



Preliminary Road Safety Analysis Report
For
Cleary Blvd from Hiatus Road to North University Drive

November 2022

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INTRODUCTION

Cleary Blvd from Hiatus Road to N. University Dr. was identified as a high-crash location in the 2045 Metropolitan Transportation Plan (MTP) and chosen for study by the Broward Metropolitan Planning Organization (BMPO), in coordination with Broward County and FDOT. The location is in and under the maintenance jurisdiction of the City of Plantation. The study corridor in relation to the surrounding roadways is graphically depicted on the Location Map below.

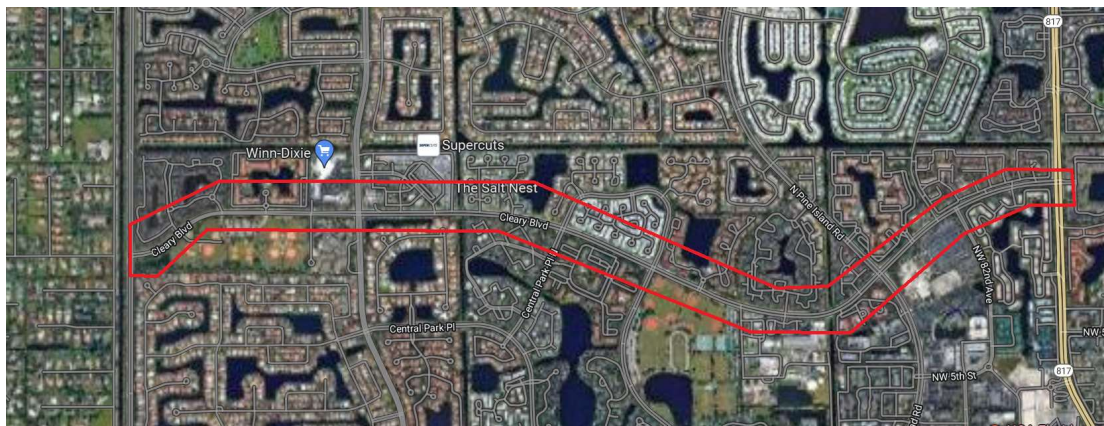


Figure 1: Location map of study area

EXISTING CONDITIONS

The characteristics of Cleary Blvd located in the City of Plantation, Broward County, Florida are summarized below.

Features	Description
Main Street	Cleary Blvd
Traffic Control	A combination of signalized intersections, unsignalized intersections and directional median openings.
Posted Speeds	40mph (except in school zones where it's 15mph)
Sidewalks	Sidewalk gaps exist on the west side of the corridor between Hiatus Rd and Nob Hill Rd.
Bicycle Lanes	No bike lanes exist on the corridor
Pedestrian/Bicycle Generators	2 major parks, multiple restaurants and commercial establishments, banks, Central Park Elementary School, Chabad of Plantation
Nearest Signalized Intersections	Intersections of Hiatus Rd., Nob Hill Rd., Central Park Pl, N. Pine Island Rd., N. University Dr.
Roadway Lighting	Cobra Head lighting on north side of corridor west of 91st St., and on the south side east of 91st St.
Surrounding Development	Low-density residential, auto-oriented commercial, 2 schools, 2 major parks.

Features	Description
Pavement, Signing & Marking Condition	Pavement markings look somewhat worn west of W. Pine Island Rd. Pavement conditions appear in good condition throughout corridor.
Transit	No transit directly on Cleary Blvd, but north-south bus routes on N. Pine Island Rd., and N. University Dr.
Main Street Type	4 Lane Divided
Context Classification	C4 and C3R

Roadway Jurisdictions

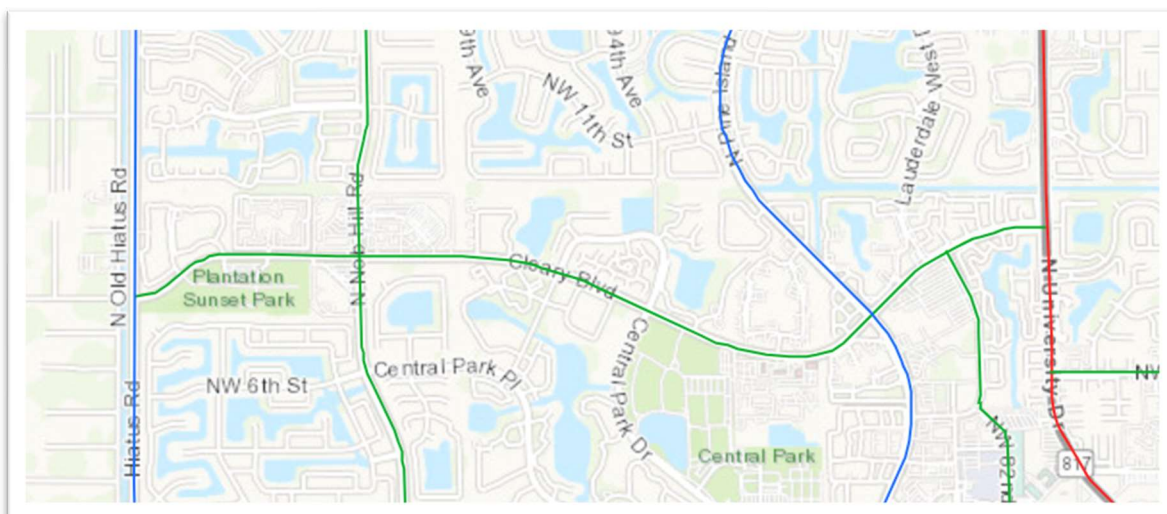


Figure 2: Green indicates City owned roads, blue indicates Broward County owned roads, and red indicates FDOT roads.

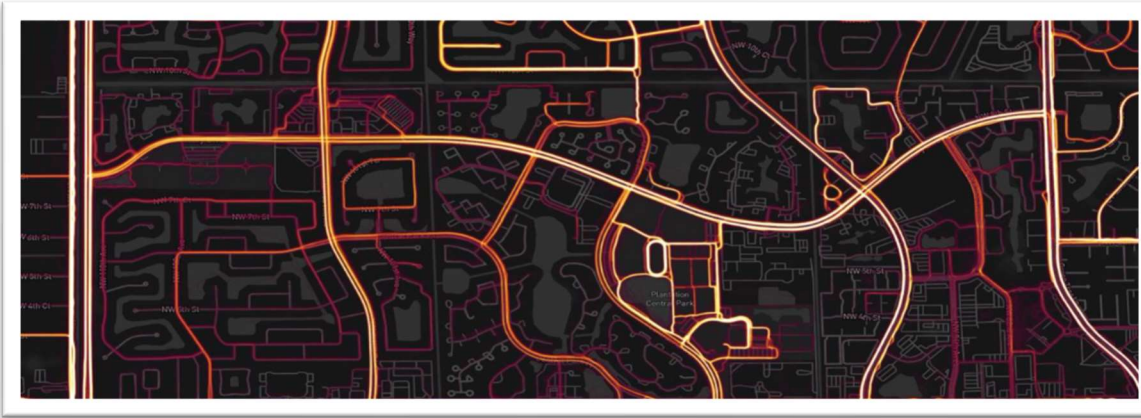


Figure 3: Strava bike volumes. Cyclists use Cleary Blvd to access parks and nearby commercial uses.



Figure 4: Strava pedestrian volumes. Pedestrian volumes are concentrated adjacent to parks.

CORRIDOR COLLISION ANALYSIS

543 total crashes were recorded in Signal 4 between 2017 and late-2022 within the project area. Of those, 164 involved injuries, and none involved fatalities. The heaviest concentration of total crashes, as well as the most injury crashes, occurred at the intersections of S. Hiatus Road, Nob Hill Road, N. Pine Island Road, and N. University Dr. There were 5 pedestrian crashes and 10 bike crashes during this time period as well, most of which were concentrated at major corridor intersections. 41 crashes occurred during rainy weather, also concentrated at major intersections.

The most predominant crash types throughout the corridor involved rear end and left turn crashes. About 23% of crashes occurred during the evening, with most crashes occurring between 8am and 8pm.

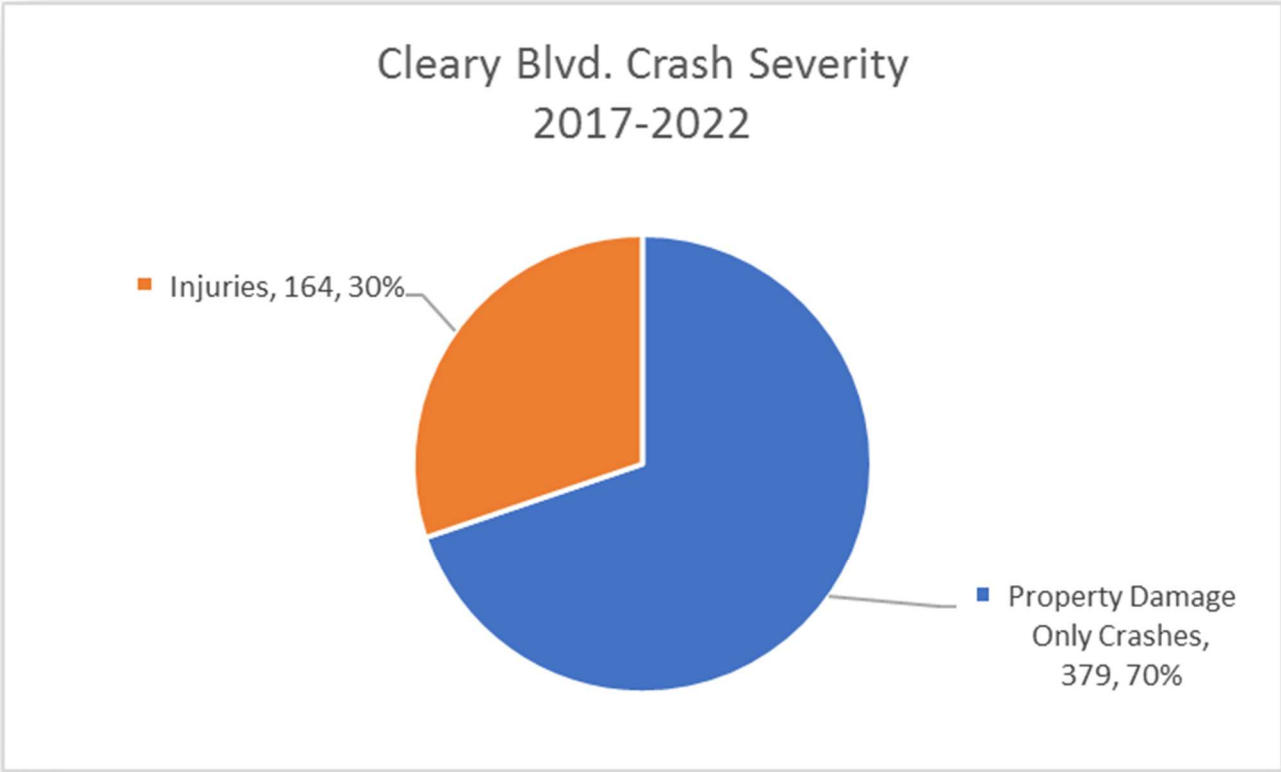


Figure 5: Cleary Blvd crash severity pie chart



Figure 6: Heat map of all crashes on corridor



Figure 7: Heat map of all injuries on corridor

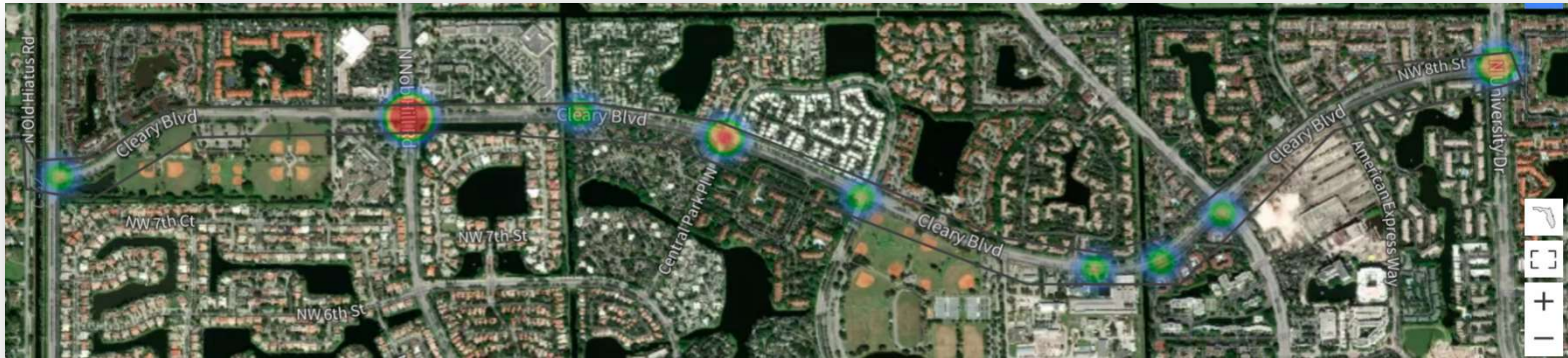


Figure 8: Heat map of all bike and pedestrian crashes, almost all of which involved injuries.

By far the most dominant crash type on Cleary Blvd are rear end crashes, followed by left entering crashes and same direction sideswipes.

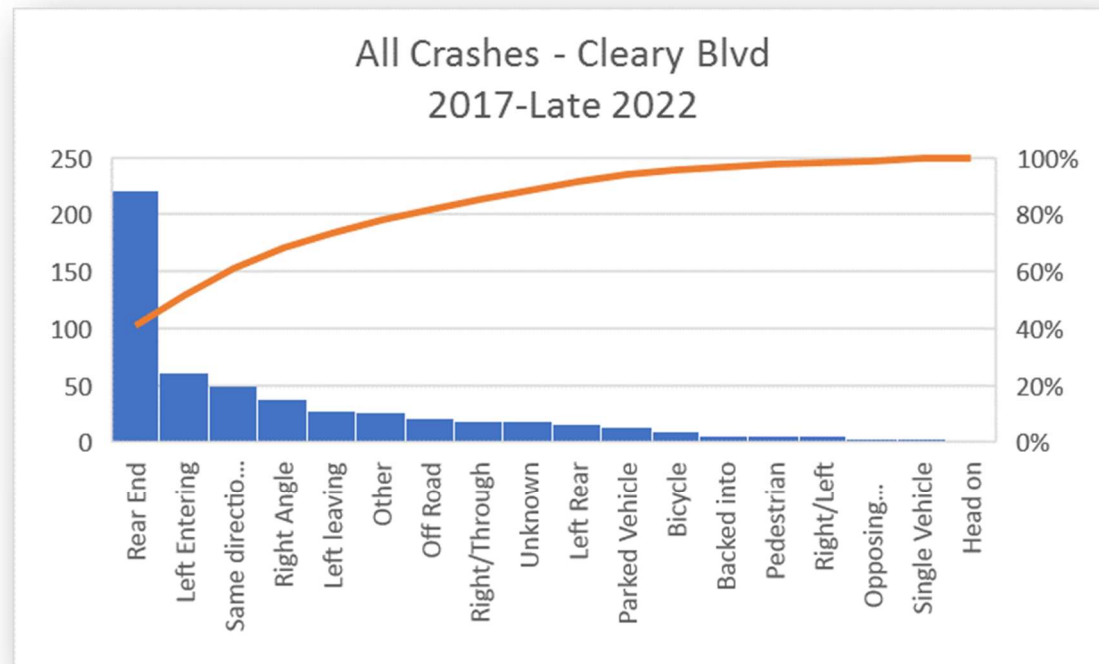


Figure 9: Crash types - all crashes for entire corridor

Rear end and left entering crashes made up the largest share of crashes which involved injuries.

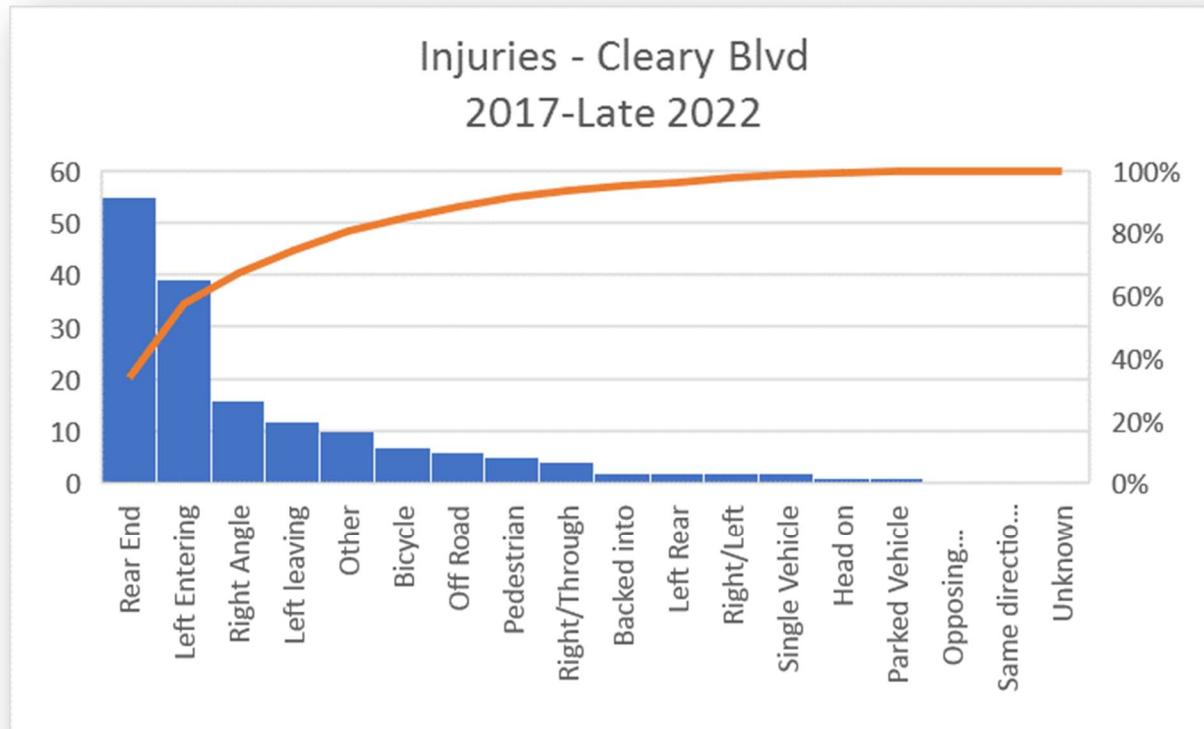


Figure 10: Injury only crashes for entire corridor

Day or Night

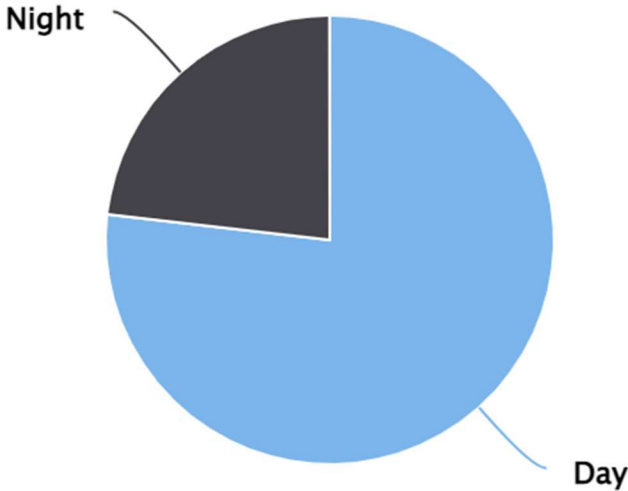


Figure 11: About 23% of crashes occurred at night

Crash Calendar

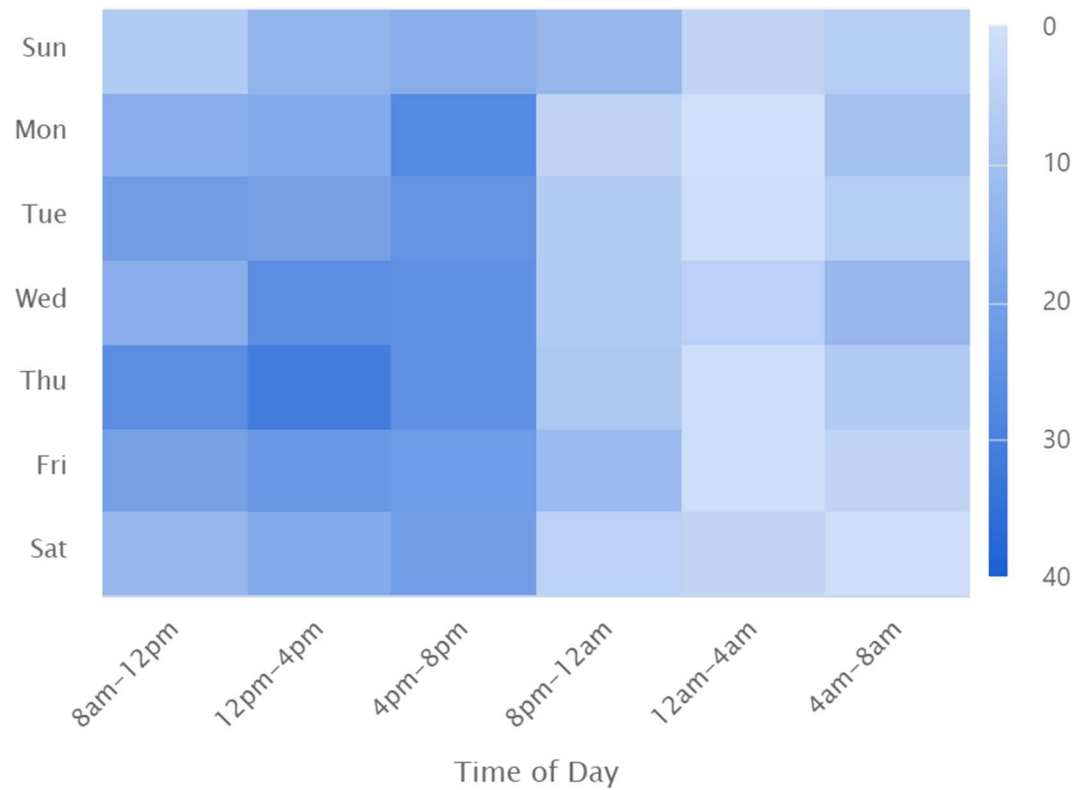


Figure 12: Crashes by time of day

INTERSECTION ANALYSIS

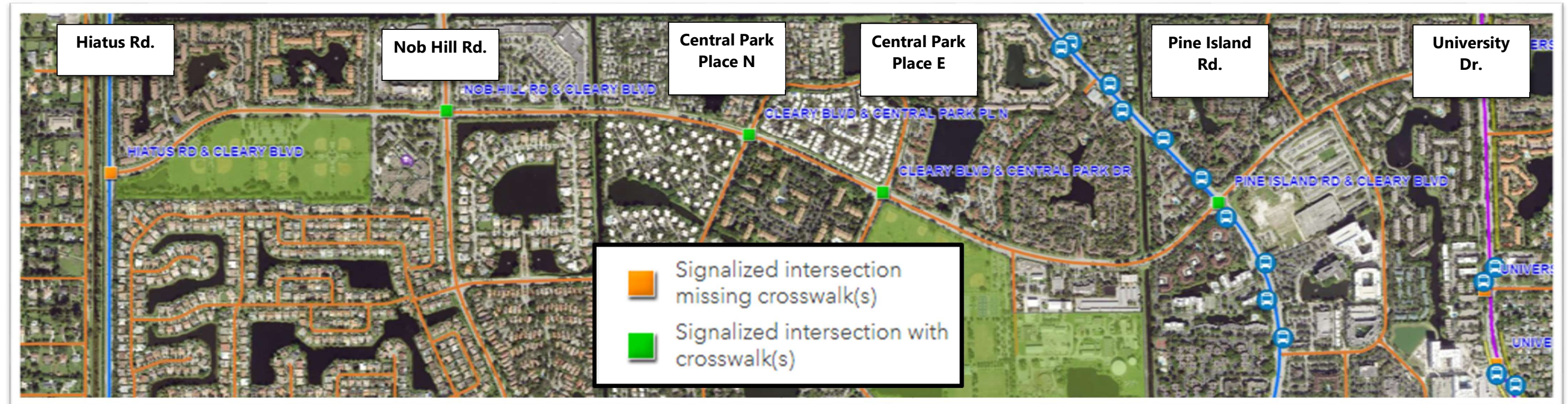


Figure 13: Location of signals on Cleary Blvd. Long distances between signals indicate fewer pedestrian crossing opportunities.

6 major signalized intersections accounted for 357 crashes on the corridor, or about 66% of the total corridor crashes. Of these intersections, crashes are concentrated at 3 locations on Cleary Blvd.: **University Drive, Nob Hill Road, and Pine Island Road. A combined 278 crashes occurred at these 3 intersections, making up about 50% of the total crashes on the corridor between 2017 and late 2022.** These 3 intersections also had 81 injuries during the same time period, making up about 50% of all the injuries on the corridor.

6 Intersection Crashes on Cleary Blvd. vs. Crashes At All Other Locations 2017-2022

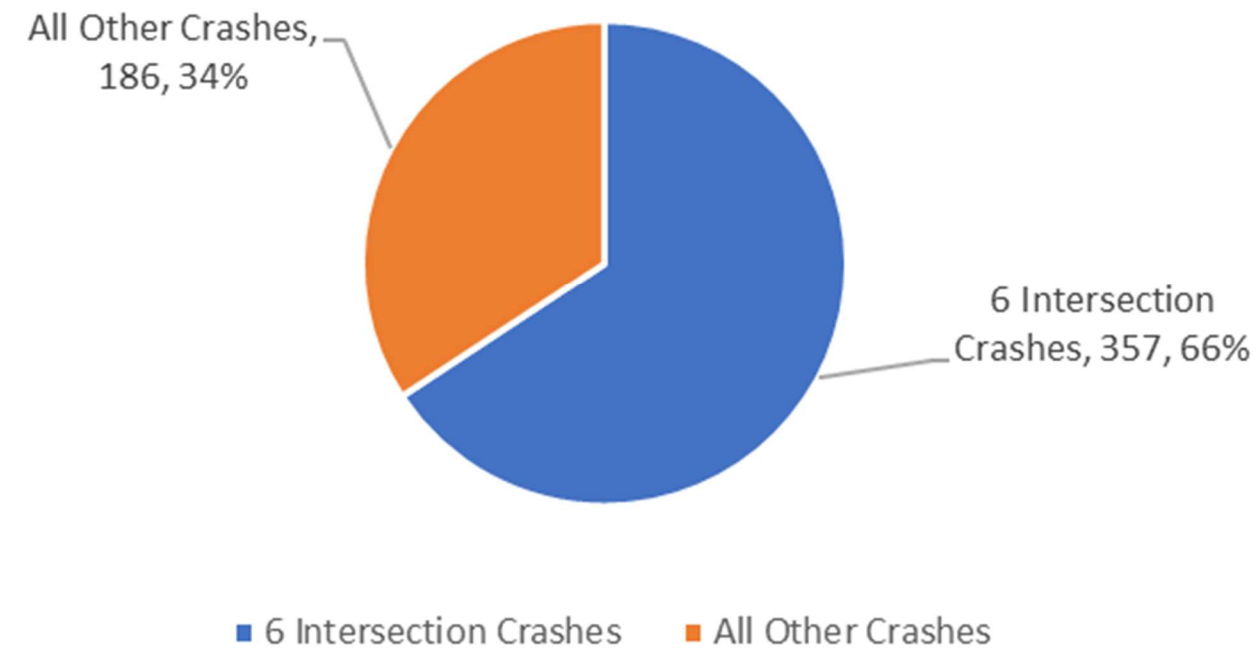


Figure 14: Crashes at the 6 major Cleary Blvd intersections vs. crashes at all other locations

Of the 6 signalized intersection locations, University Drive saw the most total crashes, accounting for 29% of all crashes of these 6 intersections.

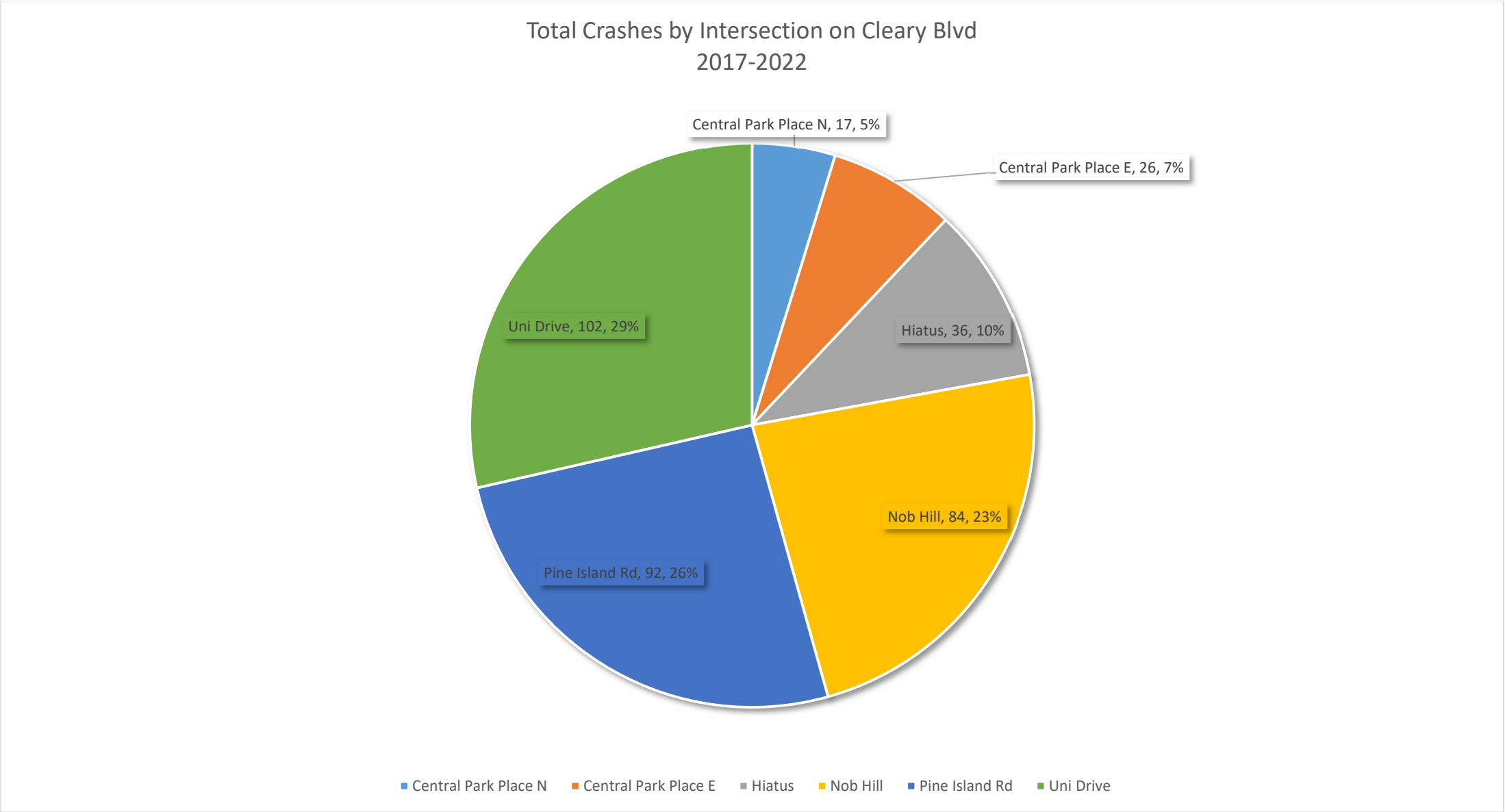


Figure 15: Total crashes by major intersection

Of the same 6 intersections, Pine Island Road saw the most injuries (31), making up 26% of injuries of these intersections.

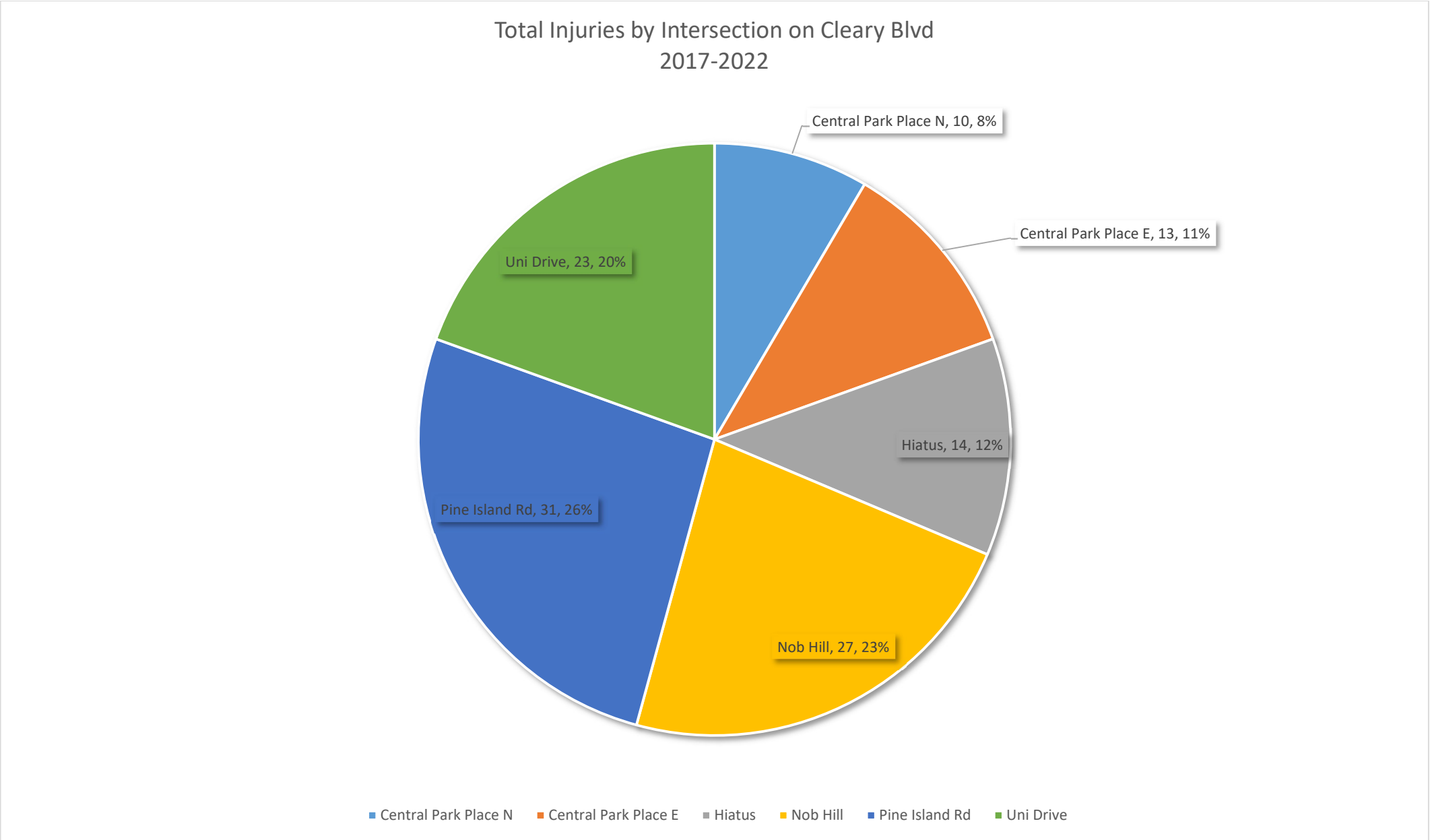


Figure 16: Total injuries by major intersection

Crash types for the 6 major intersections on Cleary Blvd. were analyzed to determine crash causes.

Central Park Place N

The intersection of Cleary Blvd. and Central Park Place N had 17 crashes during the study period, with a relatively even balance of crashes consisting of right angle, rear end and left entering crashes. The intersection is signalized with span wire signals, dedicated left turn lanes, but lacks left turn signals.

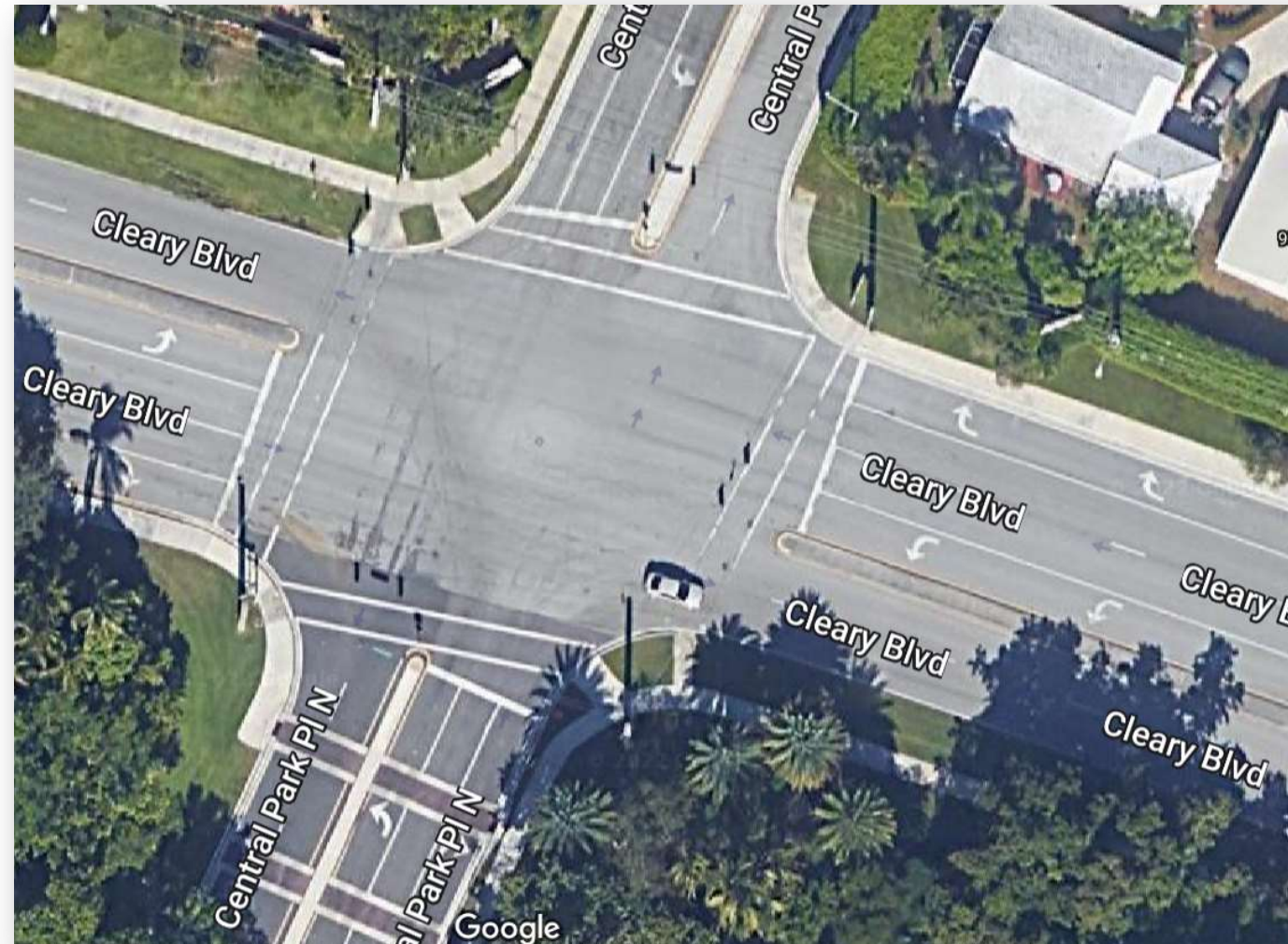


Figure 17: Aerial of Central Park Pl N intersection

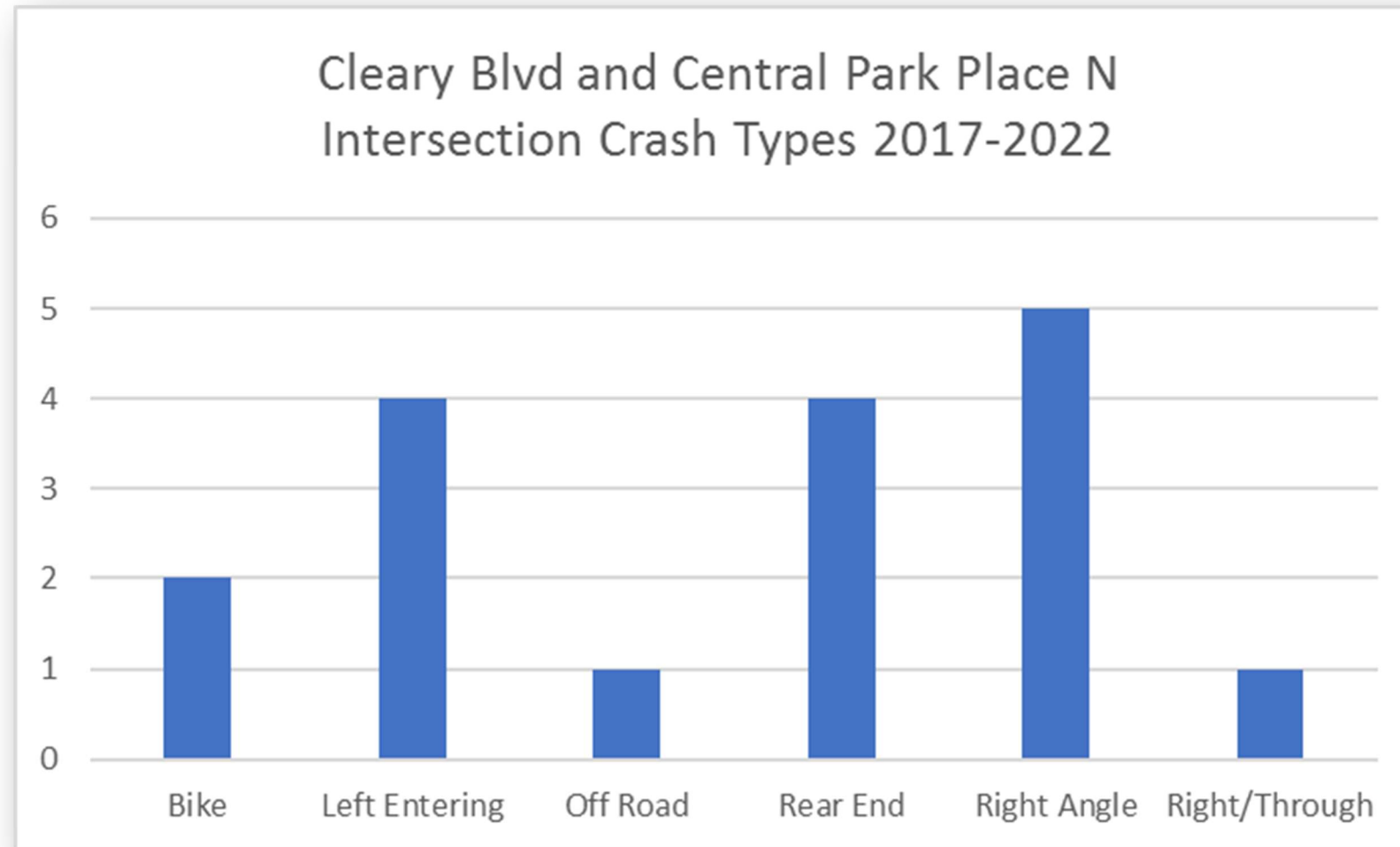


Figure 18: Crash types for Cleary Blvd and Central Park Place N intersection

Central Park Place E

The signalized intersection of Central Park Place East saw 26 total crashes, with right angle and left entering crashes making up a large percentage of crashes. The intersection has a span wire signal and dedicated left turn lanes. There are no left turn signals at the intersection.



Figure 19: Aerial of Central Park Place E intersection

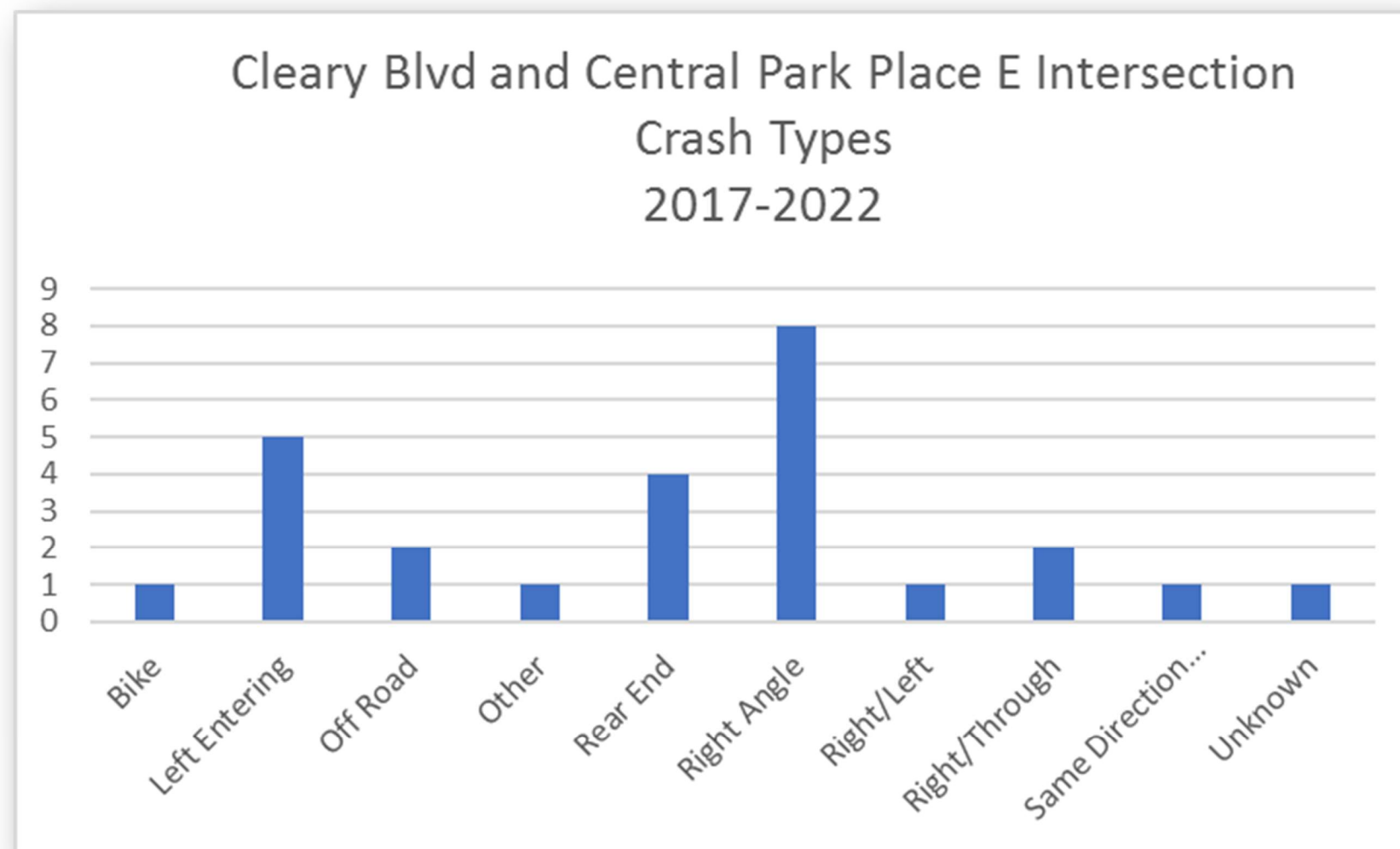


Figure 20: Crash types for Cleary Blvd and Central Park Place E intersection

Hiatus Road

There were 36 crashes at the Hiatus Road intersection during the study period, with rear end and left entering crashes making up the vast majority of total crashes. There are relatively new mast arm signals at the intersection. There is no left turn signal going SB on Hiatus Rd. Hiatus Rd. is a County roadway.

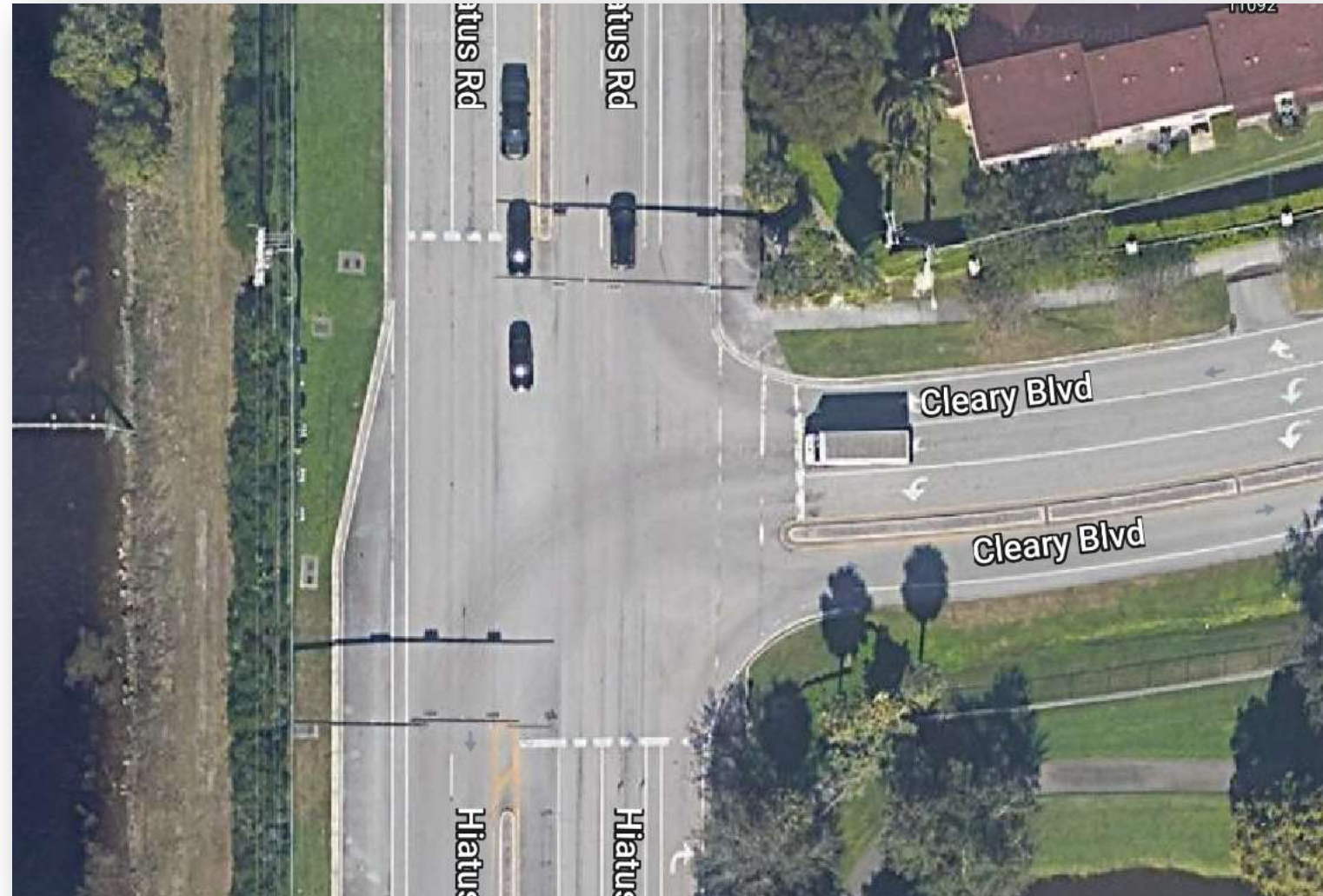


Figure 21: Aerial of Hiatus Rd. intersection

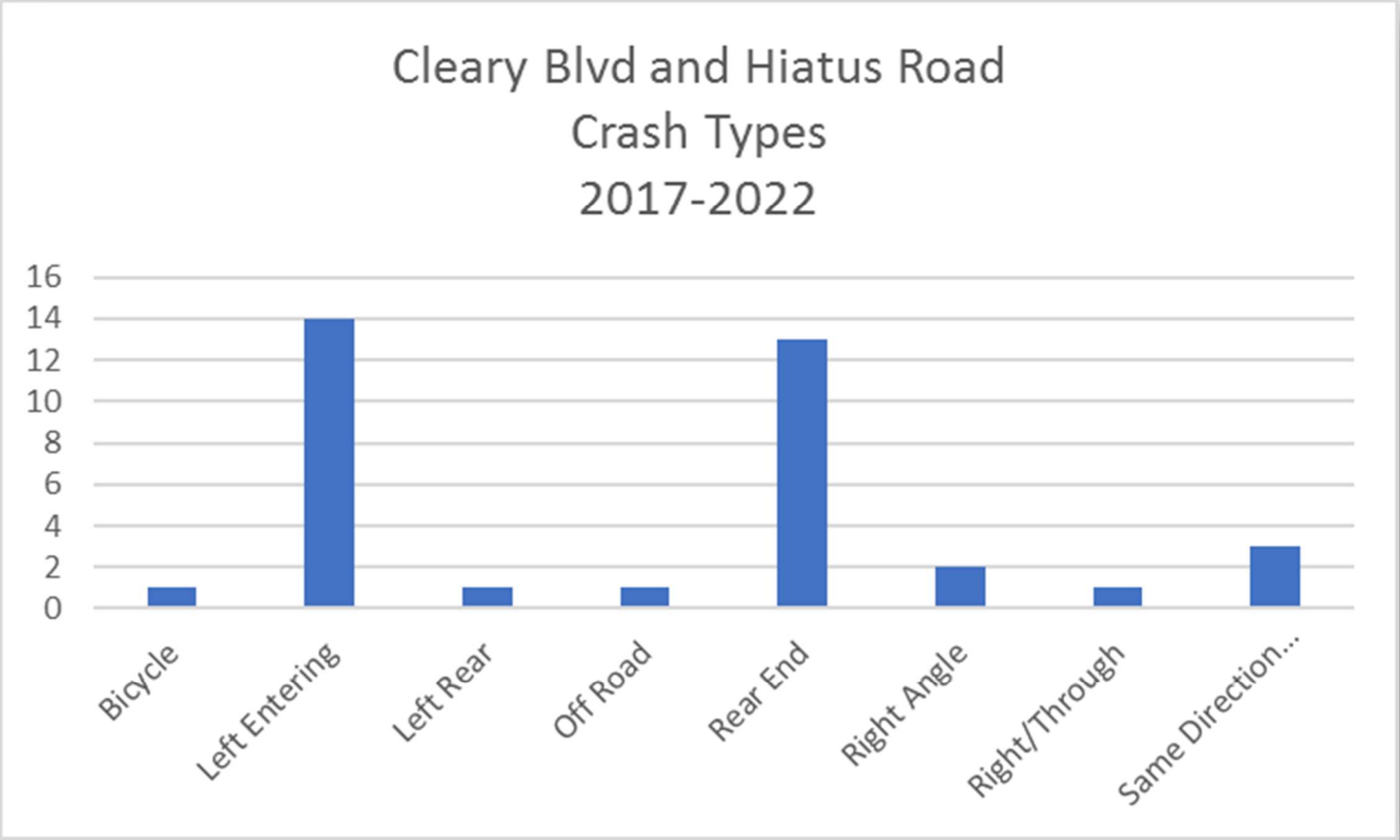


Figure 22: Crash types for Cleary Blvd and Hiatus Road intersection

Nob Hill Rd.

There were 84 total crashes at the Nob Hill Rd. intersection. Rear end crashes made up the vast majority of crash types. There is a span wire signal at the intersection with left turn signal heads on all 4 legs.



Figure 23: Aerial of Nob Hill Road intersection

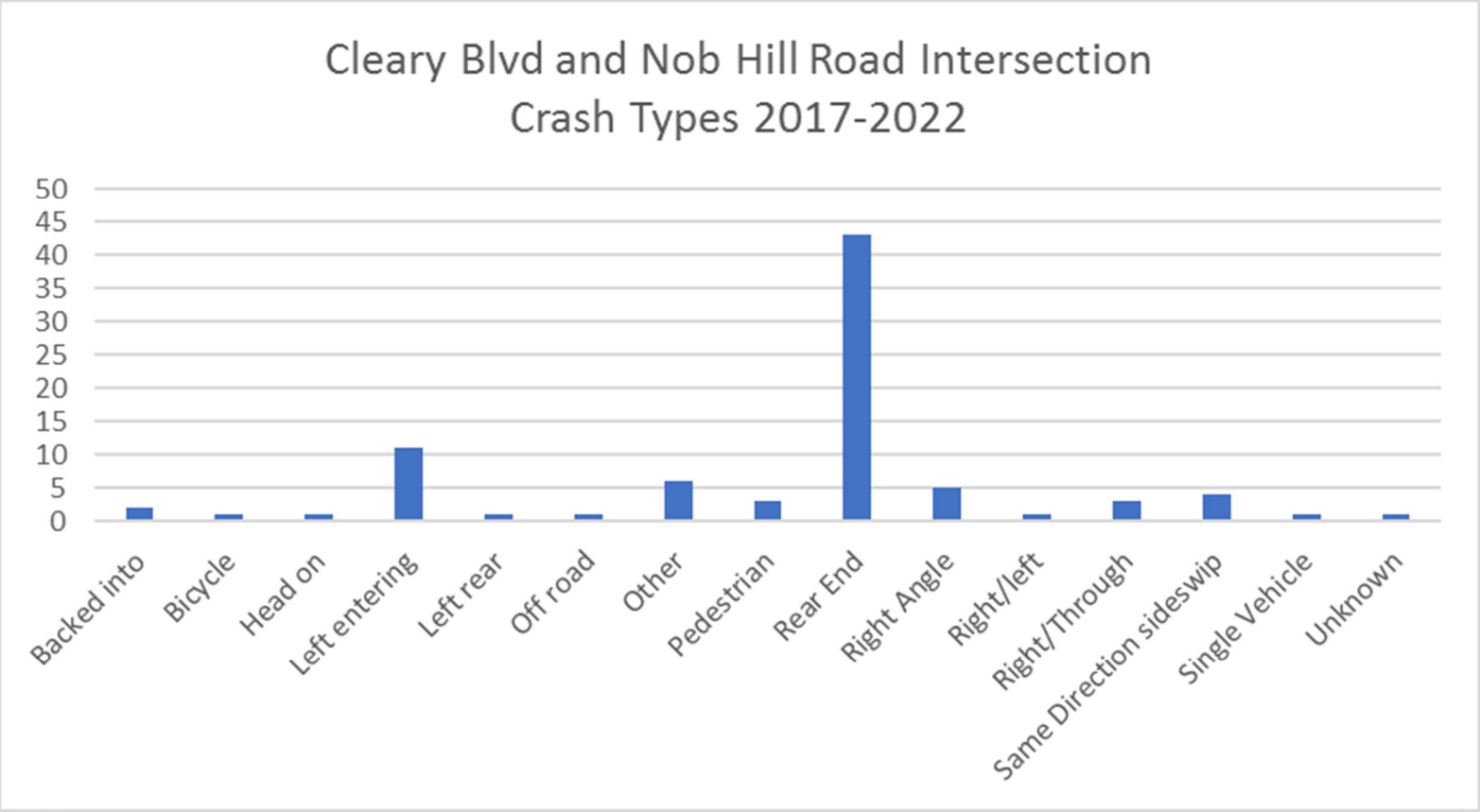


Figure 24: Crash types for Cleary Blvd and Nob Hill Road intersection

N. Pine Island Rd.

There were 92 total crashes at the Pine Island Road intersection. Rear end and left entering crashes were the most prominent. The intersection has a span wire signal, with left turn signals on all 4 legs. Pine Island Rd. is a County roadway.

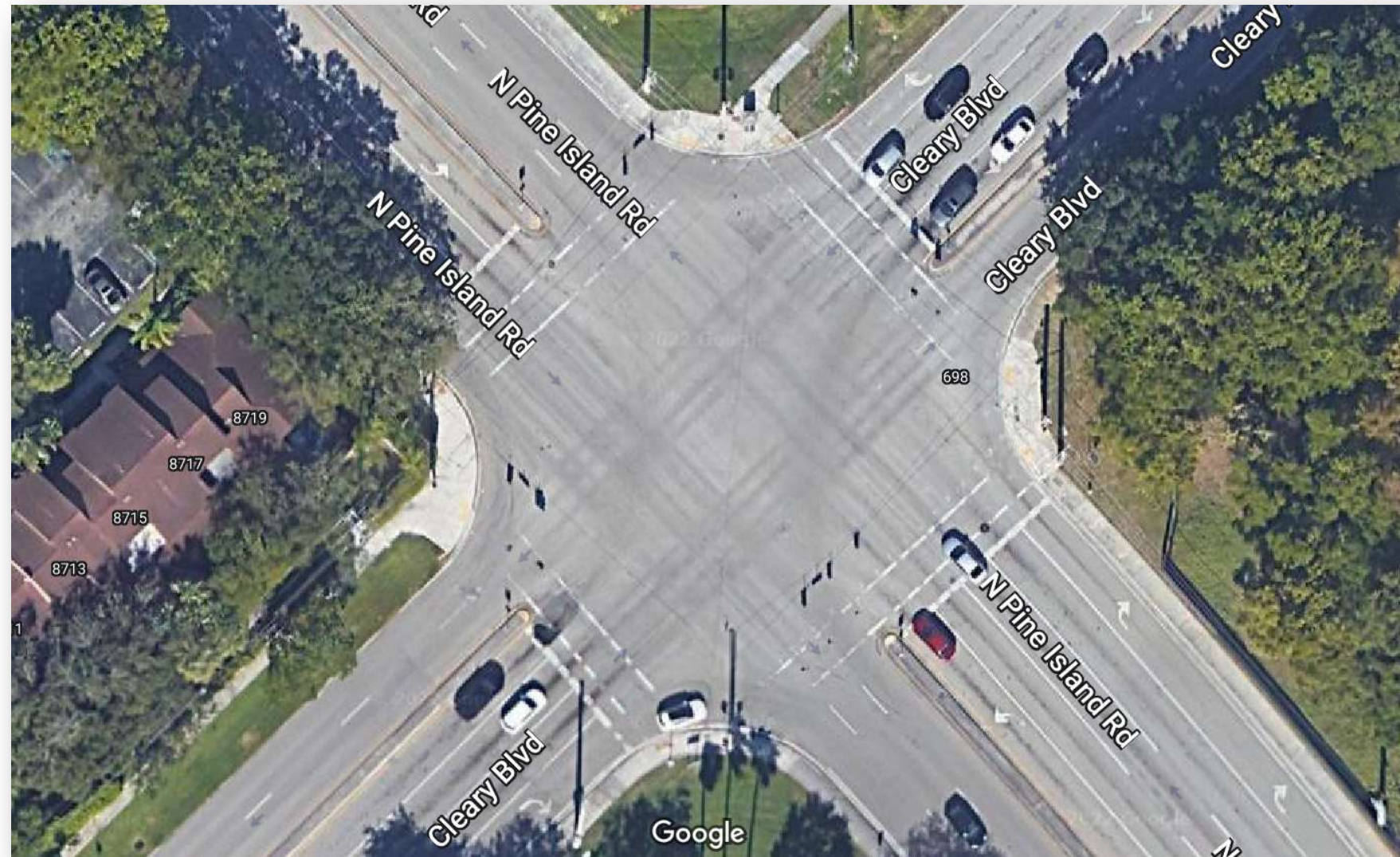


Figure 25: Aerial of N. Pine Island Road intersection

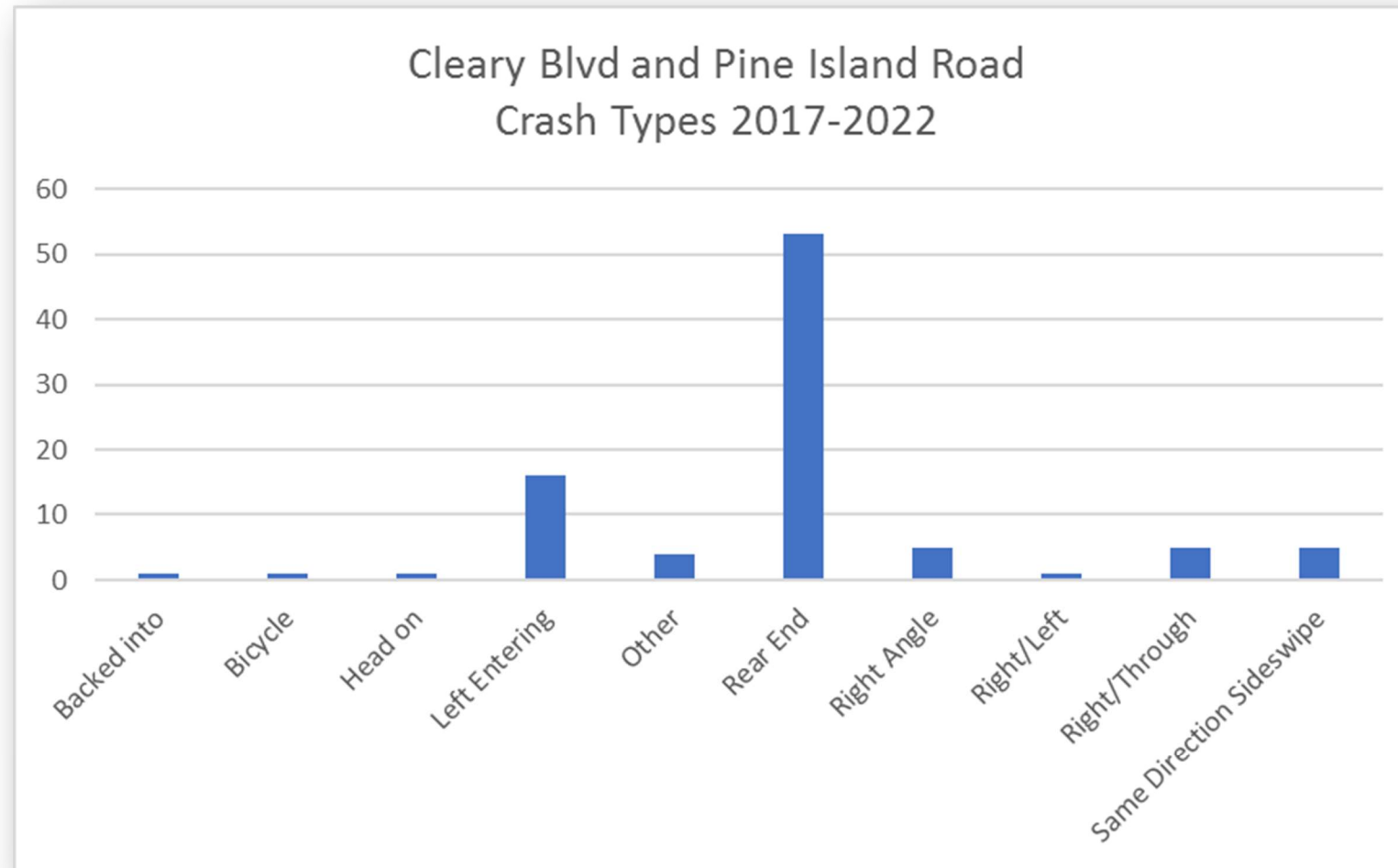


Figure 26: Crash types for Cleary Blvd and Pine Island Road intersection

University Dr.

102 crashes occurred at the University Dr. intersection during the study period, the most of any intersection. Rear end crashes made up the vast majority of total crashes. There are mast arm signals installed at the intersection, with left turn signals on all 4 legs. University Dr. is an FDOT roadway.



Figure 27: Aerial of University Dr. intersection

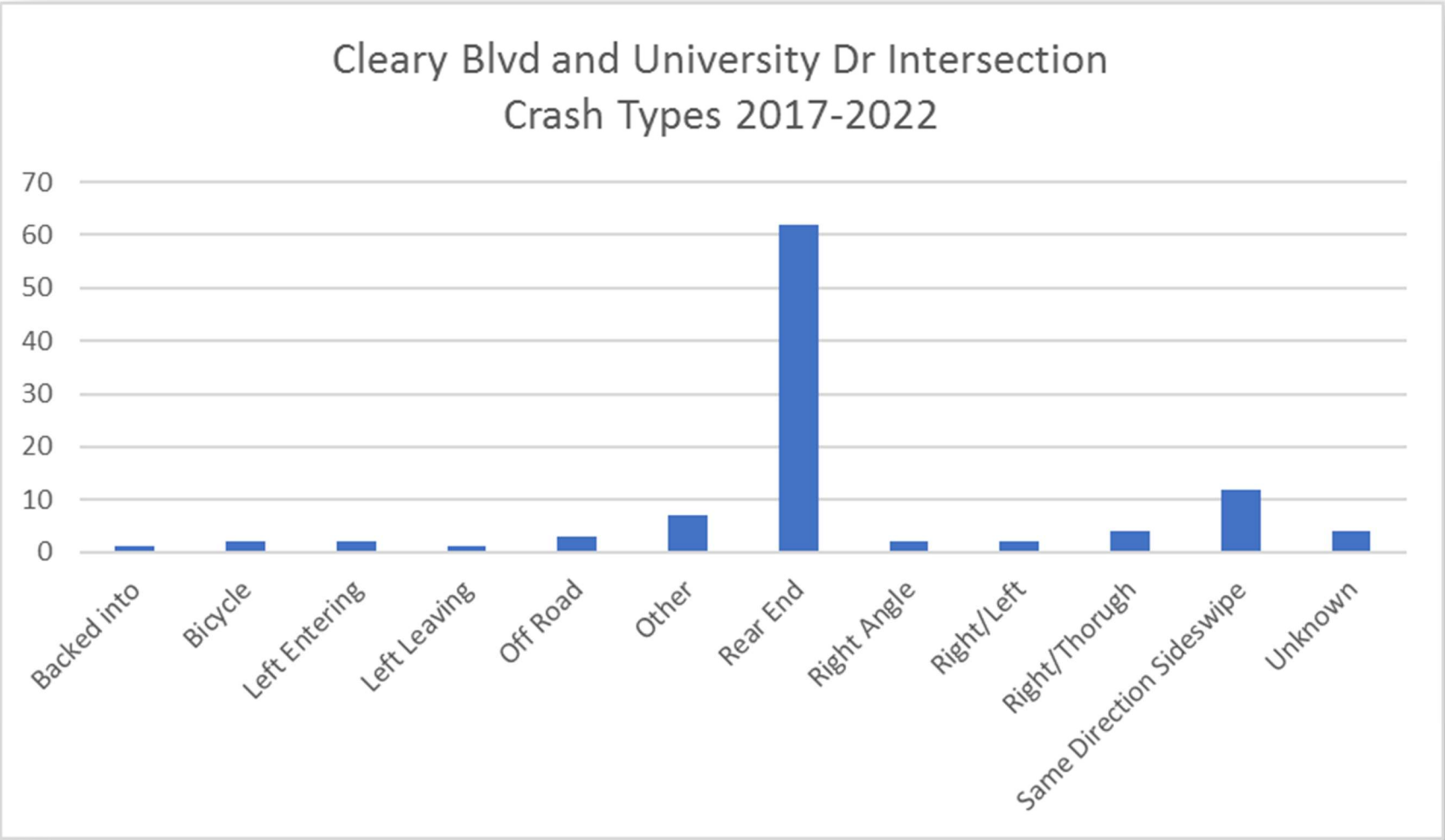


Figure 28: Crash types for Cleary Blvd and University Dr. Intersection

1. A comprehensive corridor analysis is underway for Cleary Blvd. as part of the Plantation Transportation Master Plan (TMP). Preliminary major recommendations include a 4 to 2 lane road diet, protected bike lanes, and roundabouts at the intersections of Eastern Entrance to Public, CP Place, CP Drive, Midtown North. Continued coordination with the developing TMP will be needed. The TMP also includes recommendations for improved pedestrian facilities at the Hiatus Road and University Dr. intersections.
2. Sidewalk gaps exist in several areas on the west side of the corridor.
3. A major mixed use development project is under construction on the east side of Pine Island Road and Cleary Blvd. This project will add additional pedestrians to the corridor.
4. Aging span wire signals throughout the corridor lacking retroreflective backing plates may reduce visibility of signals.
5. Lack of left turn signals throughout corridor may be contributing to left turn and rear end crashes.
6. Long distances between crosswalks adjacent to Sunset Park and Central Park may lead to pedestrians crossing mid-block.
7. There are pedestrian visibility issues at the intersection of Pine Island Road on western crosswalk. Also, pedestrian walk times seem short.
8. Lack of street and pedestrian lighting at Hiatus Road intersection
9. Some pavement markings are worn on the west side of the corridor.

