2015-2019
Annual Crash Report

Valdosta-Lowndes
Metropolitan Planning Organization

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Contents

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LIST OF MAPS

Introduction

Since 2007, the Southern Georgia Regional Commission (SGRC), as the designated Metropolitan Planning Organization (MPO) for the Valdosta Urbanized Area (also referred to as the Valdosta-Lowndes MPO, or VLMPO), has produced an annual Crash Report analyzing motor vehicle crash trends within the MPO's Metropolitan Planning Area. The report is used to supplement the development of the MPO's Metropolitan Transportation Plan and to inform efforts to reduce crashes, injuries, and fatalities through a comprehensive range of actions.

This year's report, like the previous year's, includes data from a five-year period. The timeframe covered by this report is January 1, 2015 to December 31, 2019.

During this 2015 to 2019 timeframe, according to the data available, 19,044 crashes occurred in the Metropolitan Planning Area. There were 87 fatalities and 233 serious injuries. In terms of vehicle miles traveled, collector roads remain the most dangerous road type, with the highest rates of crashes, injuries, and fatalities; while the interstate highway has the lowest rates.

This report examines various characteristics of crash data to determine trends in location, time, contributing factors, crash severity, and vehicle types, among other variables. The report also identifies the highest-frequency crash locations in the MPO area.

This report can be used to inform local governments and public agencies of the most pressing issues in the safety of the area's transportation system. It will serve as a background for identifying actions that can be taken to reduce crashes, injuries, and fatalities, from the standpoints of education, engineering, enforcement, and emergency medical services.

The report can also be used by the MPO and local jurisdictions to evaluate projects for the Vision2045 Transportation Plan and annual Transportation Improvement Program updates. It will help identify future safety-related infrastructure projects and make data available to the MPO and local jurisdictions to allow analysis of the most beneficial projects and actions based on past crashes at specific locations.

Local jurisdictions, agencies, and other groups can use this report to inform education and enforcement efforts to help reduce crashes of all types on the roadways of the MPO area. The past Crash Reports have identified particular geographic areas of concern, population groups, and crash types that are prevalent in the region. This report continues to evaluate particular areas of concern and works to determine crash causes and what can be done to improve these areas.

This report is designed to be consistent with the 2019–2021 Georgia Strategic Highway Safety Plan[1], which outlines measures to reduce highway crashes on Georgia roads.

The Georgia Strategic Highway Safety Plan utilizes the "4-E" approach to reduce crashes in Georgia. Crash prevention and response is not the duty of just one agency, but of many different agencies with different priorities and responsibilities. Each agency must respond accordingly to crash reduction efforts in their own areas of expertise. The 4 E's of Highway Safety – Education, Engineering, Enforcement and Emergency Medical Services – are where those many different responsible agencies come together to each do their own part in reducing crash frequency and severity.[2]

Education includes working with young and old people alike to educate drivers, pedestrians,

[1] 2019–2021 Georgia Strategic Highway Safety Plan https://www.gahighwaysafety.org/fullpanel/uploads/files/2019%202021%20shsp-compressed.pdf

[2] Developing a Transportation Safety Plan, Federal Highway Safety Administration https://www.fhwa.dot.gov/planning/processes/tribal/planning_modules/safety/chapter02.cfm

bicyclists, and passengers of the rules of the road and other important safety factors. Education includes diversion programs for underage drinking; general public education campaigns; safety belt and child seat inspections; and expanded and improved driver training courses and materials.

Engineering includes working with local and state departments concerned with transportation systems to improve the physical characteristics of the roadway and right-of-way. The Engineering "E" focuses on improving the infrastructure of intersections and roadway corridors.

Enforcement includes working with law enforcement agencies to educate drivers to prevent crashes, as well as improving the efficiency of response and analyzing crash sites. The Enforcement "E" includes employing checkpoints for DUI or seatbelt usage; enforcement of laws for underage and excessive drinking; targeted speed and intersection use enforcement; and proper data collection for future analysis.

Emergency Medical Services includes all first responders to crash sites and the medical treatment victims receive immediately after a crash. The Emergency Medical Services (EMS) "E" includes efficient response by medical personnel to crash sites, rapid evacuation of victims to trauma centers, and education of the public on proper usage of safety restraints.

Each of the 4 E's is not mutually exclusive to the various agencies described above. For example, education is spread out between all the different agency partners, including law enforcement agencies, highway departments, and EMS responders. Also, engineers may get ideas from suggestions from law enforcement agencies or schools about concerns with children walking to school or school bus drivers. Each of the various agencies has their own role to play, as well as an interconnected role with other agencies to reduce crash frequency and severity on our roadways.

It should be noted that the 2019–2021 Georgia Strategic Highway Safety Plan does not call for any substantial reduction in or fatalities; indeed, the plan's goals include a potential large increase. For example, the plan projects 2,050 traffic fatalities in the state in 2021, a 57% increase from the 1,304 fatalities that occurred in 2016. The plan's goal with regard to fatalities is merely "To maintain the 5-year moving average traffic fatalities under the projected 2,050 (2017-2021) 5-year average by December 2021."[3] In this sense, if there are 2,049 fatalities on average per year from 2017 to 2021 (which would be a large increase), the state can consider its safety plan goals to have been achieved. In contrast, 30 other states have set goals to reduce the number of traffic fatalities,[4] and one state (Washington)[5] and several cities[6] (including Macon, GA)[7] have "vision zero" goals, aiming to achieve zero fatalities. The Georgia Strategic Highway Safety Plan goals are listed in Table 1.

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[3] 2019–2021 Georgia Strategic Highway Safety Plan, p. 9

[4] Smart Growth America. "Dangerous by Design 2020." https://smartgrowthamerica.org/app/uploads/2020/01/DbD-2020-Report.pdf

[5] Washington State Department of Transportation. "Target Zero: Strategic Highway Safety Plan." https://www.wsdot.wa.gov/planning/SHSP.htm

[6] Vision Zero Network. Vision Zero Cities Map. https://visionzeronetwork.org/resources/vision-zero-cities/

[7] 41NBC. "Vision Zero: a plan to keep pedestrians safe." By Chip Matthews, October 16, 2019. https://41nbc.com/2019/10/16/vision-zero-a-plan-to-keep-pedestrians-safe/

I. Safety Performance Measures

In March 2016, the Federal Highway Administration (FHWA) published regulations outlining performance safety measure targets in accordance with the Highway Safety Improvement Program (HSIP) along with MAP-21.[8] This final rule went into effect in April 2016 and required all state DOTs and MPOs to establish safety performance measure targets by August 2017 and February 2018, respectively. The safety performance measures are consistent with national highway planning goals aimed to reduce fatalities and injuries along the nation's highways and shall examine the following based on 5-year rolling averages:

a. Number of fatalities
b. Rate of fatalities per 100 Million VMT
c. Number of serious injuries
d. Rate of serious injuries per 100 Million VMT
e. Number of non-motorized fatalities and non-motorized serious injuries

The MPO can fulfill this federal requirement either through programming projects that support the state of Georgia's safety performance measure targets, developing independent safety performance measure targets, or a combination of these two options. In February 2018, the MPO Policy Committee chose to support the state's targets and has continued to do so.

As was mentioned above, the 2019–2021 Georgia Strategic Highway Safety Plan does not call for a reduction in crashes or fatalities. The state goals, along with the relevant statistics to show the MPO's attainment of those goals, are shown in Table 1.

In order to calculate the MPO's attainment of these performance measures, 2018 estimates (the most recent available) of daily vehicle miles traveled (VMT) were used for all of the MPO area.[9] The MPO area consists of all of Lowndes County (including the five cities of Dasher, Hahira, Lake Park, Remerton, and Valdosta), plus small portions of Berrien, Brooks, and Lanier Counties (the portion of Lanier County also includes a small area that is within the city limits of Ray City).

To estimate VMT in those portions of Berrien, Brooks, and Lanier Counties, the total VMT for those counties was multiplied by the percentage of the total mileage of roads for each county that is within the MPO portion of those counties, broken down by road functional classification. For example, the estimated total 2018 VMT on minor arterial roads in all of Brooks County was 149,984; 7.15% of the total mileage of minor arterial roads in Brooks County are within the MPO area; therefore, the estimated VMT on minor arterial roads in the portion of Brooks County that lies within the VLMPO area is 10,724. Table 2 shows the VMT and road miles in the MPO area.

As of 2018, the MPO has 1.164% of the total VMT in the state. The current estimated VLMPO area population is 121,318,[10] which is 1.143% of Georgia's total population as of 2019 Census Bureau estimates. These percentages are used to evaluate the MPO area's attainment of state goals. Table 1 shows the VLMPO's share of each

[8] National Performance Management Measures: Highway Safety Improvement Program, Federal Highway Administration https://www.federalregister.gov/documents/2016/03/15/2016-05202/national-performance-management-measures-highway-safety-improvement-program

[9] Georgia Department of Transportation. Mileage by Route and Road System Report 445 for 2018. http://www.dot.ga.gov/DriveSmart/Data/Documents/400%20Series/445/445_Report_2018.pdf (accessed 5/19/2020).

[10] The Census Bureau's 2019 population estimate for Lowndes County is 117,406. The estimated combined population of the portions of the VLMPO area that are in Brooks, Berrien, and Lanier Counties is 3,912, according to data supporting the VLMPO 2045 Transportation Plan.

state goal, both by VMT and by population. Number of metrics that are normally measured as integers (such as numbers of fatalities and injuries) are rounded to the nearest whole number.

Several other local plans and policies aspire to improve the safety of the transportation system in the MPO area, including the 2014 Common Community Vision (CCV). The CCV's Aspirational Goal and Transportation Objective 18 is to provide regional connectivity through an efficient, safe, accessible, and affordable multi-modal transportation system that is developed through a fully funded transportation plan that identifies multi-modal transportation options. The MPO's current Metropolitan Transportation Plan and the Joint Comprehensive Plan for Lowndes County and the cities of Dasher, Hahira, Lake Park, Remerton, and Valdosta also identify road safety as a priority item.

Table 1. 2019-2021 Strategic Highway Safety Plan Goals and VLMPO Attainment Measures					
Goal	Performance Measure	VLMPO share of state goal by VMT (1.164%)	VLMPO share of state goal by population (1.143%)	VLMPO 5-year total, 2015–2019	VLMPO annual average, 2015–2019
1. To maintain the 5-year moving average traffic fatalities under the projected 2,050 (2017-2021) 5-year average by December 2021.	Traffic fatalities	23.86	23.43	87	17.40
2. To maintain the 5-year moving average serious traffic injuries under the projected 24,229 (2017-2021) 5-year average by December 2021.	Serious traffic injuries	282.03	276.94	233	46.60
3. To reduce the 5-year moving average serious traffic injuries for every 100 million vehicle miles travelled by 18% from baseline 19.6 (2012-2016) 5-year average to 16.1 (2017-2021) 5-year average by December 2021.	Serious traffic injuries for every 100 million VMT	16.1	16.1	-	3.04
4. To maintain the 5-year moving average traffic fatalities per 100M VMT under the projected 1.51 (2017-2021) 5-year average by December 2021.	Traffic fatalities per 100 million VMT	1.51	1.51	-	1.13
5. To maintain the 5-year moving average unrestrained traffic fatalities under the projected 631 (2017-2021) 5-year average by December 2021.	Unrestrained traffic fatalities	7.34	7.21	39	7.80
6. To maintain the 5-year moving average alcohol related fatalities under the projected 658 (2017-2021) 5-year average by December 2021.	Alcohol-related fatalities	7.66	7.52	6	1.20
7. To maintain the 5-year moving average speed related fatalities under the projected 396 (2017-2021) 5-year average by December 2021.	Speed-related fatalities	4.61	4.53	5	1.00
8. To maintain the 5-year moving average motorcyclist fatalities under the projected 164 (2017-2021) 5-year average by December 2021.	Motorcyclist fatalities	1.91	1.87	11	2.20
9. To reduce the 5-year moving average un-helmeted motorcyclist fatalities by 50% from baseline 8 (2012-2016) 5-year average to 4 (2017-2021) 5-year average by December 2021.	Un-helmeted motorcyclist fatalities	0.05	0.05	3	0.60
10. To maintain the 5-year moving average young drivers involved in fatal crashes under the projected 543 (2017-2021) 5-year average by December 2021.	Young drivers involved in fatal crashes	6.32	6.21	12	2.40
11. To maintain the 5-year moving average pedestrian fatalities under the projected 285 (2017-2021) 5-year average by December 2021.	Pedestrian fatalities	3.32	3.26	9	1.80
12. To maintain the 5-year moving average bicyclist fatalities under the projected 31 (2017-2021) 5-year average by December 2021.	Bicyclist fatalities	0.36	0.35	1	0.20
13. Increase the 5-year moving average seatbelt usage rate from 95.8% (2012-2016) to 97.7% (2017-2021) 5-year average by December 2021.	Seat belt usage rate	97.7%	97.7%	-	83.2%

Table 2. VLMPO Area Daily Vehicle Miles Traveled and Road Miles, 2018.

County	Road Type	Total road miles	Road miles in VLMPO area	Percent of road miles in VLMPO area	Total 2018 VMT (whole county)	2018 VMT within VLMPO area (extrapolated for Berrien, Brooks, and Lanier)	2018 VMT per road mile in VLMPO area
Berrien	Local	597.40	0.75	0.13%	141,662	178	237.13
Brooks	Minor Arterial	79.01	5.65	7.15%	160,151	11,451	2,026.92
	Collector	167.86	3.41	2.03%	115,187	2,337	686.21
	Local	506.93	15.74	3.10%	124,337	3,860	245.27
	Total	753.80	24.79	3.29%	399,675	13,147	530.21
Lanier	Minor Arterial	31.62	2.79	8.81%	87,190	7,682	2,757.34
	Collector	71.84	0.41	0.57%	114,804	655	1,598.01
	Local	231.02	21.49	9.30%	55,083	5,124	238.44
	Total	334.48	24.68	7.38%	257,077	18,972	768.58
Lowndes	Interstate	31.36	31.355	100.00%	1,485,767	1,485,767	47,385.33
	Principal Arterial	61.58	61.582	100.00%	675,948	675,948	10,976.39
	Minor Arterial	103.35	103.348	100.00%	770,818	770,818	7,458.47
	Collector	229.66	229.658	100.00%	411,529	411,529	1,791.92
	Local	894.24	894.24	100.00%	826,114	826,114	923.82
	Total	1,320.18	1320.18	100.00%	4,170,176	4,170,176	3,158.79
MPO Area	Total	–	1370.41	–	–	4,202,472	3,066.58

II. Crash Analysis

The following sections will examine crash trends in the MPO area, organized in the same order as the Strategic Highway Safety Plan goals and metrics listed in Table 1, followed by some additional factors. Crash data were accessed through the Georgia Electronic Accident Reporting System (GEARS) Portal[11]. Map 1 shows all crashes in the MPO area from 1/1/2015 to 12/31/2019.

1. Fatalities

Between Jan. 1, 2015 and Dec. 31, 2019, there were 82 fatal crashes in the MPO area, causing a total of 87 deaths. This is an average of 17.4 road deaths per year, or approximately one fatality every 3 weeks. Most of the fatal crashes caused only one fatality; only five crashes (6%) resulted in two fatalities, and no single crash resulted in more than two fatalities during the 2015–2019 time period.

15 percent of fatal crashes involved young drivers (under age 21). 10 percent of fatalities were alcohol-related, according to the available data.

The road class with the highest rate of fatal crashes per vehicle mile traveled was the collector road, although Interstate highways had the highest fatality rate per road mile (see Table 3). Locations of fatal crashes are shown on Map 2.

Table 3. Fatal crash rates per road mile and per 100,000,000 VMT, 2015-2019.

Road Type	Fatal crashes per road mile	Fatal crashes per 100,000,000 VMT
Local	0.01	3,472
Collector	0.06	6,755
Arterial	0.11	1,978
Interstate	0.64	1,346

2. Serious Injuries

From 2015 to 2019, in the MPO area, there were 208 crashes in which the injury was recorded as "Suspected Serious Injury," with a total of 233 people seriously injured. Most of these crashes (90%) resulted in only one person being seriously injured. Only one crash resulted in four serious injuries, two crashes resulted in three serious injuries, and 18 crashes resulted in two serious injuries.

Similarly to fatalities, collector roads have the highest rate of serious injury crashes per vehicle mile traveled, although interstate highways have the highest rate per road mile (see Table 4). The locations of serious injury crashes are shown on Map 3.

Table 4. Serious injury crash rates per road mile and per 100,000,000 VMT, 2015-2019.

Road Type	Serious injury crashes per road mile	Serious injury crashes per 100,000,000 VMT
Local	0.04	10,416
Collector	0.14	15,681
Arterial	0.37	7,026
Interstate	0.96	2,019

3. Serious injuries per 100 million VMT

As was mentioned above, according to the data available, there were 233 serious injuries from 1/1/2015 to 12/31/2019. As is shown in Table 2, the total daily Vehicle Miles Traveled in the MPO area in 2018 (the most recent year for which data are available) is estimated at 4,202,472. To obtain the annual figure, total daily VMT is multiplied by 365. The five-year total number of serious injuries is divided by 5 to obtain the annual average. Therefore:

$$\frac{233 / 5}{} = 3.04$$

[11] Georgia Electronic Accident Reporting System (GEARS). www.gearsportal.com

(4,202,472 * 365) / 100,000,000

The rate of serious injuries per 100 million VMT in the MPO area from 1/1/2015 to 12/31/2019 is 3.04.

4. Fatalities per 100 million VMT

With a total of 87 fatalities in the five-year period examined, and an average of 17.4 per year, the rate per 100 million VMT can be calculated as follows:

$$\frac{87 / 5}{(4{,}202{,}472 * 365) / 100{,}000{,}000} = 1.13$$

Therefore, the fatality rate per 100 million VMT in the MPO area is 1.13.

5. Unrestrained fatalities

Of the 87 fatalities that occurred in the MPO area from 2015 to 2019, 39 (45%) of the persons killed were recorded as not being properly restrained by seat belts. This statistic highlights the instrumental role seat belts play in saving lives.

Overall, from 2015 to 2019, of the 19,044 crashes that occurred in the VLMPO area, 3,197 (17%) involved occupants who were not properly restrained, according to the data available. Of the 233 serious injuries that occurred during this timeframe, 95 (41%) of those injured were not using proper restraints.[12]

6. Alcohol-related fatalities

Of the 19,044 crashes included in the database for this report, 447 (2.3%) were recorded as involving driving under the influence (DUI, i.e., the influence of alcohol or other drugs). This included 6 fatalities and 18 serious injuries.

The locations of DUI crashes in the MPO area are shown on Map 4. Almost all of the DUI crashes resulting in death or serious injury occurred in the more rural areas. This may be a function of higher travel speeds on rural roads compared to urban roads.

7. Speed-related fatalities

According to the data available, the contributing factors of “exceeding the speed limit”, “racing”, or “too fast for conditions” were implicated in five fatal crashes in the MPO area from 2015 to 2019. Speed was a factor in a total of 366 crashes, causing 19 serious injuries.

8. Motorcyclist fatalities

From 2015 to 2019, there were 240 crashes involving motorcyclists in the MPO area, resulting in 11 motorcyclist fatalities and 19 serious injuries. Therefore, 12.6% of all those killed in traffic crashes in the MPO area during that time frame were motorcyclists.

The locations of motorcycle crashes are shown on Map 5. Geographically, motorcycle crashes tended to be concentrated within the urban area of Valdosta, but a few notable fatalities and serious injuries occurred in rural areas in southern Lowndes County.

In the 11 fatal crashes, driving under the influence was recorded as a factor in only one fatality. “Driver lost control” was recorded as a contributing factor in 4 fatalities, and “failed to yield” was recorded as a factor in 3 fatalities.

Studies[13] have shown that in motorcycle crashes involving a perception failure or a decision

[12] In addition to the category of “no safety equipment used,” these crashes also include “Booster Seat (Improperly Used)”, Child Restraint System (Improperly Used)”, “Lap Belt Only Used”, and “Shoulder Belt Only Used”.

[13] For example: National Transportation Safety Board. “Select Risk Factors Associated with Causes of Motorcycle Crashes.” https://www.ntsb.gov/safety/safety-studies/Documents/SR1801.pdf (accessed 6/10/2019).

failure, more crashes are caused by the driver of another vehicle than by the motorcyclist. At the national level, another motorist failing to yield to a motorcycle when turning left accounts for about 1 in every 5 motorcyclist fatalities.[14] In the MPO area during the time frame examined, 3 of the motorcyclist fatalities (27%) involved a left-turning car or truck driver failing to yield to an oncoming motorcyclist, echoing these national statistics. This confirms the need for more educational and awareness campaigns aimed at car and truck drivers, such as "Look Twice – Save a Life" bumper stickers[15] and the USDOT's "Share The Road" initiative.[16]

9. Un-helmeted motorcyclist fatalities

3 out of the 11 motorcyclists (27%) who died in the MPO area from 2015 to 2019 were recorded as not wearing a helmet. This included one person driving a dirt bike that was not legal for road use.

Helmets were reported as being used by the motorcyclists in 146 of the 240 crashes during this time period, meaning that 39% of motorcyclists involved in crashes were presumably un-helmeted.

Future fatalities of this kind may be prevented through educational campaigns, including statistics on the benefits of helmet use (for example, helmets are estimated to reduce the risk of head injury by 69% and the risk of death by 42%[17]) and increased enforcement of Georgia's helmet law (Sec. 40-6-315).

10. Young drivers in fatal crashes

From 2015 to 2019 in the MPO area, 12 out of 87 fatalities (13.8%) and 55 serious injuries (23.6% of the total) involved drivers under the age of 21.

The locations of crashes involving drivers under 21 are shown on Map 6. Overall, 6,357 of the total 19,044 crashes (33.4%) involved drivers under 21.

Furthermore, 3,500 crashes (18.4% of the total) involved drivers under age 18. These resulted in 4 fatalities (4.6% of the total) and 22 serious injuries. This confirms the need for better educational efforts and other safety measures for young drivers. The ages of young drivers involved in crashes in the MPO area from 2015 to 2019 are shown in Figure 1 below.

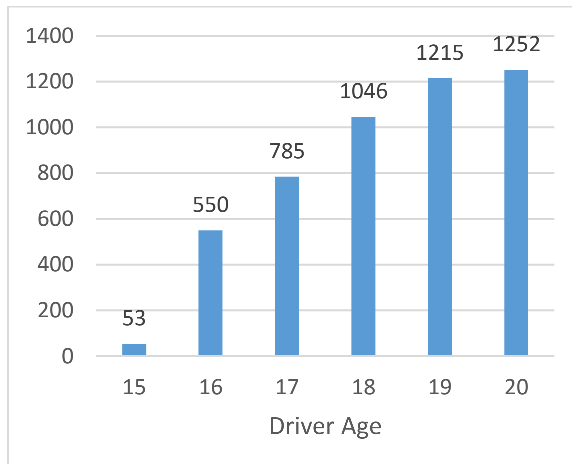

Figure 1. Crashes involving young drivers, 2015–2019

11. Pedestrian fatalities

From 2015 to 2019, there were 162 incidents in which motor vehicle drivers struck pedestrians, resulting in 8 fatalities and 15 serious injuries. Map 7 shows the location of crashes in which drivers hit pedestrians. Four of the fatalities occurred on US Route 84 and three fatalities

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[14] NHTSA. "Traffic Safety Facts: 2017 Data." https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812785

[15] Examples of educational materials

[16] U.S. Department of Transportation. "Motorcycle Safety: Share The Road." https://www.trafficsafetymarketing.gov/get-materials/motorcycle-safety/share-road (accessed 6/10/2019).

[17] Advocates for Highway & Auto Safety. "Motorcycle Helmets." https://saferoads.org/issues/motorcycle-helmets/ (accessed 6/10/2019).

occurred on Interstate 75. Most non-fatal crashes involving pedestrians occurred in the more urban areas of Valdosta.

Since this report focuses on crashes on public roads, these statistics do not include pedestrians hit by trains. However, at least 2 pedestrians have been killed in collisions with trains in the MPO area between 2015 and 2019.

Approximately 70% of crashes involving pedestrians occurred in the central urban areas of Valdosta and Remerton. Map 7a presents a more detailed view of the crashes within these areas. Notable corridors along which large numbers of pedestrians were hit include: US Route 84 (13 crashes), Norman Drive (10 crashes), Bemiss Road (8 crashes), Baytree Road (6 crashes), North Ashley Street (6 crashes), and Fry Street (6 crashes). There are also small clusters of pedestrian crashes around the intersection of Gornto Rd. and St. Augustine Rd. (4 crashes) and around exit 5 on I-75 (4 crashes resulting in 2 fatalities and 2 serious injuries).

12. Bicyclist fatalities

Between 2015 and 2019 there was one bicyclist fatality in the MPO area. This occurred on Madison Highway, a 4-lane major collector road, around 10:30 p.m. on 7/14/2015. The driver of a tractor-trailer struck the bicyclist from behind.

During this time period, motor vehicle drivers hit a total of 80 bicyclists in the MPO area. Three of the crashes resulted in serious injuries. Approximately 90% of these crashes occurred in the central urban area of Valdosta and Remerton. Corridors on which notable numbers of bicycle crashes occurred were St. Augustine Road (7 crashes), Baytree Road (5 crashes), and North Patterson Street (5 crashes). The locations of crashes involving bicyclists are shown on Map 8.

It should be noted that this metric includes only crashes that involved both a bicyclist and a motor vehicle operator. Crashes involving only bicyclists are not reported, nor are crashes involving a collision of a bicyclist with a pedestrian.

13. Seat belt usage

The MPO has not directly collected data on the percentage of vehicle drivers or occupants using seatbelts. However, data on seatbelt use in crashes are available from the GEARS database. The rates of drivers and passengers involved in crashes who were wearing seat belts correctly can be used to estimate seat belt usage rates in the Metropolitan Planning Area.

From 2015 to 2019, of the 19,044 crashes that occurred in the MPO area, 3,197 (16.8%) involved occupants who were not properly restrained, according to the data available. Thus, the rate of seat belt use for vehicle occupants involved in crashes can be estimated at 83.2%.

Seat belt usage rates varied somewhat by road type. 12.5% of vehicle occupants involved in crashes on the Interstate highway were improperly restrained, while the corresponding figure is 13.0% for arterial roads, 15.9% for collector roads, and 19.3% for local roads. This suggests that some drivers and passengers may feel a false sense of security when going on short trips on local roads, when in fact the rates of crashes, injuries, and fatalities are lower on arterials and the Interstate highway.

Table 5 shows the number of crashes per 100,000,000 vehicle miles traveled on different road types compared to the number of unrestrained crashes (i.e., crashes involving no seat belt use or inadequate seat belt use).

With these statistics, the benefits of proper seat belt use are clear and it is recommended that belt usage be increased through a combination of educational campaigns and enforcement of existing laws.

Table 5. All crashes and unrestrained crashes per 100,000,000 VMT, 2015-2019.

Road type	Crashes per 100,000,000 VMT	Unrestrained crashes per 100,000,000 VMT

Local	973,092	187,363
Collector	1,201,387	190,823
Arterial	908,043	118,357
Interstate	96,516	12,048

14. Truck Crashes

In this section, we examine crashes involving tractor/trailers and log trucks. Map 9 shows the locations of these crashes. Although log trucks anecdotally have a significant traffic impact in the area, the data available show only 11 crashes involving log trucks from 2015 to 2019, resulting in no serious injuries or fatalities.

From 1/1/2015 to 12/31/2019, there were 793 crashes involving tractor/trailers in the VLMPO area, resulting in 18 fatalities (21% of all fatalities) and 23 serious injuries. 304 of these crashes (38%), 11 of the fatalities (61%), and 11 of the serious injuries (48%) were on Interstate 75.

33 crashes involving tractor/trailers and one crash involving a log truck occurred in Downtown Valdosta during this time frame, resulting in no serious injuries or deaths.

94 crashes involving tractor/trailers occurred on US Route 84; of these, 56 occurred on the section running from Downtown Valdosta west to the Brooks County boundary.

Furthermore, 281 crashes involving tractor/ trailers occurred within half a mile of an exit on Interstate 75. The number of tractor/trailer crashes within half a mile of each exit is shown in Figure 2.

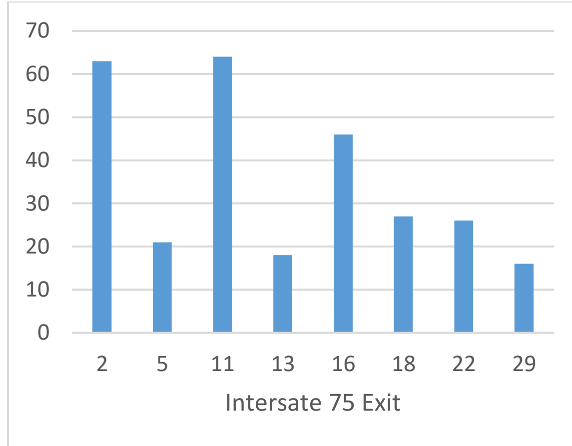


Figure 2. Tractor/trailer crashes within 1/2 mile of each I-75 exit in the MPO area

15. School Bus Crashes

From 1/1/2015 to 12/31/2019, there were 98 crashes involving school vehicles in the MPO area, resulting in no fatalities and one serious injury. The serious injury occurred in May 2017 when a school bus collided with a bicyclist outside of Lowndes High School. No particular geographic trends were identified with regard to crashes involving school buses. A separate report, published by the Southern Georgia Regional Commission in April 2020, contained an analysis of crashes in the areas surrounding each of the schools in Lowndes County.[18]

16. Contributing Factors

The single most common contributing factor for crashes in the MPO area from 2015 to 2019 was "Following too Close" (24% of crashes). Educational campaigns to educate drivers to increase following distance could result in a considerable reduction in crashes.

"Failed to Yield" was a contributing factor in approximately 15% of crashes. Other major contributing factors were "Changed Lanes Improperly" (5%), "Improper Backing" (5%), and "Disregard Stop Sign/Signal" (4%).

[18] This report is available on the SGRC website at: https://www.sgrc.us/documents/bicycle/coreyfile-Lowndes%20School%20Crash%20Report%20Final.pdf

III. High-crash Locations

To identify high-crash locations, a geographic analysis was conducted in which a 250-foot radius was drawn around every intersection point in the VLMPO area. The number of crashes within each 250-foot radius was then calculated. All intersections with 20 or more total crashes occurring within a 250-foot radius between 1/1/2015 and 12/31/2019 were identified (147 intersections total). The rate of crashes relative to the Average Daily Traffic (ADT)[19] of the road with the highest ADT in each intersection was then calculated. The 20 intersections with the highest rate of crashes relative to ADT were then identified for two areas: (1) the Cities of Valdosta and Remerton (which are contiguous and almost entirely urbanized) and (2) the unincorporated areas of the VLMPO area and the Cities of Dasher, Hahira, and Lake Park. These two areas were analyzed separately in order to identify high-crash locations in the predominantly urban and predominantly rural areas of the VLMPO area.

The top 20 high-crash locations in the Cities of Valdosta and Remerton are shown in Table 6 and on Map 10. The top 20 high-crash locations in the unincorporated areas of the VLMPO area and the Cities of Hahira, and Lake Park are shown in Table 7 and on Map 11. (None of the top 20 high-crash locations are in Berrien, Brooks, or Lanier Counties or in the Cities of Dasher or Ray City.)

[19] ADT data were acquired from the Georgia Department of Transportation at http://www.dot.ga.gov/DS/Data#tab-4.

Table 7. High-crash Locations in the Cities of Valdosta and Remerton, 2015–2019.								
Location	**Max. ADT**	**Total Crashes**	**Fatal-ities**	**Serious Injuries**	**Crashes per 1,000 ADT**	**Rank, 2015-2019**	**Rank, 2014-2018**	**Planned Improvements**
N St Augustine Rd @ Norman Dr	17400	209	0	2	12.01	1	1	Intersection improvements
N Valdosta Rd @ Country Club Dr	34400	205	0	0	5.96	2	2	Added travel lanes
N St Augustine Rd @ Gornto Rd	24300	192	0	2	7.90	3	3	Intersection improvements
Inner Perimeter Rd @ Bemiss Rd	23700	173	0	1	7.30	4	4	
Northside Dr @ Ashley St	14700	162	0	2	11.02	5	6 ↑	
Inner Perimeter Rd @ N Oak St Ext	23700	161	0	1	6.79	6	5 ↓	Added travel lanes
Bemiss Rd @ Northside Dr	18500	152	0	0	8.22	7	8 ↑	
N Valdosta Rd @ Oak St Ext	19400	139	0	1	7.16	8	9 ↑	Intersection improvements
Baytree Rd @ Jerry Jones Dr / Melody Ln	15400	130	0	0	8.44	9	7 ↓	Intersection improvements
W Hill Ave @ Norman Dr	22400	126	0	0	5.63	10	10	
Baytree Rd @ Norman Dr	17700	113	0	0	6.38	11	11	Intersection improvements
Baytree Rd @ Gornto Rd	13400	111	0	0	8.28	12	12	Intersection improvements
Jerry Jones Dr @ Gornto Rd	17900	105	0	1	5.87	13	13	Added travel lanes
W Hill Ave @ N St Augustine Rd	14200	101	1	1	7.11	14	18 ↑	
Inner Perimeter Rd @ Lake Laurie Dr / Brookfield Rd	23700	99	0	0	4.18	15	15 (tie)	
N St Augustine Rd @ Ellis Dr / Clubhouse Dr	24300	97	1	0	3.99	16	15 (tie) ↓	
Smithbriar Dr @ N Patterson St / N Ashley St	11600	93	0	1	8.02	17	14 ↓	Added travel lanes
N Valdosta Rd @ Inner Perimeter Rd	34400	92	0	0	2.67	18	17 ↓	
N St Augustine Rd @ Twin St	24300	88	0	0	3.62	19		
Country Club Dr @ Jerry Jones Dr / Eager Rd	17300	84	0	0	4.86	20	19 ↓	Added travel lanes

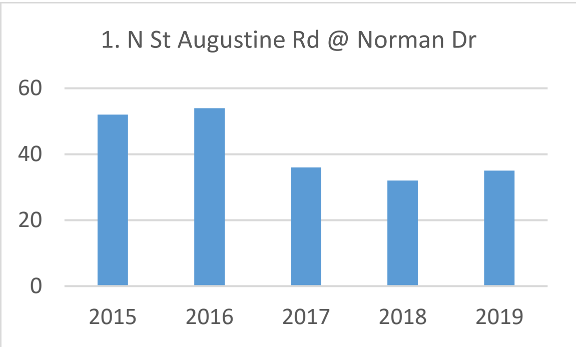
Table 8. High-crash Locations in unincorporated areas, Hahira, and Lake Park, 2015-2019.

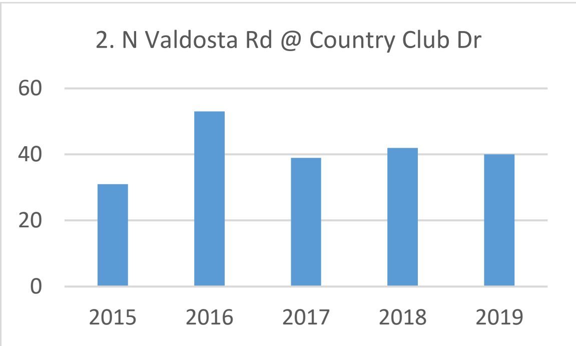
Location	Max. ADT	Total Crashes	Fatal-ities	Serious Injuries	Crashes per 1,000 ADT	Rank, 2015-2019	Rank, 2014-2018	Planned Improvements
N Valdosta Rd @ Val Del Rd / Old US 41 N	30100	99	0	1	3.29	1	1	Intersection improvements
Bemiss Rd @ Mt Zion Church Rd	29400	86	0	0	2.93	2	2	
N Valdosta Rd @ Foxborough Ave / Old US 41 N	20100	73	0	0	3.63	3	3	Added travel lanes
Lakes Blvd @ Millstore Rd	9690	61	0	0	6.30	4	4	
N Valdosta Rd @ Coleman Dr	20100	59	0	0	2.94	5	5	Interchange improvements
Shiloh Rd @ I-75 SB Ramp	6720	53	0	1	7.89	6	6	Interchange improvements
N Valdosta Rd @ Flythe Rd / I-75 NB Ramp	20100	46	0	1	2.29	7	7	Interchange improvements
Main St @ Church St (Hahira)	5210	40	0	0	7.68	8	10 ↑	
GA Hwy 122 W @ I-75 NB Ramp (Hahira)	7040	35	0	0	4.97	9	9	Interchange improvements
Madison Hwy @ Carroll Dr	8960	34	0	0	3.79	10	8 ↓	
Inner Perimeter Rd @ US Hwy 41 S	10900	29	1	4	2.66	11	11	
Shiloh Rd @ Val Tech Rd	3160	27	0	0	8.54	12	12	Interchange improvements
Bemiss Rd @ Davidson Rd	16500	27	0	2	1.64	13	15 (tie) ↑	
Madison Hwy @ I-75 SB Ramp	6160	26	0	0	4.22	14	13 ↓	Interchange improvements
W Marion Ave @ Lakes Blvd	9690	25	0	2	2.58	15	18 ↑	
Madison Hwy @ I-75 NB Ramp	8960	23	0	0	2.57	16	14 ↓	Interchange improvements
Bemiss Rd @ Cherry Creek Church Rd	29400	23	0	0	0.78	17	15 (tie) ↓	
Coleman Rd N @ Flythe Rd	N/A	21	0	0	N/A	18		
Val Del Rd @ Bethany Rd	4050	21	0	1	5.19	19		
Madison Hwy @ Clyattville Lake Park Rd	4860	21	0	0	4.32	20	17 ↓	

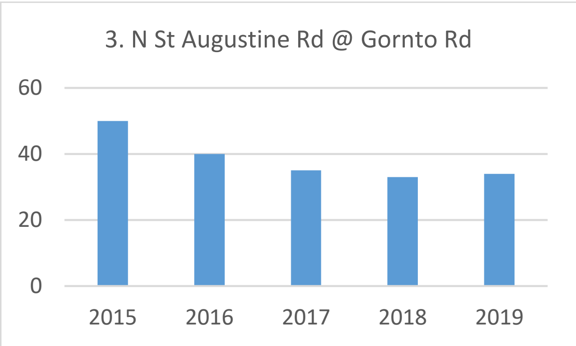
Year-by-year Trends for High-crash Locations

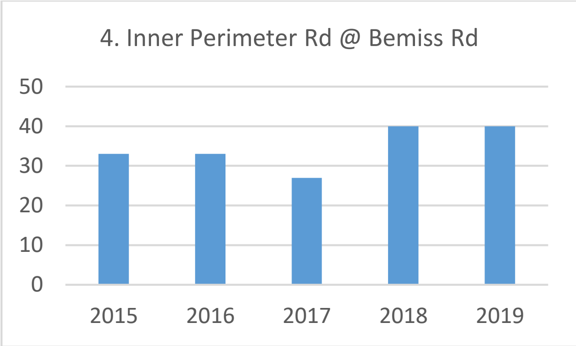
The charts in this section show the year-by-year crash trends for the high-crash intersections that have been identified.

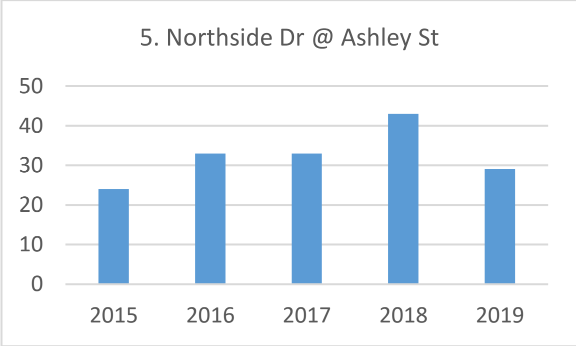
Valdosta/Remerton

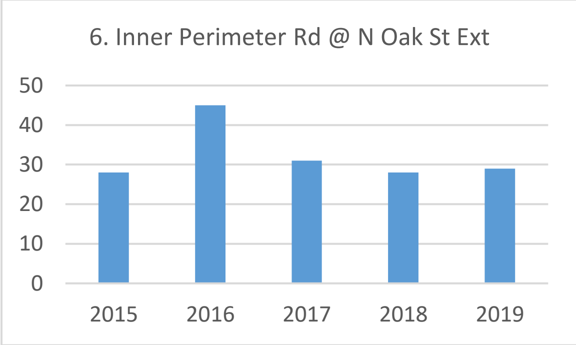


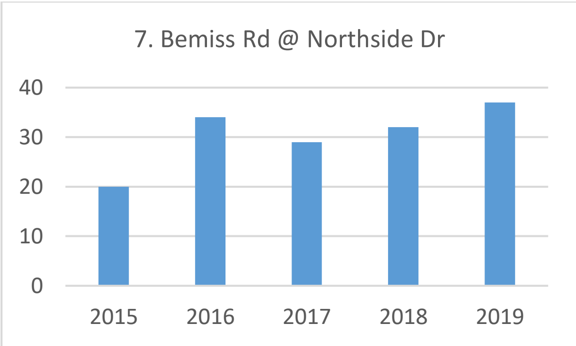


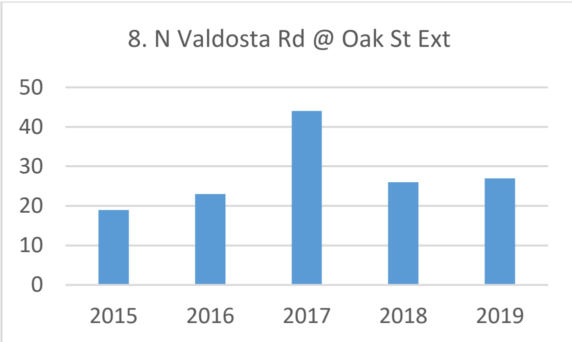








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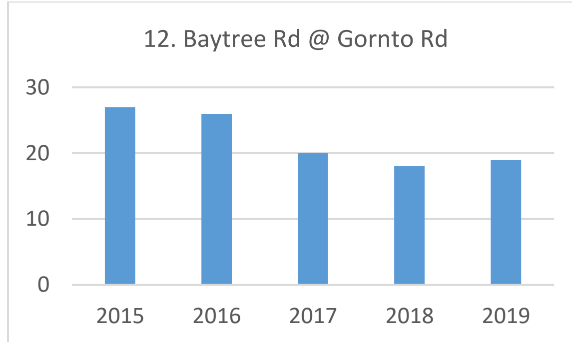
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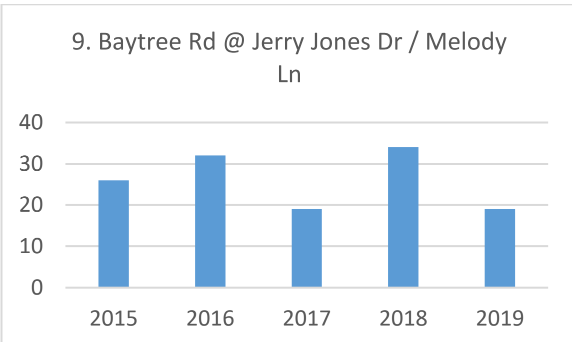
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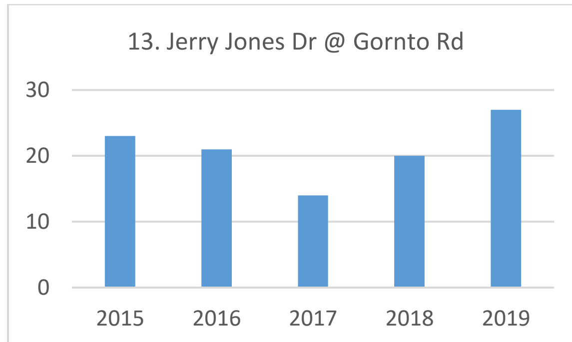
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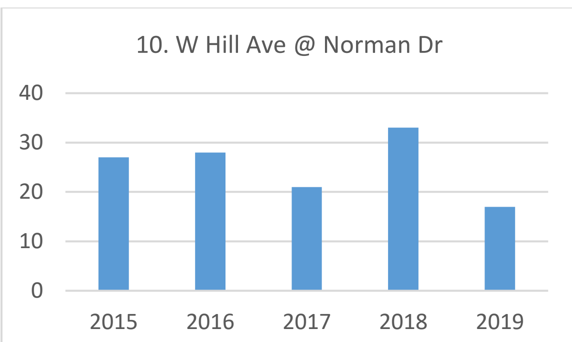
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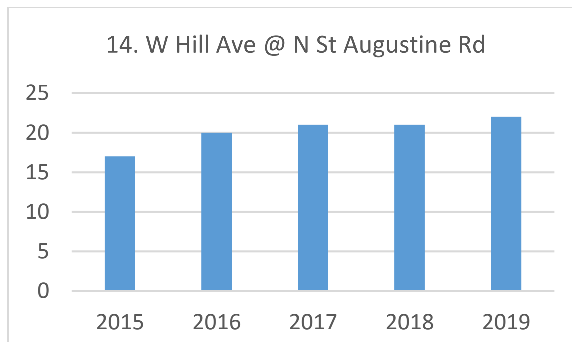
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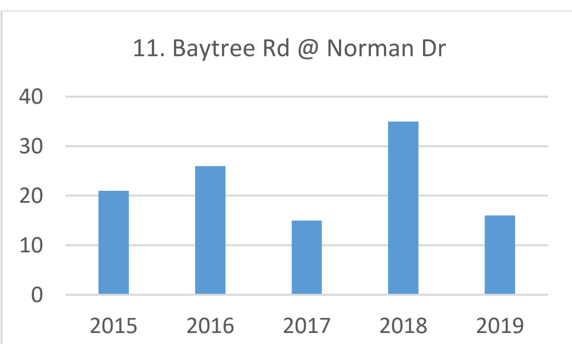
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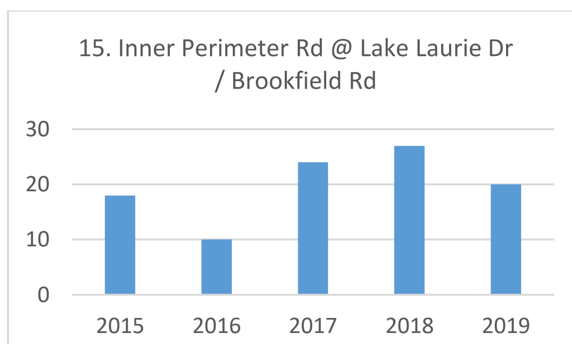
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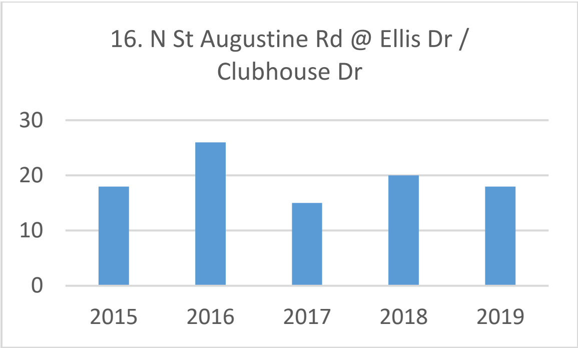
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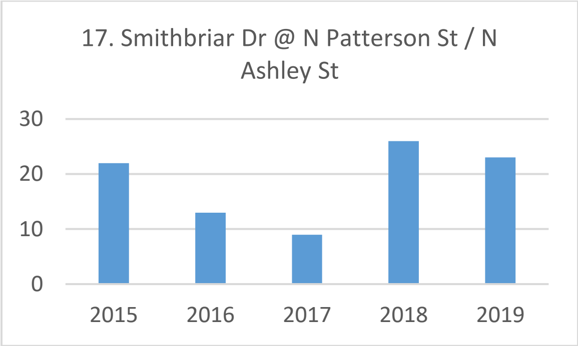
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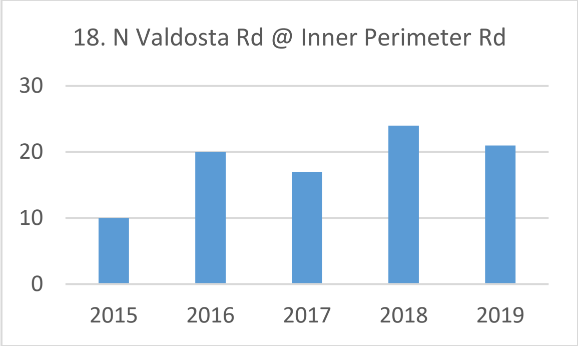
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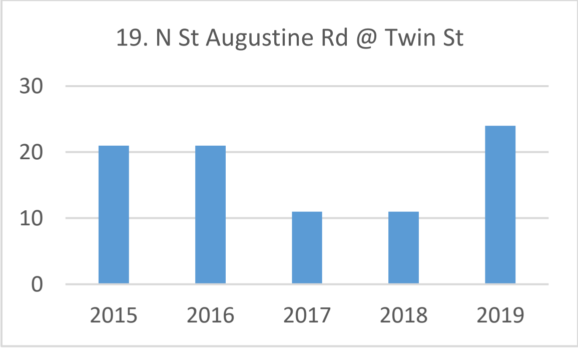
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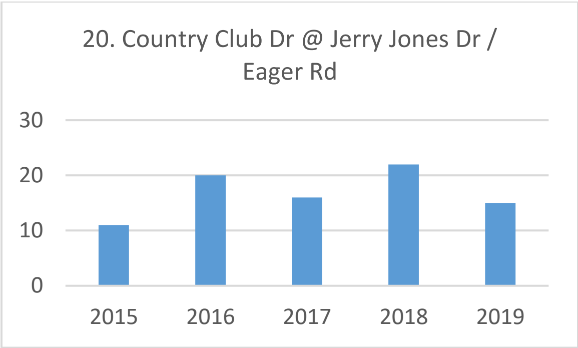
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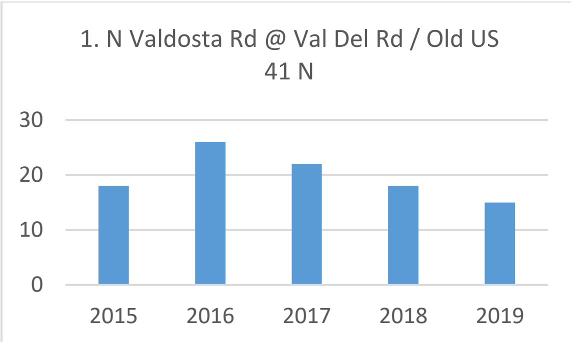
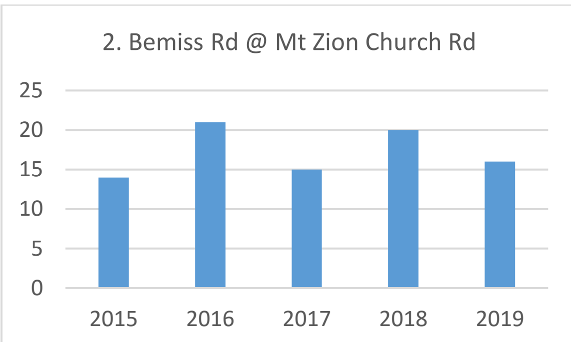
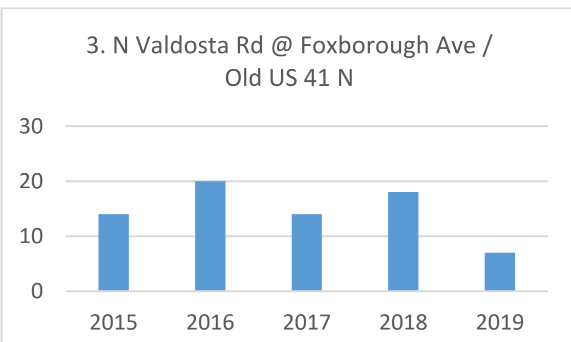
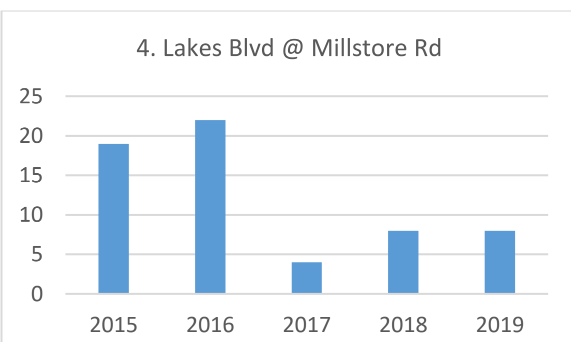
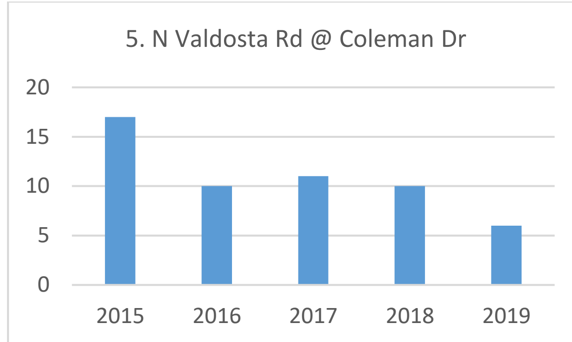
Unincorporated/Hahira/Lake City

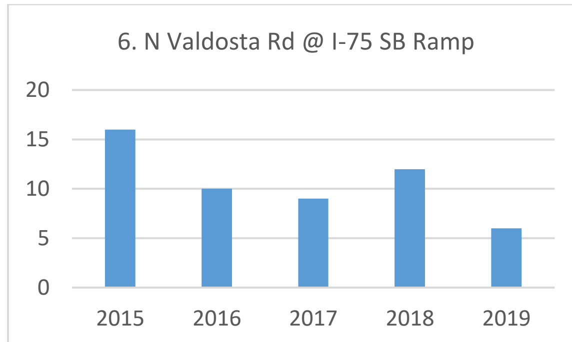


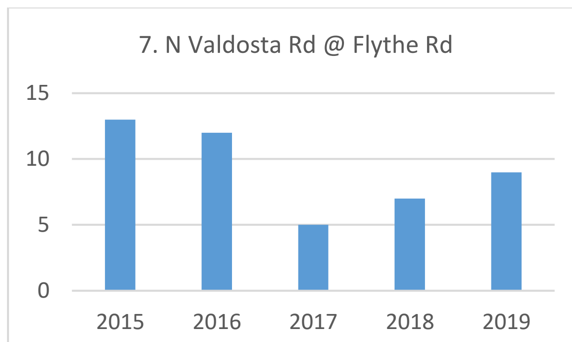


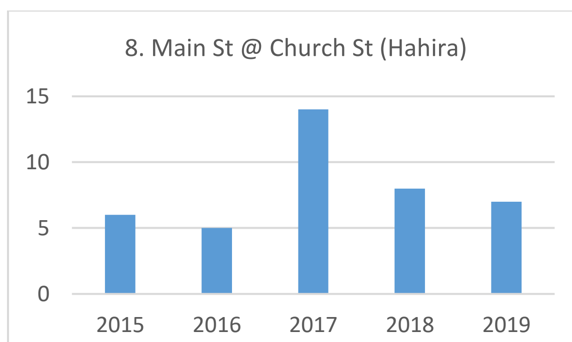


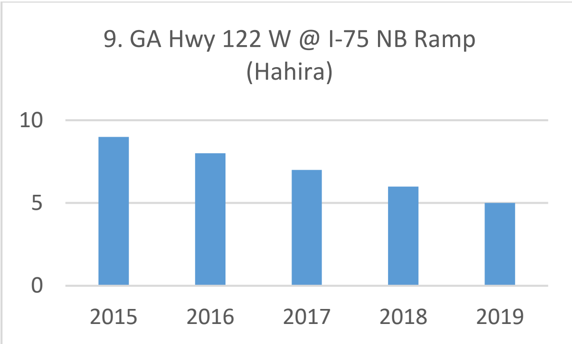








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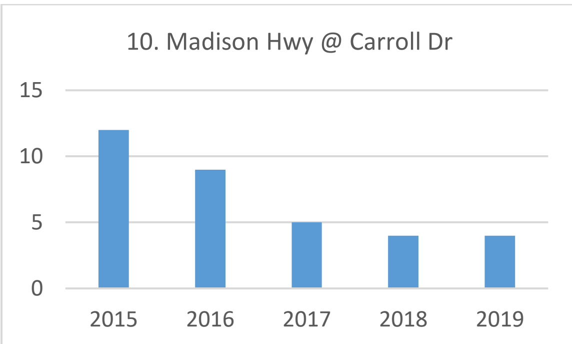
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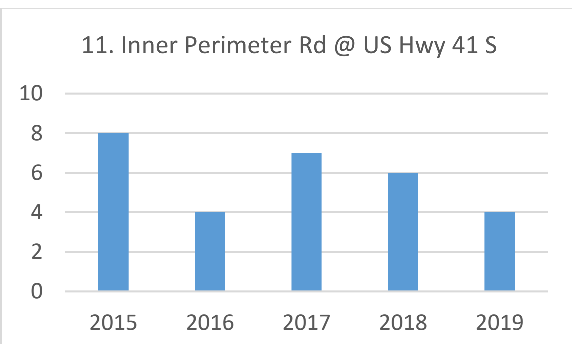
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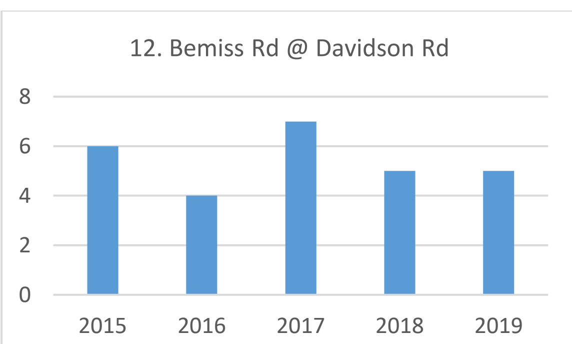
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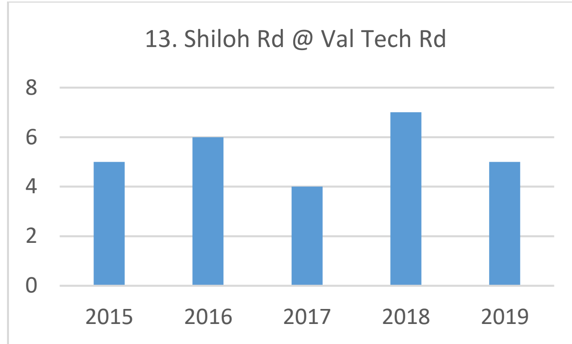
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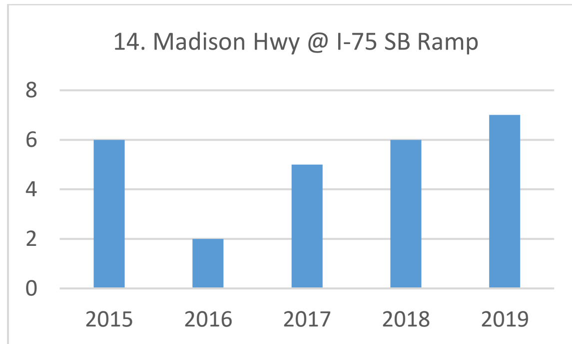
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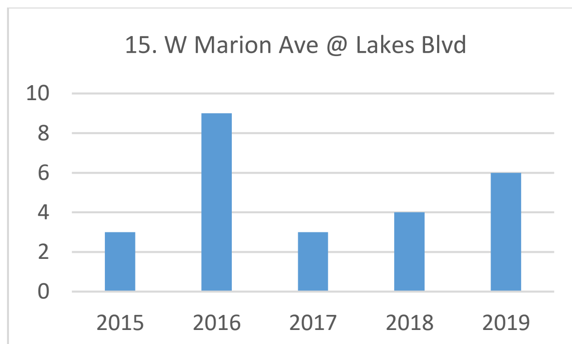
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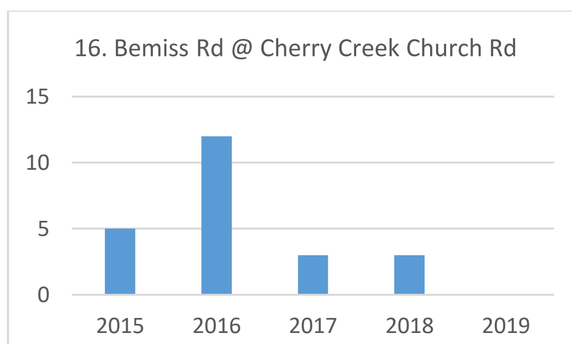
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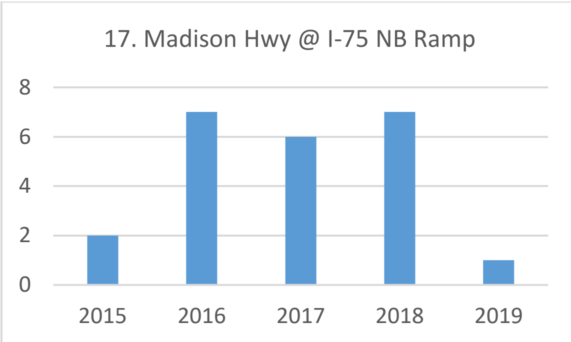
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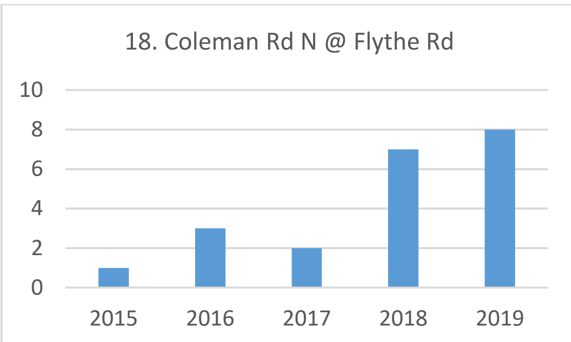
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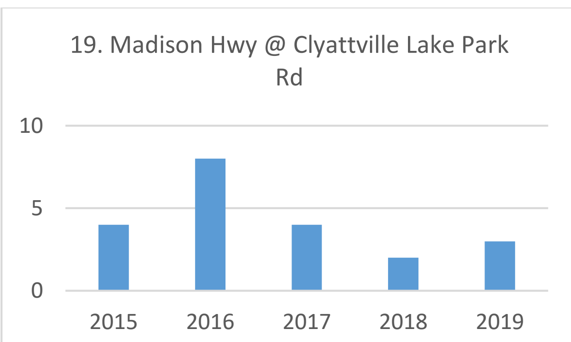
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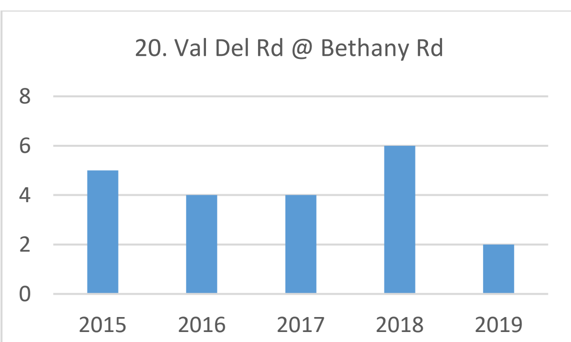
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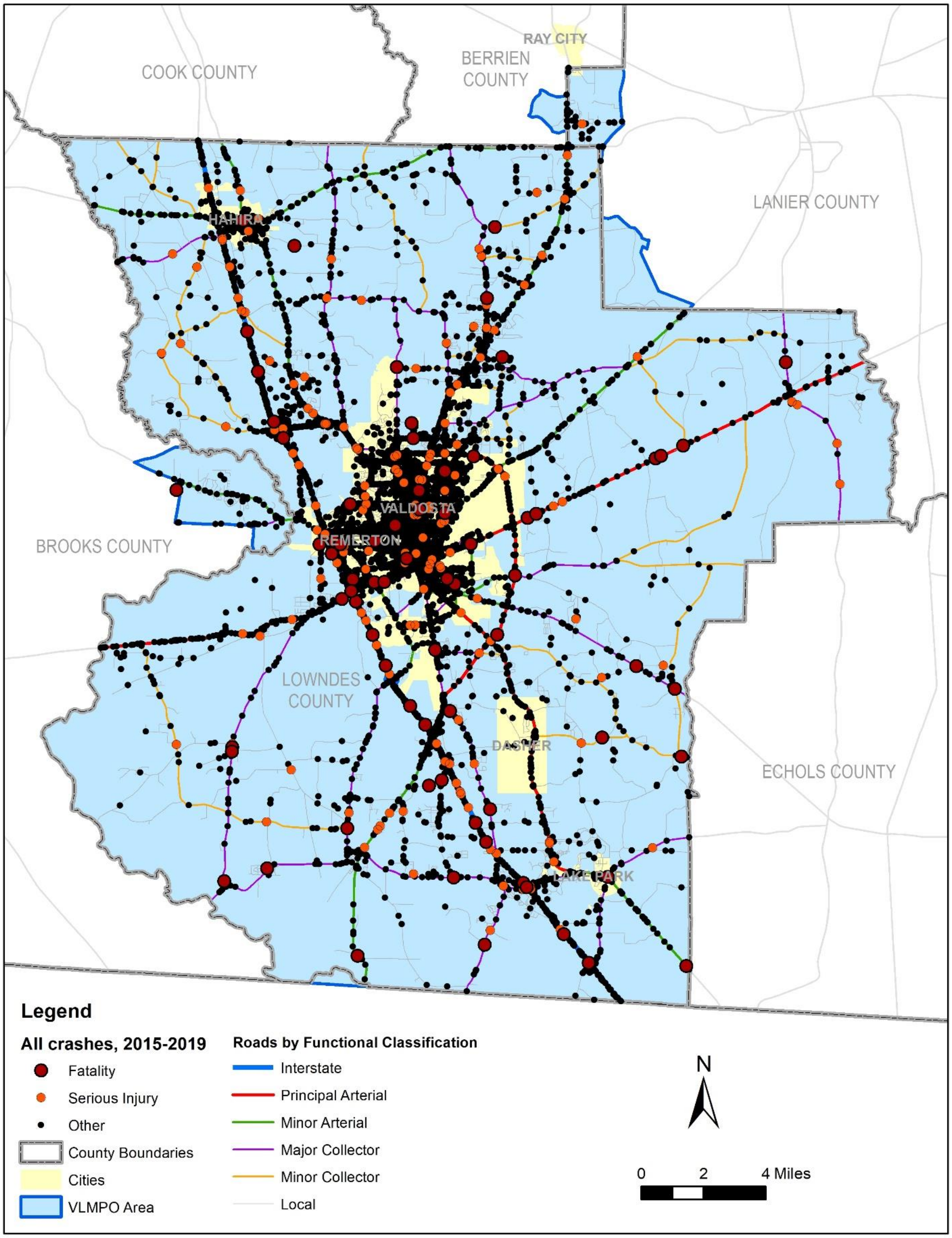
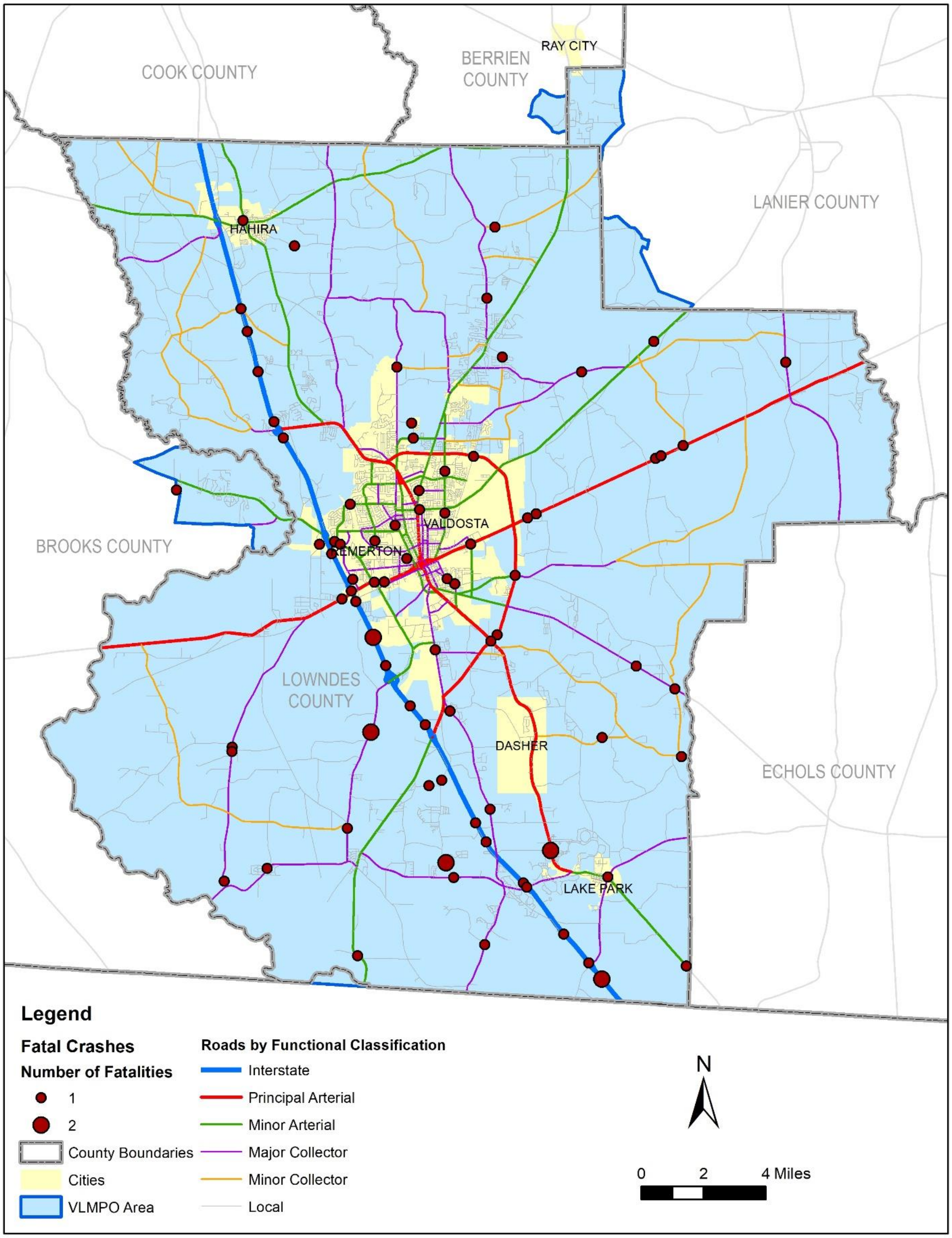
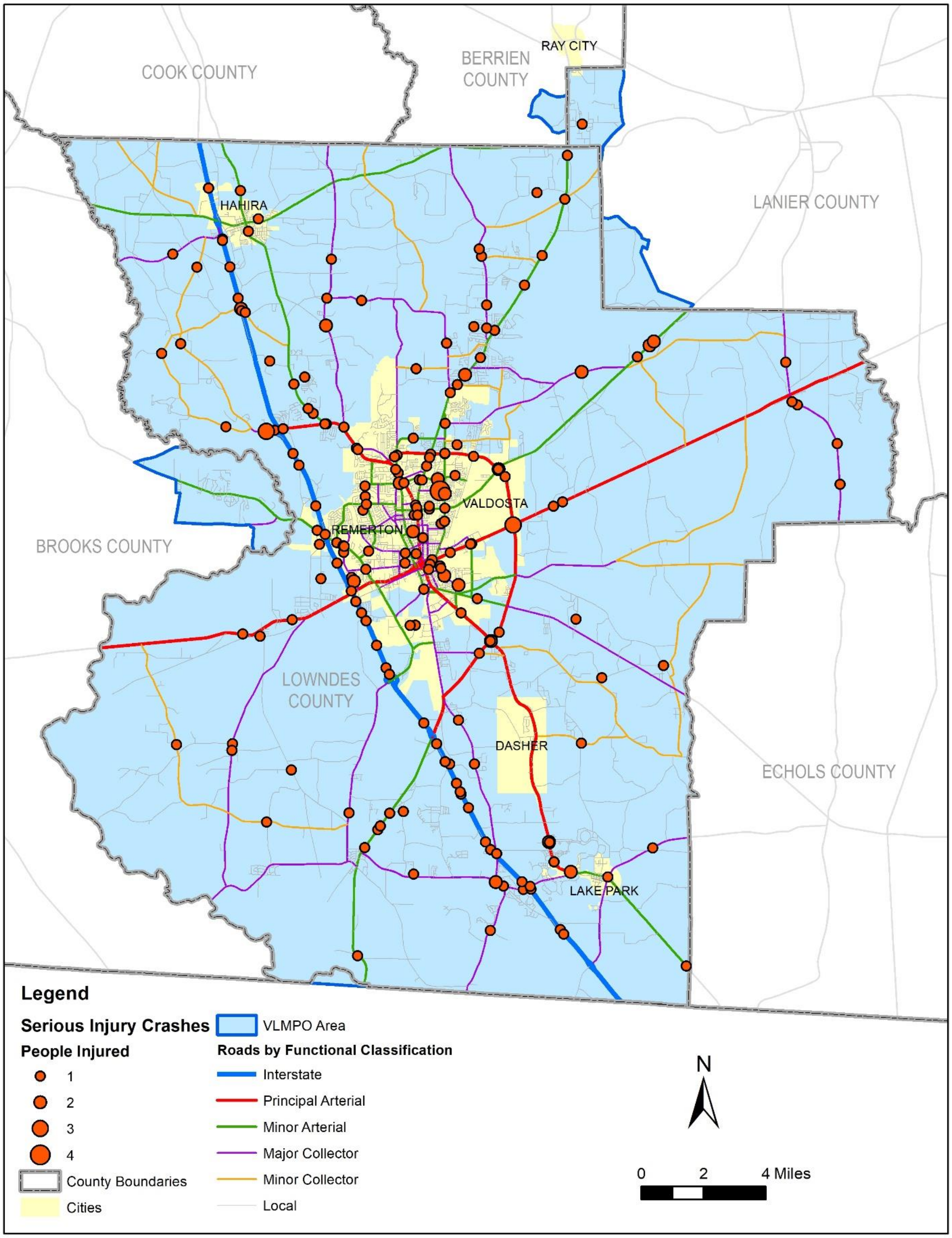
IV. Maps



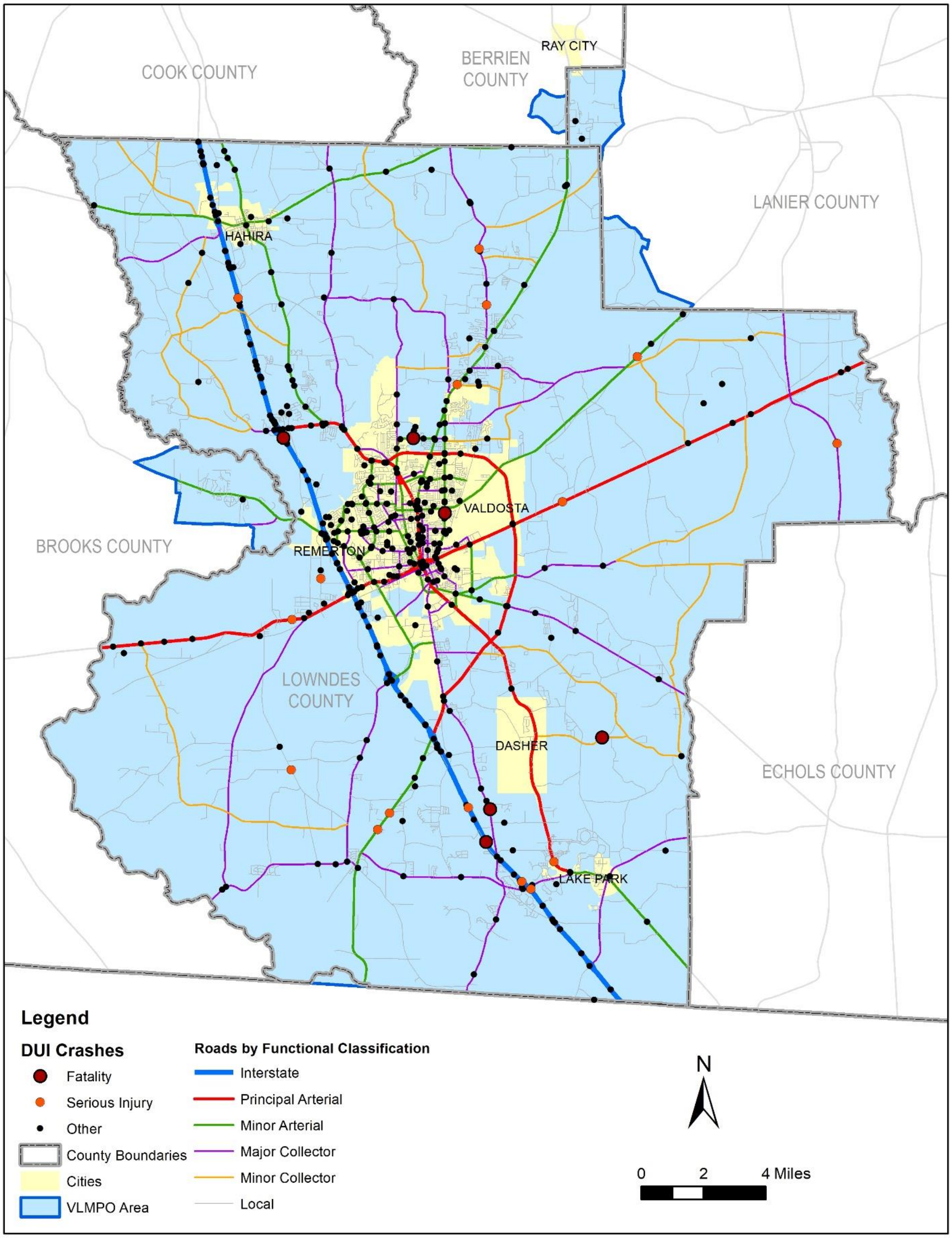
Map 1. Crashes in the VLMPO area, 2015-2019.



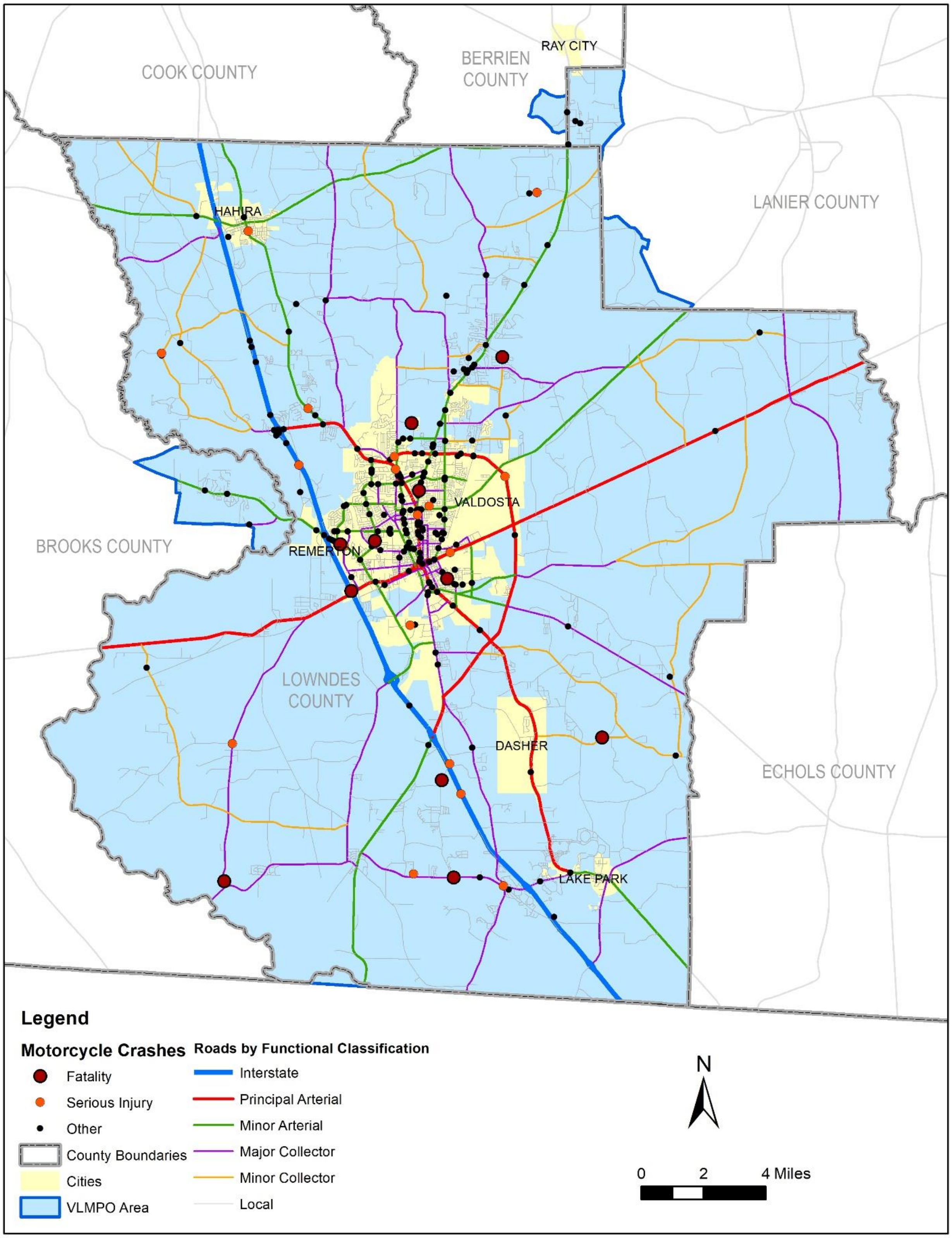
Map 2. Fatal crashes in the VLMPO area, 2015-2019.



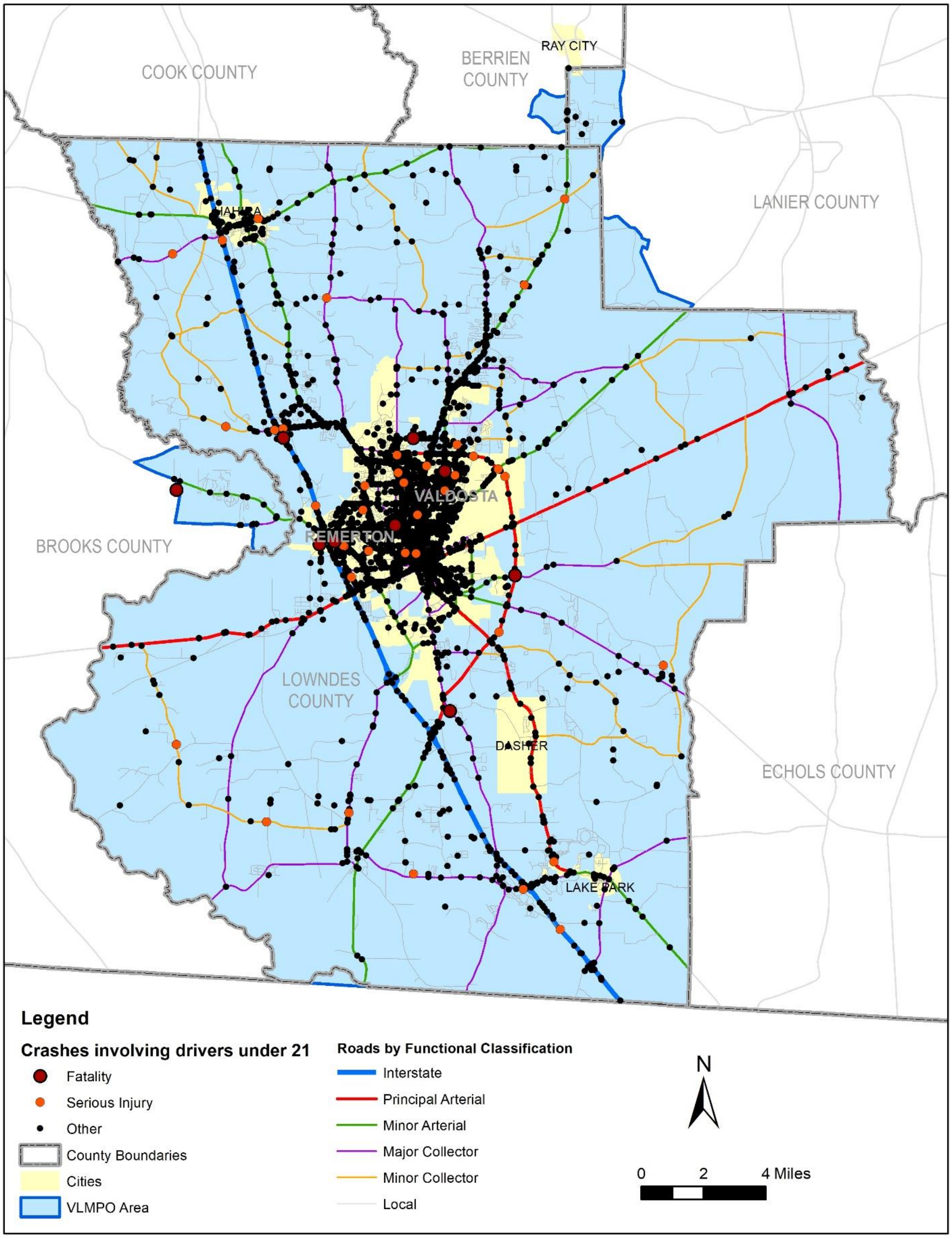
Map 3. Serious injury crashes in the VLMPO area, 2015-2019.



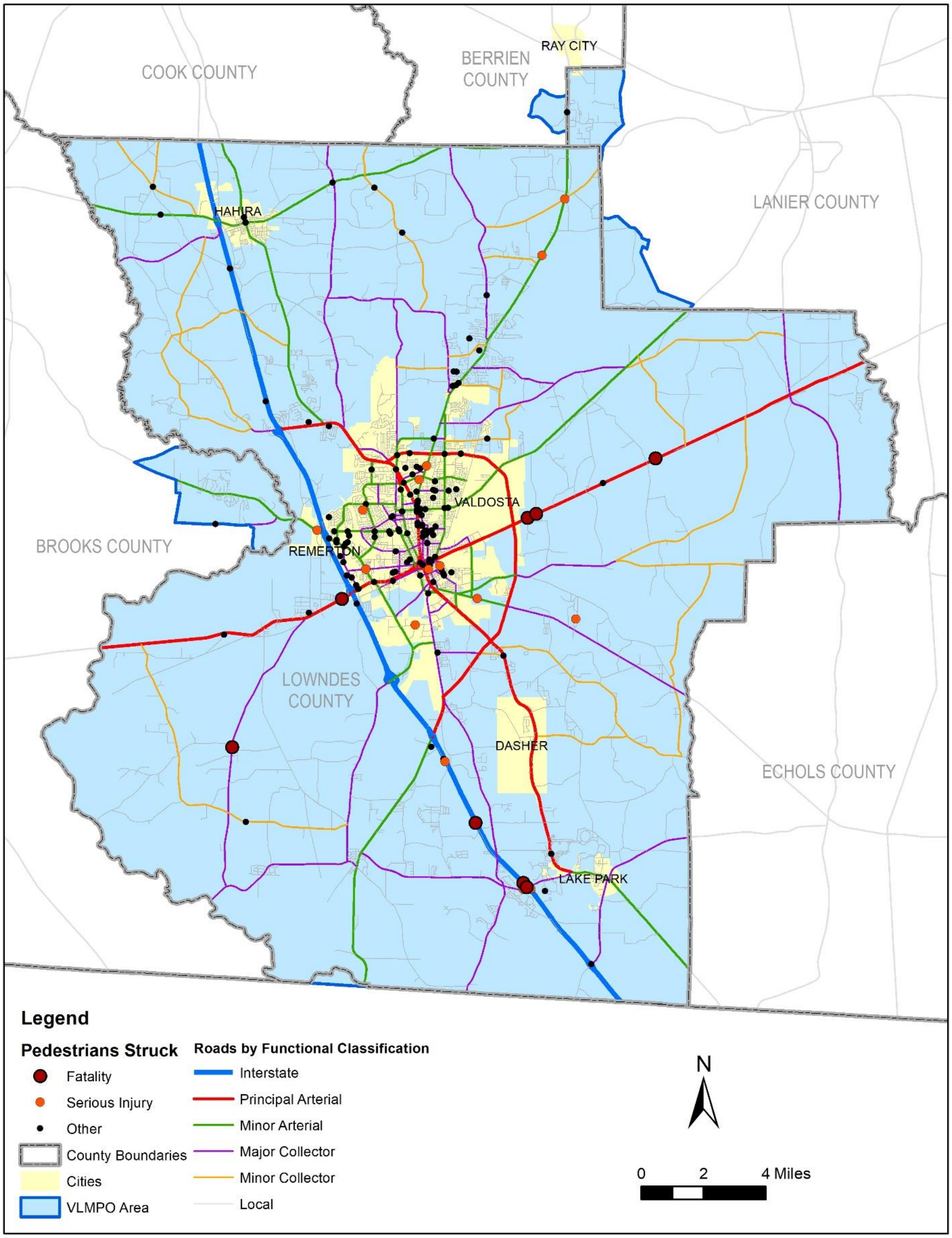
Map 4. Alcohol-related crashes in the VLMPO area, 2015-2019.



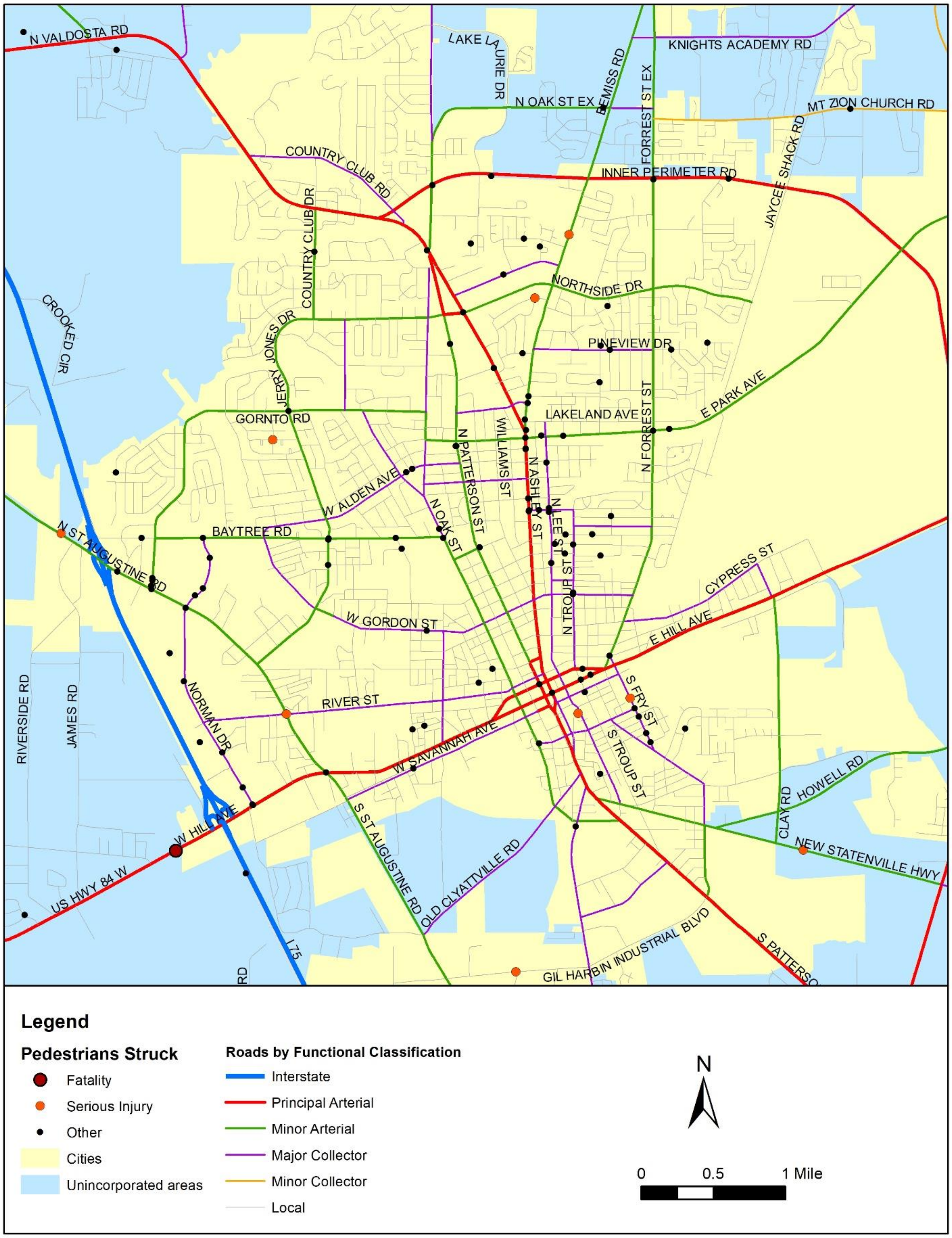
Map 5. Crashes involving motorcycles in the VLMPO area, 2015-2019.



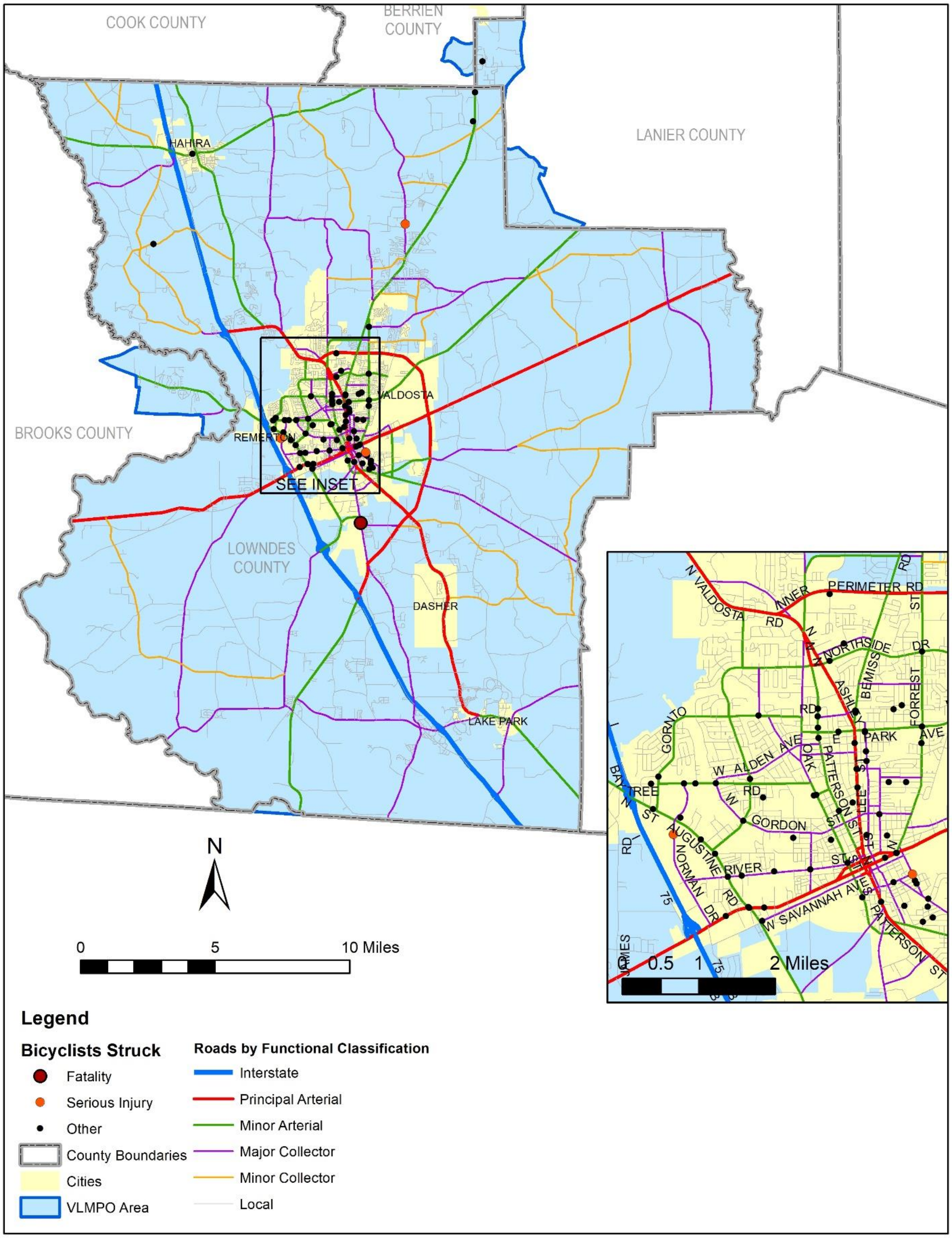
Map 6. Crashes involving drivers under age 21 in the VLMPO area, 2015-2019.



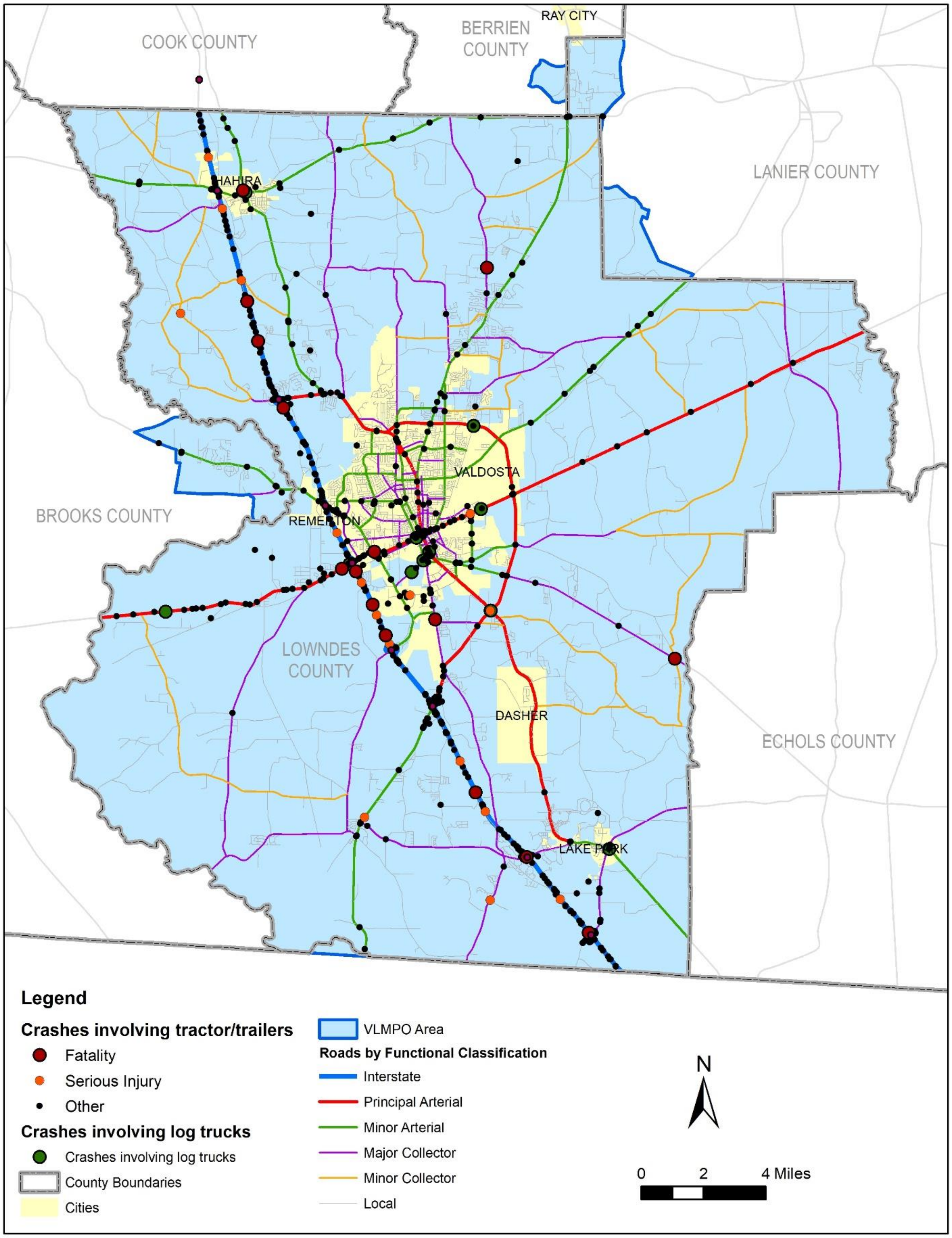
Map 7. Crashes involving pedestrians in the VLMPO area, 2015-2019.



Map 7a. Detail: Crashes involving pedestrians in the VLMPO area, 2015-2019.

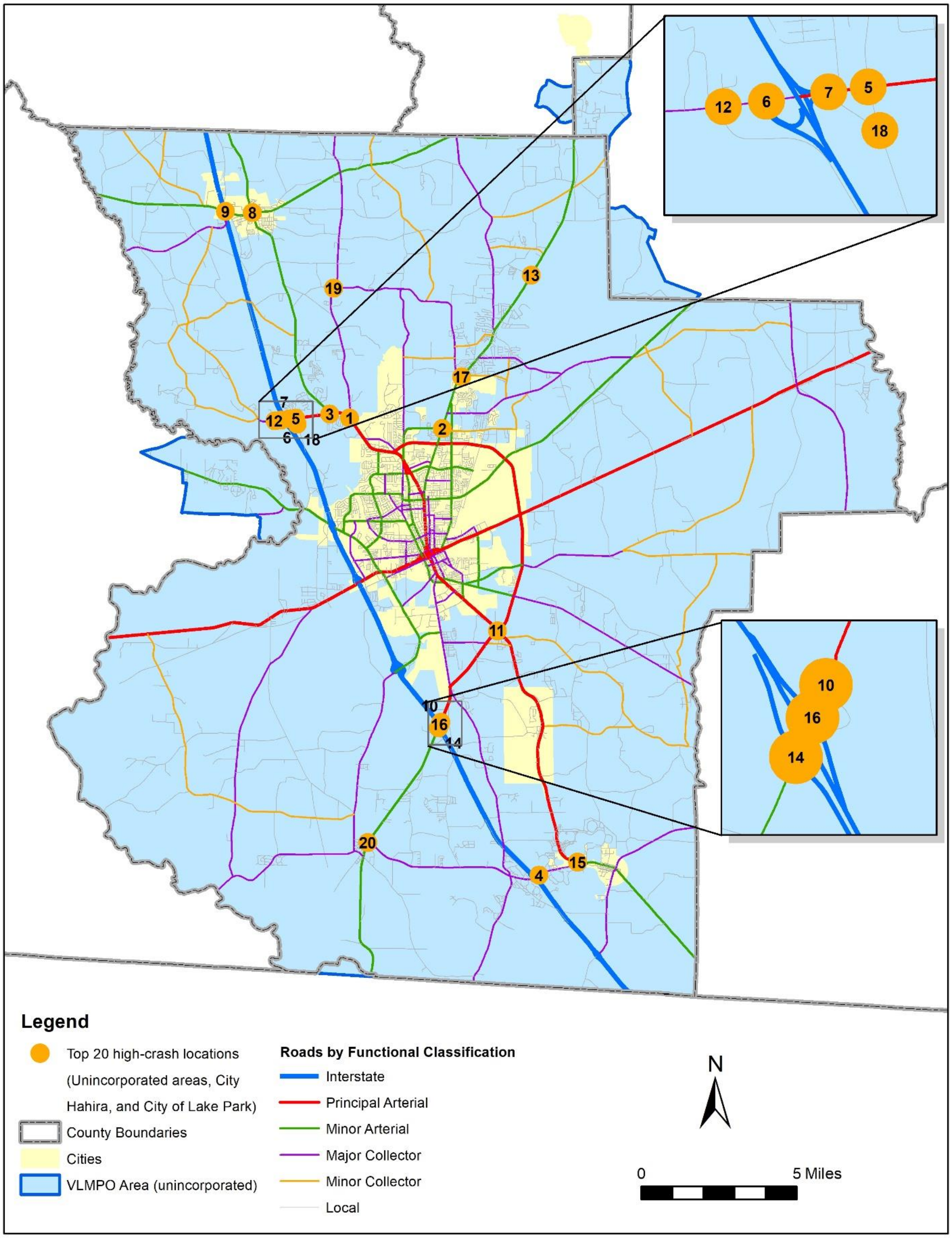


Map 8. Crashes involving bicyclists in the VLMPO area, 2015-2019.



Map 9. Crashes involving tractor/trailers and log trucks in the VLMPO area, 2015-2019.

Map 10. High-crash Locations in the City of Valdosta, with rank weighted by ADT.



Map 11. High-crash Locations in unincorporated areas, Hahira, and Lake Park, with rank weighted by ADT.

Appendix: Proposed Actions for Local Communities

This Appendix contains a list of actions and resources local communities can take to improve traffic safety.

Engineering Countermeasures

Backplates with Retroreflective Borders: Backplates added to a traffic signal indication improve the visibility of the illuminated face of the signal by introducing a controlled-contrast background. These are already present on most state highways in the MPO area.

Corridor Access Management: Thoughtful access management along a corridor can simultaneously enhance safety for all modes, facilitate walking and biking, and reduce trip delay and congestion.

Enhanced Delineation and Friction for Horizontal Curves: This proven safety countermeasure for reducing crashes at curves includes a variety of potential strategies that can be implemented in combination or individually.

Leading Pedestrian Intervals: Gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left.

Left and Right Turn Lanes at Two-Way Stop-Controlled Intersections: Auxiliary turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent through traffic at approaches to intersections. Turn lanes can be designed to provide for deceleration prior to a turn, as well as for storage of vehicles that are stopped and waiting for the opportunity to complete a turn.

Local Road Safety Plan: Provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads. The LRSP development process and content are tailored to local issues and needs. The process results in a prioritized list of issues, risks, actions, and improvements that can be used to reduce fatalities and serious injuries on the local road network.

Longitudinal Rumble Strips and Stripes: Milled or raised elements on the pavement intended to alert drivers through vibration and sound that their vehicles have left the travel lane. They can be installed on the shoulder, edge line of the travel lane, or at or near center line of an undivided roadway. Several roads in the MPO area already have these strips installed.

Median Barriers: Longitudinal barriers that separate opposing traffic on a divided highway and are designed to redirect vehicles striking either side of the barrier.

Medians and Pedestrian Crossing Islands: Nationally, pedestrian crashes account for approximately 15 percent of all traffic fatalities annually, and over 75 percent of these occur at non-intersection locations. For pedestrians to safely cross a roadway, they must estimate vehicle speeds, adjust their walking speed, determine gaps in traffic, and predict vehicle paths. Installing raised medians or pedestrian crossing islands can help improve safety by simplifying these tasks and allowing pedestrians to cross one direction of traffic at a time.

Pedestrian Hybrid Beacons: A traffic control device designed to help pedestrians safely cross busy or higher-speed roadways at midblock crossings and uncontrolled intersections. The beacon head consists of two red lenses above a single yellow lens. The lenses remain "dark" until a pedestrian desiring to cross the street pushes the call button to activate the beacon. The signal then initiates a yellow to red lighting sequence consisting of steady and flashing lights that directs motorists to slow and come to a stop. The pedestrian signal then flashes a WALK display to the pedestrian. Once the pedestrian has safely crossed, the hybrid beacon again goes dark.

Reduced Left-Turn Conflict Intersections: Geometric designs that alter how left-turn movements occur in order to simplify decisions and minimize the potential for related crashes.

Road Diets: A Road Diet typically involves reducing the total number of travel lanes on a road that has more capacity than is necessary. It can also refer to a reduction in travel lane width, thereby reducing speeds, without reducing the total number of lanes. A few successful road diets have already been implemented in the MPO area. A Road Diet can be a low-cost safety solution when planned in conjunction with a simple pavement overlay, and the reconfiguration can be accomplished at no additional cost.

Roadside Design Improvements at Curves: A strategy encompassing several treatments that target the high-risk roadside environment along the outside of horizontal curves. These treatments prevent roadway departure fatalities by giving vehicles the opportunity to recover safely and by reducing crash severity.

Roundabouts: A modern roundabout results in lower speeds and fewer conflict points than a signalized intersection, and also leads to improved operational performance. Roundabouts provide substantial safety and operational benefits compared to other intersection types, most notably a reduction in severe crashes.

USLIMITS2: A free, web-based tool designed to help practitioners assess and establish safe, reasonable, and consistent speed limits for specific segments of roadway. It is applicable to all types of facilities, from rural and local roads and residential streets to urban freeways.

Walkways: A walkway is any type of defined space or pathway for use by a person traveling by foot or using a wheelchair. These may be pedestrian walkways, shared use paths, sidewalks, or roadway shoulders.

Yellow Change Intervals: Since red-light running is a leading cause of severe crashes at signalized intersections, it is imperative that the yellow change interval be appropriately timed. Too brief an interval may result in drivers being unable to stop safely and cause unintentional red-light running, while too long an interval may result in drivers treating the yellow as an extension of the green phase and invite intentional red light running. Factors such as the speed of approaching vehicles, driver perception-reaction time, vehicle deceleration rates, intersection width, and roadway approach grades should all inform the timing calculation.

Educational Countermeasures and Campaigns

Child restraint awareness campaigns and child seat safety check programs can increase the rate of proper use of restraint systems for children in vehicles.

Drive Alert Arrive Alive: a statewide safety campaign to educate drivers about simple changes they can make in their driving behavior to prevent crashes, improve safety and save lives.

Driver education programs may focus on driving techniques, risks, mastery of traffic situations, decision-making skills, and other aspects of driving. Programs may be aimed at new drivers, young drivers, or also older and more experienced drivers.

Operation Lifesaver (https://oli.org/) helps to spread information about safety around trains and to encourage safer behavior at railroad crossings and on train tracks.

Railroad Safety Program: Georgia DOT's Office of Utilities handles railroad coordination and safety activities for the more than 5,300 public highway rail grade crossings across the state.

Safe Routes To School: This program works to make it safe, convenient, and fun for children in grades K-8 to walk or bike to school every day.

Scholastic Youth Safety Partnership: In partnership with the company Scholastic, Georgia DOT has launched the Recognizing the Risk campaign in an effort to help better educate the next generation of Georgia drivers.

Seat belt awareness campaigns may include billboards, flyers, social media outreach, and other materials.

See & Be Seen: Georgia DOT's See & Be Seen campaign aims to make it safer to walk in Georgia. See & Be Seen is the pedestrian component of Georgia DOT's Drive Alert Arrive Alive campaign to reduce crashes and fatalities on Georgia's roadways.

Teens in the Driver Seat: Teens in the Driver Seat is a peer program for teens that focuses solely on traffic safety and addresses all major risks for teen drivers.

Work Zone Safety: This GDOT program raises awareness for motorists to pay attention, watch out for workers, and drive safely when traveling through work zones.

Enforcement Countermeasures

Automated Traffic Enforcement Safety Device (ATESD): School systems can apply for a permit to place an Automated Traffic Enforcement Safety Device within a school zone.

Drunk-driving checkpoints have been shown to reduce DUI crashes in some studies.

Hands-Free Law: Georgia's Hands-Free law requires hands-free technology when drivers use a cell phone or other electronic device.

Increased law enforcement presence on high-crash corridors has been shown to improve safety.

Law enforcement presence at crosswalks has been shown to improve drivers' yielding to pedestrians in some studies.

Law enforcement presence in school zones has been shown to reduce crashes.

Red Light Running Photo System: This system is designed to improve safety and promote compliance at signalized intersections.

Further resources:

Federal Highway Administration, "Proven Safety Countermeasures."
https://safety.fhwa.dot.gov/provencountermeasures/

Staton, Catherine, et al. "Road Traffic Injury Prevention Initiatives: A Systematic Review and Metasummary of Effectiveness in Low and Middle Income Countries." *PLoS One*, 2016: 11(1). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4703343/

Berg. H-Y. "Reducing crashes and injuries among young drivers: what kind of prevention should we be focusing on?" *Injury Prevention*, June 2006. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2563439/

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