February
2025

TRANSPORTATION SAFETY ACTION PLAN

Crash Data Analysis Report—Part 1

DUTCHESS COUNTY
TRANSPORTATION COUNCIL
Better ways from here to there

Transportation Safety Action Plan

Crash Data Analysis Report—Part 1

prepared for

DUTCHESS COUNTY TRANSPORTATION COUNCIL

Better ways from here to there

prepared by

CAMBRIDGE SYSTEMATICS

date

February 2025

Disclaimer

The preparation of this report has been financed in part through grant[s] from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 [or Metropolitan Planning Program, Section 104(f)] of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

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Executive Summary

This Transportation Safety Action Plan (SAP) Crash Data Analysis Report—Part 1 presents an analysis of crash trends and factors in Dutchess County, especially for crashes involving fatal or serious injuries.

Much of this analysis covers the five years from 2019 through 2023. Some of the analysis extends further into the past, providing additional context for historical crash trends and patterns.

Key Data and Trends Analyzed:

- *Fatalities*
- *Fatality Rates*
- *Serious Injuries*
- *Non-motorized Fatalities and Serious Injuries*
- *Fatalities per Vehicle Miles Traveled*
- *Serious Injuries per Vehicle Miles Traveled*
- *Population*

This report considers the following Emphasis Area Topics based on the New York State Strategic Highway Safety Plan:

- **Intersections**
- **Vulnerable Road Users**
  - Pedestrians
  - Bicyclists
  - Road Workers
- **Roadway Departures**
  - Roadway Departures
  - Head-On Collisions
  - Sideswipes
- **Driver Age**
  - Aged 16-20
  - Aged 65+
- **Road User Behavior**
  - Alcohol use
  - Illegal drug use
  - Cell phone use
  - Distraction
  - Falling asleep
- **Aggressive Driving**
  - Aggressive driving
  - Following too closely
  - Traffic control disregarded
  - Unsafe speed
- **Alternate Road Vehicles**
  - Motorcycles
  - Trucks
  - Buses

Based on the data analysis, we recommend nine potential Emphasis Areas for the SAP, organized in Table 0-1 by the elements of the Safe System Approach.

TABLE 0-1. POTENTIAL SAP EMPHASIS AREAS

Safe System Element	Potential SAP Emphasis Area
Safer Roads	Intersections Roadway Departure
Safer Speeds	Speeding
Safer Vehicles	Motorcyclist Safety
Safer People	Vulnerable Road Users Older Drivers Distracted Driving Impaired Driving Aggressive Driving
Post-Crash Care[1]	

[1] *Post-Crash Care needs cannot be fully determined by this data analysis and will be considered for the SAP by other means.*

Key findings of this review include:

Traffic deaths and serious injuries, including for non-motorized road users, have increased since 2019.

- **Overall Traffic Fatality Trends:** Statistics on traffic violence in Dutchess County testify to the need to continue investment in road safety countermeasures. Fatalities have decreased significantly over time but have plateaued in the last decade. The recent five-year moving average of traffic fatalities shows that traffic deaths and serious injuries, including for non-motorized road users, have increased since 2019. This is notable given that Dutchess County's population has stayed flat since 2010, and it suggests a need for additional traffic safety investment. While fatal and serious injuries make up a minority of all crashes, they account for a disproportionate share of crash costs.
- **Collision Types and Intersection Safety:** Rear-end crashes are the most common collision type (40%), although right angle crashes (32%) account for the greatest proportion of fatalities and serious injuries. Consistent with statewide trends, intersection fatalities and serious injuries have increased in the last decade (2014-2023).
- **Vulnerable Road Users:** Data shows that vulnerable road users are at much higher risk of traffic violence than other road users. Pedestrians and bicyclists are involved in only 1.5% of all crashes, but account for 11.5% of deaths and serious injuries. More than half of vulnerable road user crashes (54%) occur at intersections, which will be a focus

Pedestrians and bicyclists are involved in only 1.5% of all crashes, but account for 11.5% of deaths and serious injuries.

for the upcoming hotspot and systemic analyses. Thankfully, there have been no fatalities or serious injuries involving highway workers in Dutchess County from 2019-2023.

- **Speeding:** Speeding is a leading aggressive driving behavior in Dutchess County, though speed-related fatalities and serious injuries have remained relatively stable over the last five years. While this study did not use speed limit information for specific roads, an analysis of road functional classification suggests that speeding results in disproportionately more fatalities and serious injuries on rural local roads, rural and urban expressways, and urban interstate highways, compared to other types of roads.

Over the past five years, fatalities and serious injuries for drivers aged 65 and older have nearly doubled.

- **Distracted Driving:** Since 2019, Dutchess County has experienced a sharp increase in fatalities and serious injuries due to inattentive drivers, surpassing even impaired driving.
- **Older Drivers:** Since 2019, fatalities and serious injuries for drivers aged 65 and older have nearly doubled.
- **Other Aggressive Driving—Following Too Closely and Disregarding Traffic Control:** Dutchess County has experienced a notable increase over time in fatal and serious injuries from following too closely and disregarding traffic control devices.

Dutchess County has experienced a sharp increase in fatalities and serious injuries due to inattentive drivers.

- **Impaired Driving:** Crashes involving alcohol use and associated fatalities and serious injuries have declined, and crashes involving illegal drug use and associated fatalities and serious injuries appear to be declining. That said, New York State legalized cannabis for recreational use in 2021, and driving under the specific influence of cannabis is typically underreported in safety data.
- **Motorcyclist Safety:** Motorcycle fatalities and serious injuries account for 10% of all fatalities and serious injuries in Dutchess County, and motorcycle crashes increased by 71% from 2017 to 2022.
- **Large Trucks:** Truck-related fatalities and serious injuries account for a relatively small percentage of all fatalities and injuries in Dutchess County.
- **Roadway Departure:** Dutchess County has seen a consistent decrease over the last five years for fatalities and serious injuries associated with roadway departure crashes. However, roadway departure crashes are severe, and still make up a substantial proportion of fatalities and serious injuries in the county.
- **Road Safety by Road Ownership:** Roads owned by NYSDOT experience a greater proportion of fatalities and serious injuries combined (56%), but County and local roads in Dutchess County have substantial portions of fatalities and serious injuries (22% and 20%, respectively), suggesting the need for investments in all roads in the county, despite ownership.
- **Road Safety by Road Classification:** Many crashes occur on urban roads, with roads classified as “principal arterial-other” accounting for 30% of urban crashes and 30% of urban crash fatalities and serious injuries. This reflects national concerns about high-speed roads where many different types of road users interact. Among rural roads, major collectors and “principal arterial-other” roads

exhibited 25-30% of crashes and fatalities/serious injuries. Data suggest that rural crashes also tend to be more severe.

Addressing these specific issue areas in Dutchess County will help the DCTC and its partners come closer to reaching their road safety goals. The findings from this report will also help contextualize problem locations identified in the Safety Data Analysis—Part 2.

Many crashes occur on urban roads, with roads classified as "principal arterial-other" accounting for 30% of urban crashes. Among rural roads, major collectors and "principal arterial-other" roads exhibited 25-30% of crashes.

1.0 Introduction

This Crash Data Analysis Report Part 1 highlights critical crash trends, including fatal and serious injuries in Dutchess County since 1975. The report identifies a range of common crash characteristics and investigates various factors to support the development of the Transportation Safety Action Plan (SAP).

Data Included in this Report

Data Sources

Sources for data in this report are listed under each Chart or Figure. Key data sources include:

- NYSDOT CLEAR Crash Data Viewer (June 2024): Data pertaining to Dutchess County from 2014 – 2023 accessed from NYSDOT's CLEAR system in June 2024. The authors applied a custom methodology to organize this raw data for easier analysis.
- NYSDOT CLEAR Crash Data Viewer (November 2024): Some analyses use data accessed more recently from this source, which may differ from NYSDOT CLEAR (June 2024) above because the data has been organized differently. Further, CLEAR has been subject to changes and improvements by NYSDOT in the intervening period.
- TSSR: Data pertaining to the five HSIP Performance Measures accessed from the Traffic Safety Statistical Repository. This database is updated less frequently that NYSDOT CLEAR.

Fatalities and Serious Injuries vs. Crashes

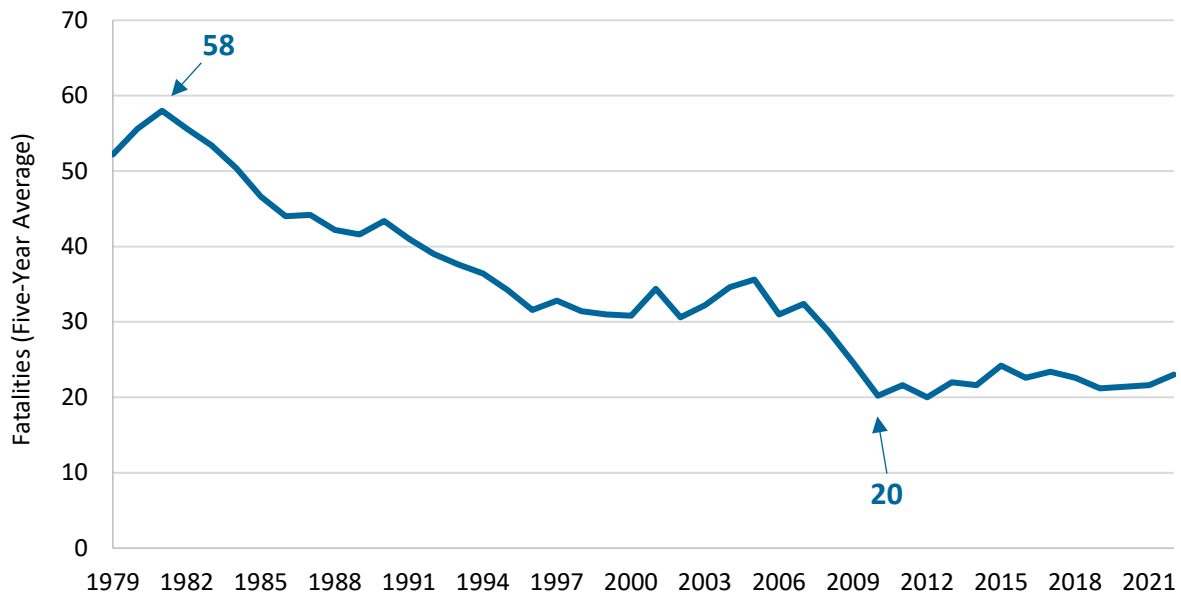
Throughout this report, analyses of fatalities, serious injuries, and other injuries refer to counts of people. Multiple individuals can be injured in a single crash and so the number of people killed or injured may differ from the number of associated crashes. The report generally does not consider counts of crashes by injury severity (with the exception of Table 2-2).

1.1 Historical Trends

To better understand and address the factors contributing to fatal crashes over time, it helps to examine long-term trends in traffic fatalities. This analysis looked at data on fatal crashes and fatalities in Dutchess County from 1975 through 2022 from the Fatality Analysis Reporting System (FARS), a comprehensive national database of fatal traffic crashes.[1] Given the unpredictable nature of fatal crashes, annual averages of fatalities were calculated over five-year periods to reduce the impact of statistical fluctuations and to more clearly present overall trends in fatalities, as shown in Figure 1-1.

[1] National Highway Traffic Safety Administration, Fatality Analysis Reporting System. https://www.nhtsa.gov/crash-data-systems/fatality-analysis-reporting-system

FIGURE 1-1. DUTCHESS COUNTY TRAFFIC FATALITY TRENDS (1979-2022)



Source: NHTSA Fatality Analysis Reporting System (FARS)

Between 1979 and 2010, the data reveals a significant downward trend in fatalities, decreasing 66% from 58 average fatalities in 1981 to 20 in 2010. The notable decline observed in 2008 aligns with national decreases in traffic deaths that occurred during the 'Great Recession' of 2007-2009.[2]

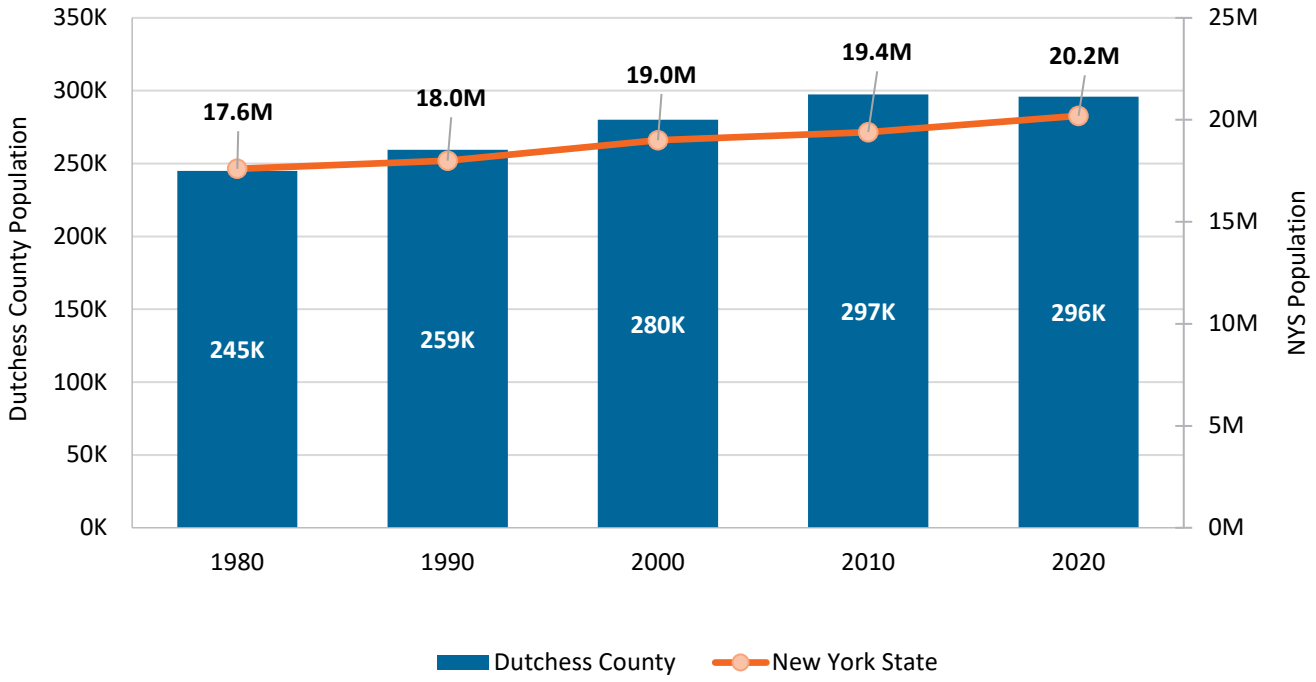
Since 2010, the five-year average of fatalities has stabilized, fluctuating between 20 and 25 fatalities annually. Within this range, a slight but steady increase in fatalities has been observed since 2018. It remains too early to know whether this recent increase indicates a longer-term upward trend. New York State (NYS) and the United States also experienced a noted increase in traffic deaths in 2021, which has been associated with changes in traffic safety following the COVID pandemic.[3]

[2] *How did the economic recession (2008-2010) influence traffic fatalities in OECD countries?* https://www.sciencedirect.com/science/article/abs/pii/S0001457517300490

[3] National Highway Traffic Safety Administration, Traffic Safety Facts.https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813561

Figure 1-2 illustrates overall population trends from 1980 to 2020 for both Dutchess County and NYS.

FIGURE 1-2. POPULATION TRENDS IN DUTCHESS COUNTY AND NYS (1980-2020)



Source: U.S. Census Bureau

Changes in Dutchess County's population reflects an average compound annual growth rate of 0.65% from 1980 to 2010 and 0.47% from 1980 to 2020. In comparison, the State's population experienced an average compound annual growth rate of 0.33% from 1980 to 2010 and 0.35% from 1980 to 2020. Generally, an increase in population correlates with more vehicle travel, which can increase traffic safety risks. Understanding these population dynamics can help inform traffic safety planning and resource allocation.[4]

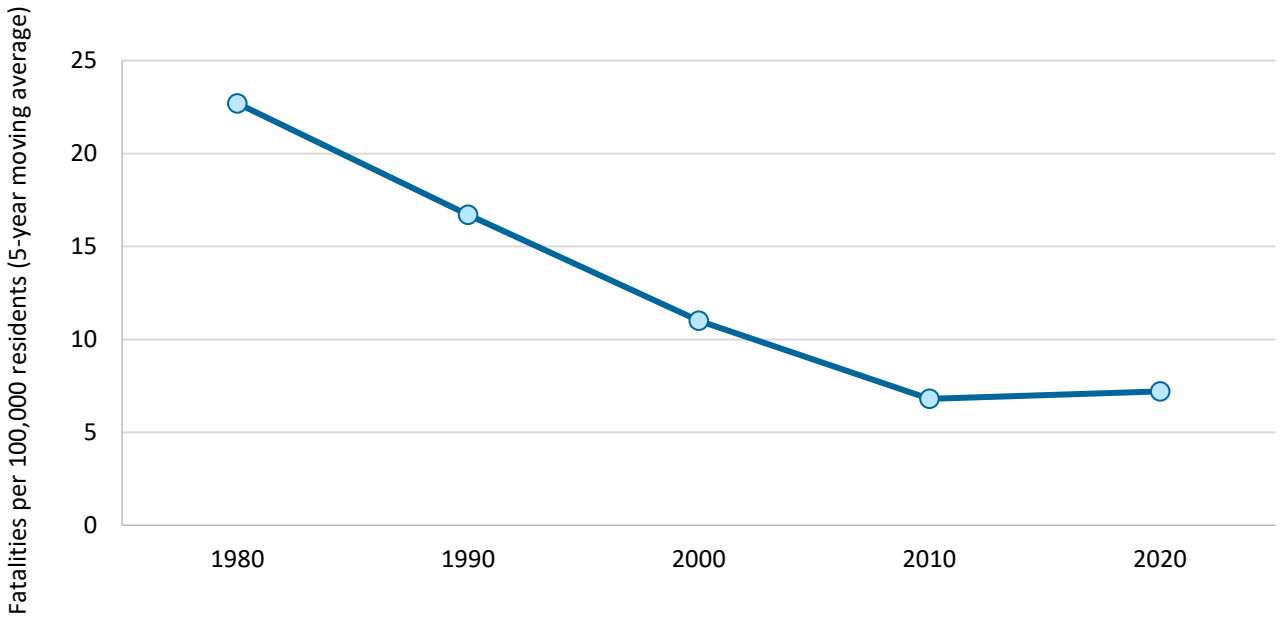
Figure 1-3 illustrates the changes in fatalities per 100,000 residents from 1980 to 2020. Since 1980, Dutchess County's population has grown by 21%, but the five-year average for fatalities has decreased by 62%, leading to a 70% drop in the fatality rate per 100,000 people from 1980 through 2020. This decrease likely reflects the success of traffic safety strategies, improved vehicle technology, and advances in road design.[5]

However, between 2010 and 2020, population growth, average fatalities, and the fatality rate remained relatively flat, suggesting that the initial gains in reducing fatalities may have leveled off.

[4] More Urbanites, More Cars: The Challenge of Urban Road Safety and Health. https://www.wri.org/insights/more-urbanites-more-cars-challenge-urban-road-safety-and-health

[5] Advanced vehicle technologies and road safety: A scoping review of the evidence. https://www.sciencedirect.com/science/article/abs/pii/S000145752031561X

FIGURE 1-3. FATALITIES PER 100,000 RESIDENTS IN DUTCHESS COUNTY (1980-2020)



Source: FARS, U.S. Census Bureau

[1] *The five-year average is for the five years preceding each year in the first column. For instance, the data for 1980 reflects the five-year average from 1976—1980.*

2.0 Key Trends in Crashes, Fatalities, and Serious Injuries

This section presents data on countywide trends that will inform a more in-depth network screening to identify specific problem locations and systemic, countywide safety issues. Unlike data presented in Section 2.0 that goes back to 1975, the data presented in this section go back only to 2013. However, this section includes more details about serious injuries, crashes involving non-motorized road users, injury severity and associated costs, road ownership, functional classification, and collision type.

Defining Fatalities and Serious Injuries

Crash fatalities *are defined as those that happen within 30 days of the crash event and are due to injuries from the crash.*

Serious injuries *(also called severe injuries) include skull fractures, internal injuries, broken or distorted limbs, unconsciousness, severe lacerations, severe burns, and other injuries leaving the victim unable to leave the scene without assistance.*

Source: TSSR

2.1 HSIP Performance Measures

NYSDOT is required to report annual performance measures and set targets for the Highway Safety Improvement Program (HSIP) to the Federal Highway Administration (FHWA). DCTC accepted the State's targets and describes its progress in meeting the approved safety targets in the System Performance Reports it produces for the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP). This section reviews current trends within Dutchess County across the five HSIP performance measures: fatalities, fatalities per 100 million vehicle-miles traveled (VMT), serious injuries, serious injuries per 100 million VMT, and non-motorized fatalities and serious injuries. NYSDOT's 2025 performance measure targets are shown below in Table 2-1.

TABLE 2-1. NYSDOT PERFORMANCE MEASURES (2025 TARGETS)

NYSDOT HSIP Performance Measure	2025 Target
Traffic Fatalities	1,011.0
Fatalities per 100 million VMT[1]	0.881
Serious Injuries	11,034.1
Serious Injuries per 100 million VMT[2]	9.557
Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries[3]	2,615.2

[1] *Fatality Rate computed using VMT from FHWA Highway Statistics Series, Table VM-2*
[2] *Serious Injury Rate computed using VMT from FHWA Highway Statistics Series, Table VM-2*
[3] *Based on combined total of Pedestrian Fatalities and Bicyclist and Other Cyclist Fatalities from FARS.*

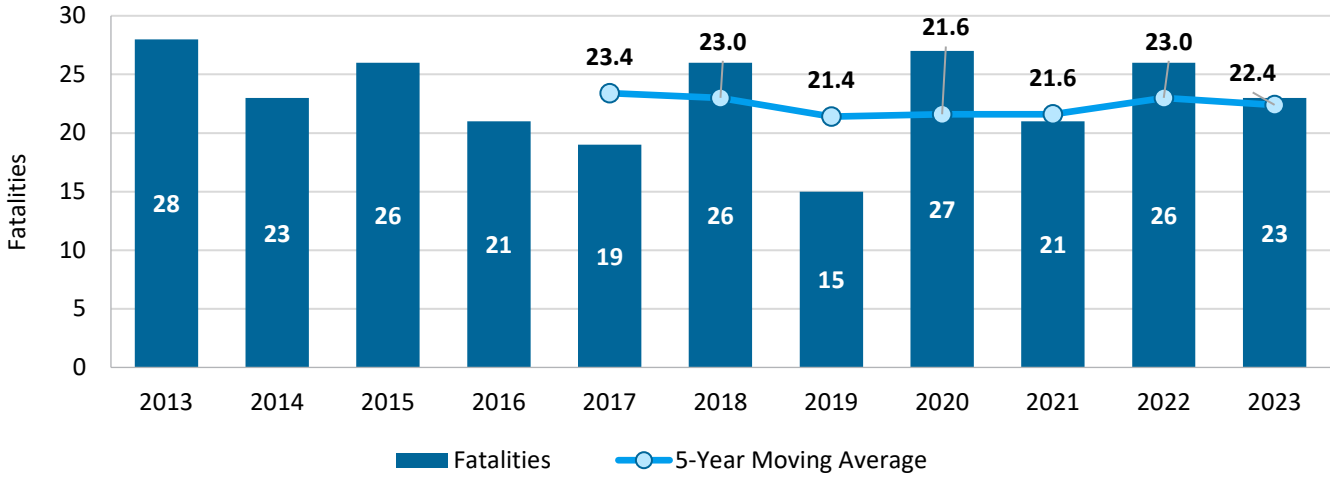
Source: Safety Performance Target Fact Sheet 2025, NYSDOT

2.1.1 Traffic Fatalities

Figure 2-1 shows annual crash fatalities in Dutchess County from 2013 to 2023, along with a five-year moving average that highlights overall trends. During this period, the number of fatalities fluctuated, with a low of 15 in 2019 to a high of 27 in 2020. This dramatic one-year increase, despite a decrease in VMT, is notable and possibly associated with pandemic conditions and driver behavior. However, the five-year moving average remained stable, hovering between 21.4 and 23.4 fatalities.

For NYS as a whole, fatalities increased from approximately 881 in 2019 to over 1,092 in 2022—an increase of nearly 24%.[6] Despite some fluctuations, fatalities appear to have increased in Dutchess County since 2019 as well. This suggests that the decrease in 2019 may have been an outlier rather than a downward trend.

FIGURE 2-1. FATALITIES IN DUTCHESS COUNTY (2013-2023)



Source: TSSR

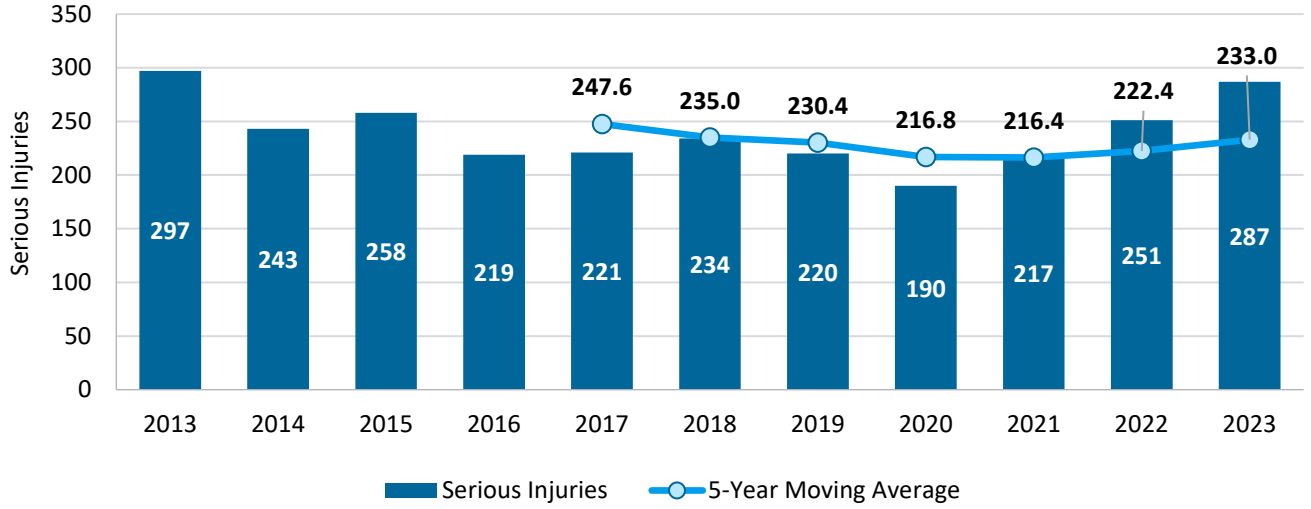
2.1.2 Serious Injuries

Serious injuries in Dutchess County reached a peak of 297 in 2013 and dropped to a low of 190 in 2020, as shown in Figure 2-2.

The decrease in serious injuries in 2020 contrasts with the spike in fatalities in Dutchess County in the same year, suggesting the need for further research to determine whether crashes in Dutchess County in 2020 were more likely to have circumstances that would result in fatalities.

[6] Institutes for Traffic Safety Management & Research, Traffic Safety Statistical Repository (TSSR). https://www.itsmr.org/traffic-safety-statistical-repository/

FIGURE 2-2. SERIOUS INJURIES IN DUTCHESS COUNTY (2013-2023)



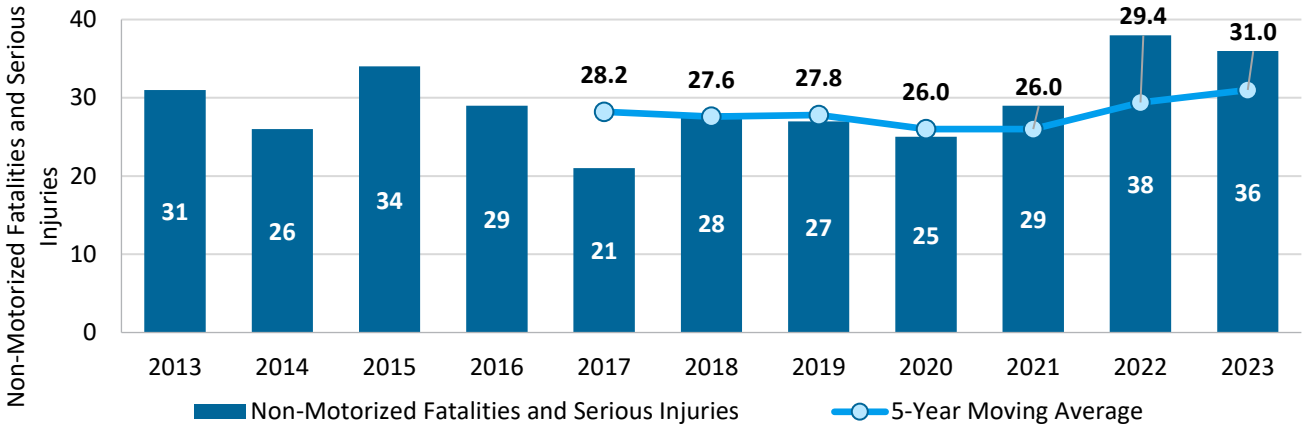
Source: TSSR

Since 2020, both Dutchess County and NYS have experienced an increase in serious injuries. However, the increase has been much more pronounced in Dutchess County, as the five-year moving average of serious injuries in Dutchess County increased 7%, from 217 in 2020 to 233 in 2023. By contrast, the five-year moving average of serious injuries in NYS increased by 2%, from roughly 11,400 in 2020 to 11,600 in 2023.

2.1.3 Non-Motorized Fatalities and Serious Injuries

Figure 2-3 highlights non-motorized (pedestrian and bicyclist) fatalities and serious injuries in Dutchess County over the same period. The five-year moving average indicates a slight decline followed by a rise since 2021, which reflects the statewide trend of increasing non-motorized fatalities and serious injuries.

FIGURE 2-3. NON-MOTORIZED FATALITIES AND SERIOUS INJURIES IN DUTCHESS COUNTY (2013-2023)

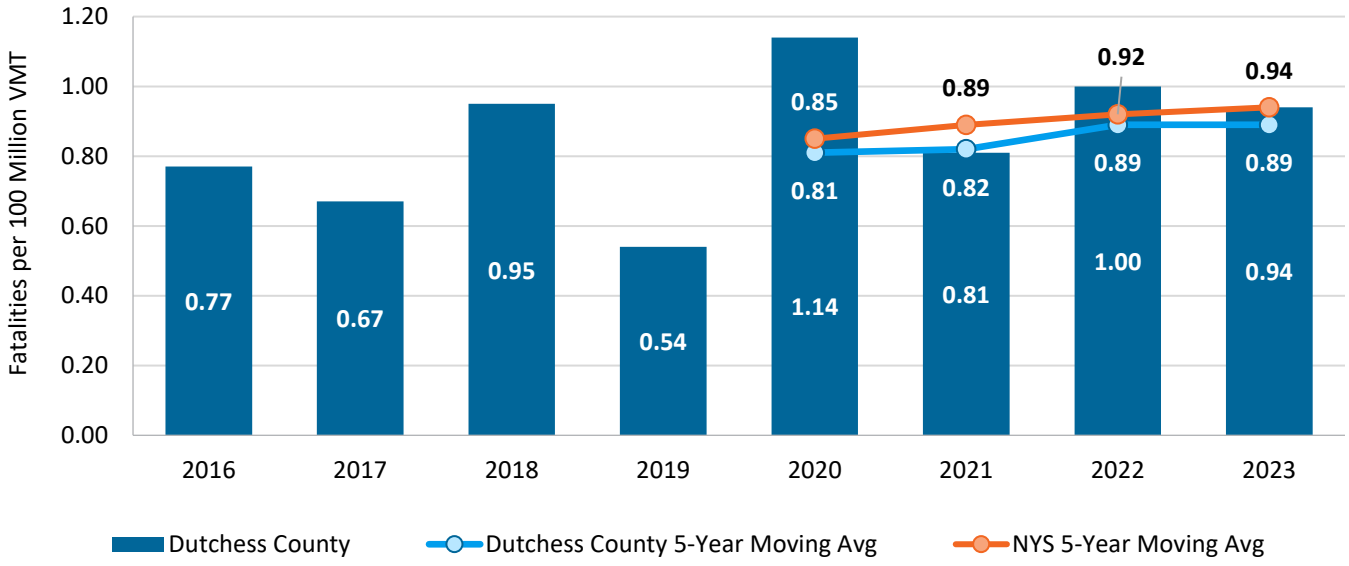


Source: TSSR

2.1.4 Fatalities Per 100 Million VMT

While the county's annual fatality rate has fluctuated, the five-year moving average increased from about 0.8 fatalities per 100 million VMT to 0.9, as shown in Figure 2-4. The statewide fatality rate (displayed in orange) is about 5% higher. However, both the statewide and county rates are rising, indicating that fatalities are becoming more frequent, even when adjusted for changes in vehicle travel.

FIGURE 2-4. FATALITY RATES (2016-2023)



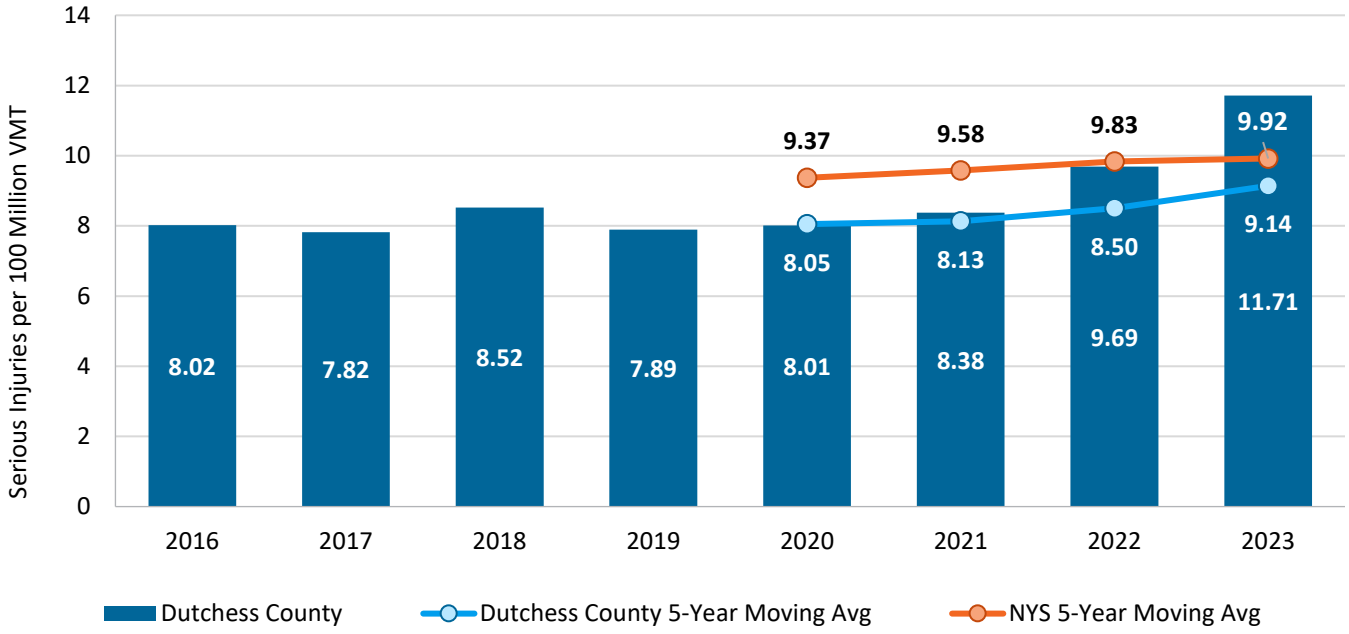
Source: TSSR, HPMS

2.1.5 Serious Injuries Per 100 Million VMT

Dutchess County's serious injury rate remained relatively stable from 2016 to 2020 but has risen by over 12% since then.

As shown in Figure 2-5, the county's five-year moving average for serious injuries is below the statewide rate (shown in orange), but it is rising more rapidly. If this trend continues, the county's rate could surpass the statewide average within a few years.

FIGURE 2-5. SERIOUS INJURY RATES (2016-2023)



Source: TSSR, HPMS

2.2 Other Crash Trends

2.2.1 Injury Severity

Crashes are classified by maximum injury severity according to a scale developed by the NYS Department of Motor Vehicles (NYSDMV), as shown below.

KABCO Scale

The KABCO scale for crash severity defines levels of injury severity. If several people are injured in a crash, the most severe injury level is used to set crash severity.

- "**K**" Fatal injuries include deaths which occur within thirty days following injury in a motor vehicle crash.
- "**A**" Severe injuries include skull fractures, internal injuries, broken or distorted limbs, unconsciousness, severe lacerations, severe burns, and unable to leave the scene without assistance.
- "**B**" Moderate injuries include visible injuries such as a "lump" on the head, abrasions, and minor lacerations.
- "**C**" Minor injuries include hysteria, nausea, momentary unconsciousness, and compliant of pain without visible signs of injury.
- "**O**" No fatality or injury; property damage only.
- "**U**" Severity of injury unknown.

Source: ITSMR

Table 2-2. provides a breakdown of the number of crashes by injury severity. While most crashes fall into the less severe categories, crashes involving fatalities, serious injuries, or non-capacitating injuries (K, A, and B crashes) make up approximately 9% of all crashes in Dutchess County.

The table also includes the estimated costs associated with each severity level, based on the national average costs for fatal crashes (which includes expenses related to emergency medical care, market productivity losses, congestion impacts, and more[7]), adjusted for NYS's cost of living and injury-to-crash ratios.

The 110 Dutchess County fatal crashes from 2019 to 2023 cost society an estimated $1.7 billion, to say nothing of the human cost.

[7] NYSDOT Red Book

TABLE 2-2. CRASHES BY INJURY SEVERITY IN DUTCHESS COUNTY (2019-2023)

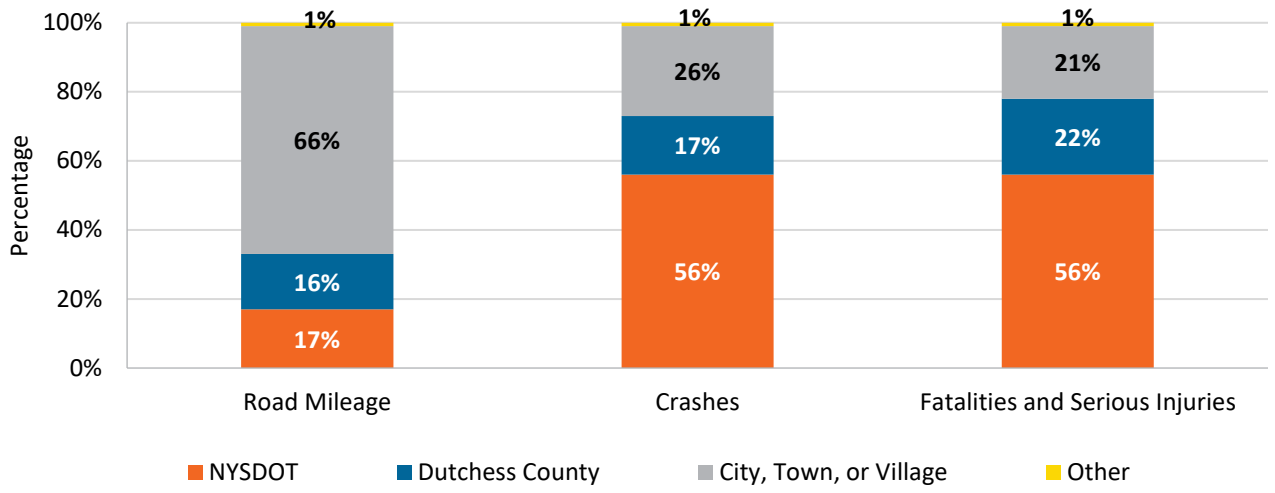
Crash Severity		Crashes	Percentage of Total Crashes	Cost per Crash Severity	Cumulative Costs for Crashes with Known Fatality or Injury Status	Percentage of Cumulative Costs
(K)	**Fatal**	114	0.3%	$15,727,025	$1,792,880,850	41.6%
(A)	**Serious Injury**	1,041	2.4%	$866,561	$902,090,001	21.0%
(B)	**Non-Incapacitating Injury**	2,789	6.3%	$275,534	$768,464,326	17.8%
(C)	**Possible Injury**	3,795	8.6%	$173,401	$658,056,795	15.3%
(O)	**No Injury**	10,854	24.5%	$16,957	$184,051,278	4.3%
(U)	**Injury Status Unknown**	25,695	58.0%	–	–	–
	Total	**44,288**	**100.0%**	**–**	**$4,305,543,250**	**100.0%**

Source: NYSDOT CLEAR (June 2024), NYSDOT Red Book; note that since June 2024, NYSDOT CLEAR has made database adjustments that result in significant changes to the number of "(U)" crashes reported.

2.2.2 Crashes by Road Owner

Figure 2-6 shows percentage shares of road mileage, crashes, and fatalities/serious injuries by road owner in Dutchess County from 2019-2023.

FIGURE 2-6. PERCENTAGE OF ROAD MILEAGE, CRASHES, AND FATALITIES/SERIOUS INJURIES BY ROADWAY OWNER IN DUTCHESS COUNTY (2019-2023)



Source: Moving Dutchess Forward, NYSDOT CLEAR (June 2024)

Viewed in centerline miles, most roads in Dutchess County (66%) are owned locally, while only 17% are owned by NYSDOT. However, the majority (56%) of crashes, as well as fatalities and serious injuries, occur on roads owned by NYSDOT. This underscores the importance of prioritizing safety enhancements on all roads in the county.

2.2.3 Crashes by Functional Classification

Functional classification groups roads into classes according to their character and the role they play in the overall roadway network, along with their area type (urban or rural). The functional classification of roads is described below and a map with detailed information can be found here.

Principal Arterial Interstate: *support long-distance travel and are officially designated as Interstates by U.S. DOT (e.g., I-84).*

Principal Arterial Expressway: *travel lanes are usually separated by some type of physical barrier and have limited access points, such as on- and off-ramps or very limited at grade intersections (e.g., Taconic State Parkway; Route 9 in the City of Poughkeepsie).*

Principal Arterial – Other: *serve major urban centers, provide a high degree of access, and can also provide access through rural areas. Unlike expressways, adjacent land uses are typically served directly by these Arterials (e.g., Routes 22, 44, 52, & 55; most of Routes 9 & 9D).*

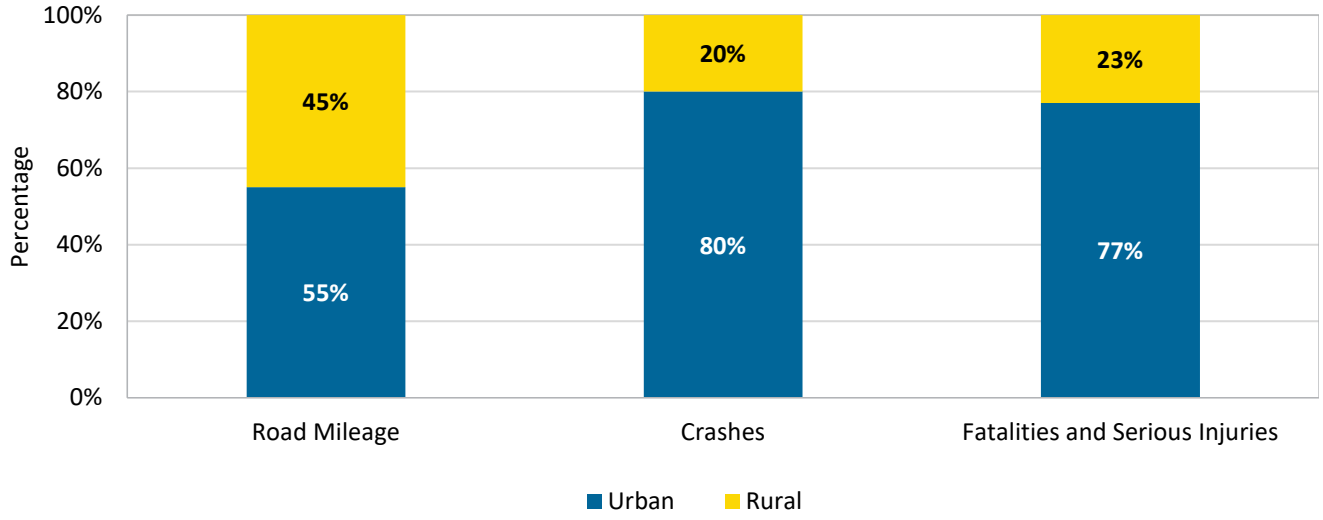
Minor Arterial: *provide access for trips of moderate length and serve smaller geographic areas (e.g., Routes 113 & 199; sections of Routes 9G, 82, 115, & 376; County Roads (CR) 28, 77, & 104).*

Major Collector and Minor Collector: *gather traffic from Local Roads and funnel them to the Arterial network (e.g., CR 34-Baxtertown Rd & CR 35-Osborne Hill Rd in Fishkill; CR 19-Slate Quarry Rd in Clinton & Rhinebeck; CR 67-Quaker Hill Rd in Pawling).*

Local Roads: *not intended for long distance travel, but instead provide the most direct access to adjacent land uses.*

Figure 2-7 shows that in Dutchess County, roughly equal numbers of road miles are in urban and rural areas, yet from 2019-2023, urban roads have been overrepresented in crashes (80%) and fatalities and serious injuries (77%). However, the data also suggests that rural crashes, when they do happen, are slightly more likely to result in a fatality or serious injury, possibly due to factors such as speed (See Figure 3-7), unforgiving road design, driver behavior, and emergency response times.

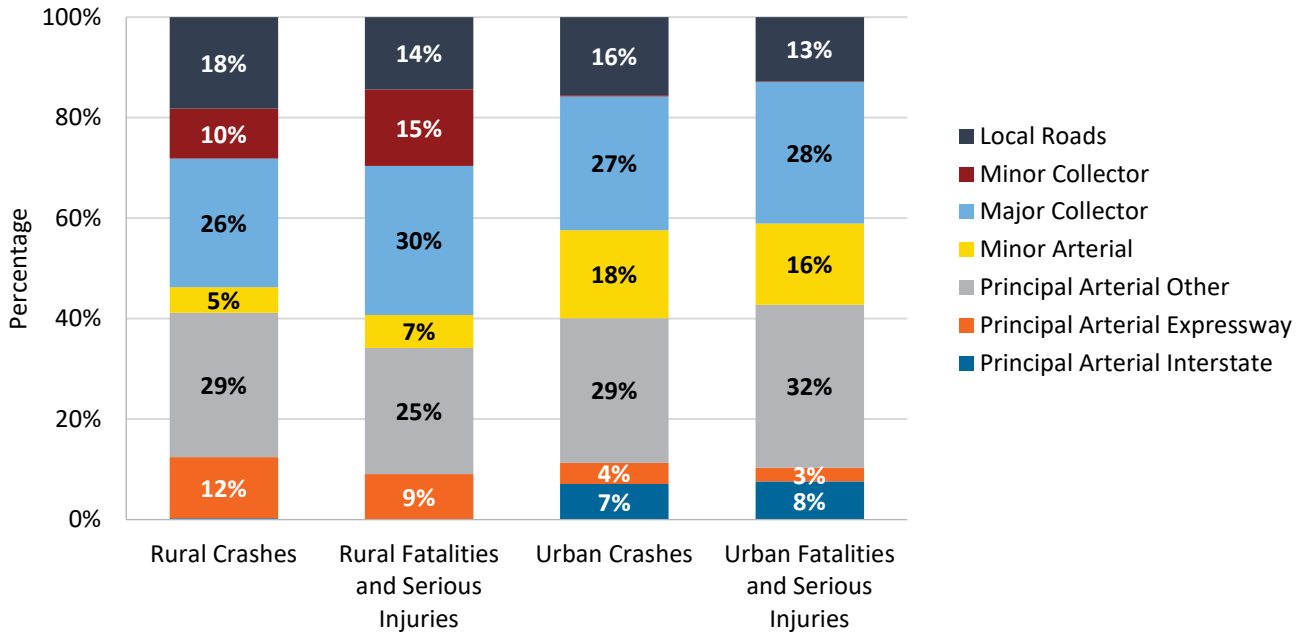
FIGURE 2-7. PERCENTAGE OF ROAD MILEAGE, CRASHES, AND FATALITIES/SERIOUS INJURIES IN DUTCHESS COUNTY BY LOCATION TYPE (2019-2023)



Source: NYSDOT CLEAR (June 2024)

Figure 2-8 shows the percentage shares of crashes and fatalities/serious injuries on urban and rural roads by functional class in Dutchess County from 2019-2023.

FIGURE 2-8. PERCENTAGE OF CRASHES AND FATALITIES/SERIOUS INJURIES ON URBAN AND RURAL ROADS IN DUTCHESS COUNTY BY FUNCTIONAL CLASS (2019-2023)

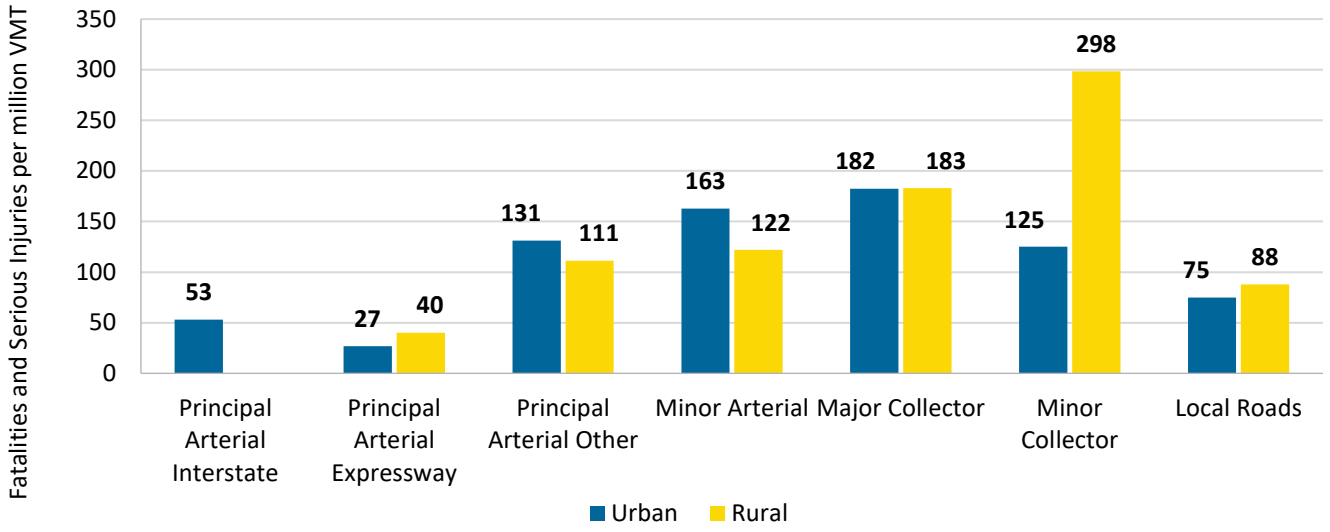


Source: NYSDOT CLEAR (June 2024)

In urban and rural locations, most crashes as well as fatalities and serious injuries occur on Principal Arterial-Other roads and Major Collector roads (30% for each of these classes in each location type). This reflects national patterns of more crashes, fatalities and serious injuries on high-speed roads with multiple vehicle conflict points.

In Dutchess County from 2019 through 2023, total fatalities and serious injuries per million VMT were very similar between urban and rural areas (111 and 115, respectively). However, there were significant differences by roadway functional class, as shown in Figure 2-9. (Note that only a short segment of rural interstate highway exists in Dutchess County, and there is no VMT data associated with that segment, so Figure 2-9 does not show rural interstate highways.)

FIGURE 2-9. FATALITIES AND SERIOUS INJURIES PER MILLION VMT BY URBAN OR RURAL LOCATION AND ROADWAY FUNCTIONAL CLASS IN DUTCHESS COUNTY (2019-2023)



Source: NYSDOT CLEAR (June 2024), NYSDOT Highway Data Services

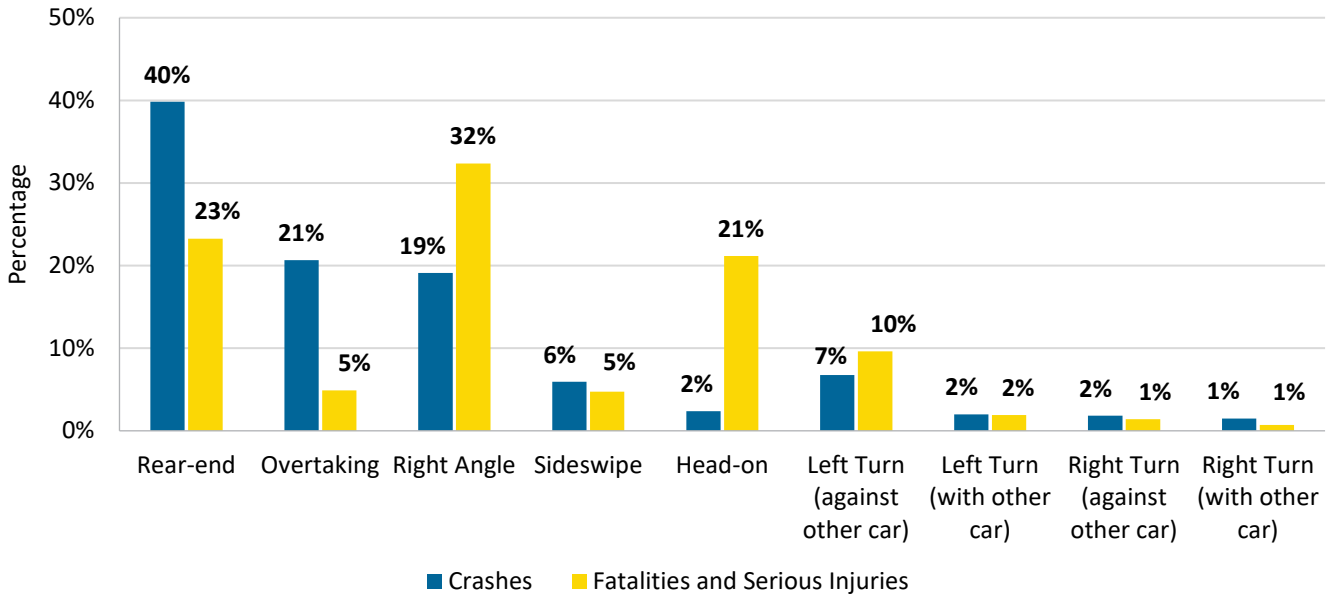
Principal Arterial Expressways, Minor Collectors, and Local roads in rural areas experience significantly higher fatality and serious injury rates than those road types in urban areas. By contrast, Principal Arterial-Other and Minor Arterials in urban areas experience higher fatality and serious injury rates than those road types in rural areas.

The high fatality/injury rates on rural minor collectors may relate to their design: these are often two-lane county roads that have curves, limited visibility, unexpected hazards, and relatively high speed limits. They also tend to have lower traffic volumes, so people may feel more comfortable driving at higher speeds. In addition, when crashes do occur, emergency response may be delayed, and medical facilities tend to be further away than in urban areas.

2.2.4 Crashes by Collision Type

Figure 2-10 shows the percentage of crashes and fatalities/serious injuries by collision type in Dutchess County from 2019 to 2023. The crashes in this category are all multi-party collisions, meaning that they involve either two or more motor vehicles, or a motor vehicle and another road user, such as a pedestrian or bicyclist. Based on the reported crash type, rear-end collisions were most common, making up 40% of crashes. Right-angle collisions had the highest percentage of fatalities and serious injuries (32%).

FIGURE 2-10. PERCENTAGE OF CRASHES AND FATALITIES/SERIOUS INJURIES BY COLLISION TYPE IN DUTCHESS COUNTY (2019-2023)



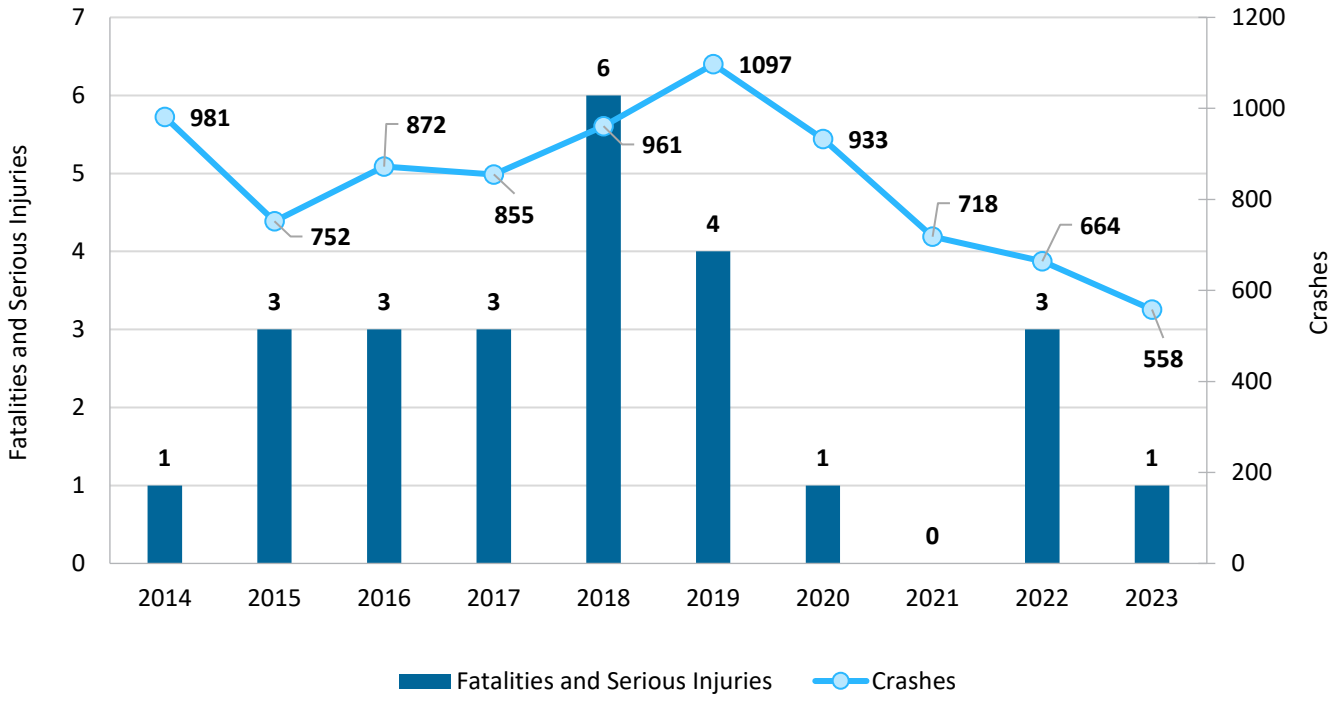
Source: NYSDOT CLEAR (June 2024)

Rear-end and overtaking crashes are less likely to result in fatalities or serious injuries, while right-angle crashes and head-on crashes, though less common, disproportionally contribute to fatalities and serious injuries. Right angle crashes are typically related to intersections. Head-on crashes can have a range of contributing factors, such as distraction, fatigue, impaired driving, sharp curves, poorly marked or poorly separated lanes, reduced visibility, inclement weather, and road hazards.

2.3 Collisions with Deer

Figure 2-11 shows the number of deer collisions as well as associated fatalities and serious injuries in Dutchess County from 2014-2023. These crashes typically are not fatal and do not result in serious injuries to humans. There were no fatalities during this period and few serious injuries. However, the total number of crashes was consistently at least 500 per year, rising to nearly 1,100 in 2019.

FIGURE 2-11. DEER COLLISIONS AND ASSOCIATED FATALITIES/SERIOUS INJURIES IN DUTCHESS COUNTY (2014-2023)



Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

3.0 Emphasis Areas

3.1 SHSP Emphasis Areas

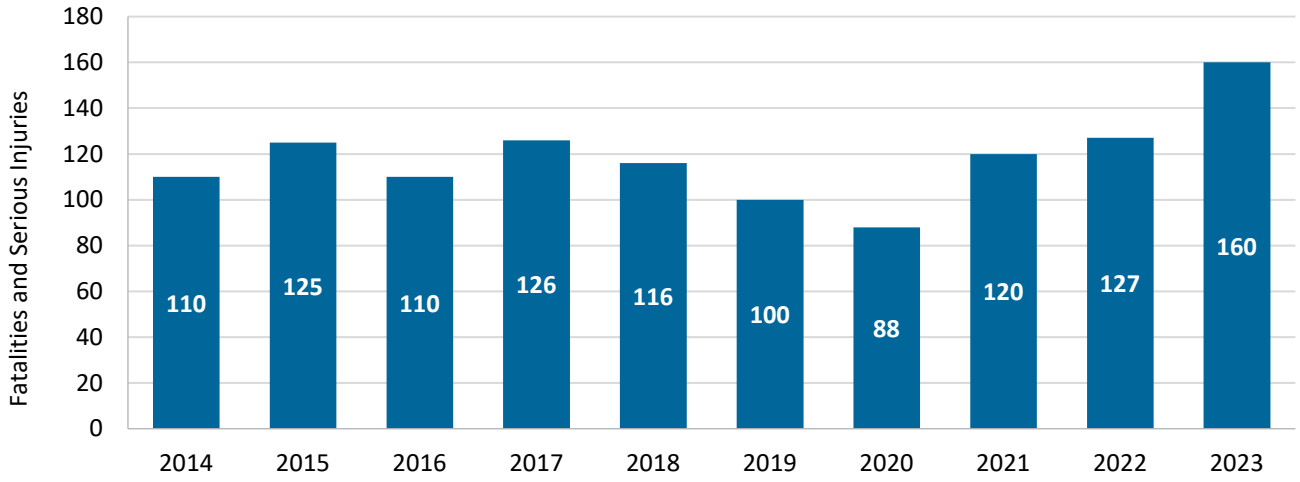
New York State's 2023 Strategic Highway Safety Plan (SHSP)[8] represents the State's continuing commitment to enhancing roadway safety for all users through seven targeted statewide emphasis areas, as detailed in Sections 3.1.1 to 3.1.7. These seven areas comprise 93% of fatal and serious injury crashes in the State. The following sections illustrate the connections between these emphasis areas and crash trends in Dutchess County.

- *Intersections*
- *Vulnerable Road Users*
- *Roadway Departures*
- *Age-Related*
- *Road User Behavior*
- *Aggressive Driving*
- *Alternate Road Vehicles*

3.1.1 Intersections

Intersections are critical points of conflict between various road users. Each type of intersection presents unique safety challenges as well as countermeasure opportunities such as restricting right turns on red signals, adding turn lanes, or converting intersections into roundabouts. Figure 3-1 shows the number of fatalities and serious injuries at intersections[9] in Dutchess County from 2014 to 2023.

FIGURE 3-1. FATALITIES AND SERIOUS INJURIES OCCURING AT INTERSECTIONS IN DUTCHESS COUNTY (2014-2023)



Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

[8] https://www.dot.ny.gov/divisions/operating/osss/highway-repository/SHSP2023.pdf

[9] CLEAR defines an intersection crash as a crash occurring within 100 feet of an intersection, though a reporting officer can indicate whether a crash is an "intersection crash" by checking a field on the police crash report.

Over the ten-year period, intersection-related crashes accounted for 47% of all fatalities and serious injuries in the county. While there is not a clear trend from 2014 to 2020, intersection-related fatalities and serious injuries increased significantly in the past three years, rising 82% higher in 2023 than in 2014. The upward trend from 2020 through 2023 contrasts against the statewide pattern during the same period, as fatalities and serious injuries at intersections statewide decreased by 7%.

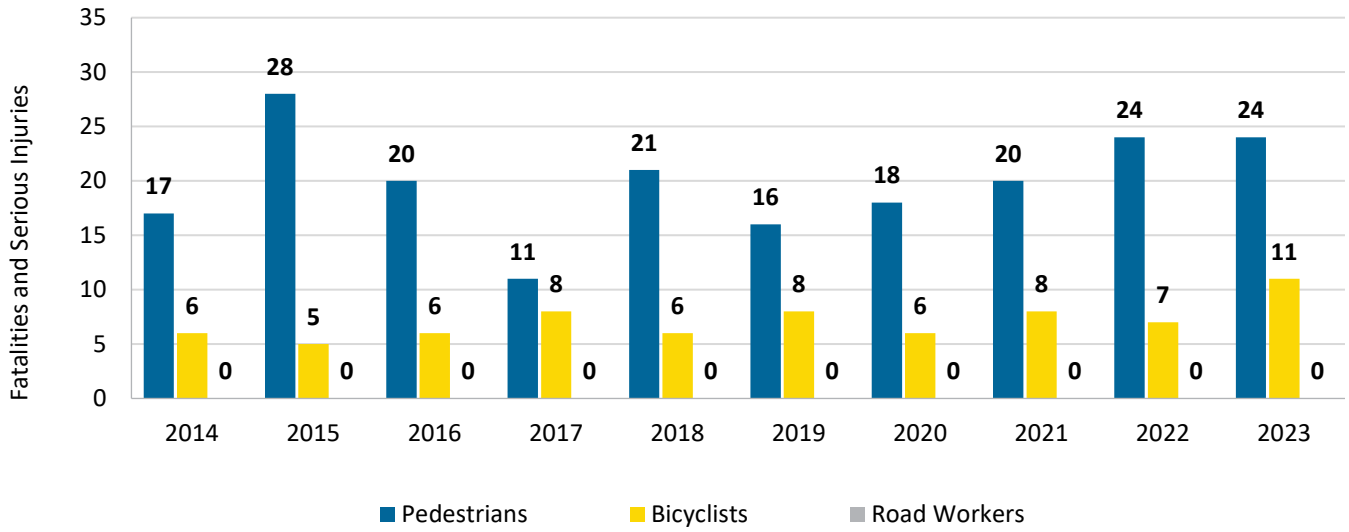
Dutchess County Intersection fatalities and serious injuries increased 45% from 2014 to 2023.

3.1.2 Vulnerable Road Users

Vulnerable road users (VRUs)—pedestrians (including those using wheelchairs), bicyclists, and roadway workers on foot—encounter unique challenges and face a greater risk of injury compared to other road users. Despite being involved in only 1.5% of the total crashes during the ten-year period of 2014 through 2023, VRUs made up almost 11% of the fatalities and serious injuries.[10]

This aligns with national findings that crashes are significantly more harmful for VRUs than for those traveling in vehicles. Figure 3-2 shows the number of fatalities and serious injuries involving VRUs in Dutchess County from 2014 to 2023. Overall, bicyclist fatalities and serious injuries made up 3% of all fatalities and serious injuries in the county, while pedestrian fatalities and serious injuries accounted for 8%.

FIGURE 3-2. FATALITIES AND SERIOUS INJURIES FOR VULNERABLE ROAD USERS IN DUTCHESS COUNTY (2014-2023)



Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

[10] Some vulnerable road users and drivers might not report collisions that did not result in injuries, but these qualifiers only reinforce the point that vulnerable road users are disproportionately more likely to experience fatalities or serious injuries from crashes than to experience crashes overall.

The number of fatal and serious injury crashes involving bicyclists remained relatively steady over the ten-year period but increased in 2023. Pedestrian fatal and serious injury crashes have showed an upward trend since 2019. On a positive note, there were no fatalities or serious injuries involving roadway workers in Dutchess County during this ten-year period – though this does not imply that road workers are free from risk.

Vulnerable Road Users are over-represented in deaths and serious injuries on Dutchess County roads. Pedestrian fatal and serious injury crashes increased by 50% since 2019.

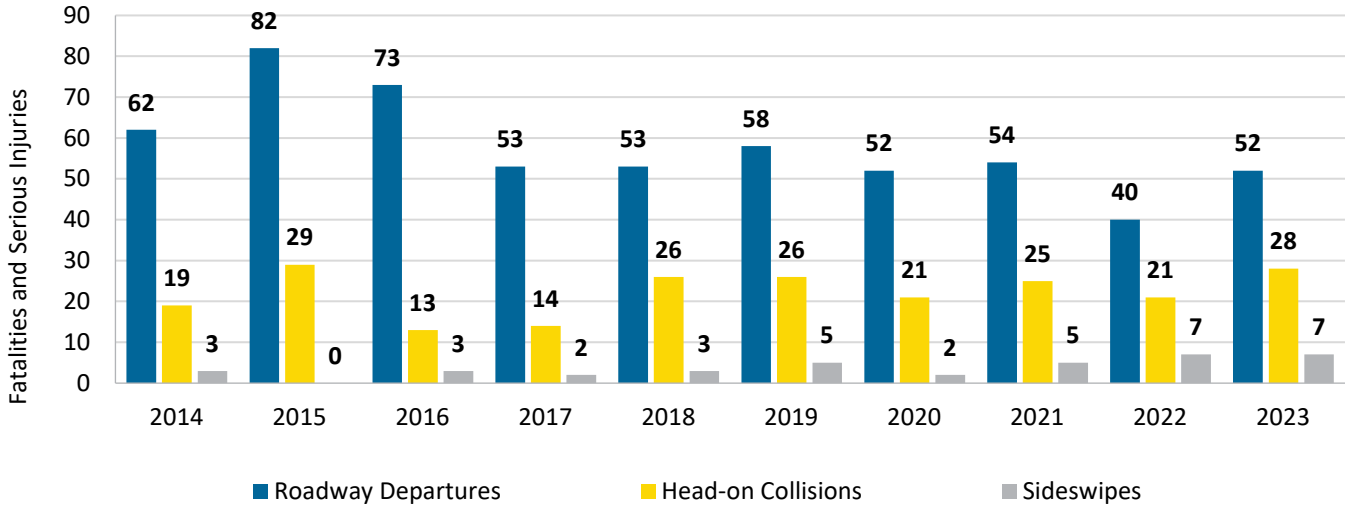
Additional analysis reveals the role that intersections play in crashes involving VRUs. Specifically, between 2019 and 2023, 54% of crashes involving VRUs occurred at intersections. (For crashes not involving VRUs, 42% occurred at intersections.) Adopting safer intersection design and protecting pedestrians and bicyclists at intersections can reduce the risk of collisions with vehicles.

3.1.3 Roadway Departures

Roadway departure crashes occur when a vehicle crosses an edge or center line or veers off the main roadway. This can be due to environmental and weather conditions, roadway characteristics, and driver behavior. For clarity, the term "roadway departure" will be used to refer to a vehicle leaving the roadway, while the term "Roadway Departure Emphasis Area" will be consistent with the NYSDOT SHSP definition, including crashes from roadway departures, head-on collisions, and sideswipes.

Figure 3-3 presents the number of all Roadway Departure Emphasis Area fatalities and serious injuries in Dutchess County from 2014 to 2023, categorized by crash type: roadway departures, head-on collisions, and sideswipes.

FIGURE 3-3. FATALITIES AND SERIOUS INJURIES FROM ROADWAY DEPARTURE EMPHASIS AREA-RELATED CAUSES (2019-2023)



Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

Roadway departures were the most common crash type within this emphasis area from 2014-2023, accounting for 23% of all fatalities and serious injuries, compared to 9% for head-on collisions and 1.5% for sideswipes. Over this period, Dutchess County saw an early fluctuation and then a fairly stable number of fatalities and serious injuries from roadway departures. Sideswipe-related fatalities and serious injuries in the county have seen a slight increase but remained low, while head-on collision-related fatalities and serious injuries have experienced a moderate increase.

Roadway departures accounted for 23% of all fatalities and serious injuries in Dutchess County from 2014 to 2023.

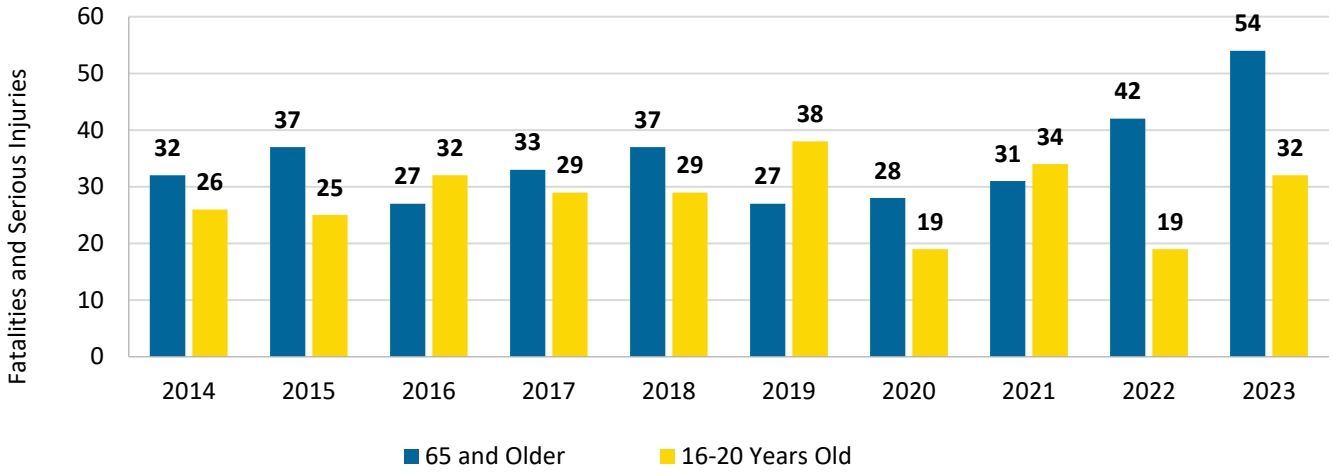
3.1.4 Age-Related

The age-related emphasis area examines fatal and serious injury crashes involving older and younger drivers. Over the next five years, the share of people aged 65 and older in the United States, NYS, and Dutchess County is expected to rise.[11] Aging drivers are often the safest drivers on the road, though functional decline and bodily frailty can increase their risk. Younger drivers aged 16-20 are considered among the highest-risk drivers due to their inexperience and tendency for risk-taking.[12]

Fatalities and serious injuries among older drivers have doubled since 2019.

Figure 3-4 highlights the number of fatalities and serious injuries within the age-related emphasis area, divided into two groups: drivers aged 65 and older and drivers aged 16-20.

FIGURE 3-4. FATALITIES AND SERIOUS INJURIES BY OLDER AND YOUNGER AGE GROUPS IN DUTCHESS COUNTY (2014-2023)



Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

[11] United States Department of Transportation Federal Highway Administration. 2014. Handbook for Designing Roadways for the Aging Population. https://highways.dot.gov/safety/other/older-road-user/handbook-designing-roadways-aging-population.

[12] National Highway Traffic Safety Administration. 2020. Countermeasures That Work; Young Drivers. https://www.nhtsa.gov/book/countermeasures-that-work/young-drivers#:~:text=In%20compariso.

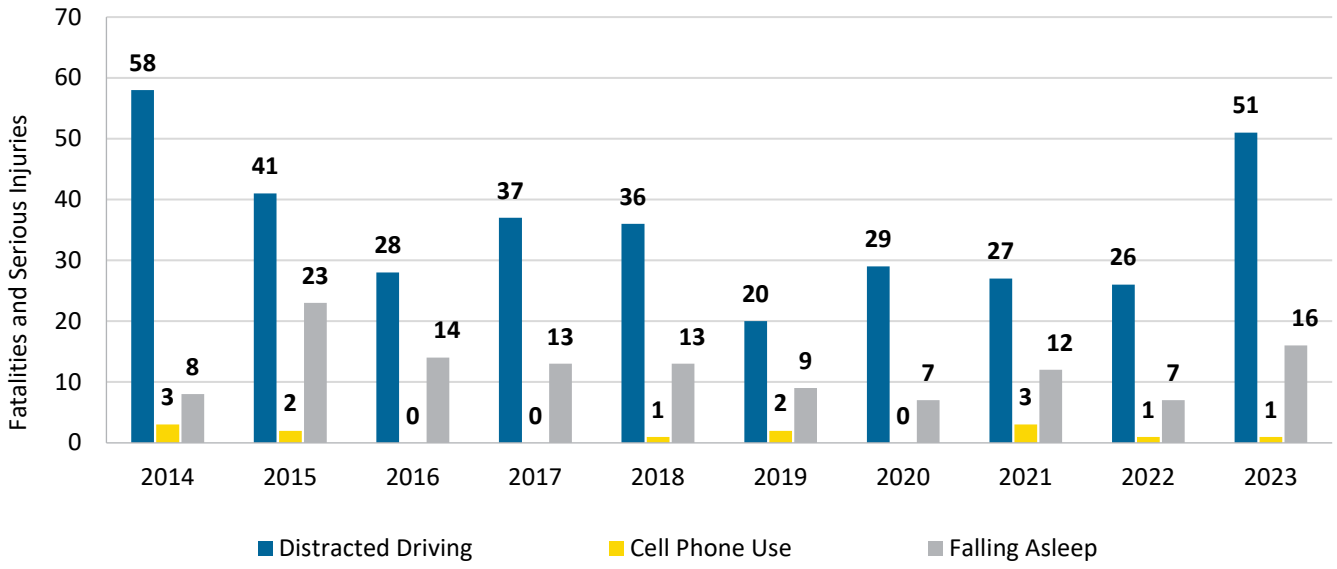
From 2014 to 2023, incidents with drivers aged 65 or older represented 14% of all fatalities and serious injuries in Dutchess County, while drivers aged 16-20 account for 11% of all fatalities and serious injuries. Statewide, fatalities and serious injuries for both age groups increased between 2019 and 2023. In Dutchess County, fatalities and serious injuries for drivers aged 65 and older have doubled since 2019.

3.1.5 Road User Behavior

Dangerous driving behavior remains a major risk to all road users. Figure 3-5 shows the number of fatalities and serious injuries in Dutchess County from 2014 to 2023 linked to distracted driving, cell phone use, and falling asleep while driving. Figure 3-6 shows fatalities and serious injuries linked to alcohol use and illegal drug use.

Distracted driving is a common dangerous road user behavior in Dutchess County; related crashes spiked in 2023.

FIGURE 3-5. FATALITIES AND SERIOUS INJURIES FROM CELL PHONE USE, DISTRACTED DRIVING, AND FALLING ASLEEP WHILE DRIVING IN DUTCHESS COUNTY (2014-2023)



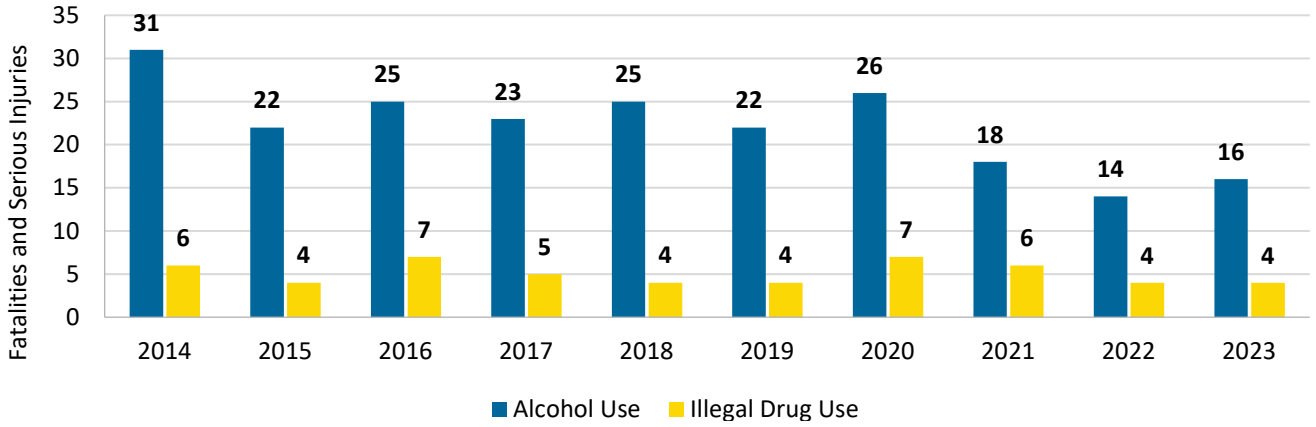
Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

Between 2014 and 2023, distracted driving was the most common behavior in these incidents, accounting for 14% of all fatalities and serious injuries in the county. The category of "distracted driving" is meant to exclude crashes with cell phone use but include eating or drinking (not necessarily alcohol) while driving, as well as driver inattention. State data also includes a category for "cell phone use" when cell phone use is specifically identified; this accounted for 0.5% of fatalities and serious injuries. It should be noted that it can be difficult to detect distracted driving, and crash reporting in this area can be inconsistent, so these crashes may be undercounted.

Fatalities and serious injuries associated with distracted driving decreased from 2014 through 2022 and then increased sharply in 2023. Statewide, fatalities and serious injuries related to distracted driving have been declining since 2019. The high number of distracted driving fatalities and serious injuries in Dutchess County in 2023 may be an outlier. In addition, distracted driving crash data is likely incomplete. However, distracted driving is commonly observed on all our roadways.

After distracted driving, fatalities and serious injuries from alcohol-related crashes followed at 9%, then falling asleep while driving at 5%, and illegal drug use at 2%. Alcohol-related fatalities and serious injuries have generally decreased since 2014, but most of the decline occurred after 2020, so this may be related to impacts from the pandemic. Additionally, there is a growing concern about crashes associated with the use of cannabis, particularly considering its legalization at the state level. This issue, including whether cannabis use (like alcohol use) should be separated in the statistics from other drug use, could be the subject of further study.

FIGURE 3-6. FATALITIES AND SERIOUS INJURIES FROM ALCOHOL USE AND ILLEGAL DRUG USE IN DUTCHESS COUNTY (2014-2023)



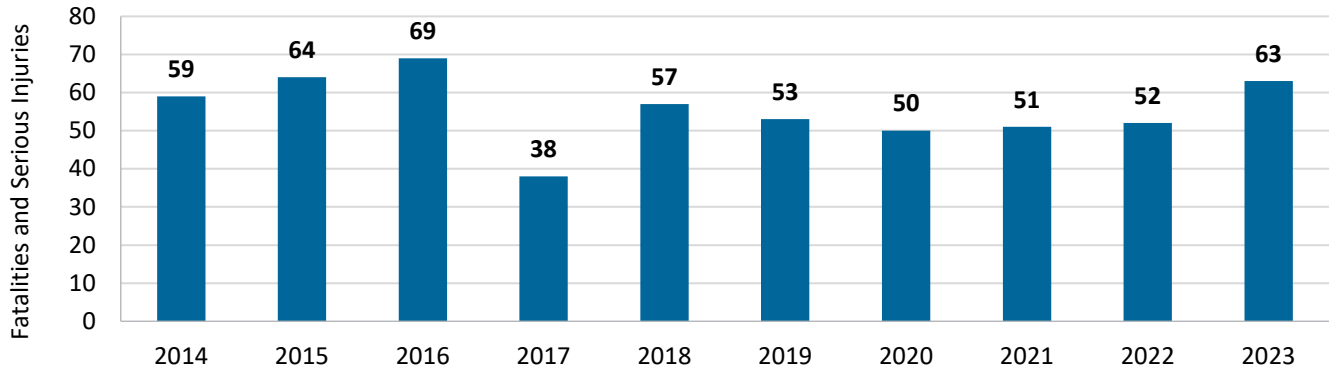
Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

3.1.6 Aggressive Driving

Aggressive driving encompasses deliberate driver behaviors such as speeding and disregarding traffic control devices. Both actions significantly increase the likelihood of crashes and the severity of outcomes if a crash occurs.

Figure 3-7 highlights crash fatalities and serious injuries in Dutchess County from 2014 to 2023 associated with unsafe speed.

FIGURE 3-7. FATALITIES AND SERIOUS INJURIES RELATED TO UNSAFE SPEED IN DUTCHESS COUNTY (2014-2023)

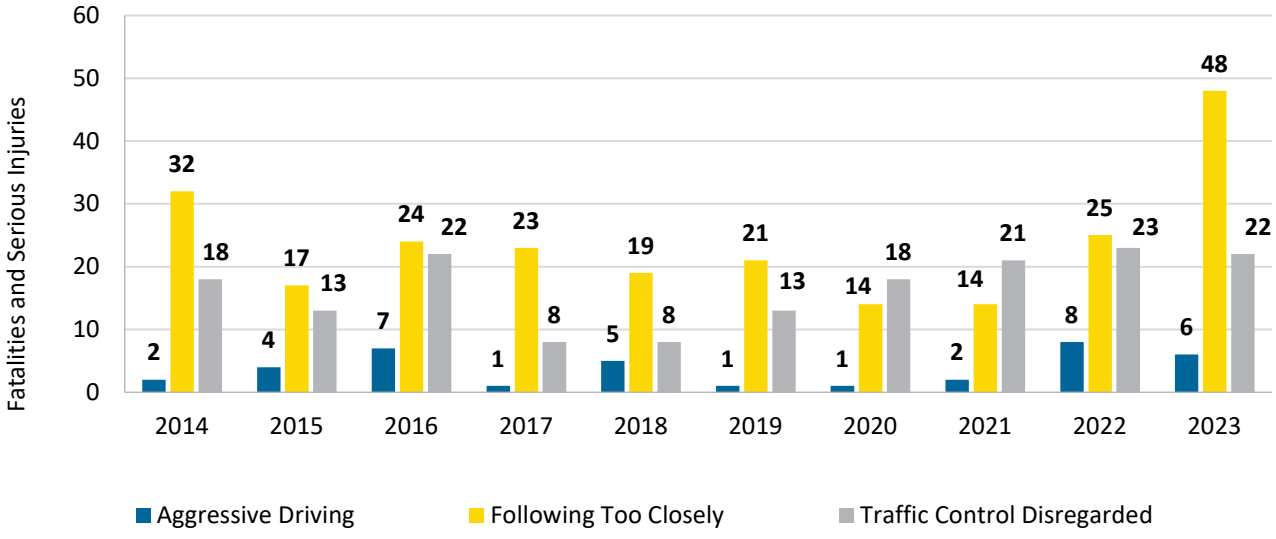


Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

Among aggressive driving behaviors, unsafe speed is the leading cause of fatalities and serious injuries, responsible for 22% of fatalities and serious injuries. Beyond unsafe speed, aggressive driving behaviors include following too closely, disregarding traffic control devices, and other aggressive behaviors. Figure 3-8 highlights crash fatalities and serious injuries in Dutchess County from 2014-2023 related to aggressive driving behaviors other than unsafe speed.

Among aggressive driving behaviors, unsafe speed is the leading cause of fatalities and serious injuries, responsible for 22% of fatalities and serious injuries in Dutchess County.

FIGURE 3-8. FATALITIES AND SERIOUS INJURIES FROM OTHER AGGRESSIVE DRIVING BEHAVIORS IN DUTCHESS COUNTY (2014-2023)



Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

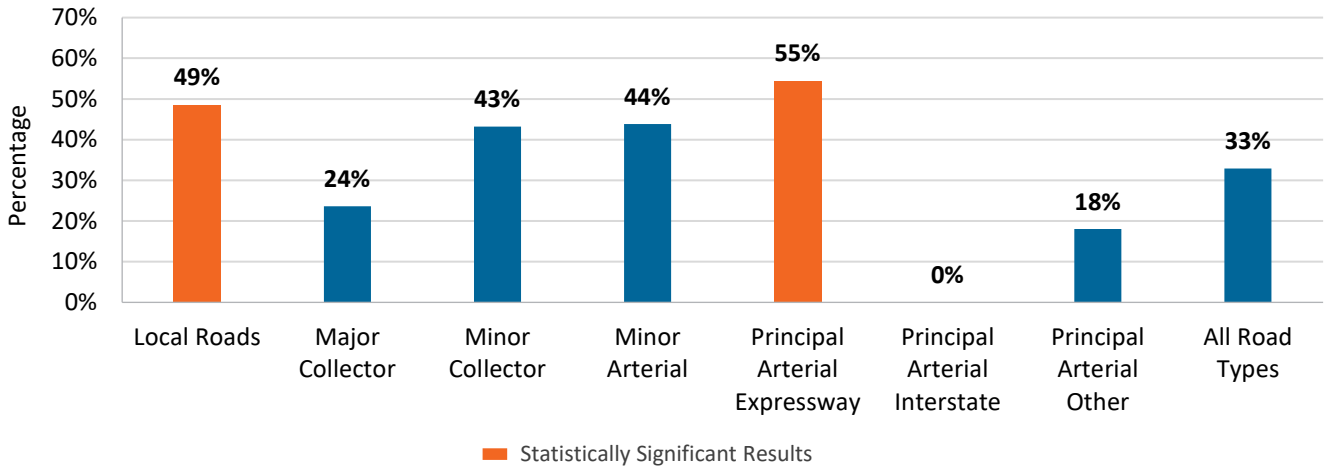
Over this period, following too closely contributed to 9% of all fatalities and serious injuries; disregarding traffic control devices contributed to 7%; and other aggressive driving behaviors contributed to 1.5%. For incidents involving following too closely, fatalities and serious injuries initially fell sharply and then rose again sharply from 2020-2023. Fatalities and serious injuries related to disregarding traffic control devices, unsafe speed, and other aggressive driving behaviors remained relatively stable. Statewide, between 2019 and 2023, fatalities and serious injuries increased from aggressive driving, disregarding traffic control devices, and unsafe speeds, and were flat for following too closely.

Across all rural road types, 33% of fatalities and serious injuries were due to speeding.

Fatalities and serious injuries due to unsafe speed are not uniformly distributed across road types, as they depend on the road design, speed limit, and whether the road is in an urban or rural area. We can use functional classification to analyze the relationship between road type and speed-related crashes. Figure 3-9 shows the percentage of fatalities and serious injuries from unsafe speed on rural roads by functional class (see Section 2.2.3 for more information on functional classification).

Across all rural road types, 33% of fatalities and serious injuries were due to speeding. Rural local roads and Dutchess County's rural expressway (the Taconic State Parkway) were over-represented for speed-related crashes, fatalities, and serious injuries.

FIGURE 3-9. PERCENTAGE OF FATALITIES/SERIOUS INJURIES RELATED TO UNSAFE SPEED ON DUTCHESS COUNTY RURAL ROADS BY FUNCTIONAL CLASS (2019-2023)

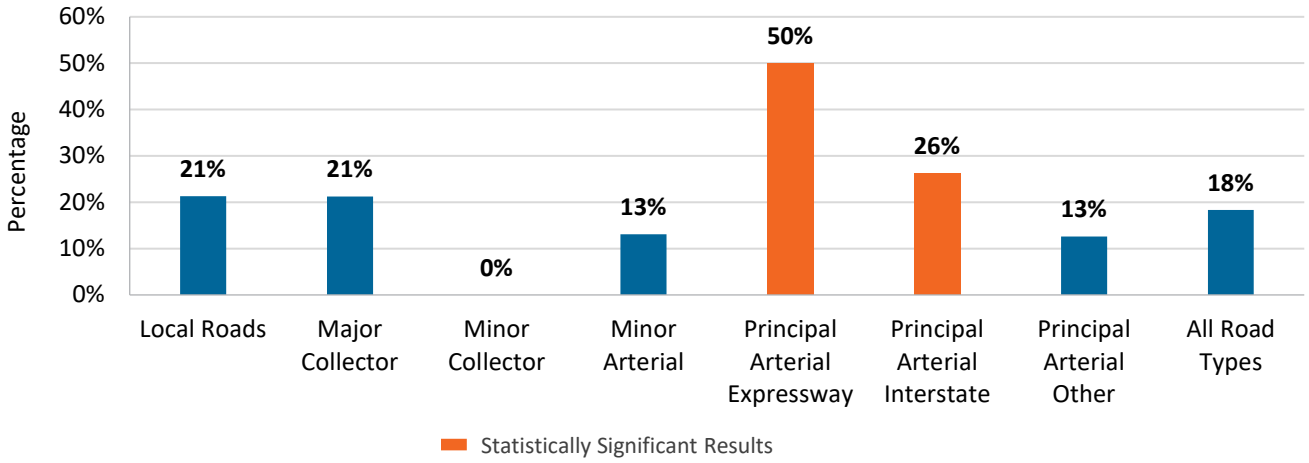


Source: NYSDOT CLEAR (June 2024)

Figure 3-10 shows the percentage of fatalities and serious injuries from unsafe speed on urban roads by functional class (see Section 2.2.3 for more information on functional classification). Across all road types, 18% of fatalities and serious injuries on urban roads in Dutchess County were related to speeding.

Expressways and interstate highways in urban areas were overrepresented for speed-related fatalities and serious injuries. This accounts for a small set of roads: I-84, a portion of the Taconic State Parkway, and a portion of Route 9 in the City of Poughkeepsie. This is likely a result of higher traffic volumes on those roads.

FIGURE 3-10. PERCENTAGE OF FATALITIES/SERIOUS INJURIES RELATED TO UNSAFE SPEED ON DUTCHESS COUNTY URBAN ROADS BY FUNCTIONAL CLASS (2019-2023)

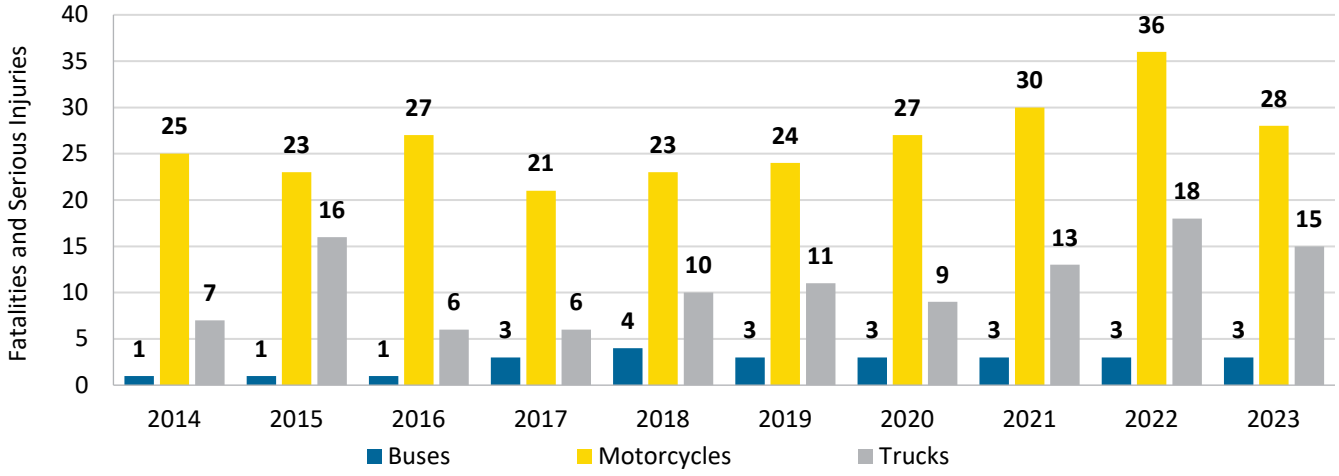


Source: NYSDOT CLEAR (June 2024)

3.1.7 *Alternate Road Vehicles (Trucks, Buses, and Motorcycles)*

Roads are used by a variety of vehicles with different safety needs, including trucks, buses, and motorcycles. The presence of truck traffic through local communities is a concern in several parts of Dutchess County.

FIGURE 3-11. FATALITIES AND SERIOUS INJURIES INVOLVING ALTERNATE ROAD VEHICLES IN DUTCHESS COUNTY (2014-2023)



Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

Motorcycle-related crashes were the only category within this group to show a general upward trend, increasing by 71% from 2017 to 2022. The overall upward trend in motorcycle-related fatalities and serious injuries is consistent with statewide observations from 2019 through 2023.

Meanwhile, crashes involving trucks and buses have remained steady (with a slight upward trend for trucks over the period). The trend for trucks is consistent with the statewide patterns from 2019 through 2023, while the trend for buses counters the statewide increase from 2019 through 2023.

3.2 New York State and Dutchess County Emphasis Area Comparison

Table 3-1 provides a comparison of fatalities and serious injuries in Dutchess County and NYS from 2019 to 2023 for 21 crash categories within the seven SHSP emphasis areas. Each crash category is marked with a red upward arrow or a blue downward arrow, indicating an increasing or decreasing trend over the five-year period. Notable differences are marked.

TABLE 3-1. FATALITIES & SERIOUS INJURIES BY CRASH CATEGORY IN DUTCHESS COUNTY (2019-2023)

NYS SHSP Emphasis Area	Crash Category	2019	2020	2021	2022	2023	Dutchess County Trend	NYS Trend
Intersections	n/a	100	88	120	127	160	↑	↓
Vulnerable Road Users	Pedestrians	16	18	20	24	23	↑	↓
	Bicyclists	8	6	8	7	11	-	↑
	Roadway Workers	0	0	0	0	0	-	↓
Roadway Departures	Roadway Departures	58	52	54	40	52	-	-
	Head-on Collisions	26	21	25	21	28	-	↑
	Sideswipes	5	2	5	7	7	↑	-
Age-Related	Aged 65 or Older	27	28	31	42	54	↑	↑
	Aged 16-20	38	19	34	19	32	-	↑
Road User Behavior	Cell Phone Use	2	0	3	1	1	-	↑
	Distracted Driving	20	29	27	26	51	↑	↓
	Falling Asleep	9	7	12	7	16	-	-
	Alcohol Use	22	26	18	14	16	↓	↑
	Other Drug Use	4	7	6	4	4	-	-
Aggressive Driving	Unsafe Speeds	53	50	51	52	63	↑	↑
	Aggressive Driving	1	1	2	8	6	↑	↑
	Following Too Closely	21	14	14	25	48	↑	-
	Disregarding Traffic Control	13	18	21	23	22	↑	↑
Alternate Road Vehicles	Buses	3	3	3	3	3	-	↑
	Motorcycles	24	27	30	36	28	↑	↑
	Trucks	11	9	13	18	15	↑	↑

Source: NYSDOT CLEAR Crash Data Viewer (November 2024)

The 2019 to 2023 timeframe is shorter that what is described in some earlier sections of this report but is helpful for direct comparison between the County and State.

Notably, fatalities and serious injuries related to alcohol use have decreased in Dutchess County, contrasting with the upward statewide trend. However, fatalities and serious injuries due to distracted driving, at intersections, and involving pedestrians have increased in Dutchess County, contrary to statewide declines. Several other categories are fairly aligned with NYS trends and for others, it is difficult to discern a consistent trend.

4.0 SAP Emphasis Area Options

Based on this data analysis, the areas listed in Table 4-1 below present the greatest traffic safety risks in Dutchess County and should be considered for Emphasis Areas in the DCTC's SAP. To align with the Safe System Approach, we recommend that the Safe System Elements be used to help organize the SAP. These emphasis area options should be (and in some cases where crash data is poor, will necessarily be) weighed with other inputs as well, including but not limited to public, practitioner, and stakeholder input about safety challenges.

TABLE 4-1. DUTCHESS COUNTY SAP EMPHASIS AREAS

Safe System Elements	Dutchess County SAP Emphasis Areas
Safer Roads	Intersections Roadway Departure
Safer Speeds	Speeding
Safer People	Vulnerable Road Users Older Drivers Distracted Driving Impaired Driving Aggressive Driving
Safer Vehicles	Motorcyclist Safety
Post Crash Care[1]	

[1] *Post-Crash Care needs cannot be fully determined by this data analysis and will be considered for the SAP by other means.*

5.0 Summary & Next Steps

Since the 1970s, traffic fatalities in Dutchess County have decreased significantly. This is due to a range of factors over many decades, including safer vehicles, improved roadway design, better medical care, stronger penalties for traffic offences, and an overall improved traffic safety culture. However, this progress has stagnated since 2010. Serious injuries from crashes have risen, even after accounting for increased VMT, and the rate of serious injuries per VMT could surpass the statewide rate within a few years. Although fatalities and serious injuries represent a small percentage of total crashes, they account for over 25% of crash-related costs.

The broader human cost of these traffic crashes, in terms of pain and suffering among survivors, is incalculable. Each person affected by traffic violence is a family member, friend, neighbor, or colleague. Those injured in a crash may face years of recovery and therapy. These findings underscore the critical need for this Safety Action Plan and significantly greater investment in preventing crashes with severe outcomes.

The next stage in the SAP development is to carry out a hotspot analysis and a systemic analysis (the Crash Data Analysis—Part 2). The locations identified in the hotspot analysis will be compared to these findings to ensure that priority projects address known countywide safety issues. The findings in this report also identify safety risks that can be more specifically identified and addressed systemically.

Appendix A Miscellaneous Tables

TABLE 5-1. FATALITY RATE BY DECADE IN DUTCHESS COUNTY (1980-2020)

See Figure 1-3.

Year	Fatalities (Five-Year Average)[1]	Population	Fatalities per 100,000 People	Fatality Rate Compared to Previous Decade
1980	55.6	245,055	22.7	–
1990	43.4	259,462	16.7	-26%
2000	30.8	280,150	11.0	-34%
2010	20.2	297,488	6.8	-38%
2020	**21.4**	**295,911**	**7.2**	**+6%**

Source: FARS, U.S. Census Bureau

[1] *The five-year average is for the five years preceding each year in the first column. For instance, the first row reflects the five-year average from 1976–1980.*

TABLE 5-2. CRASHES BY ROAD OWNER IN DUTCHESS COUNTY (2019-2023)

See Figure 2-6.

Road Owner	Crashes	Percentage of Known Crashes	Fatalities and Serious Injuries	Percentage of Known Fatalities and Serious Injuries
NYSDOT	17,543	55.7%	587	56.1%
County	5,359	17.0%	235	22.4%
City or Village	4,467	14.2%	117	11.2%
Town	3,741	11.9%	100	9.6%
Other Toll Authority	288	0.9%	8	0.8%
Private or Restricted Access	71	0.2%	0	0.0%
Other State Agencies	21	0.1%	0	0.0%
Public Unclaimed	2	0.0%	0	0.0%
State Parks	1	0.0%	0	0.0%
Subtotal Excluding Unknown	**31,493**	**100%**	**1,047**	**100.0%**
Unknown	12,795	–	253	–
Total	**44,288**	**–**	**1,300**	**–**

Source: NYSDOT CLEAR (June 2024)

TABLE 5-3. CRASHES BY ROADWAY FUNCTIONAL CLASS IN DUTCHESS COUNTY (2019-2023)

See Figure 2-7.

Location Type and Functional Class	Crashes	Percentage of Known Crashes	Fatalities and Serious Injuries	Percentage of Known Fatalities and Serious Injuries	Total Centerline Mileage (miles)
Rural	**6,460**	**20.5%**	**243**	**23.1%**	**550**
Principal Arterial—Interstate	19	0.1%	0	0.0%	2
Other Freeway/Expressway	783	2.5%	22	2.1%	32
Principal Arterial—Other	1,859	5.9%	61	5.8%	66
Minor Arterial	326	1.0%	16	1.5%	23
Major Collector	1,654	5.3%	72	6.9%	99
Minor Collector	644	2.0%	37	3.5%	155
Local	1,175	3.7%	35	3.3%	173
Urban	**25,033**	**79.5%**	**804**	**76.8%**	**1,375**
Principal Arterial—Interstate	1,771	5.6%	61	5.8%	46
Other Freeway/Expressway	1,063	3.4%	22	2.1%	22
Principal Arterial—Other	7,203	22.9%	261	24.9%	83
Minor Arterial	4,385	13.9%	130	12.4%	72
Major Collector	6,663	21.2%	226	21.6%	196
Minor Collector	67	0.2%	1	0.1%	10
Local	3,881	12.3%	103	9.8%	946
Subtotal Excluding Unknown	**31,493**	**100%**	**1,047**	**100%**	**2,505**
Unknown	12,795	–	253	–	
Total	**44,288**	**–**	**1,300**	**–**	**2,505**

Source: NYSDOT CLEAR (June 2024), Dutchess County Functional Classification Factsheet

TABLE 5-4. CRASHES BY COLLISION TYPE IN DUTCHESS COUNTY (2019-2023)

See Figure 2-9.

Collision Type	Crashes	Percentage of Known Crashes	Fatalities and Serious Injuries	Percentage of Known Fatalities and Serious Injuries
Rear-end	10,180	39.8%	133	23.3%
Overtaking	5,280	20.6%	28	4.9%
Right Angle	4,887	19.1%	185	32.3%
Left Turn (against other vehicle)	1,728	6.8%	55	9.6%
Sideswipe	1,530	6.0%	27	4.7%
Head-on	608	2.4%	121	21.2%
Left Turn (with other vehicle)	516	2.0%	11	1.9%
Right Turn (against other vehicle)	464	1.8%	8	1.4%
Right Turn (with other vehicle)	377	1.5%	4	0.7%
Subtotal Excluding Other, Unknown, and Not Entered	**25,570**	**100%**	**572**	**100%**
Other, Unknown, or Not Entered	18,718	N/A	728	N/A
Total	**44,288**	**N/A**	**1,300**	**N/A**

Source: NYSDOT CLEAR (June 2024)