths

Because approximately 75% of nationwide pedestrian fatalities occur at night, a separate analysis was not conducted to compute nighttime pedestrian deaths. In FARS, nighttime lighting condition is coded as Dark (versus Daylight, Dawn or Dusk).

FARS data were obtained for the most recent five calendar years, 2015-2019. FARS reports race and ethnicity for fatal crash victims based on information obtained from death certificates. The following race categories are included in FARS using Office of Management and Budget guidelines:

- American Indian, Non-Hispanic/Unknown
- Asian, Non-Hispanic/Unknown
- Black, Non-Hispanic
- Hispanic
- Multiple Races, Non-Hispanic/Unknown

- Pacific Islander, Non-Hispanic/Unknown
- White, Non-Hispanic
- All Other Non-Hispanic or Race

Note that persons of Hispanic origin may be of any race; all other racial/ethnic groups are considered non-Hispanic.

Population estimates for these same race/Hispanic origin categories were obtained from the Kaiser Family Foundation's (KFF) analysis of population and demographic data. These data are based on analysis of the Census Bureau's American Community Survey (ACS) and restricted to the civilian, non-institutionalized population for whom ACS collects and reports poverty information. The ACS data cover more than 97% of the total U.S. population reported by the Census Bureau. KFF data were obtained for each year during the five-year period, 2015-2019, and averaged.

Figure 2 shows **Total Traffic Deaths** per 100,000 population by race and ethnicity.

- Compared with all other racial groups, American Indian/Alaskan Native persons had a substantially higher per-capita rate of total traffic fatalities.

- Black persons had the second highest rate of total traffic deaths.

- White, Native Hawaiian/Other Pacific Islander, and Hispanic persons had somewhat similar per-capita rates of total traffic fatalities.

- Compared with all other racial groups, Asian persons had a substantially lower per-capita rate of total traffic deaths.



Figure 2: Total Traffic Deaths per 100,000 Population, U.S. 2015-2019

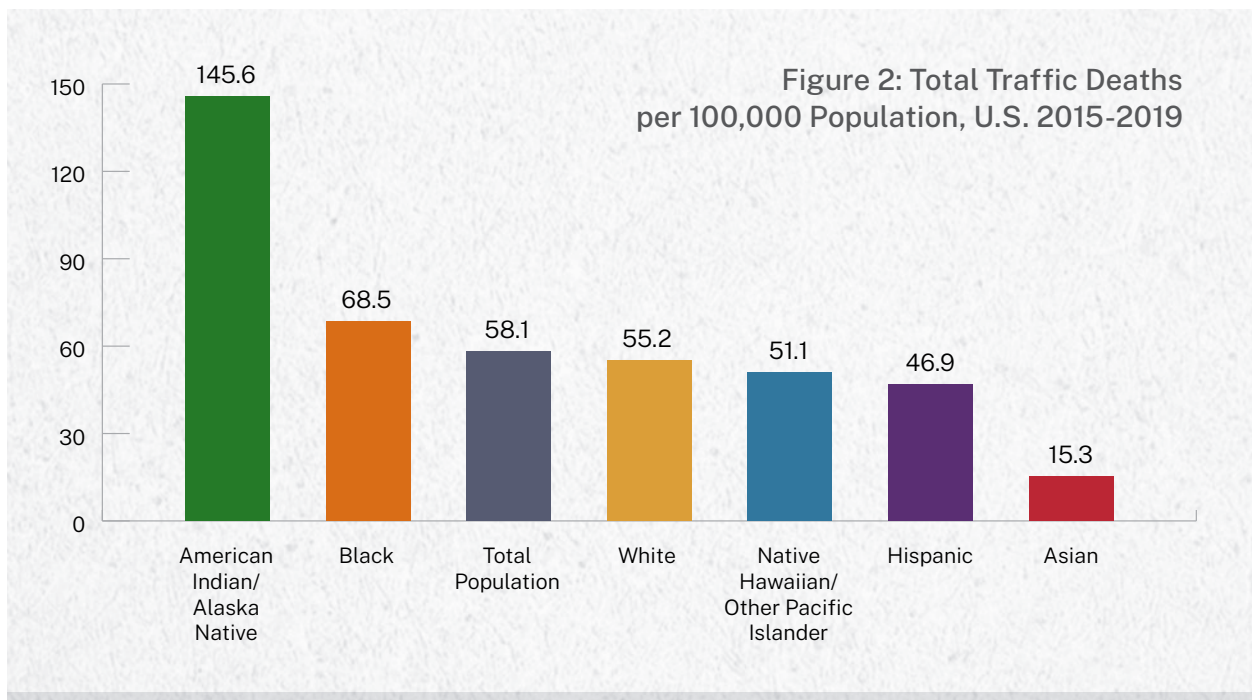| Race/Ethnicity | Deaths per 100,000 |
|---|---|
| American Indian/Alaska Native | 145.6 |
| Black | 68.5 |
| Total Population | 58.1 |
| White | 55.2 |
| Native Hawaiian/Other Pacific Islander | 51.1 |
| Hispanic | 46.9 |
| Asian | 15.3 |

Figure 3 shows **Total Daytime Traffic Deaths** per 100,000 population by race and ethnicity.

- American Indian/Alaskan Native persons had the highest per-capita rate of total daytime traffic fatalities compared with all other racial groups, but the differential was markedly less than for total traffic deaths.

- White persons had the second highest per-capita rate of total daytime traffic fatalities

- Black persons had the third highest per-capita rate of total daytime traffic fatalities

- Asian persons had a substantially lower per-capita rate of involvement for total daytime traffic deaths.



Figure 3: Total Daytime Traffic Deaths per 100,000 Population, U.S. 2015-2019

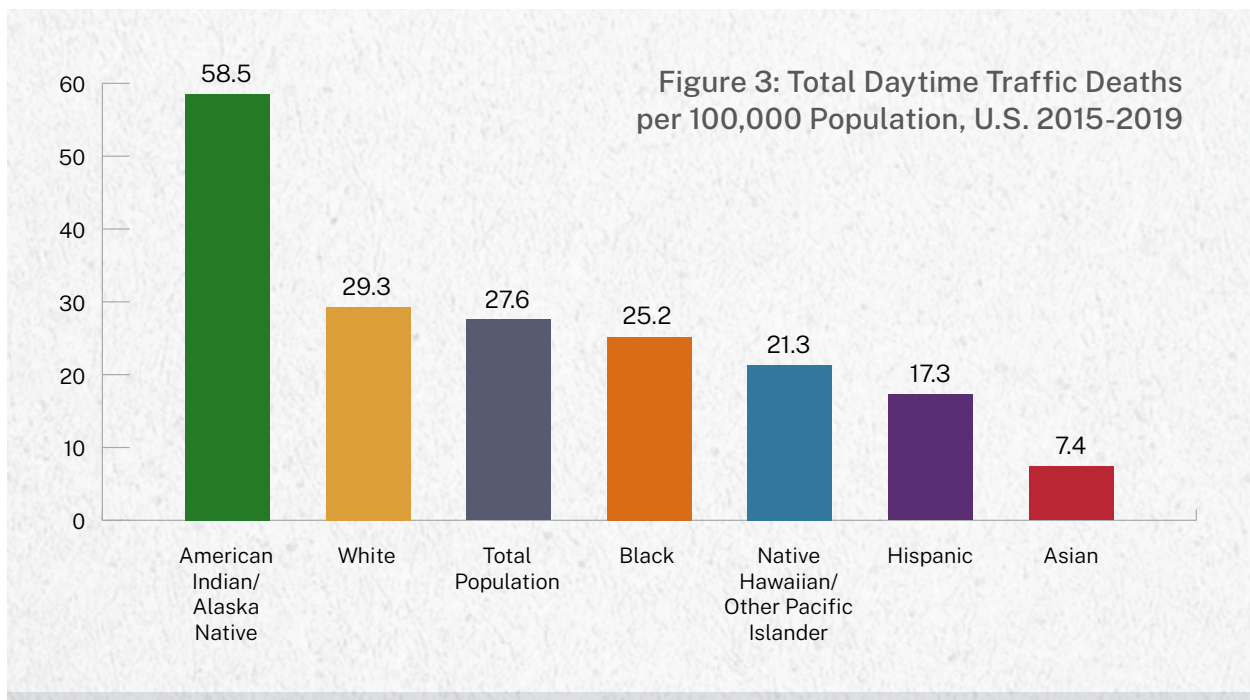| Category | Value |
|---|---|
| American Indian/Alaska Native | 58.5 |
| White | 29.3 |
| Total Population | 27.6 |
| Black | 25.2 |
| Native Hawaiian/Other Pacific Islander | 21.3 |
| Hispanic | 17.3 |
| Asian | 7.4 |

Figure 4 shows **Total Nighttime Traffic Deaths** per 100,000 population by race and ethnicity.

- As with total traffic deaths, American Indian/ Alaskan Native persons had a substantially higher per-capita rate of total nighttime traffic fatalities compared with all other racial groups.

- Also, as with total traffic deaths, Black persons had the second highest rate of total nighttime traffic deaths.

- Native Hawaiian/Other Pacific Islander and Hispanic persons had somewhat similar per-capita rates of total nighttime traffic fatalities.

- White persons had the second lowest per-capita rate of total nighttime traffic fatalities.

- Asian persons had a substantially lower per-capita rate of involvement in total nighttime traffic deaths.



**Figure 4: Nighttime Traffic Deaths per 100,000 Population, U.S. 2015-2019**

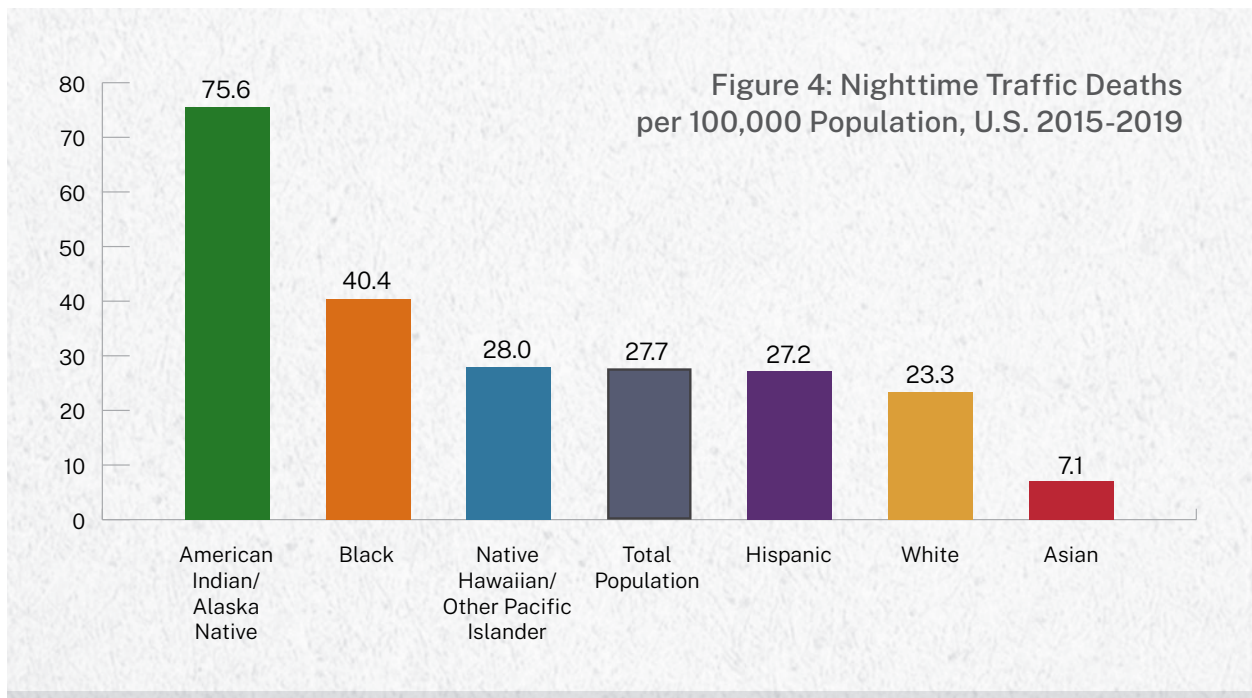| Category | Value |
|---|---|
| American Indian/Alaska Native | 75.6 |
| Black | 40.4 |
| Native Hawaiian/Other Pacific Islander | 28.0 |
| Total Population | 27.7 |
| Hispanic | 27.2 |
| White | 23.3 |
| Asian | 7.1 |

Figure 5 shows **Speeding-Related Traffic Deaths** per 100,000 population by race and ethnicity.

- Compared with all other racial groups, American Indian/Alaskan Native persons had a substantially higher per-capita rate of speeding-related traffic fatalities.

- Native Hawaiian/Other Pacific Islander and Black persons had the second and third highest rates of speeding-related traffic deaths, respectively.

- White and Hispanic persons had nearly identical rates of speeding-related traffic fatalities.

- Asian persons had a substantially lower per-capita rate of involvement in speeding-related traffic deaths.



Figure 5: Speeding-Related Traffic Deaths per 100,000 Population, U.S. 2015-2019

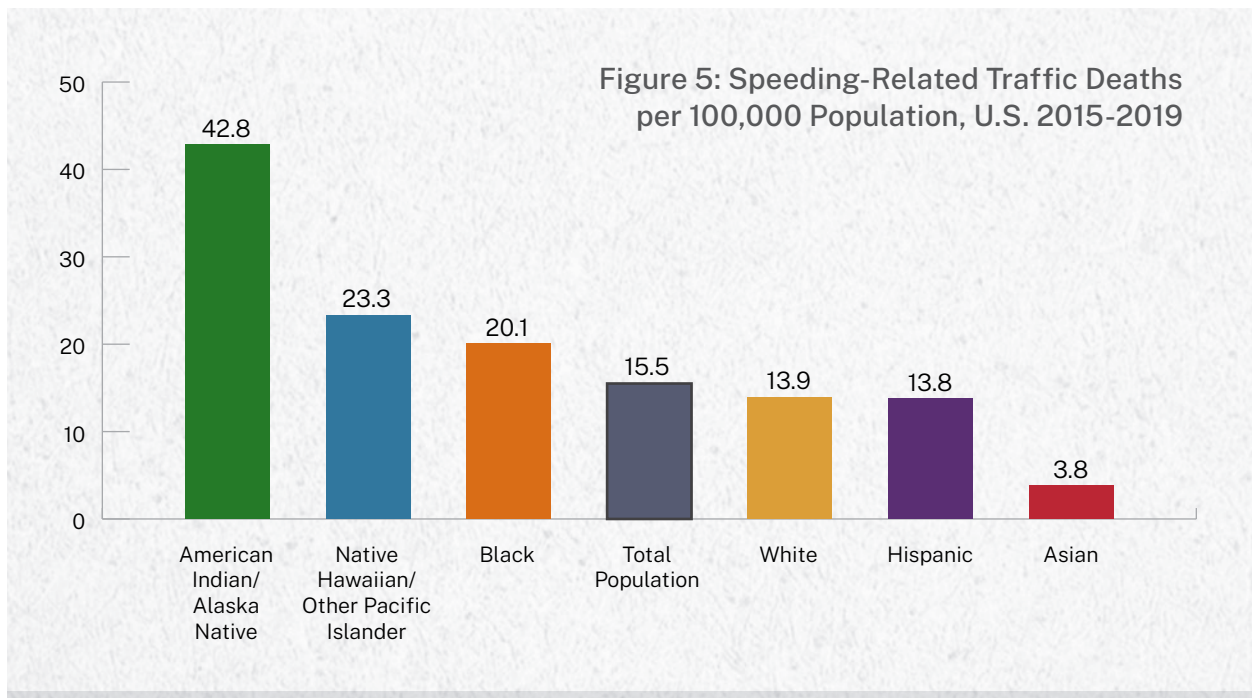| Race/Ethnicity | Rate |
|---|---|
| American Indian/Alaska Native | 42.8 |
| Native Hawaiian/Other Pacific Islander | 23.3 |
| Black | 20.1 |
| Total Population | 15.5 |
| White | 13.9 |
| Hispanic | 13.8 |
| Asian | 3.8 |

Figure 6 shows **Traffic Deaths Involving Police Pursuit** per 100,000 population by race and ethnicity. According to the FARS User Manual Appendix C, traffic deaths involving police pursuit include the driver who is the subject of the pursuit, bystanders (other vehicle occupants, non-vehicle occupants) and occupants of police vehicles.

- American Indian/Alaskan Native and Black persons had the first and second highest per-capita rate of traffic deaths involving police pursuit, respectively.

- Native Hawaiian/Other Pacific Islander persons had the third highest per-capita rate of traffic deaths involving police pursuit.

- Hispanic and white persons had nearly identical rates of traffic deaths involving police pursuit.

- Asian persons had the lowest per-capita rate of traffic deaths involving police pursuit.



Figure 6: Traffic Deaths involving Police Pursuit per 100,000 Population, U.S. 2015-2019

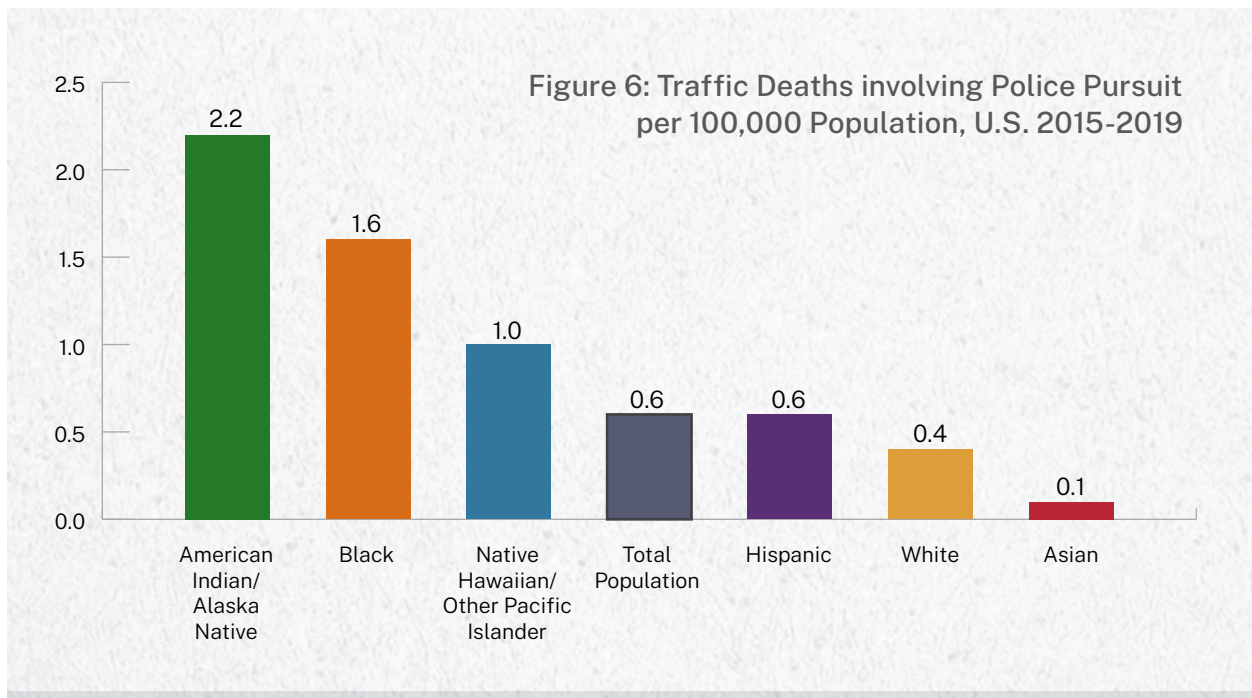| Category | Rate |
|---|---|
| American Indian/Alaska Native | 2.2 |
| Black | 1.6 |
| Native Hawaiian/Other Pacific Islander | 1.0 |
| Total Population | 0.6 |
| Hispanic | 0.6 |
| White | 0.4 |
| Asian | 0.1 |

Figure 7 shows **Pedestrian Traffic Deaths** per 100,000 population by race and ethnicity.

- American Indian/Alaskan Native persons had the highest per-capita rate of pedestrian traffic deaths.

- Black persons had the second highest per-capita rate of pedestrian traffic deaths.

- Hispanic, Native Hawaiian/Other Pacific Islander and white persons had similar rates of pedestrian traffic deaths.

- Asian persons had the lowest per-capita rate of pedestrian traffic deaths.



Figure 7: Pedestrian Traffic Deaths per 100,000 Population, U.S. 2015-2019

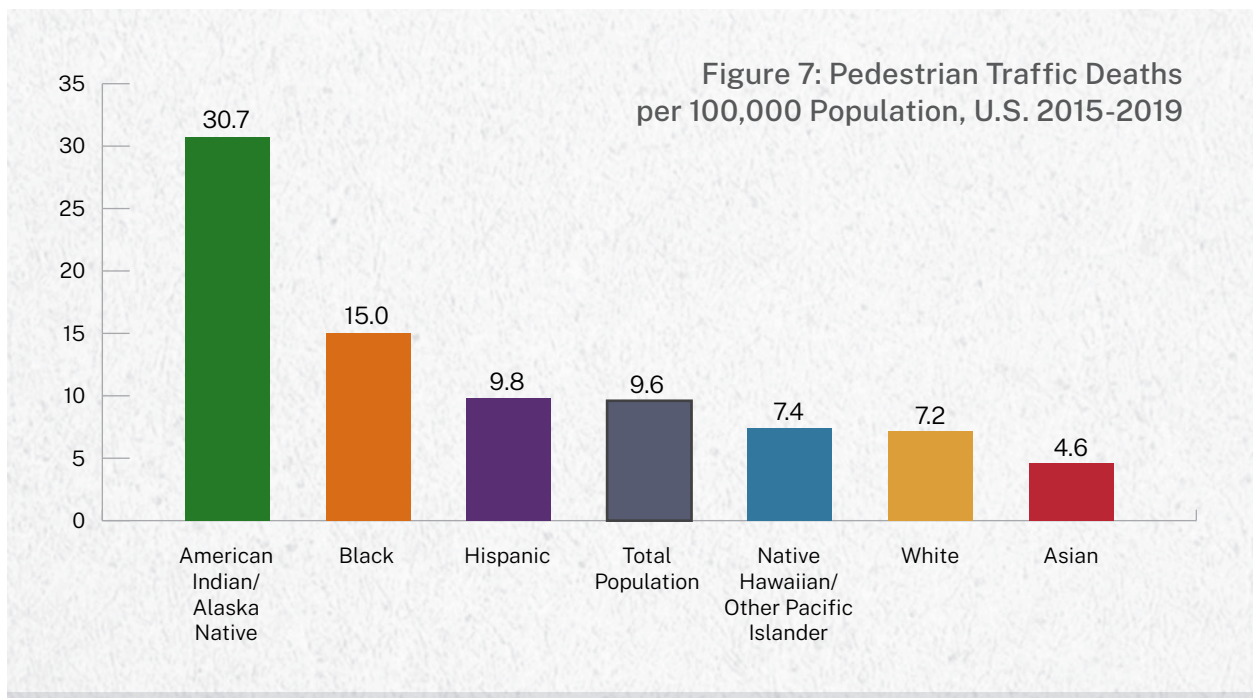| Category | Rate |
| --- | --- |
| American Indian/Alaska Native | 30.7 |
| Black | 15.0 |
| Hispanic | 9.8 |
| Total Population | 9.6 |
| Native Hawaiian/Other Pacific Islander | 7.4 |
| White | 7.2 |
| Asian | 4.6 |

Figure 8 shows **Pedestrian Hit and Run Traffic Deaths** per 100,000 population by race and ethnicity.

- The rank order for pedestrian hit and run deaths by race was the same as for all pedestrian traffic deaths with American Indian/Alaskan Native persons having the highest per-capita rate.

- Black persons had the second highest per-capita rate of hit and run pedestrian deaths followed by Hispanic, Native Hawaiian/Other Pacific Islander and white persons, respectively.

- Asian persons had the lowest per-capita rate of hit and run pedestrian deaths.



Figure 8: Pedestrian Hit & Run Traffic Deaths per 100,000 Population, U.S. 2015-2019

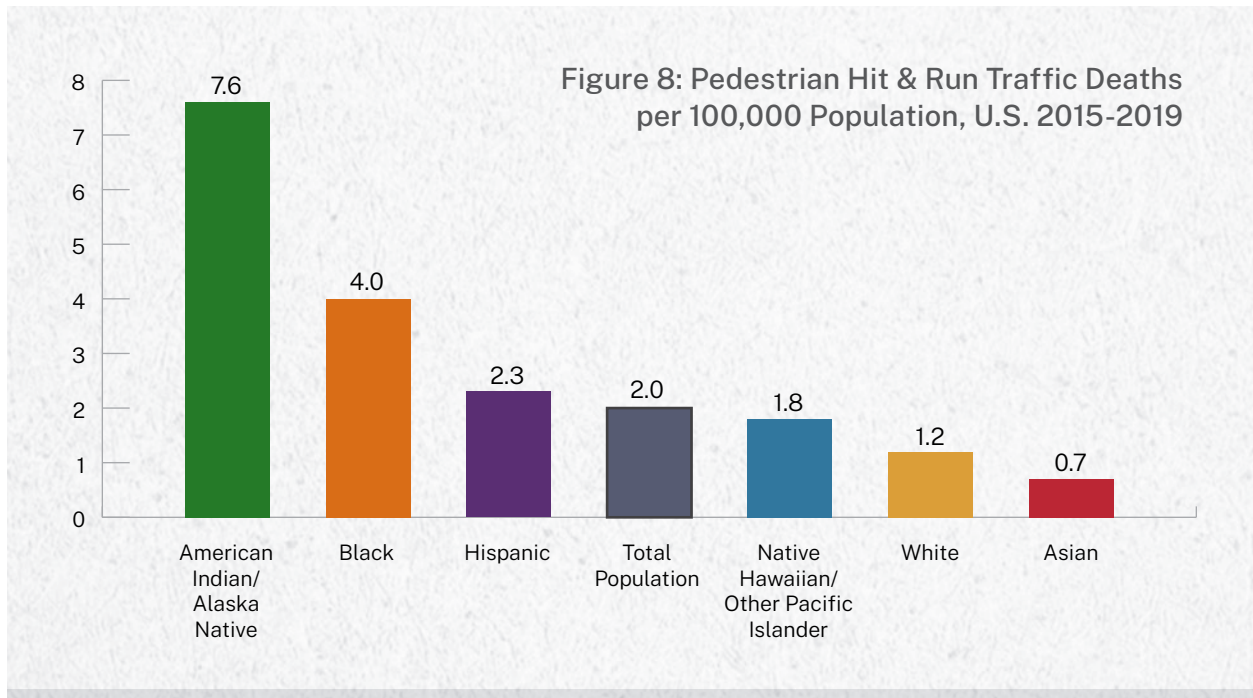| Race/Ethnicity | Rate |
| --- | --- |
| American Indian/Alaska Native | 7.6 |
| Black | 4.0 |
| Hispanic | 2.3 |
| Total Population | 2.0 |
| Native Hawaiian/Other Pacific Islander | 1.8 |
| White | 1.2 |
| Asian | 0.7 |

Figure 9 shows **Bicyclist Traffic Deaths** per 100,000 population by race and ethnicity.

- American Indian/Alaskan Native persons had the highest per-capita rate of bicyclist deaths, but the differential was smaller than for other categories of traffic deaths.

- Black, Hispanic and white persons had similar per-capita rates of bicyclist fatalities.

- Asian and Native Hawaiian/Other Pacific Islander persons had similar per-capita rates of bicyclist fatalities.

- Bicyclist traffic deaths is the only category for which Asian persons did not have the lowest per-capita fatality rate.



Figure 9: Bicyclist Traffic Deaths per 100,000 Population, U.S. 2015-2019

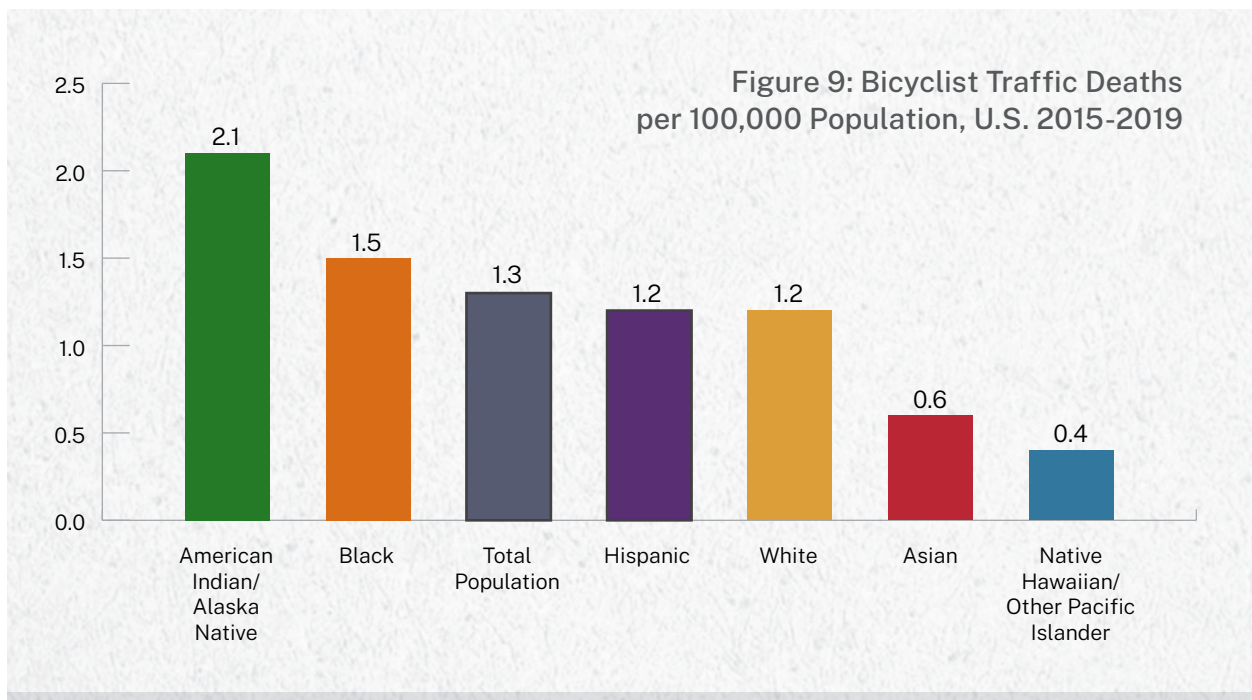| Category | Value |
|---|---|
| American Indian/Alaska Native | 2.1 |
| Black | 1.5 |
| Total Population | 1.3 |
| Hispanic | 1.2 |
| White | 1.2 |
| Asian | 0.6 |
| Native Hawaiian/Other Pacific Islander | 0.4 |

Figure 10 shows **Nighttime Bicyclist Traffic Deaths** per 100,000 population by race and ethnicity.

- The rank order for nighttime bicyclist traffic deaths by race was nearly identical to all bicyclist traffic deaths.

- American Indian/Alaskan Native persons had the highest per-capita rate of nighttime bicyclist deaths, but the differential was relatively small compared to other categories of traffic deaths.

- Black persons had the second highest per-capita rate of nighttime bicyclist deaths followed by Hispanic and white persons, respectively.

- Asian and Native Hawaiian/Other Pacific Islander persons had the same per-capita rates of nighttime bicyclist fatalities.



**Figure 10: Nighttime Bicyclist Traffic Deaths per 100,000 Population, U.S. 2015-2019**

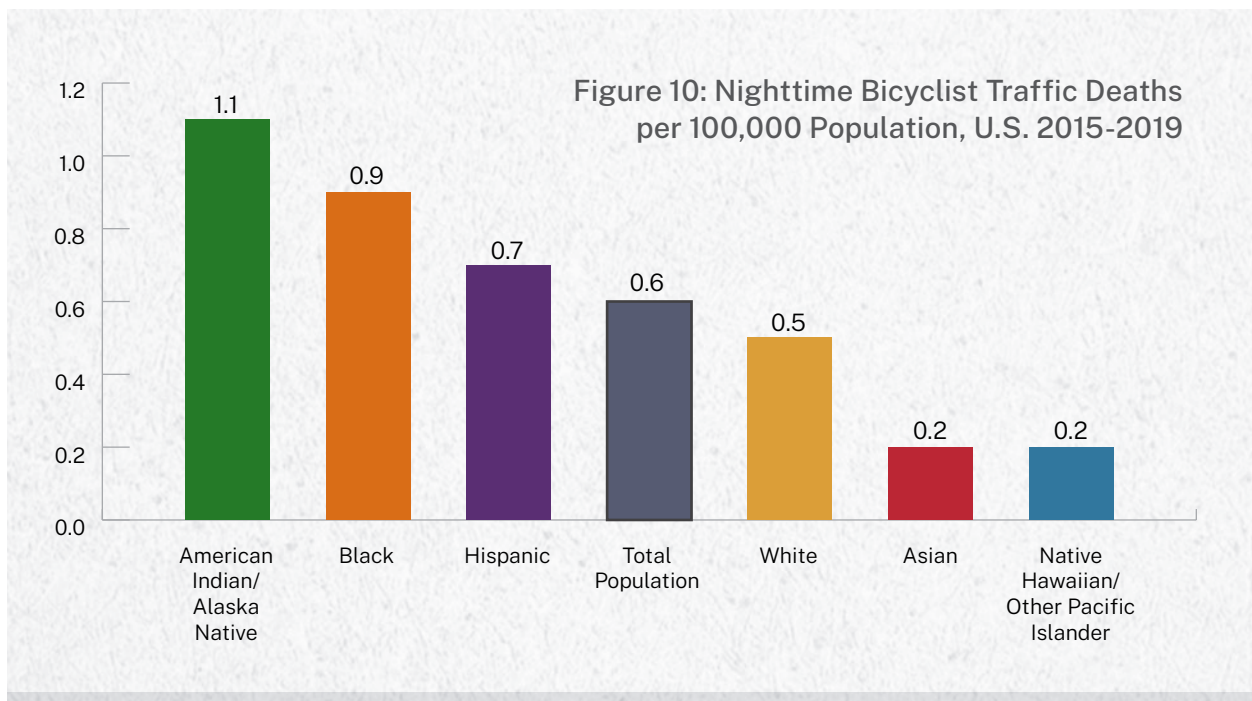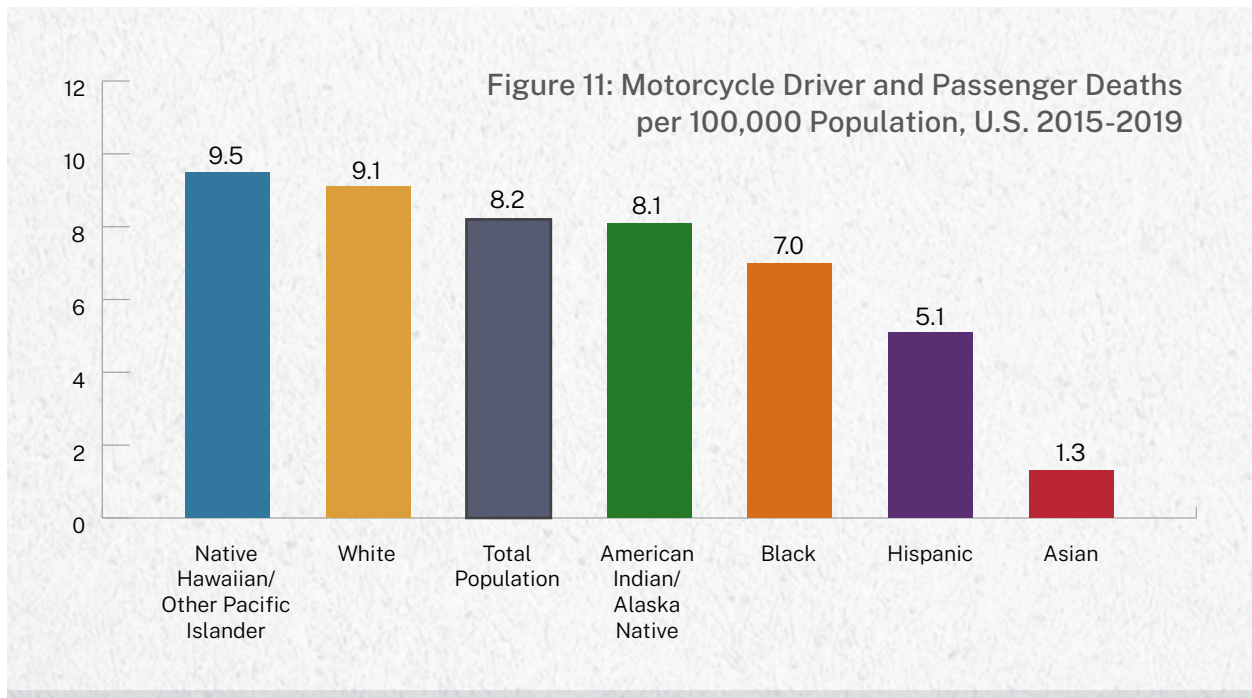| Category | Rate |
|---|---|
| American Indian/Alaska Native | 1.1 |
| Black | 0.9 |
| Hispanic | 0.7 |
| Total Population | 0.6 |
| White | 0.5 |
| Asian | 0.2 |
| Native Hawaiian/Other Pacific Islander | 0.2 |

Figure 11 shows **Motorcycle Driver and Passenger Deaths** per 100,000 population by race/Hispanic origin.

- Native Hawaiian/Other Pacific Islander and white persons, respectively, had the highest and second highest per-capita rates of motorcycle driver and passenger fatalities. The rates for these two groups were nearly identical.

- American Indian/Alaskan Native persons had the third highest per-capita rate of motorcycle driver and passenger deaths followed by Black and Hispanic persons, respectively.

- Asian persons had the lowest per-capita rate of motorcycle driver and passenger deaths.



Figure 11: Motorcycle Driver and Passenger Deaths per 100,000 Population, U.S. 2015-2019

| Category | Rate |
|---|---|
| Native Hawaiian/Other Pacific Islander | 9.5 |
| White | 9.1 |
| Total Population | 8.2 |
| American Indian/Alaska Native | 8.1 |
| Black | 7.0 |
| Hispanic | 5.1 |
| Asian | 1.3 |

# CONCLUSIONS

It is clear from the review of previous research and from the analysis of 2015-2019 FARS data that BIPOC are disproportionately represented in fatal traffic crashes. This disproportionate representation is a significant health disparity and represents a chronic public health issue in minority communities. Key findings from previous research indicate that:

- When measured against all causes of death, motor vehicle traffic crashes account for disproportionately large percentages of fatalities, particularly among Native American and Hispanic persons.

- Black children ages 4–15 had the highest rates of fatalities involving pedestrians and other people not in vehicles as a percentage of all motor vehicle traffic fatalities.

- American Indian/Alaskan Native persons have the highest annualized, age-adjusted traffic-related pedestrian death rates of all races/ethnicities.

- Native American persons were found to have the highest percentage of alcohol-involved driver, passenger and pedestrian fatalities of any ethnic group.

- Census tracts where low-income and BIPOC populations are more concentrated have measurably higher levels of vehicle traffic and higher speed arterials.

- Based on the research findings from Chicago, people who live in areas of high economic hardship have an increased risk of being in a severe crash and die in traffic crashes more often and at a higher rate than residents of more affluent neighborhoods.

**It is clear from the review of previous research and from the analysis of 2015-2019 FARS data that BIPOC are disproportionately represented in fatal traffic crashes.**

- A Swedish study found the injury risk for pedestrians and bicyclists was 20% to 30% higher among the children of manual workers than those of intermediate and high-level salaried employees, indicating socioeconomic status can influence the risk of motor vehicle crash involvement. This finding may be related, in part, to differences in roadway design and traffic conditions in neighborhoods inhabited by manual workers compared to neighborhoods where high-level salaried employees reside and thus is applicable to the U.S.

Key findings from the analysis of 2015-2019 FARS data:

- Compared with all other racial groups, American Indian/Alaskan Native persons had a substantially higher per-capita rate of total traffic fatalities.

- Black persons had the second highest rate of total traffic deaths. This was true for total traffic deaths, pedestrian traffic deaths and bicyclist traffic deaths.

- Asian persons had the lowest per-capita rate of involvement for virtually all categories of traffic deaths.

- White persons generally have lower traffic fatality rates than BIPOC. Motorcycle driver and passenger deaths were the exception to this overall finding.

When interpreting the disproportionate representation of BIPOC in motor vehicle crashes and traffic fatalities, it must be recognized that ethnicity and race, to a certain degree, is intertwined with other factors that affect crash risk, such as socioeconomic status and overall investments in crash prevention where people live. This includes roadway infrastructure, traffic enforcement, community engagement and traffic safety education.

Also, the response time and the quality of emergency medical care varies across communities in such a way that these factors could affect fatality outcomes for crashes of similar severity and be intertwined with race. Inequities in the health care system may contribute to the overrepresentation of BIPOC in fatal traffic crashes. Because FARS includes fatalities that occur within 30 days of a crash, residents of underserved communities that lack access to high-quality health care may be more likely than residents of more affluent communities to die within 30 days of a crash. Likewise, inequities in health care could contribute to the finding that Chicagoans who live in areas of high economic hardship have an increased risk of being in a severe crash and die in traffic crashes more often and at a higher rate than other city residents.

Regarding the FARS analysis of pedestrian and bicyclist fatalities, race and ethnicity data for victims of these crashes should not be equated to race and ethnicity data for drivers that strike people on foot and bicycles. In addition, population estimates do not necessarily equate to exposure in terms of the traffic environment. People of different races may have differing exposure to traffic crashes as vehicle occupants, pedestrians and bicyclists. Therefore, population-based fatality rates do not account for different racial groups' actual exposure to traffic crashes.

The overrepresentation of BIPOC in nighttime crashes could reflect disparities between the amount of streetlight illumination provided in underserved communities compared with more affluent areas. Additionally, findings that show overrepresentation of BIPOC in fatal crashes highlight the need for comprehensive efforts to address longstanding underlying inequities that contribute to this increased risk of fatal crashes.

## ACTIONS FOR ADDRESSING EQUITY IN TRAFFIC SAFETY

BIPOC account for a larger proportion of traffic fatalities than expected based on their respective share of the total population. Ensuring that resources are allocated to address pedestrian safety needs in BIPOC communities is critical. States and communities have many options available to advance equity in traffic safety, such as:

- Prioritize planning and investment in infrastructure safety countermeasures in underserved/lower socioeconomic communities and neighborhoods that have suffered from years of bias and disinvestment.

- Treat traffic crash involvement as a health disparity issue. As such, consider how public health approaches to other health disparity issues, including mental health and poverty, may be useful in addressing traffic crash prevention.

- Ensure robust diverse representation in state/city transportation agency leadership positions and on traffic safety committees tasked with developing and implementing state Strategic Highway Safety Plans, Highway Safety Plans, Highway Safety Improvement Plans, Pedestrian and Bicyclist Safety Action Plans and other transportation-related plans.

- Develop new, research-based interventions that prevent traffic crashes before they occur and/or before enforcement activities are required.

- Tailor and develop with BIPOC input safety education campaigns and outreach efforts to address the needs and culture of BIPOC communities. This ensures these campaigns are culturally relevant, use appropriate distribution channels/methods and are delivered by individuals who are representative of the people they are attempting to reach. Additionally, these campaigns should raise awareness and provide information to road users, community members, planners and engineers with the goal of changing viewpoints or behaviors in order to improve safety.

- Enforcement can be an effective measure to reduce crashes and improve traffic safety. However, the relationship between BIPOC communities and law enforcement is frayed, with many BIPOC communities questioning the motives and actions of law enforcement. Therefore, traffic enforcement programs should only be implemented or altered with extensive engagement with the local BIPOC community to consider if and how an equitable traffic enforcement program can be implemented in their community.

- Assess how current traffic enforcement approaches can exacerbate racial/socioeconomic issues and work with stakeholders to identify and implement solutions. Automated traffic enforcement, for example, supports the objective of providing consistent and unbiased enforcement of speeding, red light running and other traffic violations without regard to driver race or socioeconomic status. Choosing locations for camera enforcement is, of course, an important consideration, and members of the BIPOC community should be included in the selection process.

Additional research needs that build upon the findings of this report include:

- Better public health data that could potentially shed more light on the extent to which BIPOC are disproportionately represented in fatal traffic crashes, and whether certain subsets of BIPOC (e.g., specific races, genders, age groups) have especially high rates of involvement relative to their population.

- State level FARS data analysis to help account for concentrations of certain minority groups in specific states. For example, approximately 52% of the total U.S. American Indian/Alaska Native population resides in just six states – Alaska, Arizona, California, New Mexico, North Carolina and Oklahoma.

- A deeper understanding of the role of race in crash outcomes by examining the National Emergency Medical Services Information System (NEMSIS) database that collects State and Territorial EMS injury and fatality data from 911 calls. Because injury data in NEMSIS is not limited to fatalities, NEMSIS analysis could provide a broader examination of crash involvement by race.

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