



# PEDESTRIAN & BICYCLE QUARTERLY CRASH REPORT



**QUARTER**

**4**

**2022**

## Quarter 4 (Q4) Crash Analysis

The Palm Beach Transportation Planning Agency (TPA) has adopted Vision Zero – a goal to eliminate all traffic-related fatalities and serious injuries (also referred to as “Incapacitating Injuries”) in Palm Beach County. One emphasis area of the Vision Zero Action Plan places emphasis on some of the most vulnerable and disproportionately impacted roadway users: pedestrians and bicyclists.

The TPA’s Vision Zero Action Plan (VZAP) Culture Action 3.1 requires the agency to create a quarterly summary of crashes involving a pedestrian or bicyclist to provide understandable information to the public and stakeholders. This policy requires the TPA to provide observations and actions related to fatal crashes within the planning area. Serious injury crashes have been included starting in the second quarter of 2022.

An annual report is published in June of every year providing an overview of the progress towards the goal of zero fatalities and serious injuries on our roadways by 2030. The annual report includes information related to crash trends, research and feedback for future analysis by stakeholders and partners.

### Crash Trends to Watch

- October 1 to December 31 (Q4, 2022) had a total of 59 serious injury or fatality related crashes involving people walking or people bicycling, an increase of 11 crashes from Q3.
- Roads with a posted speed limit of 45mph or above had the highest crash rates
- Crashes involving people biking primarily occurred on arterial roads, continuing a trend of this crash type on this functional classification system.
- A large proportion of crashes involving pedestrians occurred mid-block (78%).
- Distracted driving continues to be a leading characteristic for drivers and there was a notable number of ageing drivers involved in crashes.
- 51% of the mapped crashes were on the Palm Beach TPA’s High Injury Network (HIN).
- A strong concentration of crashes were located in the medium to very high on the high area of the Traditionally Underserved Index in Central Palm Beach County.

### Report Alignment

#### A. Florida Department of Transportation (FDOT) Strategic Highway Safety Plan (SHSP)

The SHSP is a statewide safety plan developed by FDOT and its safety partners as a framework for eliminating fatalities and serious injuries on all public roads. This framework is the guide for how Florida’s traffic safety partners will move toward the vision of a fatality-free transportation system during the next five years. To achieve this vision, this SHSP affirms the target of zero traffic fatalities and serious injuries.

#### B. FDOT Pedestrian and Bicycle Safety Plan



This Pedestrian and Bicycle Strategic Safety Plan (PBSSP) advances this safety vision by supporting the safety of people walking and biking and aligning with the principles set forth by the Pedestrian and Bicyclist Emphasis Area of the Strategic Highway Safety Plan (SHSP). The PBSSP is charged with implementing this plan and consists of federal, state and local safety partners, stakeholders, and safety advocates.

#### C. Palm Beach County Local Road Safety Plan and Municipal Safety Plans

The Palm Beach County Local Road Safety Plan (LRSP) is a comprehensive plan that provides a framework for reducing the number of fatalities and serious injuries associated with crashes that occur on Palm Beach County's (hereafter, "the County's") roadway system. The information in this LRSP draws on best practices in safety planning from documents prepared by the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials, the National Cooperative Highway Research Program, the National Highway Traffic Safety Administration, as well as state and local safety partners. The LRSP supports statewide goals and priorities established in the Florida Strategic Highway Safety Plan (SHSP), including Florida's vision of "A Fatality Free Roadway System".

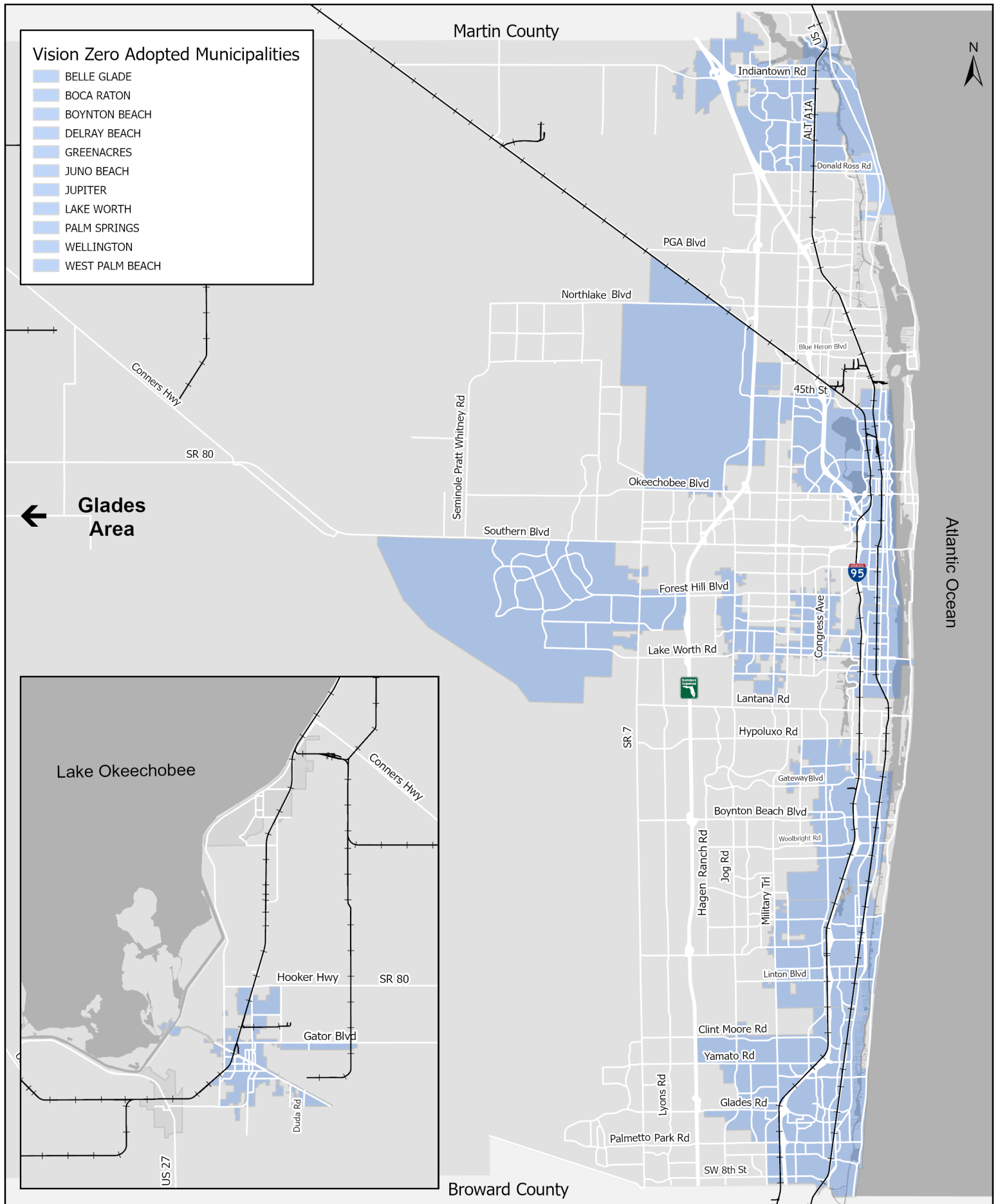
#### D. Local Governments

To date, 11 Municipalities have adopted a Vision Zero Goal, including a target date to eliminate traffic fatalities and serious injuries. The map below indicates the agencies with an adopted Vision Zero Goal in Palm Beach County.





# Palm Beach County - Vision Zero Adopted Municipalities



Date: 3/13/2023

## Summary Table of Q4 Crashes

The table below displays a summary of crashes that involved serious injuries or fatalities and occurred in Quarter 4 from October 1<sup>st</sup> to December 31<sup>st</sup>, 2022. More than half of the total crashes took place in the incorporated areas of the county, with a total of 38 crashes, whereas the unincorporated areas had a total of 21 crashes. There was a slight decrease in fatal crashes accounting for 32% of the total crashes from the previous quarter at 36%.

| Crash Report #    | Jurisdiction       | Crash Severity | Crash Report #                  | Jurisdiction    | Crash Severity |
|-------------------|--------------------|----------------|---------------------------------|-----------------|----------------|
| <b>Pedestrian</b> |                    |                | 25533067                        | Unincorporated  | Serious Injury |
| 24849705          | Delray Beach       | Serious Injury | 25533260                        | Belle Glade     | Serious Injury |
| 24849987          | Delray Beach       | Serious Injury | 25592228                        | Palm Springs    | Fatality       |
| 25092243          | North Palm Beach   | Serious Injury | <b>Total Mapped/Unmapped</b>    |                 | 37/0           |
| 25143579          | Boca Raton         | Fatality       | <b>Bicyclist</b>                |                 |                |
| 25143982          | Boca Raton         | Serious Injury | 25143753                        | Boca Raton      | Serious Injury |
| 25144259          | Boca Raton         | Serious Injury | 25143870                        | Boca Raton      | Serious Injury |
| 25181937          | Boynton Beach      | Fatality       | 25444623                        | West Palm Beach | Serious Injury |
| 25181955          | Boynton Beach      | Fatality       | 25444633                        | West Palm Beach | Serious Injury |
| 25182061          | Boynton Beach      | Serious Injury | 25444723                        | West Palm Beach | Fatality       |
| 25444067          | West Palm Beach    | Fatality       | 25456754                        | Jupiter         | Serious Injury |
| 25494747          | Delray Beach       | Serious Injury | 25494417                        | Delray Beach    | Serious Injury |
| 25494852          | Delray Beach       | Serious Injury | 25494583                        | Delray Beach    | Serious Injury |
| 25527641          | Royal Palm Beach   | Serious Injury | 25527988                        | Unincorporated  | Fatality       |
| 25527882          | Unincorporated     | Serious Injury | 25528265                        | Unincorporated  | Serious Injury |
| 25528279          | Unincorporated     | Serious Injury | 25528840                        | Unincorporated  | Serious Injury |
| 25528402          | Unincorporated     | Serious Injury | 25530772                        | Unincorporated  | Fatality       |
| 25528420          | Unincorporated     | Fatality       | 25532378                        | South Bay       | Fatality       |
| 25528537          | Unincorporated     | Fatality       | 25532648                        | Lake Worth      | Serious Injury |
| 25528560          | Unincorporated     | Serious Injury | 25532797                        | West Palm Beach | Serious Injury |
| 25528641          | Unincorporated     | Serious Injury | 25592258                        | Palm Springs    | Serious Injury |
| 25528909          | Unincorporated     | Serious Injury | <b>Total Mapped/Unmapped</b>    |                 | 16/0           |
| 25529029          | Unincorporated     | Fatality       | *Crash data retrieved 2/28/2023 |                 |                |
| 25529843          | Unincorporated     | Fatality       |                                 |                 |                |
| 25530036          | Unincorporated     | Serious Injury |                                 |                 |                |
| 25530199          | Royal Palm Beach   | Serious Injury |                                 |                 |                |
| 25530277          | Lake Worth         | Serious Injury |                                 |                 |                |
| 25530447          | Loxahatchee Groves | Serious Injury |                                 |                 |                |
| 25530631          | Unincorporated     | Serious Injury |                                 |                 |                |
| 25530702          | Unincorporated     | Serious Injury |                                 |                 |                |
| 25530958          | Unincorporated     | Serious Injury |                                 |                 |                |
| 25532295          | West Palm Beach    | Fatality       |                                 |                 |                |
| 25532544          | Unincorporated     | Serious Injury |                                 |                 |                |
| 25532782          | Unincorporated     | Fatality       |                                 |                 |                |
| 25532834          | Lake Worth         | Serious Injury |                                 |                 |                |



## Crash Trends Deep Dive

This deep dive aligns the FDOT's Florida Strategic Highway Safety Plan (SHSP) Emphasis Areas for crashes and the TPA's High Injury Network (HIN) considerations, and other trending topics to summarize the conditions in table. This information is useful when looking at long term crash trends to better determine when crash modification factors may necessitate changes to roadways.

The consecutive pages provide an analysis of Q4's crash conditions with the following three maps:

- **Pedestrian and Bicycle Crashes:** An overall analysis of the pedestrian and bicycle crashes occurred during the fourth quarter, broken down by crash severity.
- **Crashes on the High Injury Network within Palm Beach County:** An overlay of the crashes on the HIN within PBC. The corridors on the HIN were selected based on the roads with the most fatal and serious injuries, as identified on the TPA's 2021 Vision Zero Action Plan. The TPA's HIN has 20 identified intersections and approximately 50 corridors.
- **Crashes on the Traditionally Underserved Index:** An overlay of the crashes on the Traditionally Underserved Index. To maintain consistency with the TPA's 2021 Vision Zero Action Plan, an equity component was analyzed by prioritizing our traditionally underserved communities on areas where residents likely lack transportation access due to demographic conditions, low income, or a historical lack of services.

Moreover, FDOT conducted a review of Florida's traffic safety resources and analysis of crash data to identify the preeminent crash factors by emphasis area. The five emphasis areas identified on FDOT's SHSP are the following: Roadways, Road Users, User Behavior, Traffic Records and Information Systems, and Evolving emphasis areas. This report only includes the top three emphasis areas organized as such: Roadway, Human Behavior, and Socioeconomic Conditions. The TPA's determination for this selection was based on crash frequency and data availability.

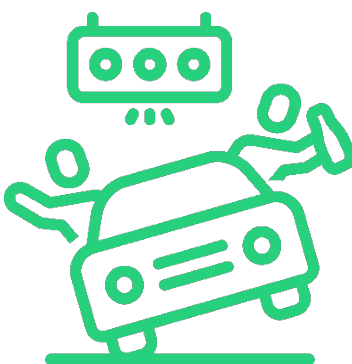
### ROADWAY

### CONDITIONS



### HUMAN

### BEHAVIOR

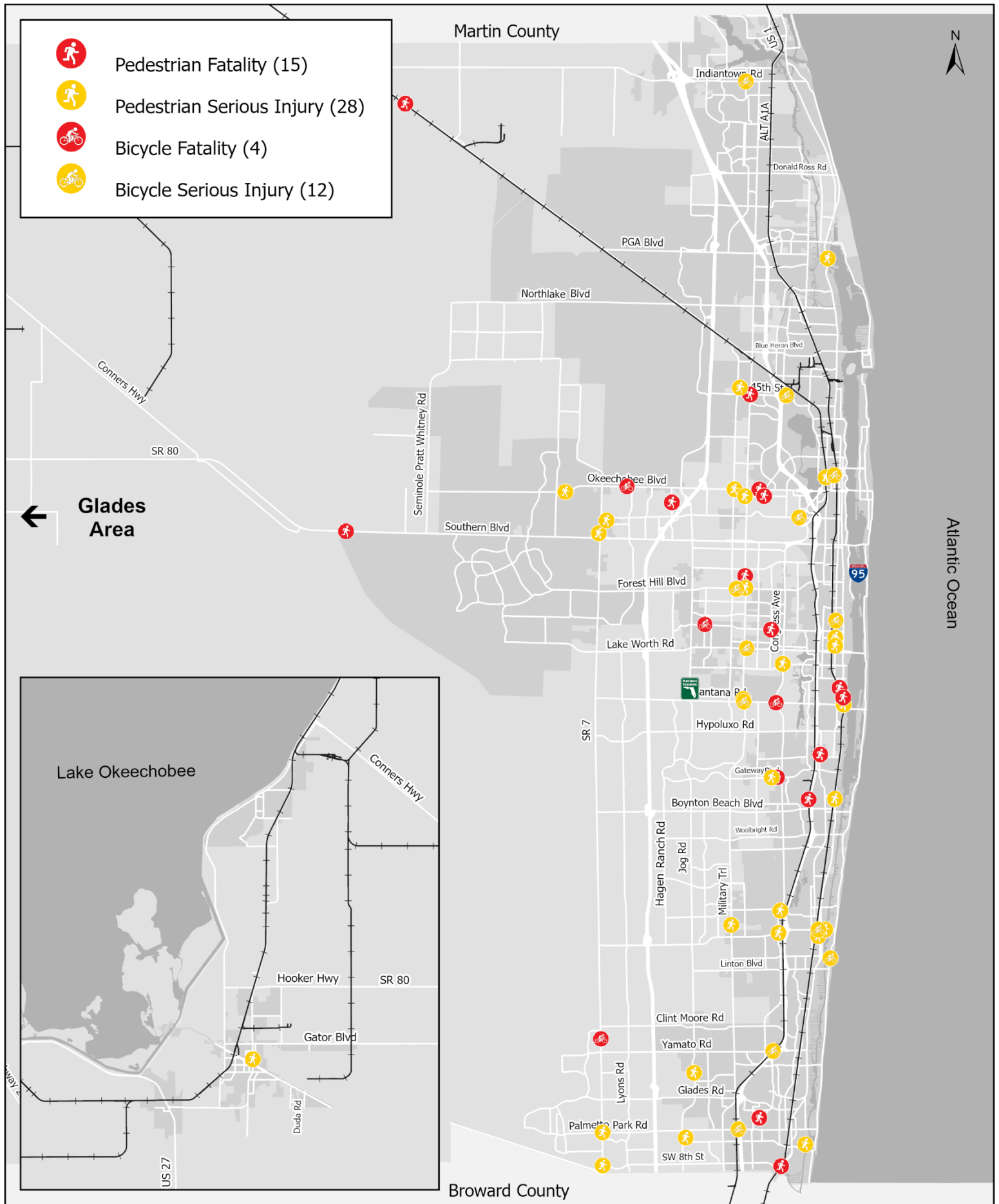


### SOCIOECONOMIC

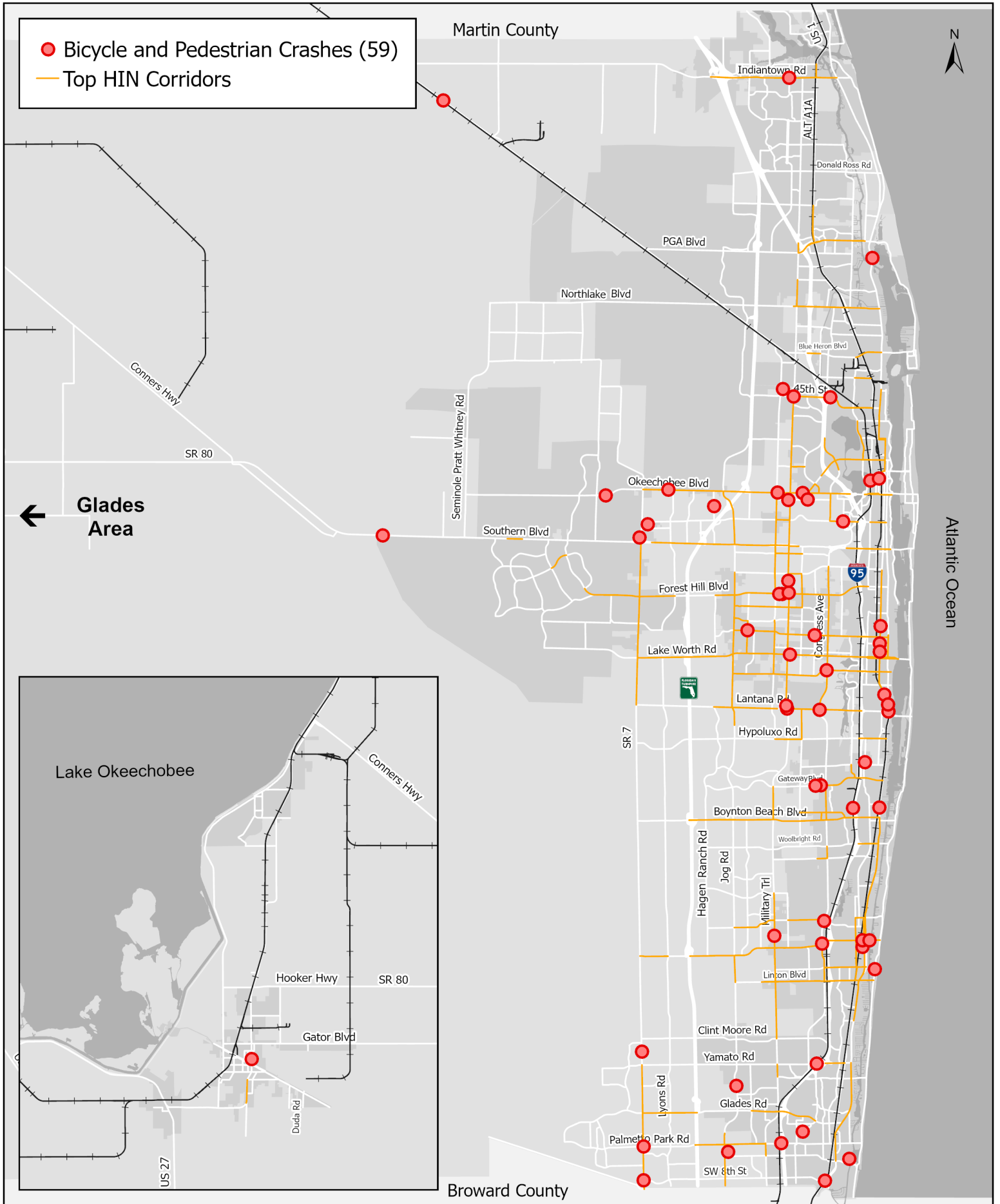
### CONDITIONS



# Ped/Bike Crashes - October 1 to December 31, 2022

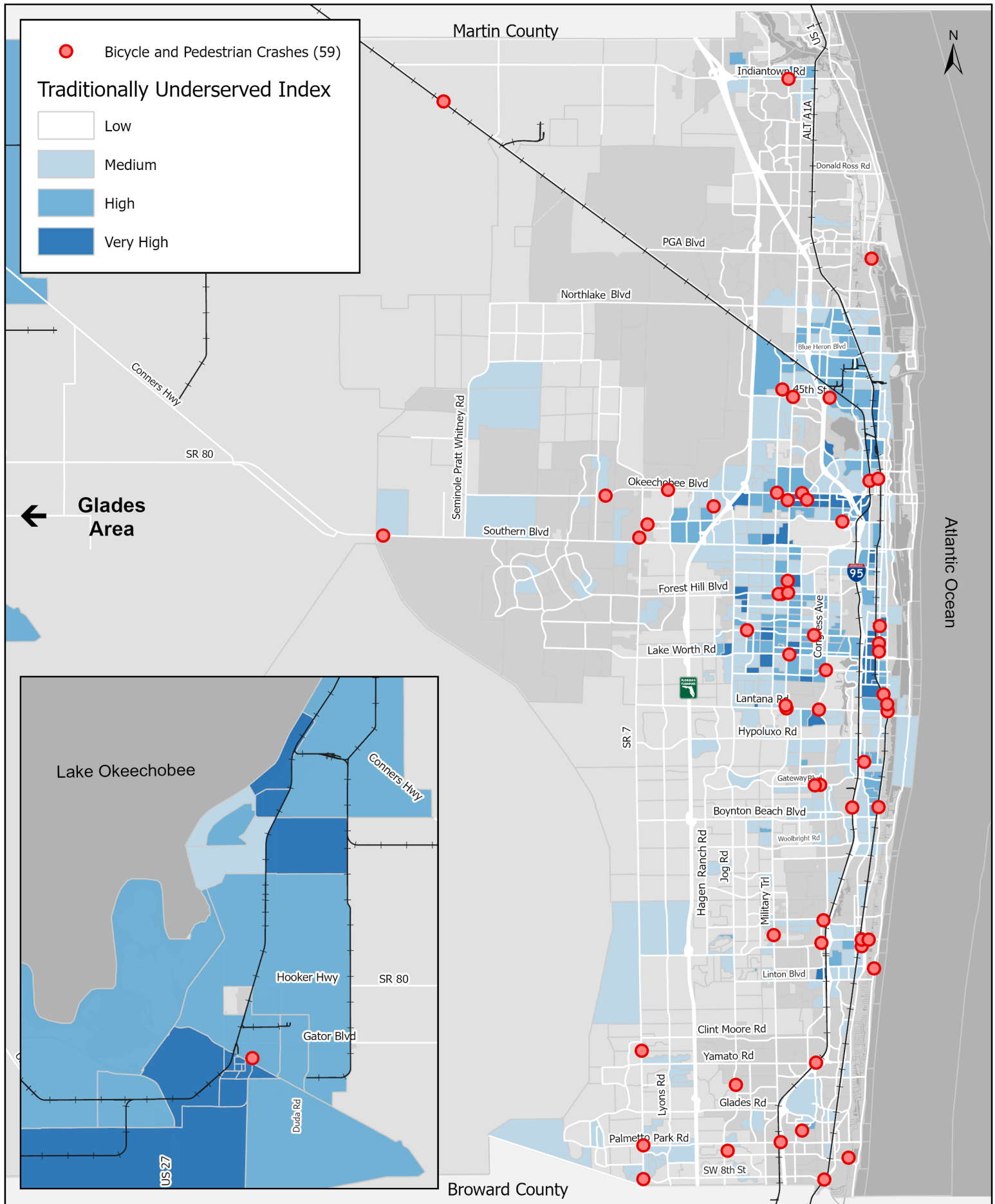


# Crashes on the High Injury Network within Palm Beach County





# Crashes on the Traditionally Underserved Index



## Roadway, Human Behavior, and Socioeconomic Conditions Analysis

|                                 | Quarter 1  |           | Quarter 2  |           | Quarter 3  |           | Quarter 4  |           |
|---------------------------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
|                                 | Pedestrian | Bicyclist | Pedestrian | Bicyclist | Pedestrian | Bicyclist | Pedestrian | Bicyclist |
| <b>Total Crashes</b>            | <b>48</b>  | <b>14</b> | <b>29</b>  | <b>10</b> | <b>38</b>  | <b>14</b> | <b>43</b>  | <b>16</b> |
| Fatalities                      | 20         | 5         | 11         | 1         | 17         | 4         | 15         | 4         |
| Serious Injuries                | 28         | 9         | 18         | 9         | 21         | 10        | 28         | 12        |
| <b>Roadway Conditions</b>       |            |           |            |           |            |           |            |           |
| Posted Speed Limit              |            |           |            |           |            |           |            |           |
| >30                             | 13         | 3         | 8          | 3         | 14         | 4         | 11         | 2         |
| 35-40                           | 20         | 7         | 11         | 3         | 5          | 4         | 9          | 4         |
| 45>                             | 15         | 4         | 6          | 3         | 14         | 5         | 17         | 10        |
| Intersections                   |            |           |            |           |            |           |            |           |
| Mid-Block                       | 23         | 6         | 15         | 4         | 31         | 3         | 29         | 7         |
| Intersection                    | 14         | 6         | 4          | 5         | 7          | 11        | 8          | 9         |
| Number of Lanes                 |            |           |            |           |            |           |            |           |
| 2 Lane                          | 18         | 7         | 11         | 3         | 14         | 6         | 10         | 4         |
| 3-4 Lane                        | 14         | 6         | 6          | 1         | 8          | 3         | 8          | 3         |
| 5 > Lane                        | 16         | 1         | 7          | 5         | 11         | 4         | 19         | 9         |
| Functional Classification       |            |           |            |           |            |           |            |           |
| Major Arterial                  | 14         | 2         | 6          | 8         | 11         | 4         | 14         | 8         |
| Minor Arterial                  | 17         | 4         | 13         | 0         | 7          | 3         | 9          | 4         |
| Major Collector                 | 6          | 7         | 4          | 0         | 4          | 3         | 4          | 2         |
| Minor Collector                 | 6          | 1         | 2          | 1         | 3          | 0         | 1          | 2         |
| Local Road                      | 5          | 0         | 1          | 0         | 8          | 3         | 9          | 0         |
| Lane Departure                  |            |           |            |           |            |           |            |           |
| Crashes                         | 5          | 1         | 5          | 1         | 6          | 0         | 3          | 1         |
| Surface Conditions              |            |           |            |           |            |           |            |           |
| Wet Road                        | 5          | 0         | 5          | 0         | 3          | 2         | 6          | 1         |
| Dry Road                        | 42         | 14        | 21         | 10        | 30         | 11        | 31         | 15        |
| Lighting Conditions             |            |           |            |           |            |           |            |           |
| Daytime                         | 23         | 13        | 11         | 8         | 12         | 10        | 23         | 9         |
| Nighttime                       | 25         | 1         | 18         | 2         | 21         | 4         | 14         | 7         |
| Rail Crossings                  |            |           |            |           |            |           |            |           |
| Trespassers                     | 4          | 0         | 0          | 0         | 5          | 0         | 6          | 0         |
| <b>Human Behaviors</b>          |            |           |            |           |            |           |            |           |
| Impaired Driving                | 4          | 1         | 1          | 0         | 0          | 0         | 0          | 1         |
| Distracted Driving              | 11         | 0         | 5          | 1         | 10         | 2         | 1          | 2         |
| Speeding and Aggressive Driving | 0          | 0         | 2          | 1         | 0          | 1         | 0          | 1         |
| <b>Socioeconomic Conditions</b> |            |           |            |           |            |           |            |           |
| Aging Driver                    | 9          | 4         | 3          | 2         | 6          | 1         | 5          | 4         |
| Teen Driver                     | 2          | 0         | 2          | 2         | 1          | 0         | 0          | 0         |



## TPA Reporting

To track the progress made since updating the TPA's 2021 Vision Zero Action Plan, the following actions were applied during the fourth quarter to help reach our Vision Zero goal:

- Supported the adoption of a Vision Zero Resolution for the City of Boca Raton to establish a commitment of the investment of projects that will help eliminate fatal and serious injuries.
- Supported the following agencies in applying for discretionary grants to fund transportation improvements:
  - City of West Palm Beach for the Reconnecting Communities/ Rail Closures "Building Bridges" grant
  - Palm Beach County for the SMART Program Grant
  - City of Boca Raton for the SMART Program Grant
  - Brightline for the Consolidated Rail Infrastructure & Safety Improvements (CRISI)
  - South Florida Regional Transportation Authority (SFRTA) for the Rail Vehicle Replacement Program
- Attended Florida's Pedestrian and Bicycle Safety Coalition meeting to stay up to date on the latest pedestrian and bicycle state laws, crash data reporting, and statewide Vision Zero efforts
- Participated in two (2) safety events to spread awareness on Vision Zero, pedestrian and bicycle state laws, and safety resources emphasizing traditionally underserved communities
- Collaborated with our partners to assist with project identification and grant application submittals

The TPA will continue to encourage agencies to develop comprehensive roadway safety action plans and utilize resources and grants available to develop such materials.

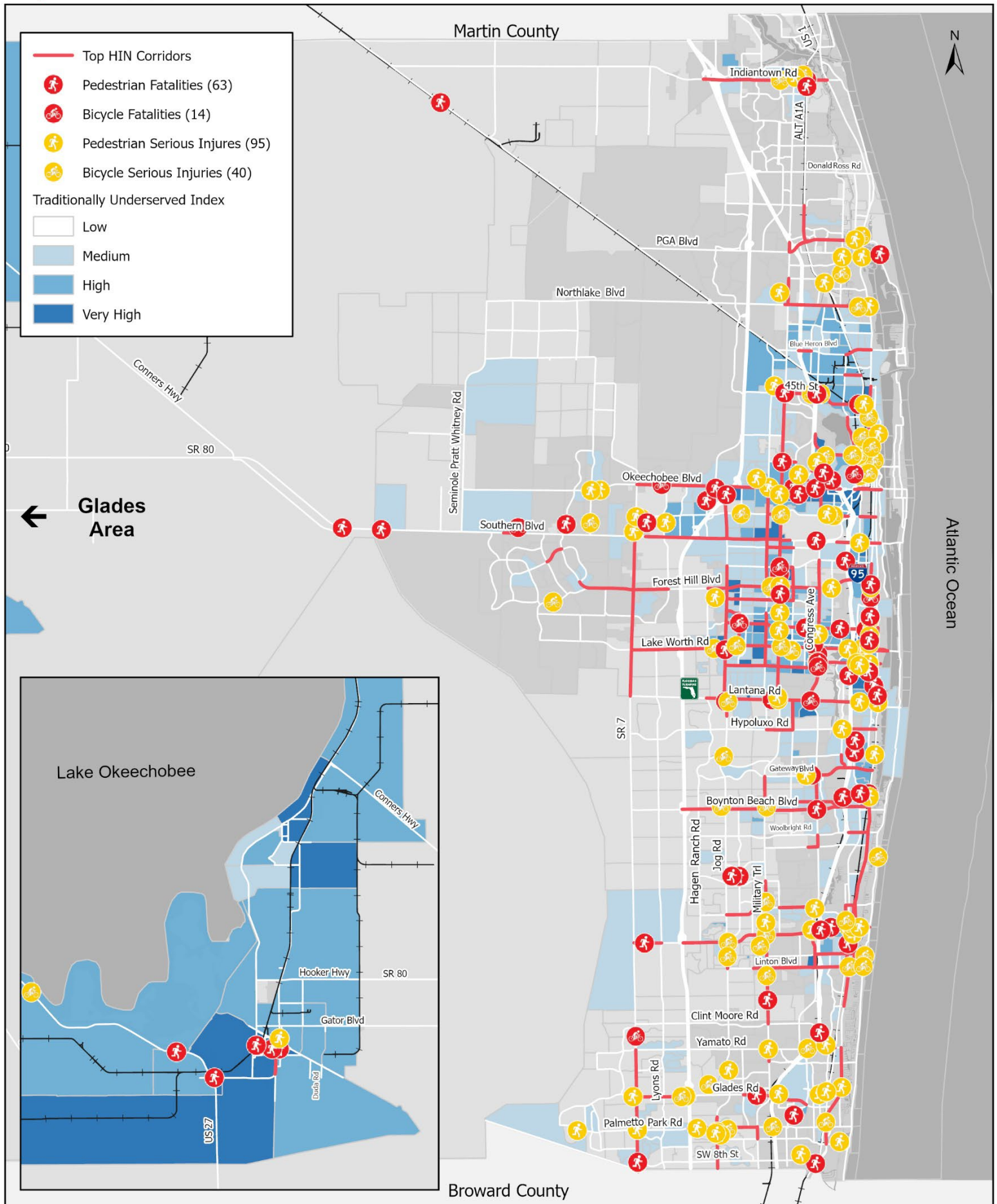


# 2022 PEDESTRIAN & BICYCLE CRASH ANALYSIS





# 2022 Summary: Pedestrian and Bicycle Crashes



The following table displays crash data from 2018-2022 and breaks down the data by crash type, severity, and contributing factors. While the total number of crashes in Palm Beach County has not increased significantly, there has been a **46% increase** in pedestrian and bicycle deaths since 2018. The number of overall crash fatalities also increased to an all-time high in 2022. At the same time, there was a notable surge in reports of distracted driving.

|   | 5-Year Summary Crashes |        |        |        |        | Total          |
|---|------------------------|--------|--------|--------|--------|----------------|
|   | 2018                   | 2019   | 2020   | 2021   | 2022   |                |
| Bicycle Fatalities and Serious Injuries         | 62                     | 52     | 68     | 46     | 54     | 282            |
| Pedestrian Fatalities and Serious Injuries      | 156                    | 157    | 127    | 134    | 158    | 732            |
| Vehicle and Motorcycle Crashes                  | 53,885                 | 55,387 | 42,146 | 49,100 | 49,854 | 250,372        |
| Total Fatalities for Pedestrians and Bicyclists | 48                     | 47     | 56     | 56     | 70     | 284            |
| Total Fatalities for All Crashes                | 183                    | 174    | 186    | 215    | 221    | 979            |
| Total Crashes of All Types                      | 55,095                 | 56,655 | 43,205 | 50,286 | 51,212 | <b>256,453</b> |
| <b>Roadway Conditions</b>                       |                        |        |        |        |        |                |
| Lane Departures                                 | 27                     | 20     | 26     | 18     | 22     | 113            |
| Intersection-Related                            | 61                     | 67     | 76     | 53     | 64     | 321            |
| Rail Crossing Fatalities and Serious Injuries   | 13                     | 15     | 4      | 8      | 15     | 55             |
| <b>Human Behavior</b>                           |                        |        |        |        |        |                |
| Impaired Driving                                | 11                     | 7      | 14     | 10     | 7      | 49             |
| Speeding and Aggressive Driving                 | 7                      | 13     | 13     | 4      | 5      | 42             |
| Distracted Driving                              | 5                      | 9      | 17     | 15     | 32     | 78             |
| <b>Socioeconomic Conditions</b>                 |                        |        |        |        |        |                |
| Aging Drivers                                   | 27                     | 41     | 25     | 38     | 34     | 165            |
| Teen Drivers                                    | 9                      | 7      | 10     | 10     | 7      | 43             |



## Background Information and Sources

The TPA works collaboratively with Palm Beach County (PBC), FDOT, local municipalities and other partners to align strategies and funding within programs to eliminate crashes that result in a serious injury or fatality.

### Data Notes

The information contained within this report was downloaded from Signal Four Analytics – University of Florida GeoPlan and the Federal Railroad Administration Office of Safety Analysis data portal and reformatted for this analysis. Please note that the information provided within this report is preliminary and subject to change.

- Signal 4 Analytics: This web-based interactive tool allows government employees and consultants working on behalf of government agencies the ability to view crash reports, produce maps, and interact with data to analyze area trends. [S4Analytics \(signal4analytics.com\)](https://signal4analytics.com) More information on the data is available from the Signal 4 Analytics Data Dictionary. [S4 Data Dictionary.pdf \(signal4analytics.com\)](https://signal4analytics.com/S4_Data_Dictionary.pdf). Data for this quarter was retrieved April 13, 2023.
- US Department of Transportation: Federal Railroad Administration: This site shares railroad safety information including accident, incident, inventory, and highway-rail crossing data with the public. [FRA Safety Data & Reporting | FRA \(dot.gov\)](https://www.fra.dot.gov/FRA/SafetyDataReporting) Data for this quarter was retrieved April 13, 2023.

\*Disclaimer: Every effort has been made to provide data that is current and accurate. All data is considered preliminary until the year is reconciled and closed out by the FLHSMV, and thus certain adjustments may be made to verify the data where clerical errors are noted. The following data was not included in Signal 4 Analytics and was obtained through other means.

- Posted Speed Limit: Posted speed limit data not included in Signal 4 Analytics. Data was obtained through individual crash reports.
- Functional Classification: Functional Classification data not included in Signal 4 Analytics. Additional spatial analysis was performed to obtain this data.
- Intersection – Mid-Block Crossing: Mid-Block Crossing data not included in Signal 4 Analytics. Data was obtained through individual crash reports and further analysis of conditions.

### Important Safety Contacts

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