



**SOUTH ORANGE VILLAGE  
POLICE DEPARTMENT**

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South Orange  
New Jersey 07079  
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**To:** Chief Morillo  
**From:** Lt. A. Acevedo – Traffic Bureau  
**Date:** March 1<sup>st</sup>, 2023  
**Subject:** 2022 Motor Vehicle Crash Report

Sir,

This annual crash analysis has three main purposes:

- Identify areas in the Village where there is a high volume of motor vehicle crashes
- Identify the contributing circumstances of those crashes
- Develop solutions to mitigate and minimize future crashes

**2022 Motor Vehicle Crash Overview:**

- During 2022, there were 446 motor vehicle crashes in the Township of South Orange Village. An increase of 7.2% over the 2021 total of 416
- 5 bicycle crashes, an increase of 400% over the 2021 total of 1
- 23 pedestrian involved crashes, an increase of 43% over the 2021 total of 16
- 106 involving parked vehicles, a decrease of 5.6% from the 2021 total of 112
- 59 reported hit and run crashes, a decrease of 5% from the 2021 total of 56
- 5 crashes involving an emergency vehicle en-route to a call for service
- **95% of all motor vehicle crashes resulted in no reported injuries (defined as requiring transportation to a medical care facility from the scene of the crash)**
- **0 Fatalities (for the second year in a row, no fatalities)**
- Wednesdays led the year for crash breakdown by day of week, with 17.12% of all crashes



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- Crash breakdown by time of day peaked at 4:00pm with 10.58% of all crashes
- A majority of crashes involve low-speed driving where vehicles were parked, parking, stopped in traffic, or backing. Low speed is defined at 25mph or less

*\*See Appendix A for enumerated local data*

**Roads with the highest occurrences of motor vehicle crashes (in rank order):**

- County Highway 510 (South Orange Ave from Newark line to Maplewood line)
- County Highway 638 (Scotland Rd/Valley Street corridor)
- County Highway 665 (Irvington Ave)

For these county roads, the following were contributing circumstances for pedestrian related crash events

- Low light conditions
- Dark clothing
- Pedestrians crossing outside of a crosswalk (e.g. – mid-block instead of at a corner, in between parked vehicle,
- Crossing without giving due attention to roadway and traffic conditions (other distractors may factor into this circumstance)

In other areas of town an overwhelming majority of crashes, historically, have been attributed to traffic volume. For example, Valley Street, which has our second highest crash count, is traversed by an average of 9000 vehicles per day.

During the reporting period, town-wide improvements with regard to road striping were completed. 175,000 linear feet of thermoplastic striping was laid



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down. This included crosswalks, shoulder and lane striping as well as pavement markings like arrows and words. *\*This striping project was supposed to be completed in 2021 but was delayed, work extended well into the 2022 year.*

Additionally, proper distances and sightlines continue to be addressed along Valley Street, in particular where crosswalks are positioned.

In 2022, lane delineators were deployed throughout the town, in areas where sight lines were periodically obstructed due to parked vehicles. Locations include:

- 1st & Valley St (in front of 7-11)
- 1st & Valley St (in front of Wine Emporium)
- Valley St & Roland Ave (in front of Mozzarella)
- Valley St & Hixon (in front of Totri School)
- South Orange Ave & Vose Ave near Bank of America
- South Orange Ave & Vose Ave near Chase Bank

Examples of these lane delineators are included within this report.

Additionally, in 2022 all SOPD officers were certified to operate radar equipment. This has allowed us to increase speed related traffic enforcement. For reference, officers cannot legally write speeding summonses unless they've undergone 6 hours of instruction, 80 hours of practical training and pass a state exam. Like most other departments, prior to this campaign, only a handful of officers were able to conduct radar details.

Since the completion of the 2021 report, we have seen approximately a 7.2% increase in overall crashes, which seem to be in line with the current national trend. However, in New Jersey, fatal crashes decreased by 2% from 2021 to 2022 (see Appendix C).

From the beginning of Covid 19 pandemic in early 2020 until and through 2021 there had been fewer vehicles on the roadway. 2022 saw more drivers getting



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back into their cars, resulting in an overall increase of traffic related, vehicular incidents.

**Fatal Crashes, Pedestrian Crashes, and Bicycles Crashes:**

**Fatal Crashes:**

In 2022, for a second year in a row, there were zero fatal motor vehicle crashes in South Orange.

**Bicycle vs. Motor Vehicle Crashes:**

In 2022, we had 5 crashes involving a bicycle (up from 1 in 2021). Of these 5 incidents, one occurred at a known traffic hot spot, a high volume area. In all 5 incidents, cyclists' actions were at least in part, contributory to the crash.

There is no detected *problem area* for vehicle vs. bicycle crashes.

**Pedestrian vs. Motor Vehicle Crashes:**

In 2022, there were 23 motor vehicle crashes involving pedestrians. (up from 16 in 2021). Characteristics of these 23 incidents:

- 8 resulted in the report of an injury
- 1 of these injuries were reported as moderate.
- 1 of these injuries was reported as serious
- 8 were caused by pedestrian actions.
- 5 involved a hit and run
- 3 occurred on private property
- 9 involved vehicles making left turns



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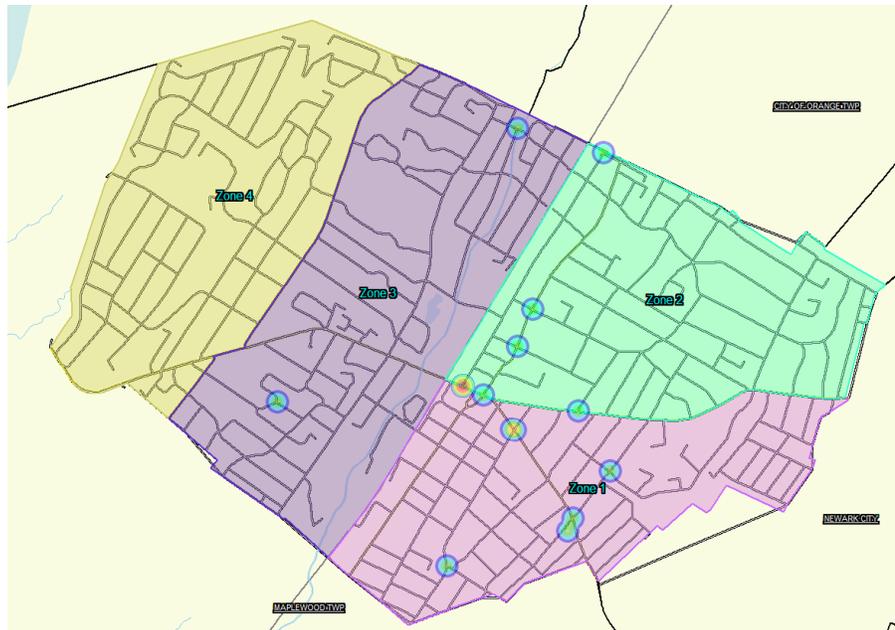
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The majority of these pedestrian related incidents occurred on or very near our three busiest corridors; South Orange Ave, Scotland Road/Valley Street and Irvington Ave.

Of these 23 incidents, two resulted in moderate to severe injuries, the synopsis of which are listed below:

- Moderate injury to a rear seat passenger who was not yet fully seated and fell out of vehicle when driver began driving. (although this person began as a passenger, the nature of the crash categorizes them as a pedestrian)
- Severe injuries to pedestrian who was riding a skateboard in the street at night, in the rain. This incident is also a hit and run as driver of vehicle did not stop.

## 2022 Motor Vehicle Pedestrian Crash Heat Map

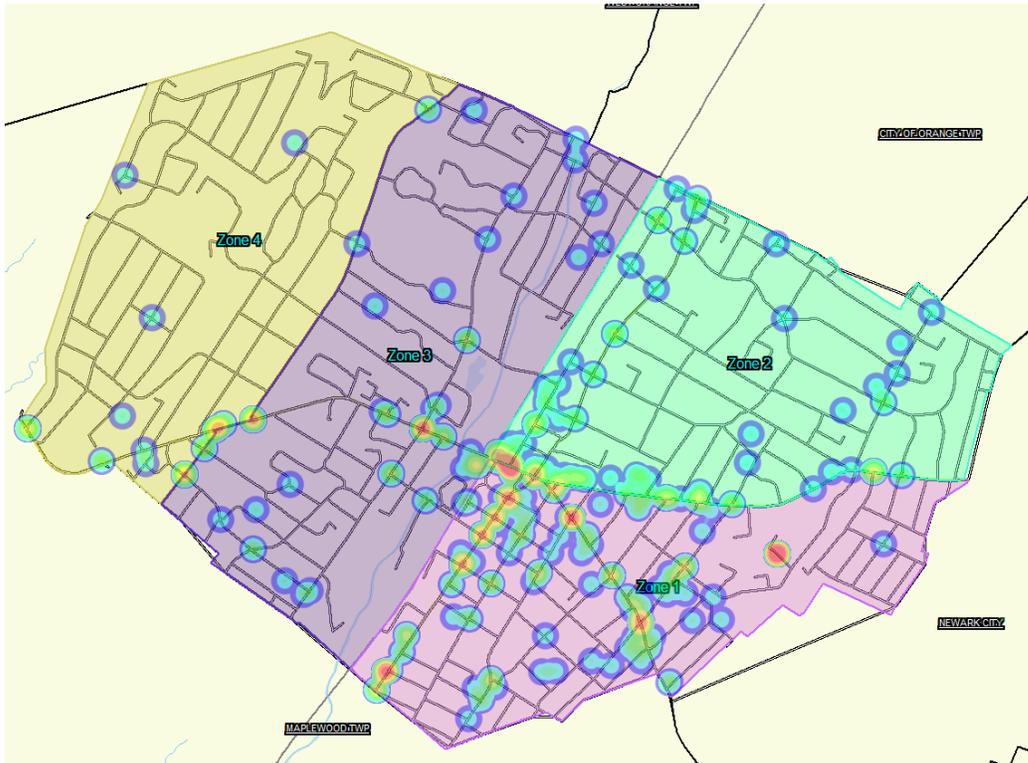




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# 2023 Motor Vehicle Crash Heat Map





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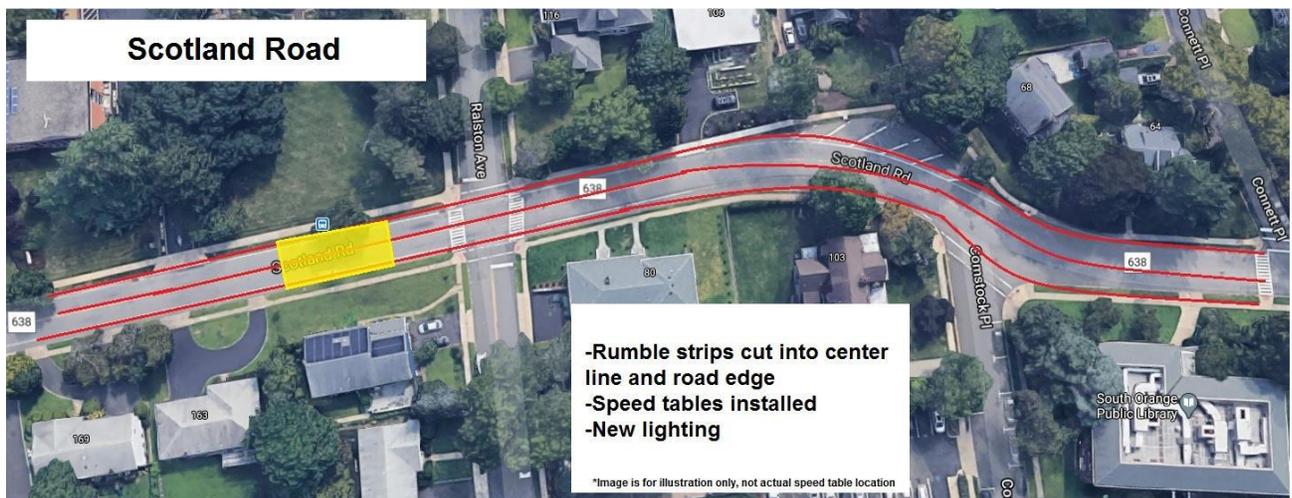
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**Proposed Countermeasures/Actions to Pedestrian and Cyclist Crashes:**

- Increase public education campaigns on pedestrian safety
- Enforce pedestrian unsafe actions such as jay walking and crossing against illuminated signage.
- Increase the Township's presence and outreach on social media by using Bike Safety Messages provided from [www.bestreetsmartnj.com](http://www.bestreetsmartnj.com).
- Participate in NJ Highway Traffic Safety's Bicycle Safety Month in May. While pushing NJHTS's social media message of "Share the Road with Bicyclists"
- Assist schools in organizing and participating in NJHTS's "Bike to School Day on May 3<sup>rd</sup>."
- Recurring education and training for officers on existing Motor Vehicle Laws concerning bicycles, skateboards and scooter as well as the Township's mandatory Helmet Ordinance.

**Other Areas with High Volume of Crashes:**

**Valley St/Scotland Road Corridor:**





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Description:

Valley St and Scotland Rd (County Highway 638) is a roadway that travels north and south from Randolph Place (Orange border) to Hixon Pl (Maplewood border) at the Maplewood Line. All intersecting streets are controlled by Stop Signs except Third St, Montrose Ave, and South Orange Ave, which are controlled by Traffic Signals. It is one lane in each direction for most of its length and has speed limits of 25mph on Valley St and 25mph on Scotland Rd.

**The entire corridor experienced 63 motor vehicle crashes during 2022 year. For 2022, Scotland Road experienced 12 crashes, down from 13 in 2021. On Valley Street, the total number of crashes increased by 21%, from 42 in 2021 to 51 in 2022.**

The section of the roadway between South Orange Ave & Third St continues to be of particular concern. The area of Valley Street and First St is most problematic.

Proposed Countermeasures/Actions:

- Increase police presence, when possible, by continuing using NJHTS's "Cops in the Crosswalk" enforcement program.
- Continue the Street Smart NJ public education campaign coordinated by the North Jersey Transportation Planning Authority that is aimed to raise awareness of pedestrian and motorist laws
- Determine feasibility of installing flood lights either on a pole or nearby building to improve pedestrian/intersection visibility as intersection along this stretch of roadway are very dark at night.
- Improve line striping to delineate lane of travel and crosswalks.
- Remove parking spaces that obscure driver or pedestrian vantage points or otherwise impact line of sight. This has already been accomplished in the area of First Street and Valley St, Roland Ave and Valley Street and soon in the area of Hixon Place.



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**South Orange Ave & Center St/Turrell Ave:**



**Description:**

The intersection of the three roadways is “star shaped”. The four approaches of South Orange Ave & Centre St are controlled by red light traffic signals with advanced left turn and pedestrian countdown indicators. Turrell Ave intersects South Orange Ave where Turrell Ave is divided by a concrete island and controlled by a stop sign and crosswalk. South Orange Ave is a county road that has two lanes in each direction (east/west) at this location and speed limit of 35mph. Centre St is a municipal road that runs north/south with one lane in each direction and a speed limit of 25 mph. Turrell Ave is a municipal road that is primarily residential with one lane in each direction and a speed limit of 25 mph.



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**There were 6 crashes at these locations in 2022, no change from 2021 where there were also 6 crashes. A review of each crash revealed the following:**

- 2 Low speed rear end crashes where a vehicle moved for green light while a leading vehicle did not.
- 2 low speed side-swipe collisions by opposing vehicles turning onto the same roadway.
- 1 pedalcyclist crash where cyclist was in crosswalk. This was a hit and run crash resulting in 13 motor vehicle summonses.
- 1 crash caused by a left turning vehicle.

**Countermeasures/Actions:**

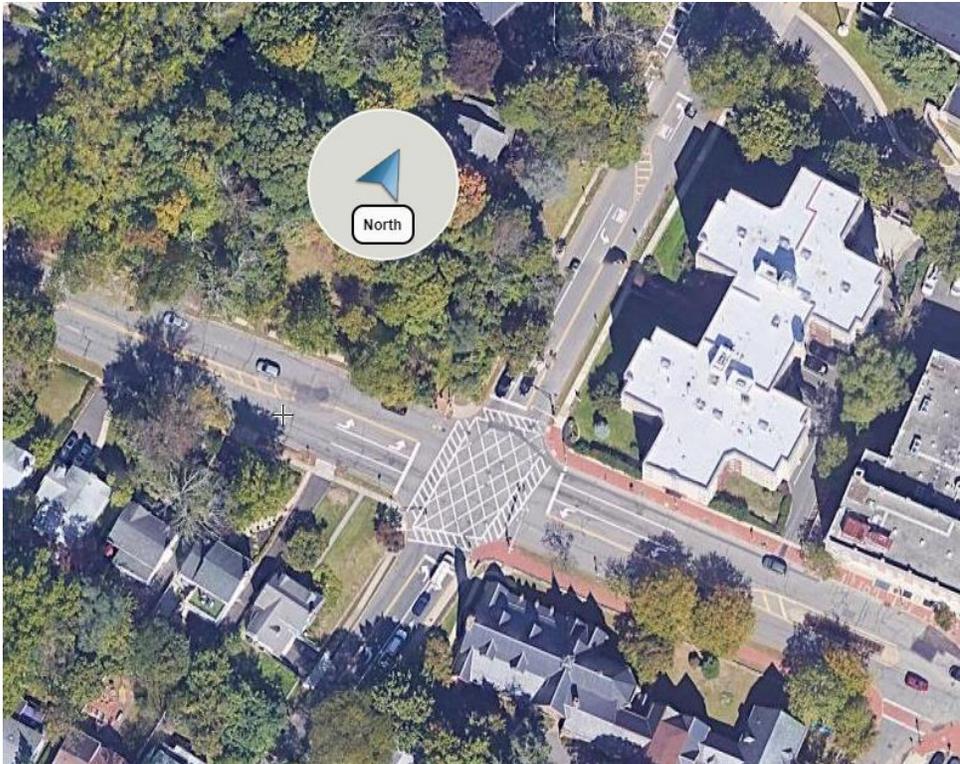
- Increase police presence and enforcement efforts specifically focusing on Failure to Yield to Pedestrian Violations and generally all Title 39 violations at the intersection.
- Work with Seton Hall University Property Maintenance Department to ensure line of sight issues are addressed on their properties to ensure a safer intersection.
- Connecting Seton Hall University and Street Smart NJ to develop a social media campaign for commuter students.
- In 2020, traffic lights were reprogrammed by Essex County traffic engineers to hold all lights in all directions for pedestrian crossings. This is known as LPI, Leading Pedestrian Intervals at signalized intersections allow pedestrians to walk, usually 3 to 4 seconds, before vehicles get a green signal. LPI increases visibility, reduces conflicts and improves yielding to pedestrians



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**West South Orange Ave & Ridgewood Rd:**



**Description:**

The four approaches of West South Orange Ave & Ridgewood Rd. are controlled by red light traffic signals with advanced left turn and pedestrian countdown indicators. West South Orange Ave is a county road that runs east/west, has 2 lanes in each direction, and has a speed limit of 35mph. Ridgewood Rd. runs north/south with one lane in each direction from Maplewood to West Orange and has a 25mph speed limit.

During 2022, there were 4 crashes at this intersection, 42% less than in 2021, which had 7 crashes.



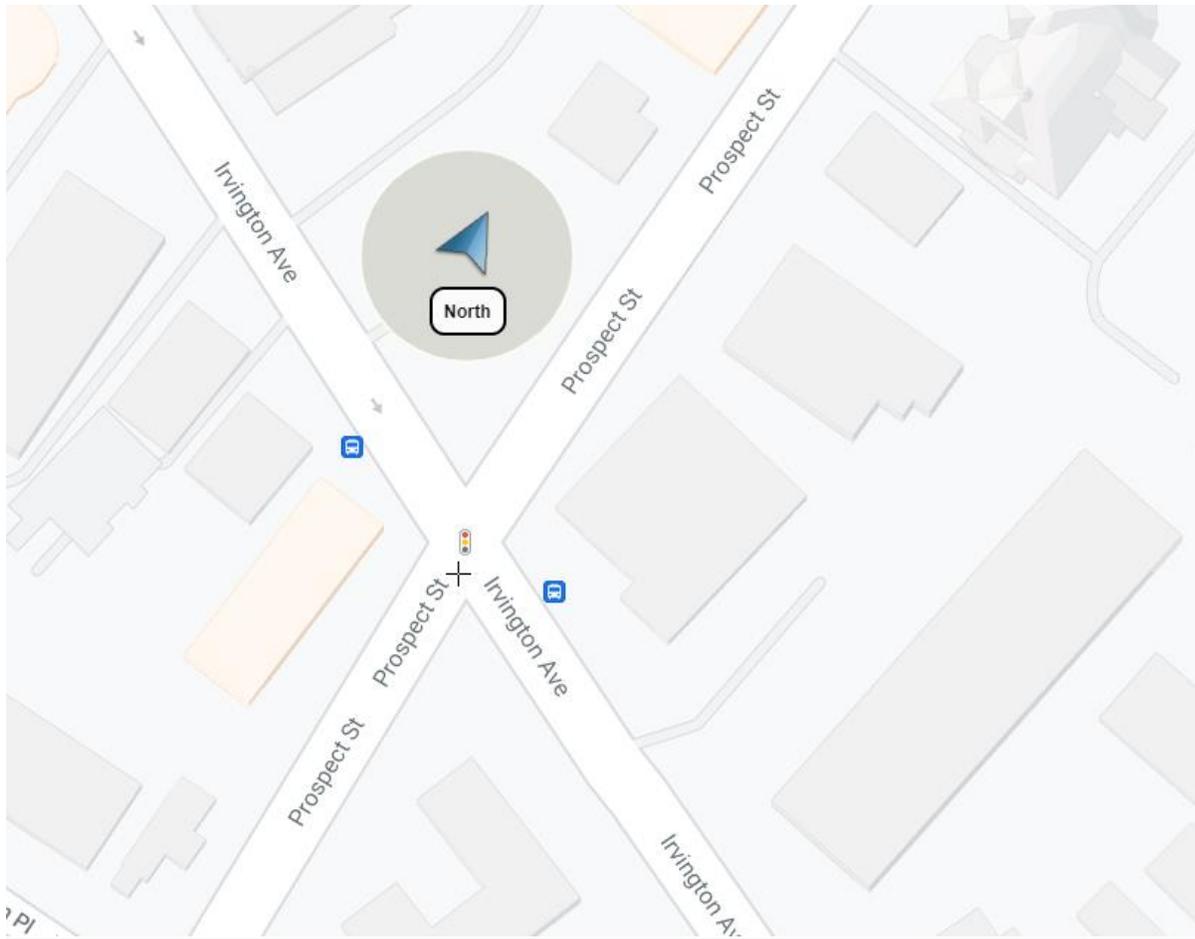
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Countermeasures/Actions:

- Continue to monitor the intersection and crashes to identify future concerns.

Irvington Ave & Prospect St.:



Satellite image unavailable due to tree cover



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### Description:

The four approaches of Irvington Ave & Prospect St. are controlled by red light traffic signals with pedestrian countdown indicators. Irvington Ave runs east/west from Scotland Rd to Newark with one lane in each direction and a 25mph speed limit. Prospect St runs north/south with one lane in each direction from South Orange Ave to Maplewood with a 25mph speed limit.

The Irvington Ave Corridor has experienced 37 crashes along its length during 2022, an increase of 16% from the 2021 total of 31. Of our county roads, the Irvington Ave Corridor has the third highest crash rate in the Township.

### Countermeasures/Actions:

- Continue to work with township and county engineers in addressing sightline issues and pedestrian crosswalks.
- Increase police presence, when possible, to enforce the “No Stopping/No Standing” Ordinance which is supported by yellow roadway markings.
- Determine feasibility of installing additional lighting at intersection
- Partner with NJHTS and participate in their May Motorcycle Safety Awareness Campaign
- Essex County made some improvements to crosswalks, sidewalks and curbs on Irvington Ave in 2021.
- Additional grant funded improvements, secured by The Village of South Orange, are planned.



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**Sloan St Corridor:**



**Parking Detail**





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Description:

Sloan St is a municipal two lane roadway that travels north/south from South Orange Ave to Third Street with one lane in each direction and a speed limit of 25mph. There is a mid-block crossing between South Orange Ave and First Street and all other intersections have crosswalks. There is a roundabout where Sloan St meets First St. Additionally; the roadway has numerous signs prohibiting certain actions by motorists within this corridor.

During 2022, there were 12 motor vehicle crashes along Sloan Street, a reduction of 14% from 2021. Sloan Street, particularly between South Orange Ave and First Street is one of our busiest roads when factoring in commuters and retail patrons. All of the 12 incidents were low speed with a majority being caused by drivers backing out of or pulling into a parking space. None of the Sloan Street incidents resulted in any injuries.

Countermeasures/Actions:

- Continue police presence and enforcement efforts
- Sloan Street remains one of our top streets for the issuing of summonses, a majority of which are for violating the No Left Turn local ordinance. These are followed closely by summonses for Parked in Loading Zone, Handicapped and then various moving violations.
- Work with the Engineering Department as well as the Parking Authority to create solutions to possibly ease congestion.
- Some potential engineering solutions are:
  - Changing angled parking to parallel to the curb parking
  - Widening the corridor
  - Widen the angled spots
  - All of these will result in loss of parking spaces but would improve sightlines.



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South Orange Avenue & Sloan Street



Sloan Street





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**Ward PI & Wilden PI:**



**Description:**

Ward PI and Wilden PI is a municipal intersection where north/south bound Ward PI traffic meets east/west bound Wilden PI Traffic. Both roads have one lane in each direction and a 25mph speed limit. Wilden PI is controlled by a Stop Sign. Ward PI is heavily traveled with Seton Hall University Drivers as well as others who use the road as a “cut through” from Irvington Ave to South Orange Ave. Average daily total of vehicles passing through this area, is 4,055. (traffic survey conducted in September of 2021).

During 2021, there were a total of 6 crashes on Ward Place with 2 crashes at this intersection. This is a reduction from 2021 where that same stretch of road experienced a reported 10 crashes



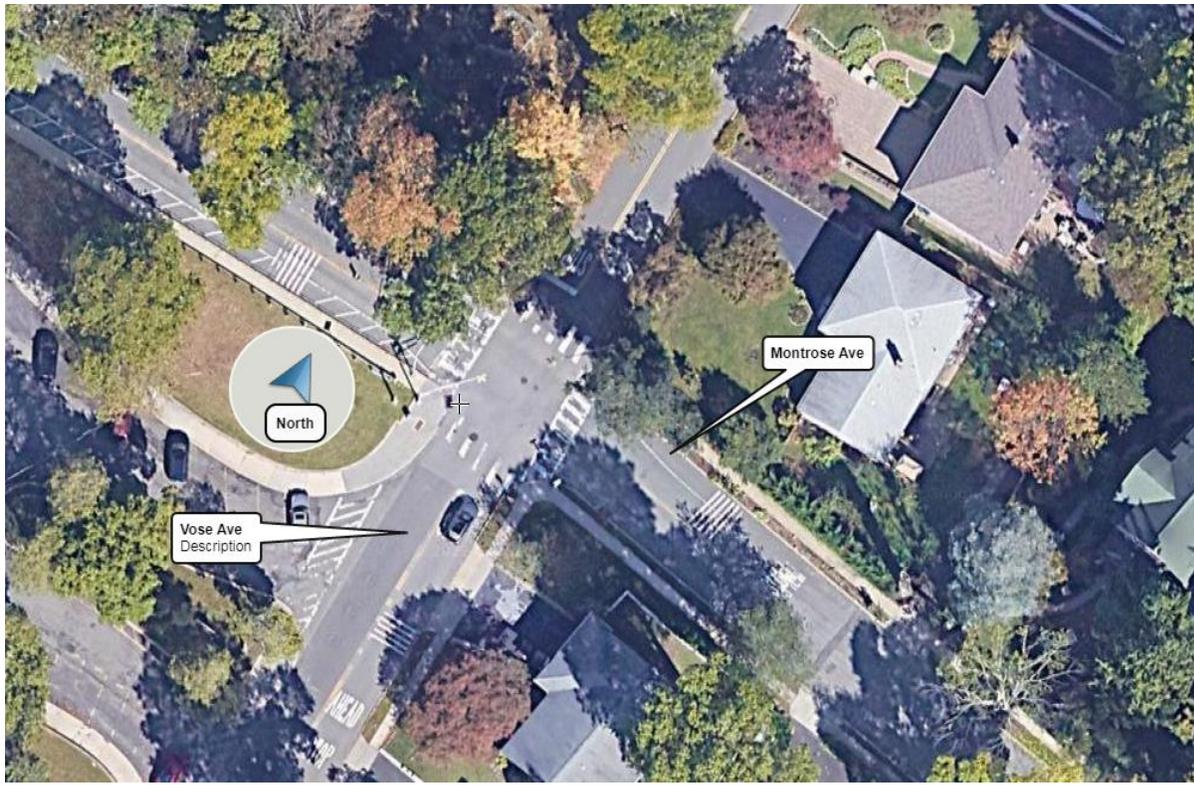
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### Countermeasures/Actions:

- In 2020, The Township of South Orange Village addressed sightline issues by expanding no parking areas, repainting yellow curbing, eliminating some parking spaces and installing new signs. This resulted in a decrease of crashes on Ward Place, specifically in the area of Wilden Place.
- Continue to monitor the intersection and crashes to identify future concerns.
- Update the town on faded road striping and markings.

### Montrose Ave & Vose Ave:





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Description:

Montrose Ave & Vose Ave is a municipal intersection where east/west bound Montrose Ave traffic is controlled by two overhead, flashing, amber-colored lights. North/south bound Vose Ave traffic is controlled by two overhead, flashing red lights and two retro-reflective Stop Signs in each direction. Both roads have one lane in each direction and have a 25mph speed limit.

During 2022, there were 2 crashes at the intersection, an increase from the 1 crash that occurred in 2021. For these incidents, no injuries were reported.

Countermeasures/Actions:

- Reduce potential speeding over the West Montrose Ave train bridge by installing a permanent, flashing speed display sign. (such as the one installed on Prospect Street in 2020)
- Increase police presence while enforcing Failure to Yield to Pedestrians in Crosswalk violation and Stop Sign violations.
- Install advanced warning, Pedestrian Crossing Ahead signs to the east & west of the intersection.
- Install solar powered, flashing, Stop signs on the north & south side of the intersection (e.g. – similar sign was installed So. Wyoming Ave & Lenox Ave after a fatal vehicle crash occurred at that location).
- Continue to work with DPW for the pruning of trees which may cause sightline issues or block posted signage.



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**Summary:**

The purpose of the analysis is to continue the assessment of road safety conditions along the highways and at intersections in South Orange with the objective of reducing the volume and severity of roadway crashes. Emphasis has been placed on improving road safety through targeted road safety Engineering, Educational/Behavioral and Enforcement programs.

**Education:**

- The primary function of this category is educate the public about traffic safety and to convince the public to change their driving behaviors in a way that leads to greater safety on the roads.
- Current means of providing traffic safety education include:
  - Social media channels
  - Township website
  - Traffic stops where officers use discretion and opt to educate drivers rather than issue summonses
  - Public safety meetings
  - Direct engagement with members of the public, such as neighborhood organization meetings
- Priority areas to be supported included:
  - Distracted driving
  - Seat belt usage
  - Child passenger safety
  - Pedestrian safety
  - Bicycle safety
  - Distracted driving
  - Aggressive driving



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- Impaired driving
- Motorcycle safety

**Engineering:**

- There continues to be a need for a Civil or Traffic Engineer dedicated to monitoring Township and County Highway operations, to recommend improvements in the highway system and improve the safety for vehicle operators, pedestrians and bicyclists.
- South Orange streets and highways are expected to safely and efficiently move hundreds of thousands of vehicles each year.
- Many problems can be associated with this network.
  - The growing and shifting population may cause some routes to become inadequate
  - Increasing maintenance and equipment costs
  - Growing population causes drastic alterations in traffic flow patterns.
  - Damage from weather events, such as Tropical Storm Ida
- Responsibility for the design, construction and maintenance of the highway system falls on the engineering and public works departments, at the county and local levels of government.
- The Police Department can support the work of the Engineering Department through continued use of traffic measurement devices to collect/supply data on vehicle volume, speed, and other dynamics for the cars that travel on our roadways.



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**Enforcement:**

- The South Orange Police Department will continue its efforts to address the most prevalent causation factors for pedestrians and vehicle crashes. Our commitment is to the safe passage of all roadway users in the township as we move towards fewer crashes and zero fatalities.
- To achieve this goal, we will continue to work with our traffic safety partners from US/NJ Highway Traffic Safety Administrations, AAA, NJ Department of Transportation, NJ State Police, NJ Motor Vehicle Commission, and the Essex County Traffic Officers' Association and participate in their traffic safety enforcement programs. The areas of concentration include:
  - Utilize the Vision Zero network resources to research other communities' successes in crash reduction
  - Pedestrian Decoy programs/Cops in Crosswalk program
  - Share the Road with Motorcycles and Bicycles
  - Hang Up! Just Drive; distracted driving program
  - Bi-annual Click It or Ticket; occupant protection campaign
  - Bi-annual Drive Sober or get Pulled Over; impaired driving campaign
  - Obey the Sign or Pay the Fine; aggressive driving campaign

Through the above multi-pronged approach, SOPD will continue to work toward reducing crash related injuries and fatalities; with the goal to increase community awareness and understanding of traffic safety, and causing a shift in community attitudes toward a safe behavior on the roads.



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**Appendix A**

	2022	2021	2020	Change Count	Change Percent
Total Crashes	446	416	349	+30	7.2% increase
Fatal Crashes	0	0	3	0	0%
Pedestrian Crashes	23	16	15	+7	43.75% increase
Parked Vehicles	106	112	93	-6	5% decrease
Hit & Run	59	56	47	+3	5% increase
Bicycle	5	1	4	+4	400% increase

*\*Change count percentage from 2021 to 2022*

**Appendix B**

Publication, “Traffic Safety Facts, Crash Stats” – U.S. Dept. of Transportation, National Highway Traffic Safety Administration, (5) page report, December 2022

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813406>



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Administration**

**TRAFFIC SAFETY FACTS**  
Crash • Stats



DOT HS 813 406

A Brief Statistical Summary

December 2022

# Early Estimate of Motor Vehicle Traffic Fatalities for the First 9 Months (January–September) of 2022

## Summary

A statistical projection of traffic fatalities for the first 9 months of 2022 shows that an estimated 31,785 people died in motor vehicle traffic crashes. This represents a marginal decrease of about 0.2 percent as compared to 31,850 fatalities projected to have occurred in the first 9 months of 2021, as shown in Table 1. The third quarter of 2022 represents the second straight decline in fatalities after seven consecutive quarters of year-to-year increases in fatalities, beginning with the third quarter of 2020. Preliminary data reported by the Federal Highway Administration (FHWA) show that vehicle miles traveled (VMT) in the first 9 months of 2022 increased by about 39 billion miles, or about a 1.6-percent increase. Also shown in Table 1 are the fatality rates per 100 million VMT, by quarter. The fatality rate for the first 9 months of 2022 decreased to 1.30 fatalities per 100 mil-

lion VMT, down from the projected rate of 1.32 fatalities per 100 million VMT in the first 9 months of 2021. For the NHTSA Regional differences, 5 of 10 Regions are estimated to have increases in fatalities, and 5 of the 10 Regions are estimated to have increases in fatality rate per 100 million VMT in the first 9 months of 2022 as compared to the first 9 months of 2021. Also, 25 States are projected to have experienced increases in fatalities. The actual counts for 2021 and 2022 and the ensuing percentage changes from 2021 to 2022 will be further revised as the FARS annual report files for 2021 are available, as well as when the FARS final file for 2021 and annual report file for 2022 are available next year. These estimates may be further refined when the projections for the whole of 2022 are released in late April 2023.

**Table 1: Fatalities and Fatality Rate by Quarter, First 9 Months, Full Year, and the Percentage Change From the Corresponding Quarter, First 9 Months or Full Year in the Previous Year**

Year	1st Quarter (Jan–Mar)	2nd Quarter (Apr–Jun)	3rd Quarter (Jul–Sep)	4th Quarter (Oct–Dec)	Total (Full Year)	1st 9 Months (Jan–Sep)
<b>Fatalities and Percentage Change in Fatalities for the Corresponding Quarter, First Half and Total From the Previous Year</b>						
2011	6,726 [ -0.4%]	8,227 [ -3.5%]	8,984 [ -2.6%]	8,542 [ +0.5%]	32,479 [ -1.6%]	23,937 [ -2.3%]
2012	7,521 [ +11.8%]	8,612 [ +4.7%]	9,171 [ +2.1%]	8,478 [ -0.7%]	33,782 [ +4.0%]	25,304 [ +5.7%]
2013	7,166 [ -4.7%]	8,207 [ -4.7%]	9,024 [ -1.6%]	8,496 [ +0.2%]	32,893 [ -2.6%]	24,397 [ -3.6%]
2014	6,856 [ -4.3%]	8,179 [ -0.3%]	8,799 [ -2.5%]	8,910 [ +4.9%]	32,744 [ -0.5%]	23,834 [ -2.3%]
2015	7,370 [ +7.5%]	8,823 [ +7.9%]	9,805 [ +11.4%]	9,486 [ +6.5%]	35,484 [ +8.4%]	25,998 [ +9.1%]
2016	8,154 [ +10.6%]	9,563 [ +8.4%]	10,078 [ +2.8%]	10,011 [ +5.5%]	37,806 [ +6.5%]	27,795 [ +6.9%]
2017	8,301 [ +1.8%]	9,460 [ -1.1%]	10,081 [ +0.0%]	9,631 [ -3.8%]	37,473 [ -0.9%]	27,842 [ +0.2%]
2018	8,203 [ -1.2%]	9,323 [ -1.4%]	9,934 [ -1.5%]	9,375 [ -2.7%]	36,835 [ -1.7%]	27,460 [ -1.4%]
2019	7,832 [ -4.5%]	9,193 [ -1.4%]	9,994 [ +0.6%]	9,336 [ -0.4%]	36,355 [ -1.3%]	27,019 [ -1.6%]
2020	7,893 [ +0.8%]	9,141 [ -0.6%]	11,315 [ +13.2%]	10,475 [ +12.2%]	38,824 [ +6.8%]	28,349 [ +4.9%]
2021 <sup>1</sup>	8,935 [ +13.2%]	11,135 [ +21.8%]	11,780 [ +4.1%]	11,065 [ +5.6%]	42,915 [ +10.5%]	31,850 [ +12.3%]
2022 <sup>1</sup>	9,605 [ +7.5%]	10,490 [ -5.8%]	11,690 [ -0.8%]	—	—	31,785 [ -0.2%]
<b>Fatality Rate per 100 Million Vehicle Miles Traveled (VMT)</b>						
2011	0.98	1.09	1.18	1.17	1.10	1.09
2012	1.08	1.12	1.21	1.16	1.14	1.14
2013	1.04	1.07	1.17	1.16	1.10	1.09
2014	0.99	1.03	1.11	1.17	1.08	1.05
2015	1.03	1.08	1.20	1.21	1.15	1.11
2016	1.11	1.16	1.23	1.27	1.19	1.17
2017	1.12	1.13	1.21	1.20	1.17	1.16
2018	1.10	1.11	1.18	1.15	1.14	1.13
2019	1.05	1.09	1.18	1.14	1.11	1.11
2020	1.08	1.43	1.44	1.40	1.34	1.31
2021 <sup>1</sup>	1.25	1.34	1.37	1.35	1.33	1.32
2022 <sup>1</sup>	1.27	1.26	1.36	—	—	1.30

<sup>1</sup>2021 and 2022 statistical projections and rates based on these projections.

Sources: Fatalities: 2011-2019 FARS final file, 2020 FARS ARF. VMT: FHWA September 2022 Traffic Volume Trends for 2021 and 2022 VMT.



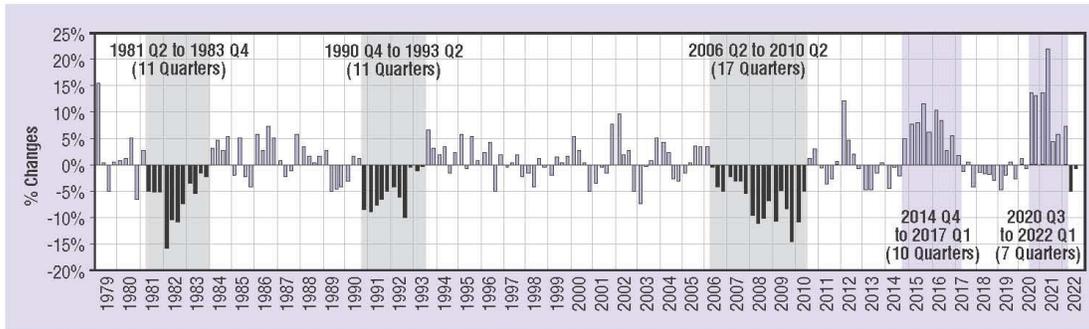
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Figure 1 shows the historical trend of the percentage change every quarter from the same quarter in the previous year, going back to 1979 (NHTSA has fatality data since 1975). The shading in the chart shows the years when there were significant numbers of consecutive quarters with increases/declines as compared to the corresponding quarters of the previous years. The declines during the early 1980s and 1990s lasted 11 consecutive quarters, while the most recent decline occurred over 17 consecutive quarters ending in the second quarter of 2010. More recently, the significant increases in fatali-

ties occurred over 10 consecutive quarters ending after the first quarter of 2017. In addition, fatalities increased 7 consecutive quarters beginning with the third quarter of 2020, until the 5.8-percent decline seen in the second quarter of 2022. The third and fourth quarter of 2020 and the first and especially the second quarter of 2021 showed significant increases in fatalities as compared to the corresponding quarters of 2019 and 2020. The percentage increase in the second quarter of 2021 is actually the highest quarterly percentage increase in FARS data recorded history.

**Figure 1: Percentage Change in Fatalities in Every Quarter as Compared to the Fatalities in the Same Quarter During the Previous Year**



Sources: 1979-2019 FARS final file, 2020 FARS annual report file. 2021 and 2022 statistical projections.

The quarterly projections of fatalities, fatality rates, and VMT are further split into monthly estimates for 2021 and 2022, as shown in Table 2. During the first 9 months of 2022, February and April have the greatest increase (17.0%) and decrease (-10.4%) in fatalities respectively.

The fatality rate per 100 million VMT shows an increase in February, March, July, and September but a decrease in all other months, as compared to the corresponding month in 2021.

**Table 2: Fatalities, VMT, Fatality Rate by Month or Quarter in 2022, and the Percentage Change in Fatalities and VMT From the Corresponding Month or Quarter in 2021**

Year	1st Quarter				2nd Quarter				3rd Quarter				4th Quarter			
	Jan	Feb	Mar	Total	Apr	May	Jun	Total	Jul	Aug	Sep	Total	Oct	Nov	Dec	Total
<b>Fatalities in 2022 and Percentage Change in Fatalities for the Corresponding Month and Quarter From 2021</b>																
2021 <sup>1</sup>	3,130	2,585	3,220	8,935	3,570	3,775	3,790	11,135	3,875	4,040	3,865	11,780	4,085	3,555	3,425	11,065
2022 <sup>2</sup>	3,22	3,025	3,360	9,605	3,200	3,660	3,630	10,490	3,900	3,850	3,940	11,690	—	—	—	—
	2.9%	17.0%	4.3%	7.5%	-10.4%	-3.0%	-4.2%	-5.8%	0.6%	-4.7%	1.9%	-0.8%				
<b>Fatality Rate per 100 Million Vehicle Miles Traveled (VMT)/VMT (in Billion) and Percentage Change in VMT</b>																
2021 <sup>1</sup>	1.35	1.21	1.20	1.25	1.38	1.33	1.32	1.34	1.31	1.41	1.39	1.37	1.43	1.33	1.28	1.35
	231.1	213.0	269.4	713.5	259.1	284.3	287.0	830.4	296.4	287.3	278.1	861.8	285.7	267.7	268.4	821.8
2022 <sup>2</sup>	1.34	1.28	1.21	1.27	1.22	1.27	1.28	1.26	1.36	1.33	1.40	1.36	—	—	—	—
	240.6	235.7	277.2	753.5	263.2	288.2	282.5	833.9	287.0	289.4	280.8	857.2				
	4.1%	10.7%	2.9%	5.6%	1.6%	1.4%	-1.6%	0.4%	-3.2%	0.7%	1.0%	-0.5%				

<sup>1</sup>2021 and 2022 statistical projections and rates based on these projections.  
Sources: VMT: FHWA September 2022 Traffic Volume Trends for 2021 and 2022 VMT.



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**Regional Differences**

The statistical procedures used in these projections were generated for each NHTSA administrative Region and were collated to create the national estimate. This allows for the comparison of Regional estimates in 2022 with the projected 2021 counts. Figure 2 shows the percentage change in estimated fatalities in the first 9 months of 2022 from the projected fatalities in the first 9 months of 2021 by NHTSA Region; 5 of the 10 Regions experi-

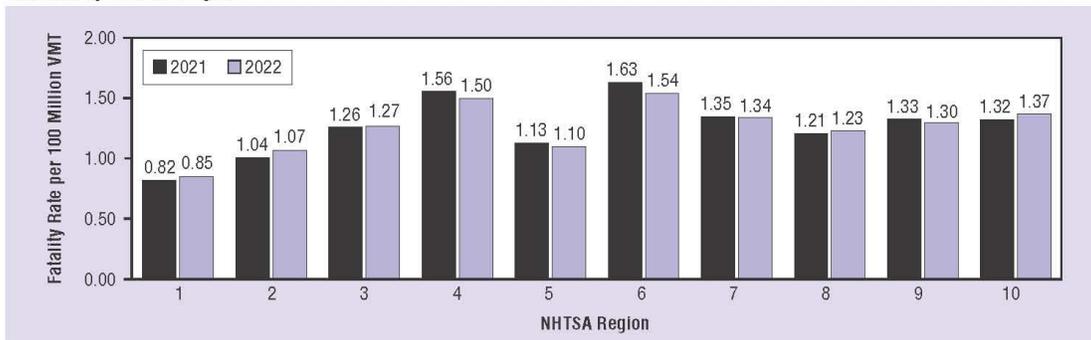
enced increases. Figure 3 shows the comparison of the estimated fatality rate per 100 million VMT in the first 9 months of 2022 with the projected fatality rate per 100 million VMT in the first 9 months of 2021, by NHTSA Region; 5 of the 10 Regions presented increases. These estimates by NHTSA Region shown in Figures 2 and 3 are subject to change as fatality counts for 2021 and 2022 are reported.

**Figure 2: Percentage Change in Estimated Fatalities in First 9 Months of 2022 From Projected First 9 Months of 2021 Fatality Counts, by NHTSA Region**



Sources: 2021 and 2022 statistical projections. Puerto Rico is not included in Region 2.

**Figure 3: Comparison of Estimated Fatality Rate in First 9 Months of 2022 With Projected Fatality Rate in the First 9 Months of 2021, by NHTSA Region**



Sources: FHWA September 2022 Traffic Volume Trends for 2021 and 2022 VMT. Puerto Rico is not included in Region 2.



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### State Differences

Given the significant interest in the traffic safety community in estimated changes at the State level to assess emerging trends, NHTSA has developed a methodology in the third quarter of 2021 to generate such State-level estimates based on the most recent distribution of the fatalities by State in a NHTSA Region and the month (see "Data and Methodology" section for more details). Table 3 shows the comparison of State's estimate in the first 9 months of 2022 with the projected fatality counts in the first 9 months of 2021 and the percentage change in 2022

from 2021; 25 States are projected to have experienced increases in fatalities in 2022 as compared to 2021, while 1 State remained unchanged and 24 States, the District of Columbia and Puerto Rico are projected to have had decreases in fatalities. Also, the estimates of the fatality rate per 100 million VMT by State in the first 9 months of 2021 and 2022 as presented in Table 3 of this report. These estimates by State shown in Table 3 are subject to change as fatality counts for 2021 and 2022 are reported and as FHWA finalizes the State VMT estimates.

**Table 3: Estimated Fatalities in the First 9 Months of 2022, and the Percentage Change in Estimated Fatalities From the Projected Fatalities in the First 9 Months of 2021, by State. The States' Estimates of the Fatality Rate Per 100 M VMT in the First 9 Months of 2021 and 2022 Are Also Presented.**

State	Fatalities			Fatality Rate		State	Fatalities			Fatality Rate	
	2021	2022	Percent Change	2021	2022		2021	2022	Percent Change	2021	2022
Alabama	738	738	0.0%	1.34	1.36	Nebraska	161	198	23.0%	1.01	1.26
Alaska	49	59	20.4%	1.10	1.32	Nevada	291	281	-3.4%	1.37	1.30
Arizona	869	885	1.8%	1.58	1.55	New Hampshire	92	109	18.5%	0.92	1.07
Arkansas	511	474	-7.2%	1.85	1.75	New Jersey	490	542	10.6%	0.88	0.94
California	3,250	3,178	-2.2%	1.29	1.24	New Mexico	364	354	-2.7%	1.81	1.75
Colorado	506	572	13.0%	1.26	1.41	New York	833	865	3.8%	0.99	1.01
Connecticut	243	284	16.9%	0.97	1.11	North Carolina	1,234	1,238	0.3%	1.43	1.43
Delaware	88	109	23.9%	1.25	1.54	North Dakota	88	80	-9.1%	1.23	1.14
District of Columbia	29	23	-20.7%	1.11	0.88	Ohio	1,025	963	-6.0%	1.20	1.13
Florida	2,796	2,762	-1.2%	1.59	1.50	Oklahoma	560	470	-16.1%	1.64	1.38
Georgia	1,303	1,353	3.8%	1.36	1.39	Oregon	456	428	-6.1%	1.68	1.58
Hawaii	64	91	42.2%	0.85	1.15	Pennsylvania	888	897	1.0%	1.23	1.23
Idaho	199	164	-17.6%	1.35	1.12	Rhode Island	51	39	-23.5%	0.89	0.64
Illinois	1,009	975	-3.4%	1.31	1.24	South Carolina	878	810	-7.7%	1.98	1.78
Indiana	705	743	5.4%	1.10	1.16	South Dakota	121	87	-28.1%	1.44	1.07
Iowa	267	260	-2.6%	1.08	1.06	Tennessee	998	1,006	0.8%	1.63	1.61
Kansas	308	301	-2.3%	1.38	1.34	Texas	3,335	3,349	0.4%	1.57	1.52
Kentucky	575	550	-4.3%	1.50	1.42	Utah	239	247	3.3%	0.94	0.96
Louisiana	704	638	-9.4%	1.77	1.57	Vermont	56	64	14.3%	1.11	1.23
Maine	115	132	14.8%	1.04	1.19	Virginia	665	729	9.6%	1.06	1.14
Maryland	393	403	2.5%	0.96	0.95	Washington	487	591	21.4%	1.05	1.26
Massachusetts	317	328	3.5%	0.71	0.71	West Virginia	193	181	-6.2%	1.46	1.40
Michigan	864	840	-2.8%	1.20	1.14	Wisconsin	449	455	1.3%	0.93	0.94
Minnesota	364	352	-3.3%	0.85	0.81	Wyoming	91	97	6.6%	1.11	1.21
Mississippi	584	543	-7.0%	1.80	1.72	<b>U.S. Total*</b>	<b>31,850</b>	<b>31,785</b>	<b>-0.2%</b>	<b>1.32</b>	<b>1.30</b>
Missouri	782	777	-0.6%	1.31	1.30	Puerto Rico	249	194	-22.1%	-	-
Montana	175	171	-2.3%	1.68	1.65						

\*Unrounded States' Fatalities Estimate Summation (Puerto Rico is not included).

Sources: 2021 and 2022 statistical projections.

VMT: FHWA September 2022 Traffic Volume Trends for 2021 and 2022 VMT. Traffic Volume Trends for Puerto Rico is not available.



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### Discussion

During the COVID-19 pandemic, there were marked increases in fatalities and the fatality rate per 100 million VMT in 2020. The increased trend of fatalities in 2020 have continued into 2021 and the first quarter of 2022. The second and the third quarter of 2022 have experienced the decline in fatalities after seven consecutive quarters of year-to-year increases in fatalities, since the third quarter of 2020. The increased trend of the fatality rate per 100 million VMT in 2020 have continued into the first quarter of 2021, decreased in the second, third, and fourth quarters of 2021, and increased again in the first quarter but decreased in the second and the third quarter of 2022. NHTSA is continuing to gather and finalize data on crash fatalities for 2021 and 2022 using information from police crash reports and other sources. The final file for 2020 as well as the annual report file for 2021 will be available in the early part of 2023 that usually results in the revision of fatality totals and the ensuing fatality rates and percentage changes.

### Data and Methodology

The data used in this analysis come from several sources: NHTSA's FARS, Early Notification (EN) data, and Monthly Fatality Counts (MFC) (the EN and MFC data are not available to the public); and from FHWA's VMT estimates. FARS is a census of fatal traffic crashes in the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway and must result in the death of at least one person (occupant of a vehicle or a nonoccupant) within 30 days of the crash. FARS Final Files from January 2003 to December 2019 and FARS Annual Report File in 2020 are used. The EN program is designed as an Early Fatality Notification System to capture fatality counts from States more rapidly and provide near-real-time notification of fatality counts from all jurisdictions reporting to FARS. The MFC data provide

monthly fatality counts by State through sources that are independent from the EN or FARS systems. MFCs from January 2003 up to September 2022 are used. MFCs are reported midmonth for all prior months of the year. In order to estimate the traffic fatality counts for 2022, the Time Series Cross-Section Regression (TSCSR) procedure was applied to analyze the data with both cross sectional values (by NHTSA Region) and time series (by month), to model the relationship among FARS, MFC, and EN, the details of which are available in a Research Note (*Statistical Methodology to Make Early Estimates of Motor Vehicle Traffic Fatalities*, Report No. DOT HS 811 123). Furthermore, after the projected fatality counts for NHTSA Region  $r$  and the month  $m$  ( $F_{Est,mr}$ ) are obtained, the estimated fatality counts for a State  $st$  in Region  $r$  and the month  $m$  ( $F_{Est,st,mr}$ ) are calculated. Each State receives a proportion of the projected fatality counts for the Region using the most recent relative proportion of fatalities in each State  $st$  for Region  $r$  and month  $m$  found in the Early Notification data. This can be expressed as  $F_{Est,st,mr} = (F_{st,mr} / \sum_{all\ States\ in\ r} F_{st,mr}) \times F_{Est,mr}$ , where  $F_{st,mr}$  is the latest fatal count in the Early Notification data for State  $st$  in Region  $r$  and month  $m$ . That is, the inflation rate for all States within a region is assumed to be the same as the inflation rate of that region. For example, the estimated motor vehicle traffic fatalities for Arizona in Region 9 (AZ, CA, HI) and the month  $m$  is:  $F_{Est,AZ,m9} = (F_{AZ,m9} / (F_{AZ,m9} + F_{CA,m9} + F_{HI,m9})) \times F_{Est,m9}$ .

The methodology used to generate the National, Regional, and State-level estimates for the first 9 months of 2022 is the same as the one used by NHTSA to project the motor vehicle traffic fatalities for the first half of 2022 (*Early Estimates of Motor Vehicle Traffic Fatalities for the First Half (January–June) of 2022*, Report No. DOT HS 813 376).

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2022, December). *Early estimate of motor vehicle traffic fatalities for the first 9 months (January–September) of 2022* (Crash•Stats Brief Statistical Summary, Report No. DOT HS 813 406). National Highway Traffic Safety Administration.



U.S. Department  
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**National Highway  
Traffic Safety  
Administration**

For questions regarding the information presented in this report, please contact [NCSARequests@dot.gov](mailto:NCSARequests@dot.gov). This Crash•Stats and other general information on traffic safety can be found at <https://crashstats.nhtsa.dot.gov/>.



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**Appendix C**

**STATE POLICE N.J. FATAL ACCIDENT INVESTIGATION UNIT  
YEAR TO DATE - STATEWIDE FATAL CRASH STATISTICS  
FOR DECEMBER 31, 2022**

**FATAL CRASHES**

2022 - 652  
2021 - 667  
2020 - 550

**FATALITIES**

2022 - 695  
2021 - 697  
2020 - 587

FATALITIES FROM 2021 TO 2022 -2  
PERCENTAGE CHANGE 2021 TO 2022 -.3%  
FATALITIES FROM 2020 TO 2021 110  
PERCENTAGE CHANGE 2020 TO 2021 18.7%

**VICTIM CLASSIFICATION**

	2020	2021	2022
<b>DRIVER</b>	304	368	385
<b>PASSENGER</b>	86	86	101
<b>PEDALCYCLIST</b>	18	26	17
<b>PEDESTRIAN</b>	179	217	192
<b>TOTAL</b>	<b>587</b>	<b>697</b>	<b>695</b>

**2022 - AGE OF VICTIMS**

AGE	DRIVER	PASSENGER	PEDALCYCLIST	PEDESTRIAN
<b>16 AND UNDER</b>	2	6	3	4
<b>17</b>	3	2	1	1
<b>18 - 20</b>	16	12	0	4
<b>21 - 24</b>	30	10	0	1
<b>25 - 29</b>	29	9	0	8
<b>30 - 39</b>	76	12	1	39
<b>40 - 49</b>	56	6	3	29
<b>50 - 64</b>	85	17	5	60
<b>65 - 79</b>	57	13	4	34
<b>80 AND OVER</b>	31	14	0	12
<b>UNKNOWN</b>	0	0	0	0
<b>TOTAL</b>	<b>385</b>	<b>101</b>	<b>17</b>	<b>192</b>

THIS REPORT CONTAINS STATISTICS OF FATAL MOTOR VEHICLE CRASHES THAT HAVE BEEN REPORTED TO THE NEW JERSEY STATE POLICE FATAL ACCIDENT INVESTIGATION UNIT.

THE STATISTICS LISTED FOR PRIOR YEARS CORRESPOND TO THE CURRENT YEAR MONTH AND DAY.

THE STATISTICS CONTAINED IN THIS REPORT ARE PRELIMINARY AND ARE SUBJECT TO CHANGE.

Report Run: 10 APR 23 10:00 AM



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**Appendix D** – *please see NJSP report on page 32*

New Jersey State Police Crash Fatalities as of February 15, 2022

<https://nj.gov/njsp/info/fatalacc/pdf/swfcs2.pdf>

<https://nj.gov/njsp/info/fatalacc/index.shtml>