

Pinellas County Metropolitan Planning Organization 2014 Crash Report

Data Year 2013



Pinellas County Metropolitan Planning Organization's 2014 Crash Data Report

Councilmember Jim Kennedy
Chairman

Commissioner John Morroni
Vice Chairman

Councilmember Doreen Hock-DiPolito
Treasurer

Commissioner Joanne "Cookie" Kennedy
Secretary

Commissioner Karen Seel
Councilmember Darden Rice
Commissioner Dave Eggers
Commissioner Cliff Merz
Commissioner Michael Smith

Mayor Sandra Bradbury
Commissioner John Tornga
Mayor Julie Ward Bujalski
Commissioner Kevin Piccarreto

Whit Blanton, FAICP
MPO Executive Director

Paul Steinman (Non-voting Advisor)
District VII Secretary, FDOT District Seven

This project has been developed in compliance with Title VI of the Civil Rights Act of 1964 and other federal and state nondiscrimination authorities. Neither FDOT nor this project will deny the benefits of, exclude from participation in, or subject to discrimination anyone on the basis of race, color, national origin, age, sex, disability, or family status.

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

Page intentionally left blank

PINELLAS COUNTY

About this Report

This document presents information describing traffic crashes and fatalities that occurred in Pinellas County in the years 2011-2013. It also provides selected crash, injury, and fatality data for the state of Florida in order to frame the statistics in the proper context. The purpose of this report is to provide crash information for use by local governments, transportation planners, law enforcement agencies, consultants, traffic engineers and the general public to assist in the planning and/or programming of transportation-related safety projects, long-range transportation forecasting and targeted law enforcement activities.

This report represents data submitted to the Pinellas County Crash Data Management System (CDMS) and are presented in two basic formats: basic data plus trend analyses covering a three-year period, and detailed data findings in program areas listed below. It is intended that, with this information, Pinellas County will be better able to understand the trends in terms of crash types, contributing factors, demographic groups, times, and locations associated with crashes, injuries, and fatalities over these three years.

The material is organized into the following major sections:

- Basic Data and Trend Analyses
- Fatalities
- Vulnerable Road Users
- Teen Drivers (ages 15-19)
- Aging Road Users (ages 65 and above)
- Distracted Drivers
- Aggressive Driving
- Lane Departures
- Speeding
- Crashes by Type and Location
- Intersections
- Crashes along Gulf Boulevard
- Countermeasures to Reduce Pedestrian Crashes

The population data contained in this report reflect the U.S. Census Bureau's Estimates found at <http://www.census.gov>, which were available as of January 2015. These data sources are subject to revision over time, resulting in small differences when comparing statistics generated at different times. The main link to the Census data sources used is: <http://www.census.gov/popest/data/index.html>. The population data used in this year's report came from 2011 to 2013 intercensal estimates, as opposed to vintage data.

It is important to acknowledge that the information contained in this report may be slightly different from data reported to the Florida Department of Highway Safety and Motor Vehicles

(DHSMV). The DHSMV publishes the Official Annual Traffic Crash Facts statistics and the crashes contained in that document must meet the reporting requirement criteria contained in Section 316.066(1)(a) of the Florida Statutes. Conditions requiring reporting to DHSMV per Section 316.066(1)(a), F.S. are as follows:

- Motor vehicle crashes resulting in death or personal injury, or
- Motor vehicle crashes in which one or more of the following conditions occur:
 - Leaving the scene involving damage to an attended vehicle or property (Section 316.061 (1), F.S.);
 - Driving while under the influence of alcoholic beverages, chemical substances or controlled substances, or with an unlawful blood alcohol level (Section 316.193, F.S.);
 - Rendered a vehicle inoperable to a degree that required a wrecker to remove it from the scene of the crash; or
 - Involved a commercial motor vehicle.

Effective July 1, 2012, Section 316.066, F.S. was amended to require all law enforcement agencies to report additional crash data to the DHSMV. While the 2012 crash data for the state of Florida may appear to reflect an increase in crashes, the statutory change resulted in more crash reports being received for inclusion and analysis. These changes have resulted in an increase in the number of reported crashes, vehicles involved and persons involved and should not be taken as an indicator of a significant increase in crashes statewide compared to 2011.

Furthermore, effective January 1, 2011, the Florida DHSMV mandated the use of a new Florida Traffic Crash Form which is used by law enforcement officials to document the conditions surrounding traffic crash incidents. The new form, HSMV 90010S, has been utilized for all crashes that occurred on or after that date. The new Florida Traffic Crash Form included 33 new fields and approximately 520 new attributes. The new fields provide additional information on safety equipment, commercial vehicles, and crash conditions. In addition, the new form provides more detailed information about the driver, passenger, and non-motorist characteristics. Given the change in reporting formats that occurred in 2011, the bulk of the data contained in this report uses 2011 as a baseline for data analysis.

TABLE OF CONTENTS

DEFINITIONS	9
EXECUTIVE SUMMARY	11
BASIC DATA AND TREND ANALYSES	16
FATALITIES	17
VULNERABLE ROAD USERS	21
TEEN DRIVERS (AGES 15-19)	27
AGING ROAD USERS (AGES 65 AND ABOVE)	30
DISTRACTED DRIVERS	34
AGGRESSIVE DRIVERS	37
LANE DEPARTURES	40
IMPAIRED DRIVING	43
SPEEDING	46
CRASHES BY TYPE AND LOCATION	49
INTERSECTIONS	51
CRASHES ALONG GULF BOULEVARD	58
COUNTERMEASURES FOR PEDESTRIANS CRASHES	62
CONCLUSION	63
APPENDIX A	64

LIST OF FIGURES

Figure 1. Total Number of Fatalities in Pinellas County and Florida, 2011-2013	14
Figure 2. Total Number of Crashes in Pinellas County and Florida, 2011-2013	14
Figure 3. Total Number of Injuries in Pinellas County and Florida, 2011-2013	14
Figure 4. Total Number of Fatalities in Pinellas County and Florida, 2011-2013	17
Figure 5. Population-Based Fatality Rate for Pinellas County and Florida, 2011-2013	18
Figure 6. Fatalities by Month for Pinellas County, 2013	18
Figure 7. Fatalities by Day of the Week for Pinellas County, 2013	19
Figure 8. Percent of Bicycle Crashes by Jurisdiction, 2013	21
Figure 9. Pedestrian Crashes, Injuries and Fatalities in Pinellas County, 2011-2013	22
Figure 10. Percent of Pedestrian Crashes by Jurisdiction, 2013	22
Figure 11. Percent of Teen Driver Impact Type, 2013	28
Figure 12. Percent of Aging Road User Crash Contributing Cause, 2013	30
Figure 13. Aging Road User Month Summary, 2013	31
Figure 14. Aging Road User Day of the Week Summary, 2013	32
Figure 15. Percent of Distracted Driver Crash Impact Type, 2013	34
Figure 16. Type of Distraction Summary, 2011-2013	35
Figure 17. Aggressive Driver Month Summary, 2013	38
Figure 18. Aggressive Driver Day of the Week Summary, 2013	38
Figure 19. Lane Departure Month Summary, 2013	41
Figure 20. Lane Departure Day of the Week Summary, 2013	41
Figure 21. Impaired Driver Month Summary, 2013	44
Figure 22. Impaired Driver Day of the Week Summary, 2013	44
Figure 23. Speeding Month Summary, 2013	47
Figure 24. Speeding Day of Week Summary, 2013	47
Figure 25. Crashes, Injuries, and Fatalities along Gulf Blvd. by Year, 2011-2013	59
Figure 26. Crashes, Injuries, and Fatalities along Gulf Blvd. by Month, 2011-2013	59
Figure 27. Crashes, Injuries, and Fatalities along Gulf Blvd. by Day of Week, 2011-2013	59
Figure 28. Crashes, Injuries, and Fatalities along Gulf Blvd. by Time of Day, 2011-2013	60

LIST OF MAPS

Map 1. Fatality, Injury, and Crash Locations, 2013	15
Map 2. Fatal Crash Locations, 2013	20
Map 3. Bicycle Fatality, Injury, and Crash Locations, 2013	23
Map 4. Pedestrian Fatality, Injury, and Crash Locations, 2013	24
Map 5. Motorcyclist Fatality, Injury, and Crash Locations, 2013	26
Map 6. Teen Driver Fatality, Injury, and Crash Locations, 2013	29
Map 7. Aging Road User Fatality, Injury, and Crash Locations, 2013	33
Map 8. Distracted Driver Fatality, Injury, and Crash Locations, 2013	36
Map 9. Aggressive Driving Fatality, Injury, and Crash Locations, 2013	39
Map 10. Lane Departure Fatality, Injury, and Crash Locations, 2013	42
Map 11. Impaired Driving Fatality, Injury, and Crash Locations, 2013	45
Map 12. Speeding Fatality, Injury, and Crash Locations, 2013	48
Map 13. Crashes, Injuries, and Fatalities along Gulf Blvd., 2011-2013	61

LIST OF TABLES

Table 1. Pinellas County Basic Fatality Data, 2011-2013.....	17
Table 2. Florida Basic Fatality Data, 2011-2013	17
Table 3. Pinellas County Motorcycle Crash Data, 2011-2013.....	25
Table 4. Florida Motorcycle Crash Data, 2011-2013.....	25
Table 5. Pinellas County Teen Driver Crash Data, 2011-2013	27
Table 6. Florida Teen Driver Crash Data, 2011-2013.....	28
Table 7. Pinellas County Aging Road User Crash Data, 2011-2013.....	30
Table 8. Distracted Driver Crash Data, 2013.....	34
Table 9. Aggressive Driving Crash Data.....	37
Table 10. Lane Departure Crash Data.....	41
Table 11. Impaired Driver Crash Data.....	43
Table 12. Speeding Crash Data.....	46
Table 13. Crash Location on Roadway, 2013	49
Table 14. Crash Location Relation to Junction Summary, 2013	50
Table 15. Top 40 Intersections, Crashes 2011-2013	52
Table 16. Top 40 Intersections, Fatalities 2011-2013	53
Table 17. Top 40 Intersections, Bicycle Crashes 2011-2013	54
Table 18. Top 40 Intersections, Pedestrian Crashes 2011-2013	55
Table 19. Top 40 Intersections, Motorcycle Crashes 2011-2013.....	56
Table 20. Hot Spot Intersections for Vulnerable Users 2011-2013	57

DEFINITIONS

Aggressive Driver - A crash involving a driver who; failed to yield right-of-way, failed to keep in the proper lane, followed too closely, ran a red light, ran a stop sign, passed improperly, exceeded the posted speed limit, disregarded other road markings, operated a motor vehicle in an erratic or reckless manner, or who disregarded other traffic signage.

Angle (manner of impact) - A crash where two vehicles impact at an angle. For example, the left front of one vehicle impacts the side of another vehicle.

Bicycle - Every vehicle propelled solely by human power, and every motorized bicycle propelled by a combination of human power and an electric helper motor capable of propelling the vehicle at a speed of not more than 20 miles per hour on level ground upon which any person may ride, having two tandem wheels, and including any device generally recognized as a bicycle though equipped with two front or two rear wheels.

Bicyclist - A driver who operates and controls the motion of a bicycle.

Contributing Causes - Actions of the driver leading up to a crash.

Crash Rate - Number of traffic crashes per 100,000 residents.

Crosswalk - (a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway. (b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

Disregard Traffic Control Device - An at fault driver that ignored a Traffic Control Device: Red Light or Stop Sign.

Distraction - Determination that the occupant who is in actual physical control of a vehicle had his/her attention diverted from driving.

Driver - Any person who drives or is in actual physical control of a vehicle on a roadway or who is exercising control of a vehicle or steering a vehicle being towed by a motor vehicle.

Electronic Distraction - Any crash where the driver is determined to have been using a cell phone, navigation system, DVD player or other electronic device while operating a motor vehicle.

Fatality - Any injury that results in death within a 30 day period after the crash occurred.

Impairment or Impaired - Any person who is suspected of drug or alcohol use or is under the influence of medication(s).

Improper Crossing - Crossing a roadway against the rules.

Injury or Injury Crash - A crash in which at least one person was injured and no one was killed.

Lane Departure - Any crash where the driver's vehicle impacted a utility pole, light support, traffic sign/signal support, tree, mailbox, guardrail, fence, ditch, culvert, concrete traffic barrier, cable barrier, bridge rail, bridge pier or support. This definition also includes any vehicle sideswipe or rollover.

Long Form - Crash report prepared by a law enforcement officer when a crash involves injury, death, or criminal offense.

Motor Vehicle - Any self-propelled vehicle not operated upon rails or guideway, but not including any bicycle, motorized scooter, electric personal assistive mobility device, or moped.

Motorcycle - Any motor vehicle having a seat or saddle for the use of the rider, designed to travel on not more than three wheels in contact with the ground, but excluding a tractor or a moped.

Passenger - A person who is an occupant of a vehicle, other than the driver.

Pedestrian - An individual involved in a crash who was not occupying a motor vehicle, bicycle or other mobile conveyance.

Right-of-Way - The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian approaching under such circumstances of direction, speed, and proximity as to give rise to danger of collision unless one grants precedence to the other.

Scooter - Any vehicle not having a seat or saddle for the use of the rider, designed to travel on not more than three wheels, and not capable of propelling the vehicle at a speed greater than 30 miles per hour on level ground.

Short Form - Refers to a simple abbreviated crash report, typically used in minor crashes, mostly collected prior 12/31/2010.

Strategic Highway Safety Plan (SHSP) - A statewide, data-driven plan developed by the Florida Department of Transportation that addresses the "4 E's" of safety – engineering, enforcement, education, and emergency response. The eight emphasis areas for the SHSP are as follows: 1) Aggressive Driving; 2) Intersection Crashes; 3) Vulnerable Road Users (pedestrians, bicyclists, and motorcyclists); 4) Lane Departure Crashes; 5) Impaired Driving; 6) At-Risk Drivers (aging road users and teens); 7) Distracted Driving; and 8) Traffic Data.

Vulnerable Road Users - Pedestrians, bicyclists or motorcyclists.

EXECUTIVE SUMMARY

Pinellas County is a peninsula that is bordered by the Gulf of Mexico to the west and Tampa Bay to the east. Pinellas County is Florida's second smallest county in land mass encompassing 24 municipalities. It is 38 miles long and 15 miles wide at its broadest point with its land area covering approximately 264 square miles. Historically, the majority of Pinellas County's development occurred post-World War II which resulted in suburban-style development with small and somewhat dispersed centers for commercial, industrial, residential uses. These dispersed centers of activity were connected by a network of surface streets that were originally designed for local motor vehicle travel but these streets have been modified over time to accommodate a greater number of motor vehicles while also providing mobility for a growing number of pedestrians and bicyclists. Geographically, Pinellas County is subdivided by several east-west and north-south arterial streets interconnecting it to Hillsborough County to the east, Pasco County to the north, and Manatee County to the south. One major freeway corridor (I-275) serves both interstate and regional travel needs within the county, while providing access to Manatee County to the south via the Sunshine Skyway Bridge, and Hillsborough County to the east via the Howard Frankland Bridge. The US 19 corridor is the primary regional north-south arterial facility providing mobility to and from east-west arterial streets while interconnecting with Pasco County to the north and Manatee County to the south via the Sunshine Skyway Bridge. Due to the presence of Tampa Bay to the east, the Gulf of Mexico to the west, and Lake Tarpon to the north, uniform distribution of local and regional surface street travel by motor vehicle is limited. In addition, the county's transportation network has become more diversified by the increasing presence of sidewalks, bike lanes, and trails that provide an alternative means of travel for commuting or recreational purposes. The combination of these variables when added to the Tampa Bay area climate that encourages outdoor activities makes a strong case for embracing a holistic and coordinated approach to traffic crash management to close current gaps between the need to move large volumes of traffic while also providing a safe environment for motor vehicles, pedestrians, and bicyclists. It is within this context that we analyze the crash data for Pinellas County.

Traffic crashes, injuries, and fatalities have a major impact on the safety and well being of motorists, pedestrians and bicyclists using the transportation system. According to the National Highway Traffic Safety Administration (NHTSA), in 2013 approximately 32,719 people were killed and nearly 2.3 million were injured in crashes across the nation¹. In the state of Florida, over 2,400 people were killed and over 212,000 injured². In Pinellas County, 80 people were killed and over 4,500 were injured. There are a wide range of factors that contribute to crashes and fatalities and these incidences and their causes are

¹ "2013 Motor Vehicle Crashes: Overview," National Highway Traffic Safety Administration, accessed January 21, 2015, <http://www-nrd.nhtsa.dot.gov/Pubs/812101.pdf>

² "2013 Motor Vehicle Crashes: Overview," National Highway Traffic Safety Administration, accessed January 21, 2015, <http://www-nrd.nhtsa.dot.gov/Pubs/812101.pdf>

tracked and analyzed utilizing the CDMS. The CDMS was created in 2008 by the Pinellas County Metropolitan Planning Organization (MPO). Currently, Tindale-Oliver and Associates, Inc. is under contract to provide data maintenance, database management, crash location analysis and other technical support services for the CDMS. The following information summarizes a few key points contained in the 2013 data:

- **Total Deaths.** Traffic crash fatalities have declined for the second year in a row. For 2013, 80 traffic crash fatalities were reported to the CDMS. Overall, there were 34.96% fewer fatalities in 2013 than in 2011. Pinellas County fatalities as a percentage of overall fatalities in the state of Florida have experienced a 40% decline since 2011. [See Figure 1 for trends in total deaths in Pinellas County and Florida.]
- **Total Crashes.** For the third year in a row, the number of traffic crashes has increased. For 2013, 24,622 traffic crashes were reported to the CDMS. Unfortunately, there is little indication of any slowing of this upward trend. Overall, there were 65.30% more total crashes in 2013 than in 2011. Pinellas County crashes as a percentage of overall crashes in the state of Florida have experienced an increase of 18.99% since 2011. [See Figure 2 for trends in total crashes in Pinellas County and Florida.]
- **Total Injuries.** Traffic crash injuries have declined after experiencing a slight increase in 2012. For 2013, 4,502 traffic crash injuries were reported to the CDMS. Overall, there were 16.86% fewer injuries in 2013 than in 2011. Pinellas County injuries as a percentage of overall injuries in the state of Florida have experienced a 28.52% decline since 2011. [See Figure 3 for trends in total injuries in Pinellas County and Florida]
- **Population.** Population in Pinellas County increased by 1.27% since 2011 while fatalities decreased by 34.96%. The combination of an increase in population and a decrease in fatalities resulted in a population-based death rate (deaths per 100,000 residents) that was 30.77% lower in 2013 than in 2011. It is also important to note that Pinellas County only accounted for 3.3% of the state's fatalities in 2013 and that figure has declined by 40% since 2011.
- **Pedestrian Crashes.** Of the total crashes in 2013, 2.35% involved pedestrians (a decrease from 2012's total of 2.96%). There were 578 crashes involving pedestrians in 2013 and 15.7% occurred at the Top 40 intersections which is a decline from the prior year's statistics. 12% of the pedestrian crashes involved some form of impairment (e.g. drugs, alcohol, and/or medication) and 10% of those occurred at the Top 40 intersections. 23% of pedestrian crashes were angle crashes, which is an increase over the 2012 data.
- **Bicycle Crashes.** Of the total crashes in 2013, 2.2% involved bicyclists, which is a decrease over 2012's data. There were 546 crashes involving bicyclists in 2013, 18.3% occurred at the Top 40 intersections, which is an increase since 2012. 3.5% of bicycle crashes were due to some form of impairment (e.g. drugs, alcohol, and/or

medication). 57.5% of bicycle crashes were angle crashes. 30.8% of bicycle crashes involved aggressive driving. 10% of bicycle crashes involved lane departures and 20.3% occurred at intersections.

- **Motorcycle Crashes.** Of the total crashes in 2013, 2.5% involved motorcyclists. There were 619 motorcycle crashes and 17% of those occurred at the Top 40 intersections. 9.2% of motorcycle crashes were due to some form of impairment (e.g. drugs, alcohol, and/or medication). 27% of motorcycle crashes were angle crashes. 30.9% of motorcycle crashes involved aggressive driving. 18.6% of motorcycle crashes involved lane departures and 17% of these crash types occurred at intersections.
- **Distracted Driving.** In 2013, there were 3 distracted driving fatalities, which is a decrease over the 2012 and 2011 numbers. The number of fatalities in 2013 (3) represents a 50% decrease, compared to the 2012 number (6). In 2011, 4.8% of all fatalities in Pinellas County involved distracted drivers, increasing to 5.6% in 2012, and decreasing to 3.7% in 2013. Driver inattention (691) accounted for more crashes than electronic communications-cell phone, etc. (142), other electronic device-navigation device, DVD player, etc. (63), and texting (13) combined.
- **Teen Driving (ages 15-19).** In 2013, there were 4 such fatalities, which is an increase over the 2012 number of teen driver fatalities, but a decrease over the 2011 number of teen driver fatalities. The number of fatalities in 2013 (4) represents a 300% increase, compared to the 2012 number (1). However, a rate of decline is shown when comparing 2011 to 2013 teen driver fatalities (a 33.33% decrease).
- **Aging Road Users (ages 65 and above).** Overall, aging road user-involved crashes accounted for 15.35% of total crashes in Pinellas County, decreasing from 19.83% in 2011 and 18.83% in 2012. An analysis of the aging road user involved "driver contributing cause" data reveals that a vast majority (39.72%) of these types of crashes were due to the driver operating the motor vehicle in a careless or negligent manner
- **Aggressive Drivers.** The data shows that annual aggressive driving-related crashes in the County increased from 3,762 in 2011 to 5,444 in 2013. On the other hand, total injuries have declined during the time period by 11.39% to 926 injuries in 2013. Also, aggressive driving-related fatalities decreased for the second year in a row. The 2013 number of aggressive driving-related fatalities (14) has declined by 61.76% since 2011.
- When the driver was found to be at fault, the following were the most frequent contributing causes; careless driving, failed to yield right-of-way, improper backing, and other contributing actions.

The trends described in this Executive Summary for fatalities, crashes and injuries are displayed in the figures that follow. A map is also provided that identifies the locations of all fatalities, crashes and injuries that occurred in the 2013 reporting period.

Figure 1. Total Number of Fatalities in Pinellas County and Florida, 2011-2013

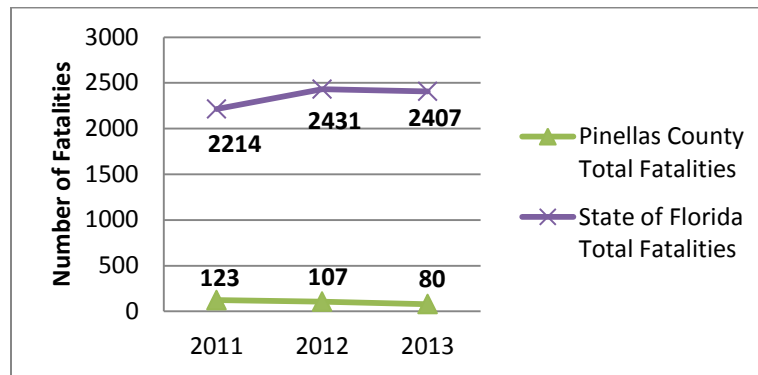


Figure 2. Total Number of Crashes in Pinellas County and Florida, 2011-2013

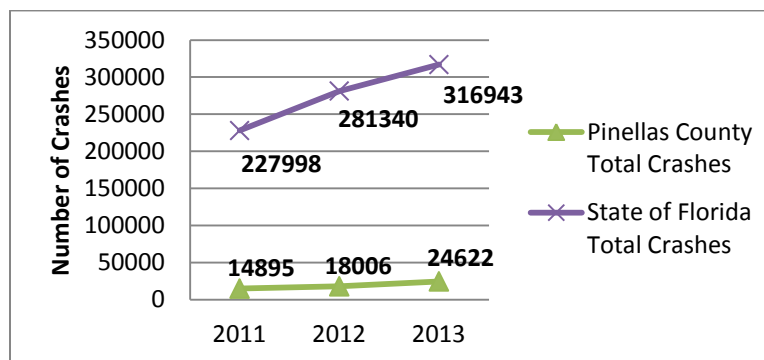
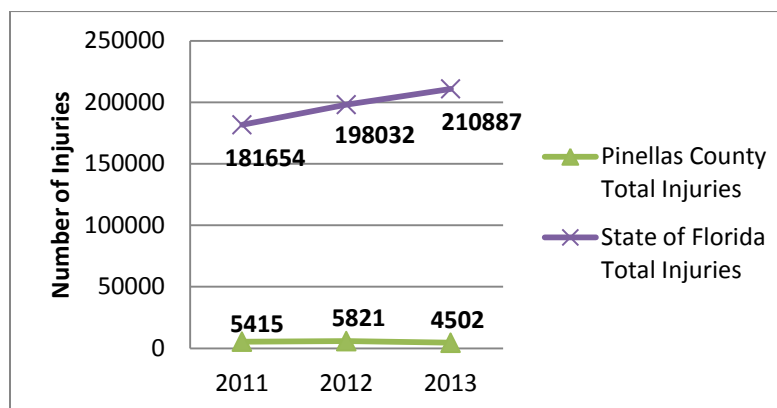
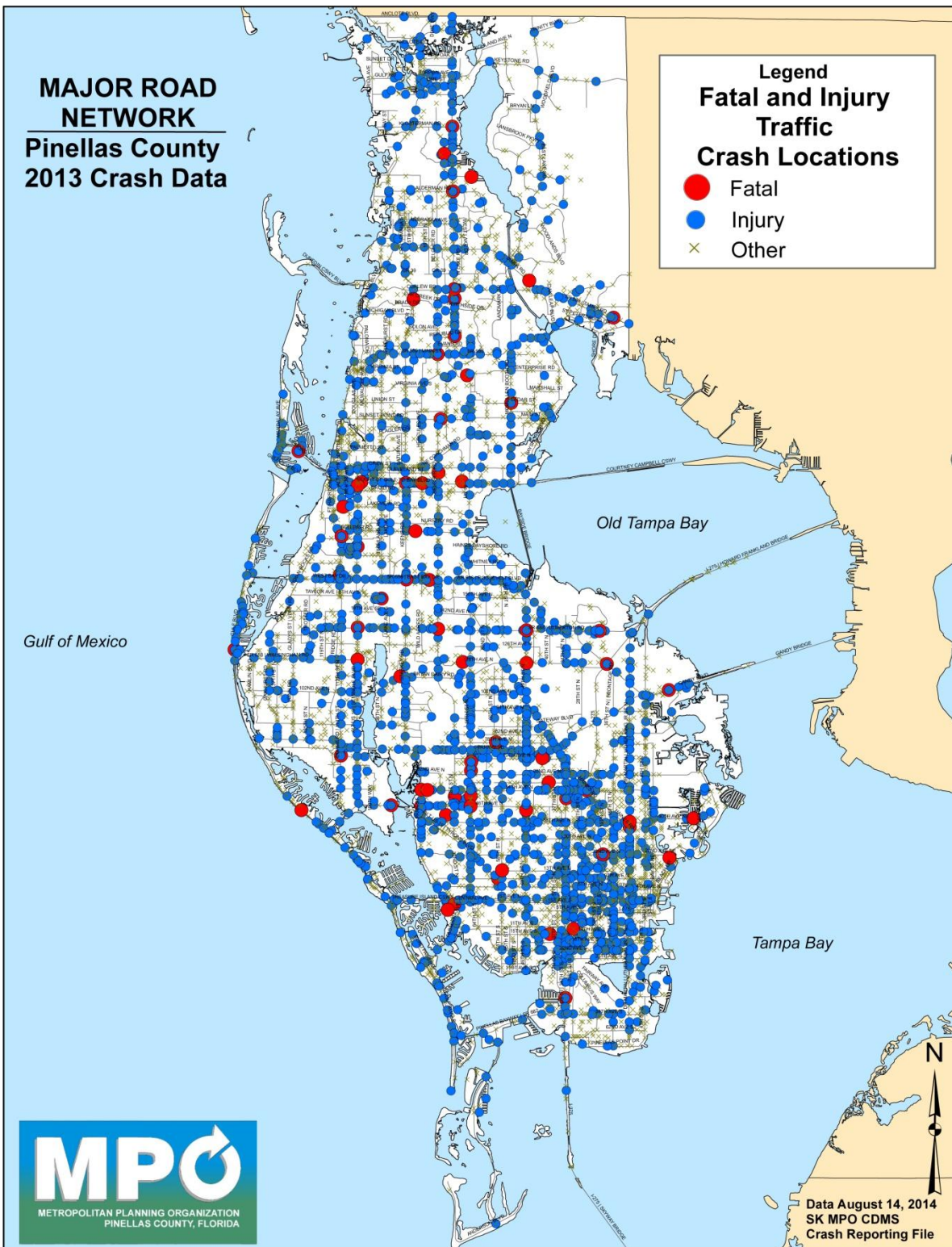


Figure 3. Total Number of Injuries in Pinellas County and Florida, 2011-2013



MAP 1. FATALITY, INJURY AND CRASH LOCATIONS, 2013



BASIC DATA AND TREND ANALYSES

About this Section

This Section contains basic information about the motor vehicle, bicycle and pedestrian crashes that occurred in Pinellas County from 2011 through 2013. It is organized according to the following topics:

- Total Fatalities
- Vulnerable Road User Crashes
- Teen Drivers (ages 15-19)
- Aging Road Users (ages 65 and over)
- Crashes Involving Distracted Drivers
- Aggressive Driving
- Lane Departure Crashes
- Speeding-Related Crashes
- Crashes by Type and Location
- Intersections
- Crashes Along Gulf Boulevard
- Countermeasures for Pedestrian Crashes

Each of these subsections includes a three-year data table for the County, showing the number of annual crashes, along with fatality, crash, and injury rates: per 100,000 population. The table also shows the percentage of total incidents in the County accounted for by each category and the County's percentage of all such incidents in Florida, if the data is available.

Total Fatalities

Table 1 contains basic data on Pinellas County fatalities from 2011 through 2013. It shows that annual traffic fatalities in the County decreased from 123 in 2011 to 80 in 2013. This represents a 34.96% decline in deaths since 2011. During this period, population showed a small increase (1.27%) and as a result of the combination of these changes, the population-based fatality rate (expressed as the number of deaths per 100,000 population) declined by 35.79%.

TABLE 1. PINELLAS COUNTY BASIC FATALITY DATA, 2011-2013

	2011	2012	2013	2011-2013 % Change
Total Fatalities	123	107	80	-34.96%
Population	917,434	921,319	929,048	1.27%
Population Rate*	13.41	11.62	8.61	-35.79%
Percent of State Fatalities	5.5%	4.4%	3.3%	-40.00%
Percent of State Population	4.81%	4.77%	4.75%	-1.25%

*Fatality Rate per 100,000 population

The data in Table 1 also shows that, in 2013 Pinellas County accounted for 4.75% of the population in Florida; and 3.3% of Florida's fatalities. Pinellas County's percentage of the state's population did not change appreciably during this three-year period (-1.25%), but the County's percent of the state's fatalities declined by 40%. A comparison of 2013 Pinellas County data with the state of Florida data (Table 2) indicates that Pinellas County's average population-based fatality rate (8.61 per 100,000 residents) was significantly lower than the Florida rate (12.34).

TABLE 2. FLORIDA BASIC FATALITY DATA, 2011-2013

	2011	2012	2013	2011-2013 % Change
Total Fatalities	2,214	2,431	2,407	8.72%
Population	19,057,542	19,317,568	19,552,860	2.60%
Population Rate*	11.65	12.60	12.34	5.92%

*Fatality Rate per 100,000 population

Figure 4 shows total deaths for Pinellas County and Florida for each year during the report period.

Figure 4. Total Number of Fatalities in Pinellas County and Florida, 2011-2013

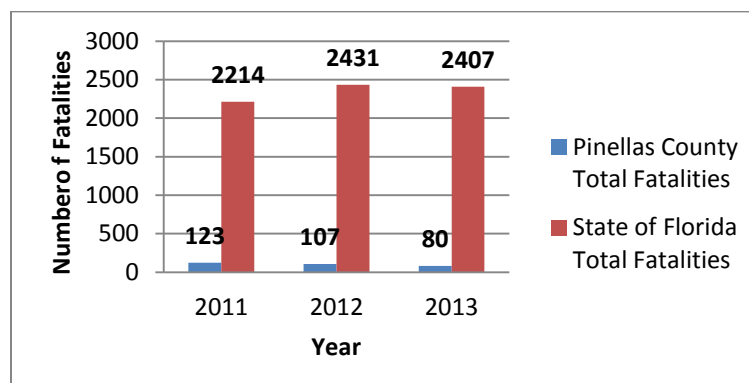
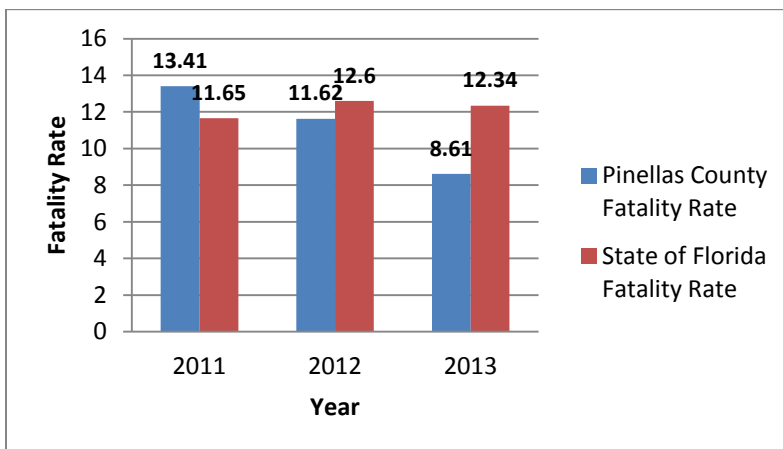


Figure 5 shows population-based fatality rate (fatalities per 100,000 residents) for Pinellas County and Florida for each year during the report period.

Figure 5. Population-Based Fatality Rate for Pinellas County and Florida, 2011-2013



In 2013, more than 23% of all fatal traffic crashes in Pinellas County occurred equally in January and July, followed by 20.5% equally in March and September. The majority of the fatal crashes in 2013 were between June and September, and 13 of the 18 fatal crashes that occurred on Fridays took place at or around 9:00 p.m. Fridays accounted for 23% of fatalities while Saturdays averaged 17%. Monday, Tuesday, and Wednesday each averaged about 15% of fatal traffic crashes. While only 18% of all 2013 traffic crashes happened at night, 60% of those crashes involved a fatality.

Figure 6. Fatalities by Month for Pinellas County, 2013

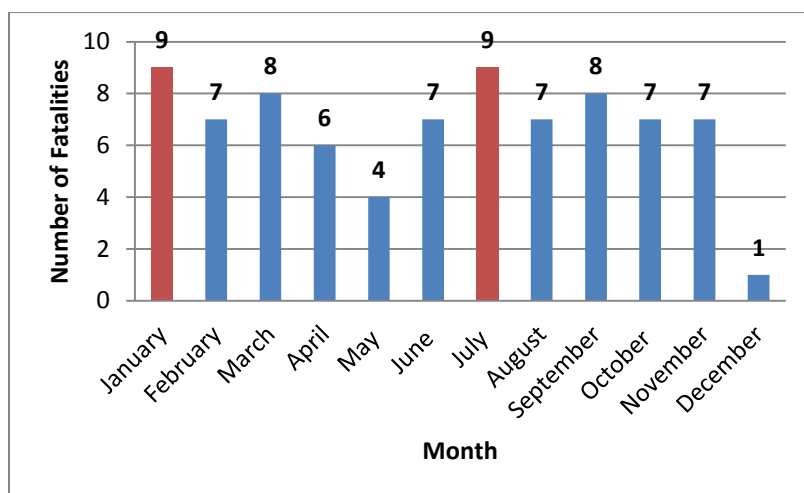
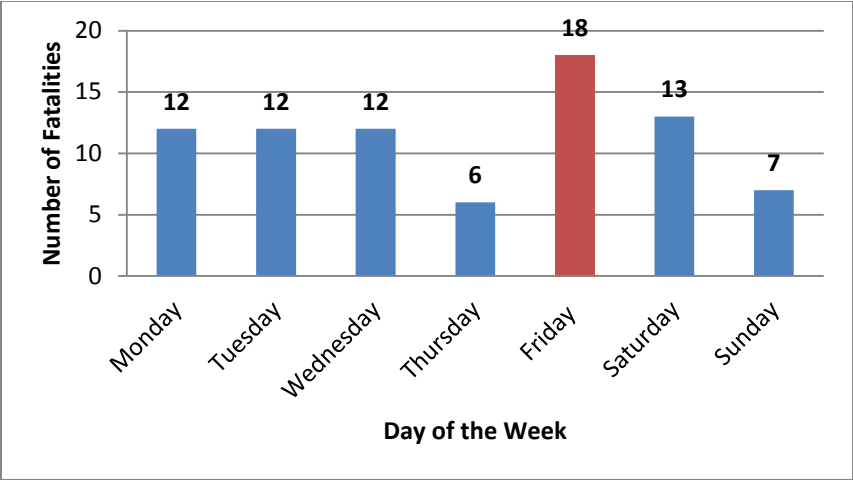
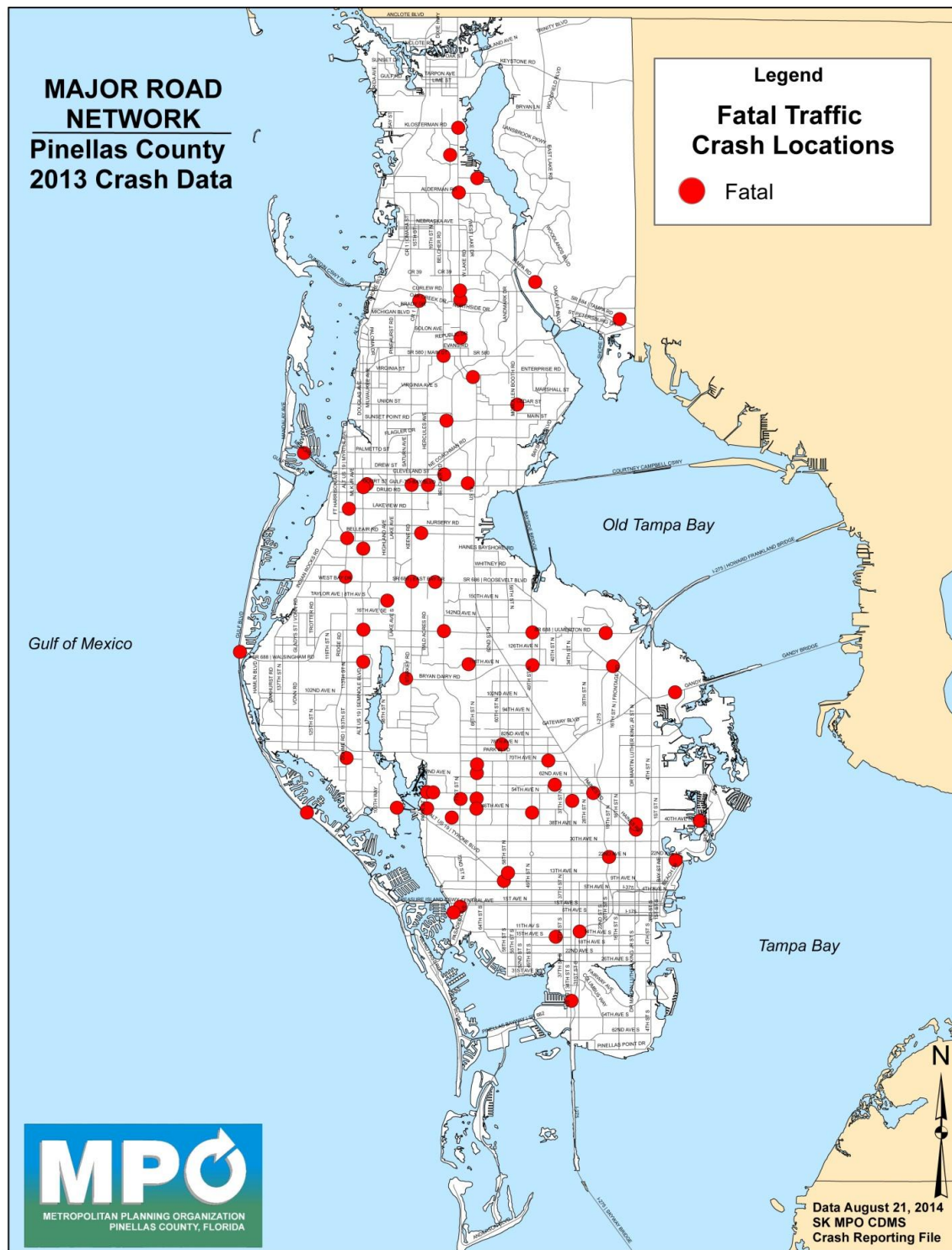


Figure 7. Fatalities by Day of the Week for Pinellas County, 2013



MAP 2. FATAL CRASH LOCATIONS, 2013



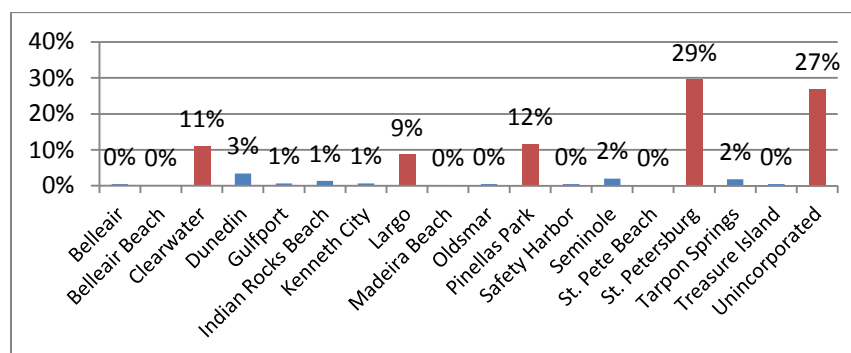
Vulnerable Road User Crashes

Vulnerable Road User crashes are defined as crashes involving bicyclists, pedestrians, and motorcyclists. The Florida Department of Transportation's (FDOT) Strategic Highway Safety Plan (SHSP) requires greater focus on these crash types by providing local and state agencies with the data, skills, and tools to identify effective safety countermeasures in the "4 E's" (engineering, education, enforcement, and emergency response); making strategic safety investments and focusing resources where opportunities for safety improvements are greatest for vulnerable road users; and establishing mobility strategies consistent with safety for these users. The challenges presented by vulnerable road users may be similar, but the solutions are often unique to a specific user type. In the following sections bicyclists and pedestrians will be discussed together and motorcyclists will be discussed separately.

Between 2011 and 2013, there were 1,607 bicycle crashes on Pinellas County roads and highways. Bicycle fatalities and injuries have declined from 355 in 2011 to 306 in 2013. The majority (77%) of bicycle crashes occurred on the roadway; in 36% of bicycle crashes there was no contributing action made by the driver while 28% of bicycle crashes were due to the driver failing to yield the right-of-way. The five jurisdictions within Pinellas County with the highest number of bicycle crashes during 2013 were: Clearwater, Largo, Pinellas Park, St. Petersburg, and unincorporated County. These areas represented 88 percent of bicycle crashes in 2013 (Figure 8) while also containing over 81 percent of the total population.

Between 2011 and 2013, there were 1,544 pedestrian crashes in Pinellas County and 1,159 injuries. Pedestrian fatalities and injuries declined from 491 in 2012 to 410 in 2013 as shown in Figure 9. Most of the fatal and injury pedestrian crashes occurred in the winter months with a peak during January and February. In 2013, a majority (55%) of the pedestrian fatalities and injuries occurred when pedestrians did not cross roadways at an intersection. The five jurisdictions within Pinellas County with the highest number of pedestrian crashes during 2013 were: Clearwater, Largo, Pinellas Park, St. Petersburg, and unincorporated County. These areas represented 88 percent of pedestrian crashes in 2013 (Figure 10) while also containing over 81 percent of the total population.

Figure 8. Percent of Bicycle Crashes by Jurisdiction, 2013



*Jurisdictions showing 0% of crashes had bicycle crash percentages between .1% and .49% which were rounded down by the spreadsheet.

Figure 9. Pedestrian Crashes, Injuries and Fatalities in Pinellas County, 2011-2013

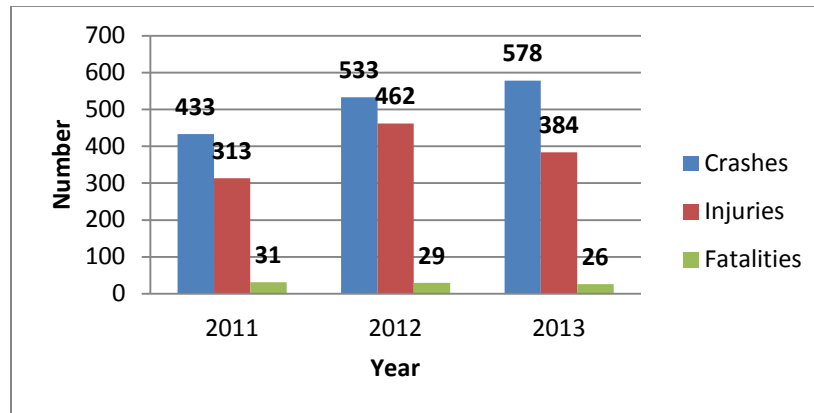
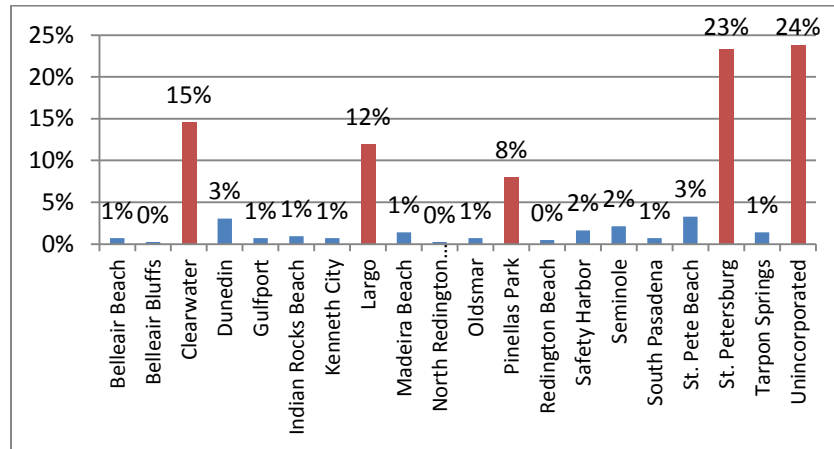
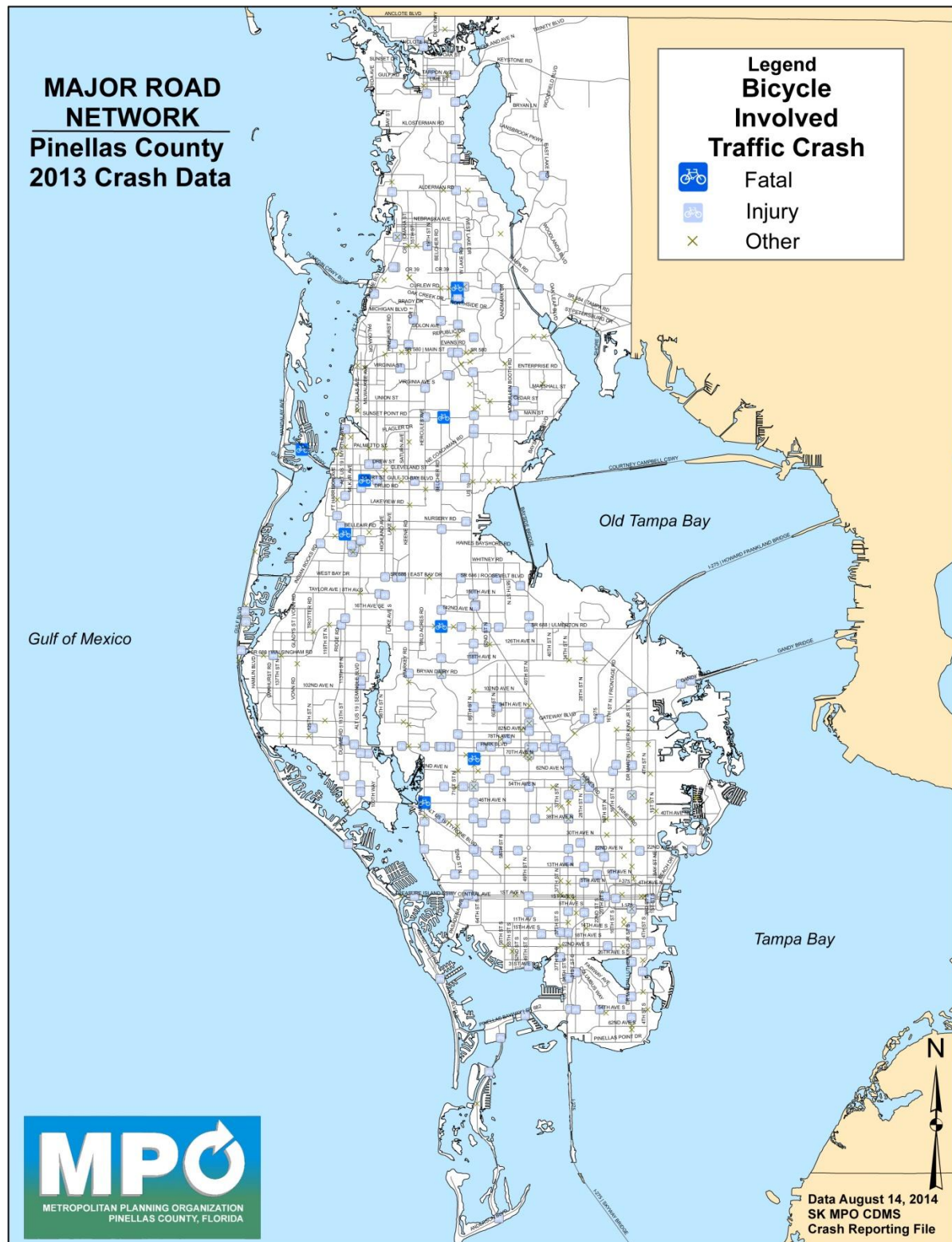


Figure 10. Percent of Pedestrian Crashes by Jurisdiction, 2013



*Jurisdictions showing 0% of crashes had pedestrian crash percentages between .1% and .49% which were rounded down by the spreadsheet.

MAP 3. BICYCLE FATALITY, INJURY AND CRASH LOCATIONS, 2013



MAP 4. PEDESTRIAN FATALITY, INJURY AND CRASH LOCATIONS, 2013

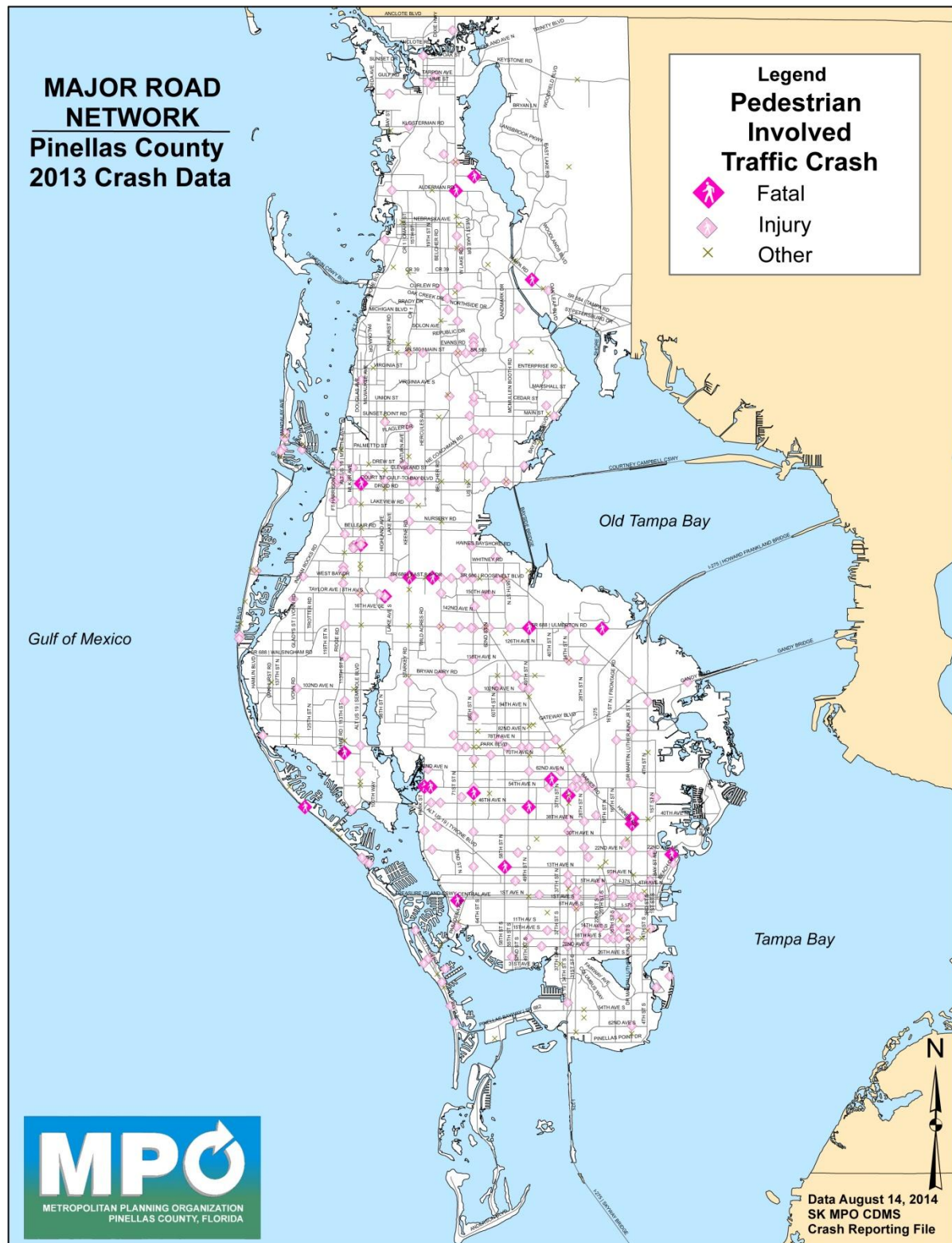


Table 3 shows that the number of motorcyclist deaths in Pinellas County has declined from a high of 28 in 2011 to a low of 16 in 2013. The 2013 level (16 fatalities) was 42.86% lower than the 2011 level.

On the other hand, the population-based crash rate is at its highest level (66.63 per 100,000 residents) of the reporting period. Compared with the prior two years, the 2013 motorcycle crash rate represents a 12.93% increase (Table 3). The average motorcycle crash rate in Florida (2013) was 49.65 per 100,000 residents, which is the highest rate for this three-year period (Table 4).

As a percentage of total motorcycle crashes in Florida, Pinellas County accounted for about 6.28% in 2011, and the percentage has remained relatively constant in 2013 to 6.39%. The percentage of Pinellas County crashes declined in 2012 to its lowest (5.30%) before increasing in 2013. The change in motorcycle crashes in Pinellas County as a percentage of motorcycle crashes in Florida has slightly increased by 1.75% from 2011 to 2013.

TABLE 3. PINELLAS COUNTY MOTORCYCLE CRASH DATA, 2011-2013

	2011	2012	2013	2011-2013 % Change
Total Crashes	541	497	619	14.42%
Total Injuries	438	410	447	2.05%
Total Fatalities	28	20	16	-42.86%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	59.00	53.96	66.63	12.93%
Percent of State Crashes	6.28%	5.30%	6.39%	1.75%
Percent of State Population	4.81%	4.77%	4.75%	-1.25%

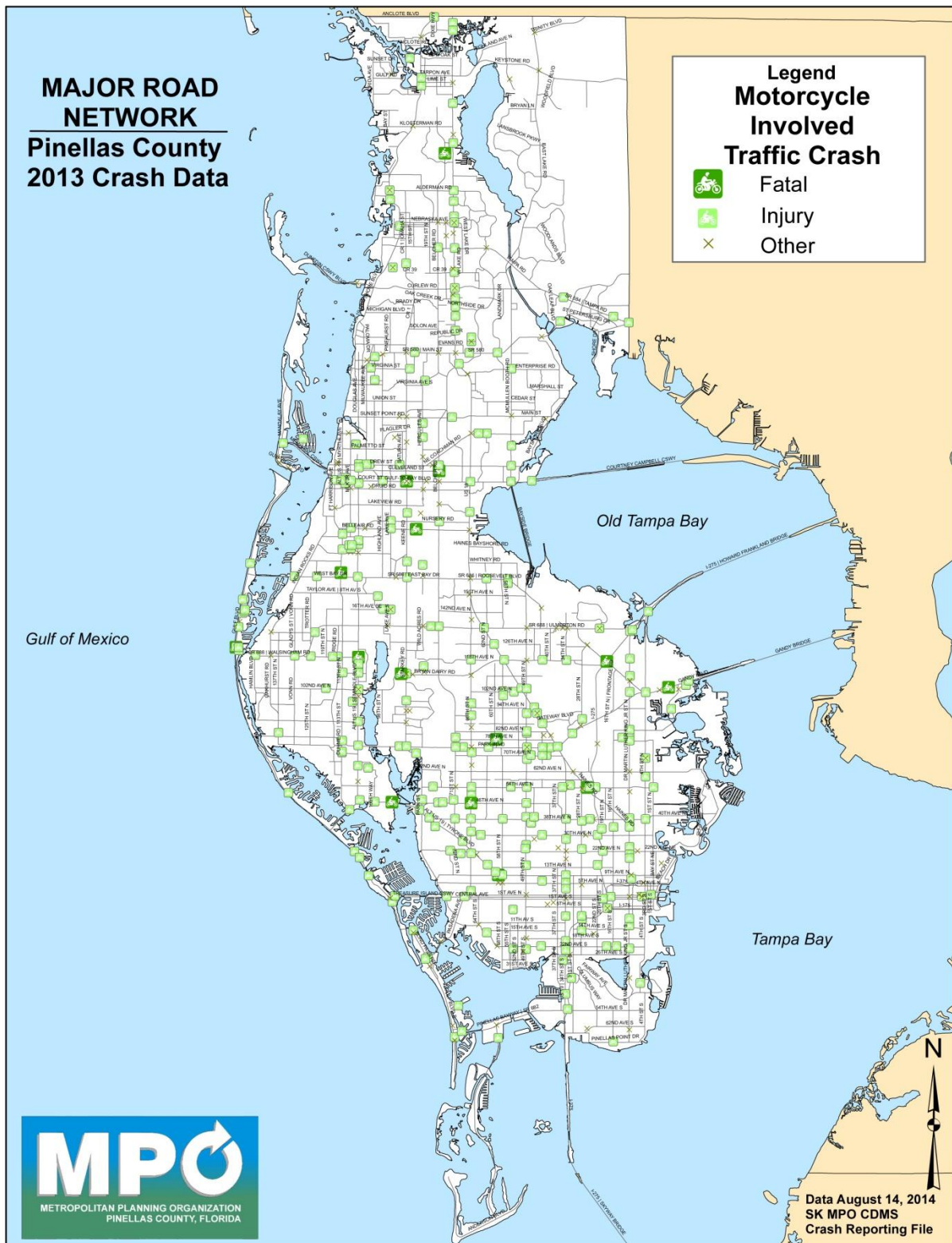
*Crash Rate per 100,000 population

TABLE 4. FLORIDA MOTORCYCLE CRASH DATA, 2011-2013

	2011	2012	2013	2011-2013 % Change
Total Crashes	8,621	9,384	9,682	12.31%
Population	19,057,542	19,317,568	19,552,860	2.60%
Population Crash Rate*	45.37	48.62	49.65	13.56%

*Crash Rate per 100,000 population

MAP 5. MOTORCYCLIST FATALITY, INJURY AND CRASH LOCATIONS, 2013



Teen Drivers (15-19)

Table 5 indicates the number of crashes, injuries, and fatalities from Pinellas County crashes involving a driver between 15 and 19 years of age. In 2013, there were 4 such fatalities, which is an increase over the 2012 number of teen driver fatalities, but a decrease over the 2011 number of teen driver fatalities. The number of fatalities in 2013 (4) represents a 300% increase, compared to the 2012 number (1). However, a rate of decline is shown when comparing 2011 to 2013 teen driver fatalities (a 33.33% decrease).

In 2011, 4.8% of all fatalities in Pinellas County involved teen drivers, increasing to 5.0% in 2013. Teen driver-involved fatalities in Pinellas County represented 6.5% of all such deaths across Florida in 2011 and increased 7.0% in 2013.

Overall, these data indicate that teen driver-involved fatalities have decreased in Pinellas County, while also declining across the state from 91 fatalities in 2011 to 57 fatalities in 2013.

The population-based crash rate for teen drivers increased from 176.23 crashes per 100,000 residents in 2011 to 280.41 in 2013, a 59.12% increase. Over the entire three-year period, the average population-based crash rate for teen drivers in Pinellas County was 217.61 crashes per 100,000 residents which is a higher rate than across Florida (170.53).

Finally, an analysis of the teen driver-involved impact type reveals that a vast majority of these types of crashes involve a “front-to-rear” collision which may indicate driver distraction as a root cause (Figure 11).

TABLE 5. PINELLAS COUNTY TEEN DRIVER CRASH DATA, 2011-2013

	2011	2012	2013	2011-2013 % Change
Total Crashes	1,616	1,807	2,605	61.20%
Total Injuries	655	415	515	-21.37%
Total Fatalities	6	1	4	-33.33%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	176.23	196.20	280.41	59.12%
Percent of State Crashes	5.74%	5.26%	7.20%	25.44%
Percent of State Population	4.81%	4.77%	4.75%	-1.25%

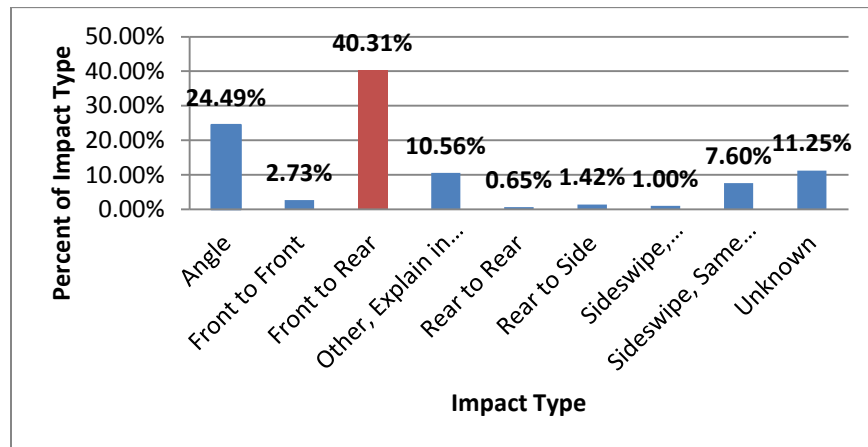
*Crash Rate per 100,000 population

TABLE 6. FLORIDA TEEN DRIVER CRASH DATA, 2011-2013

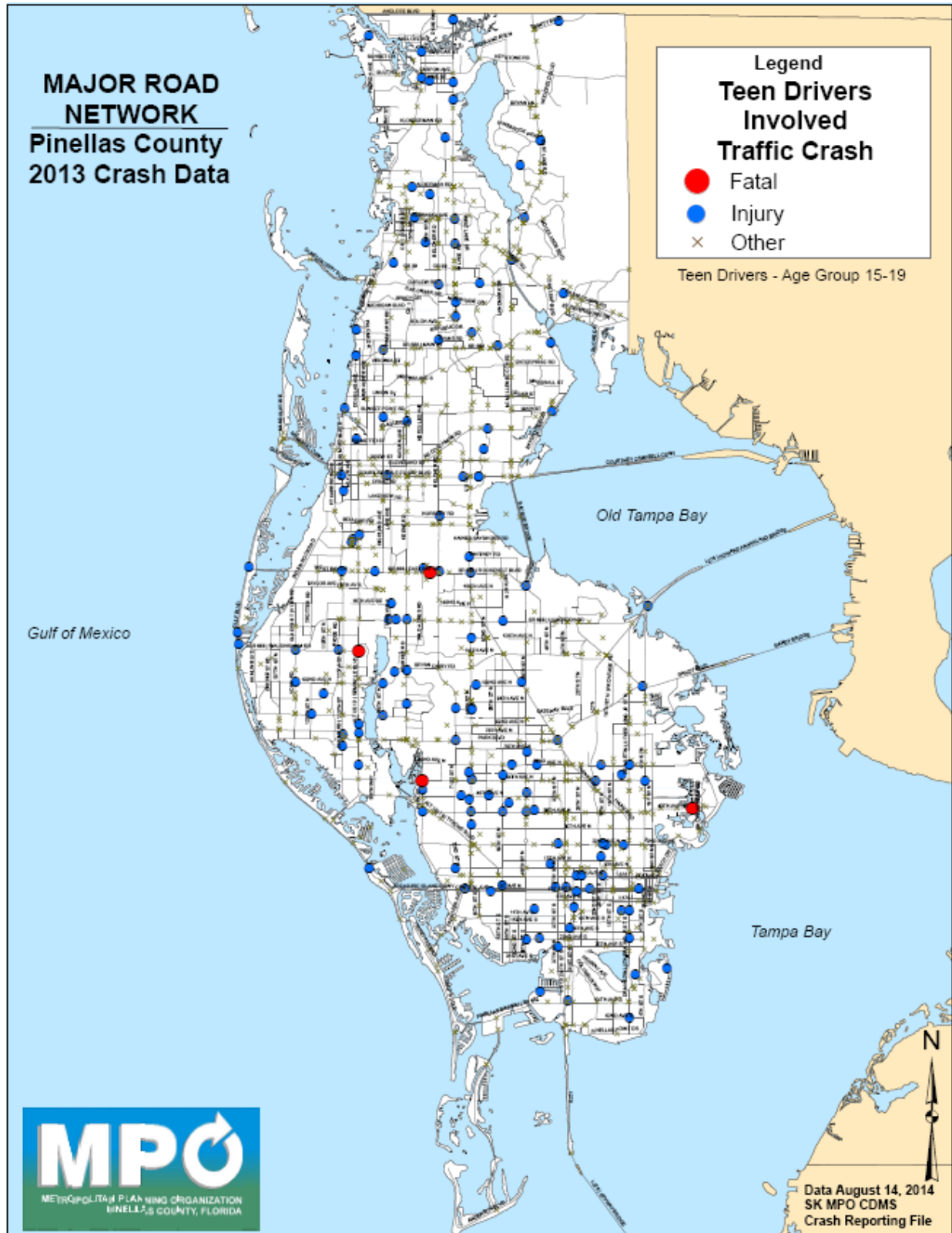
	2011	2012	2013	2011-2013 % Change
Total Crashes	28,176	34,314	36,179	28.40%
Population	19,057,542	19,317,568	19,552,860	2.60%
Population Crash Rate*	148.29	177.79	185.53	25.11%

*Crash Rate per 100,000 population

Figure 11. Percent of Teen Driver Impact Type, 2013



MAP 6. TEEN DRIVER FATALITY, INJURY AND CRASH LOCATIONS, 2013



Aging Road Users (65 and above)

Table 7 shows the numbers and rates of crashes, injuries, and fatalities in traffic crashes involving drivers ages 65 and above in Pinellas County. Data for similar crashes for the state of Florida cannot be used as a comparative baseline because the aging road user data contained in the *Florida Traffic Crash Facts* includes statistics for users age 70 and above. Table 7 shows that there were 16 aging road user fatalities in Pinellas County in 2011, increasing to 20 in 2013. The change in older driver fatalities, as measured from 2011 to 2013 (+25%) was greater than the 1.27% increase in population during the report period.

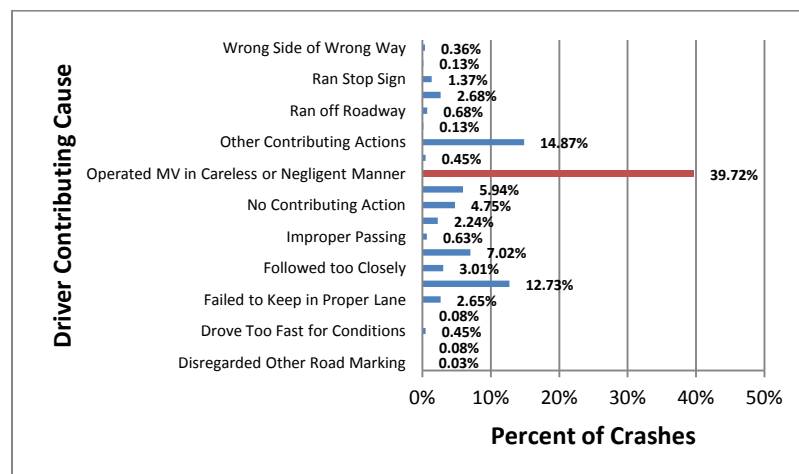
Pinellas County's population-based crash rate increased from 322.14 (crashes per 100,000 population) in 2011 to 407.00 crashes in 2013 (+26.34%). Overall, aging road user-involved crashes accounted for 15.35% of total crashes in Pinellas County, decreasing from 19.83% in 2011 and 18.83% in 2012. Finally, an analysis of the aging road user involved "driver contributing cause" data reveals that a vast majority (39.72%) of these types of crashes were due to the driver operating the motor vehicle in a careless or negligent manner (Figure 12).

TABLE 7. PINELLAS COUNTY AGING ROAD USER CRASH DATA, 2011-2013

	2011	2012	2013	2011-2013 % Change
Total Crashes	2,954	3,391	3,781	28.00%
Total Injuries	1,217	832	1,317	8.22%
Total Fatalities	16	17	20	25.00%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	322.14	368.19	407.00	26.34%
Percent of State Population	4.81%	4.77%	4.75%	-1.25%

*Crash Rate per 100,000 population

Figure 12. Percent of Aging Road User Crash Contributing Cause, 2013



As Figure 13 shows, for Pinellas County, the months with the highest number of fatal crashes involving drivers ages 65 and above were February (4 fatalities, 20.0% of the total) and March (5 fatalities, 25.0% of the total). For crashes involving drivers ages 65 and above, the months of March (716 crashes, 9.12% of the total), October (741 crashes, 9.44% of the total), November (701 crashes, 8.93% of the total), and December (707 crashes, 9.01% of the total) had the highest totals. Injury crashes involving drivers age 65 and above saw October (135 injury crashes, 10.25% of the total), January (126 injury crashes, 9.57% of the total), February (120 injury crashes, 9.11% of the total), and March (129 injury crashes, 9.79% of the total) with the highest number of incidents.

Figure 14 contains a breakdown of total crashes, injuries, and fatalities by the day of the week for aging road users. The day of the week with the highest number of fatal crashes involving drivers ages 65 and above in Pinellas County was Saturday (6 fatalities, 30.0% of total). Monday, Tuesday, and Wednesday each experienced 3 crashes each which equals 15.0% of the total fatal crashes. Total crashes were mostly distributed between Tuesday, Wednesday, and Thursday which accounted for over 45% of the total number. Injury crashes also were mostly distributed between Tuesday, Wednesday, and Thursday which accounted for over 45% of the total number.

The 3-hour window in which the most fatal crashes involving drivers ages 65 and older was 12 p.m. to 3 p.m. (5 crashes, 25% of the total). A much smaller proportion of crashes, injuries, and fatalities involving drivers ages 65 and older occurred earlier than 6 a.m. or later than 9 p.m.

Figure 13. Aging Road User Month Summary, 2013

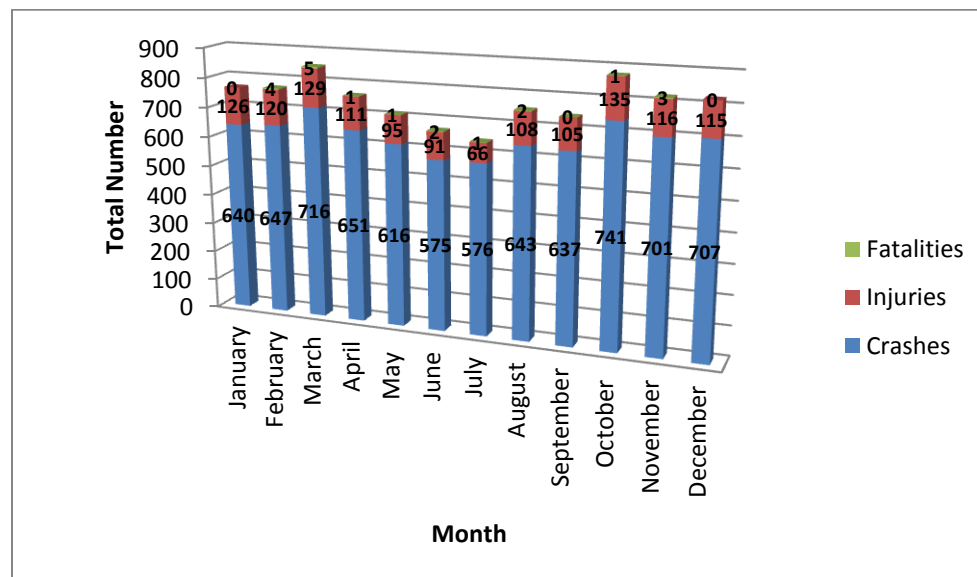
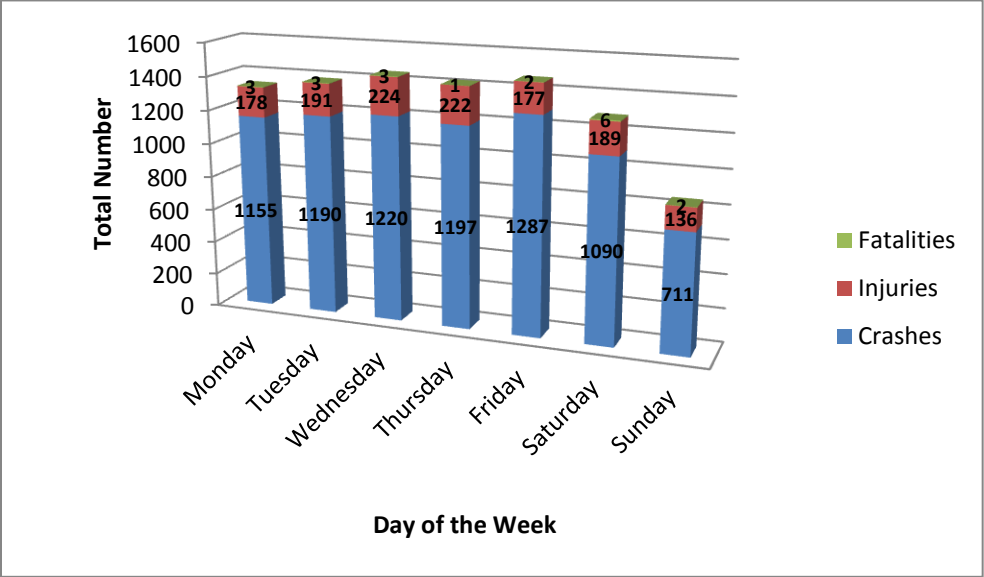
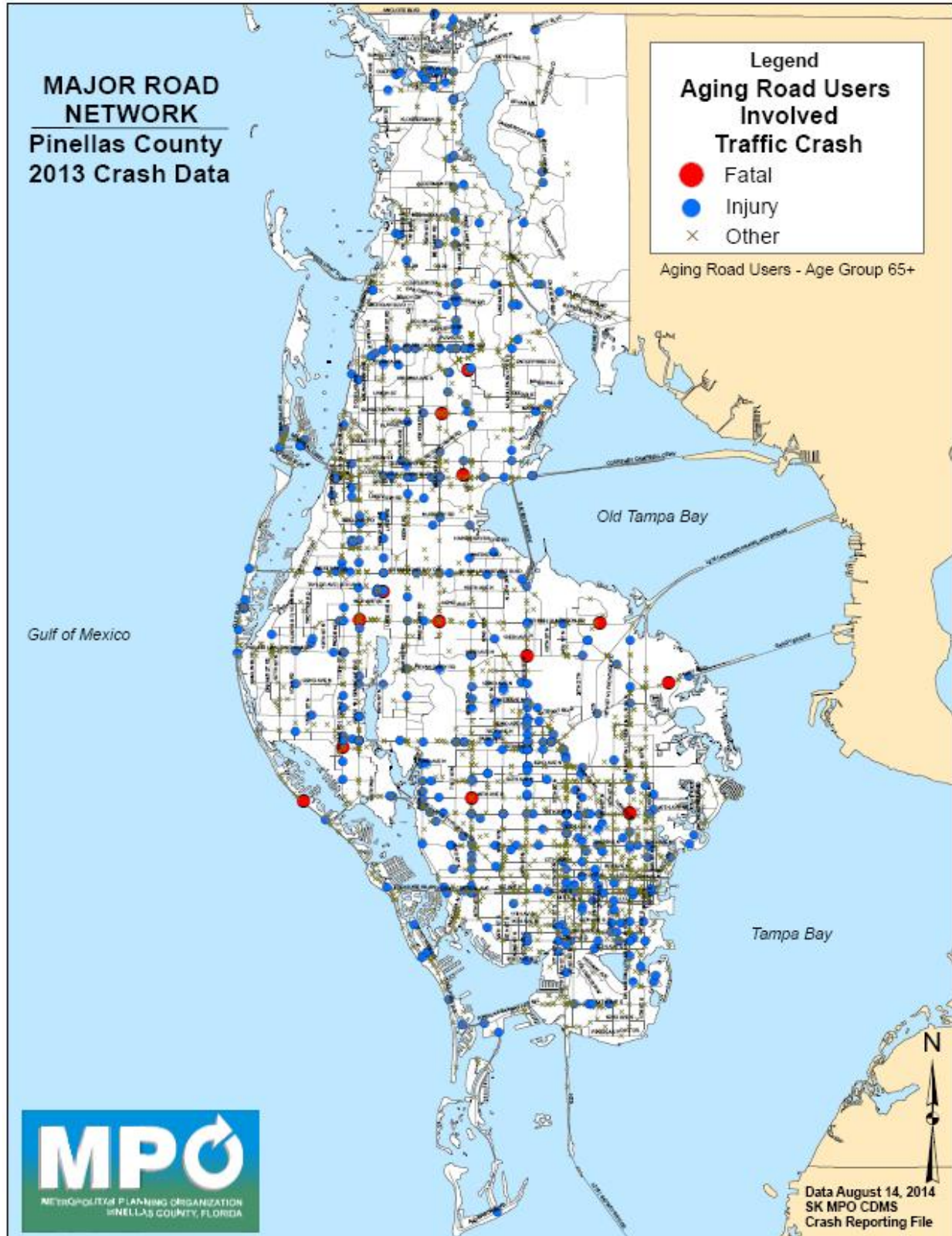


Figure 14. Aging Road User Day of the Week Summary, 2013



MAP 7. AGING ROAD USER FATALITY, INJURY AND CRASH LOCATIONS, 2013



Distracted Driving

As of 2011, the Florida Traffic Crash Form added data fields to identify distracted driving as a contributing factor in a crash. Furthermore, NHTSA has identified 'distracted driving' as a prominent challenge for local and national safety strategists. Distracted drivers are being tracked under the drivers contributing cause, which includes operating a motor vehicle in a careless or neglected manner, failing to yield right of way, speeding, or disregarding a traffic light or sign. This list of causes can be analyzed to ultimately identify solutions for reducing traffic crashes due to driver distraction. For example, in 2013 approximately 19.37% of total traffic crashes were caused by driver distraction.

Table 8 includes the number of crashes, injuries, and fatalities from Pinellas County crashes involving a distracted driver. In 2013, there were 3 such fatalities, which is a decrease over the 2012 and 2011 numbers. The number of fatalities in 2013 (3) represents a 50% decrease, compared to the 2012 number (6). In 2011, 4.8% of all fatalities in Pinellas County involved distracted drivers, increasing to 5.6% in 2012, and decreasing to 3.7% in 2013.

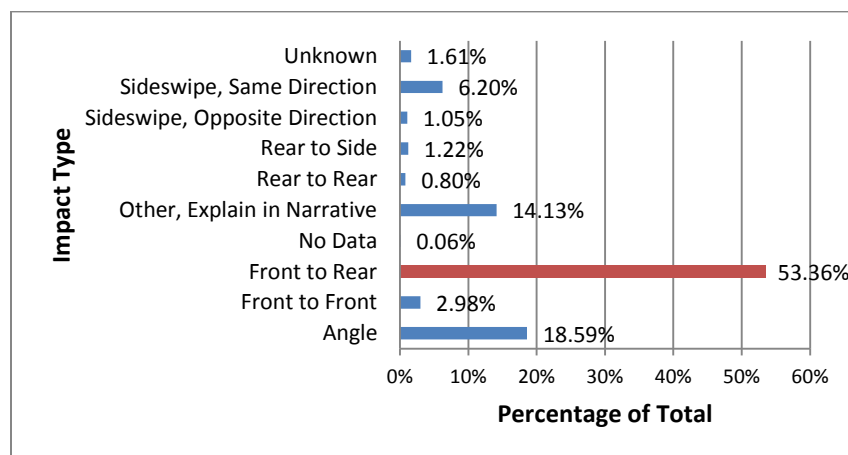
The population-based crash rate increased from 126.50 crashes per 100,000 residents in 2011 to 221.10 in 2013, a 74.78% increase. Finally, an analysis of the distracted driver-involved impact type reveals that a majority (53.36%) of these types of crashes involve a "front-to-rear" collision which may indicate driver distraction as the root cause (Figure 15).

TABLE 8. DISTRACTED DRIVER CRASH DATA, 2013

	2011	2012	2013	2011-2013 % Change
Total Crashes	1,160	1,557	2,054	77.07%
Total Injuries	547	338	457	-16.45%
Total Fatalities	6	6	3	-50.00%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	126.50	169.06	221.10	74.78%

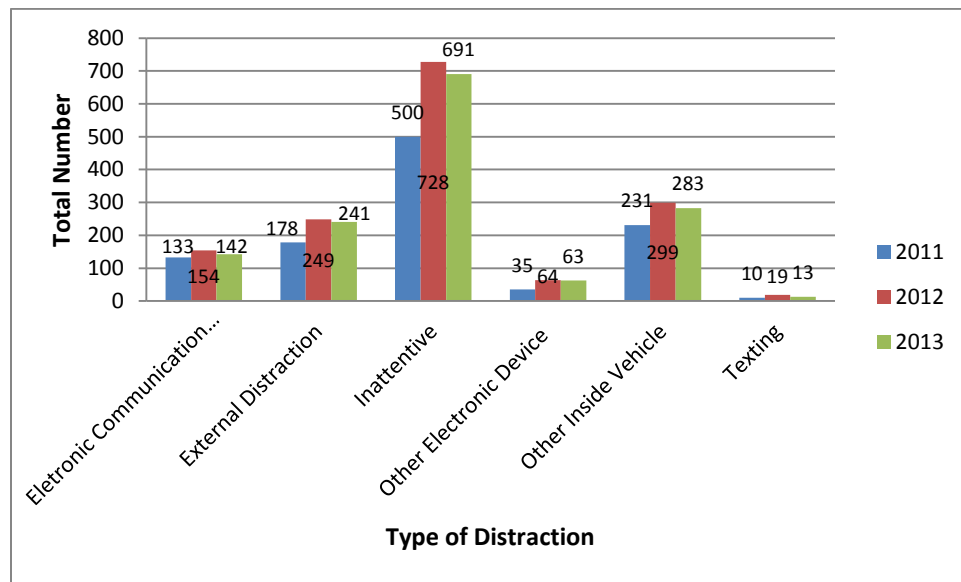
*Crash Rate per 100,000 population

Figure 15. Percent of Distracted Driver Crash Impact Type, 2013

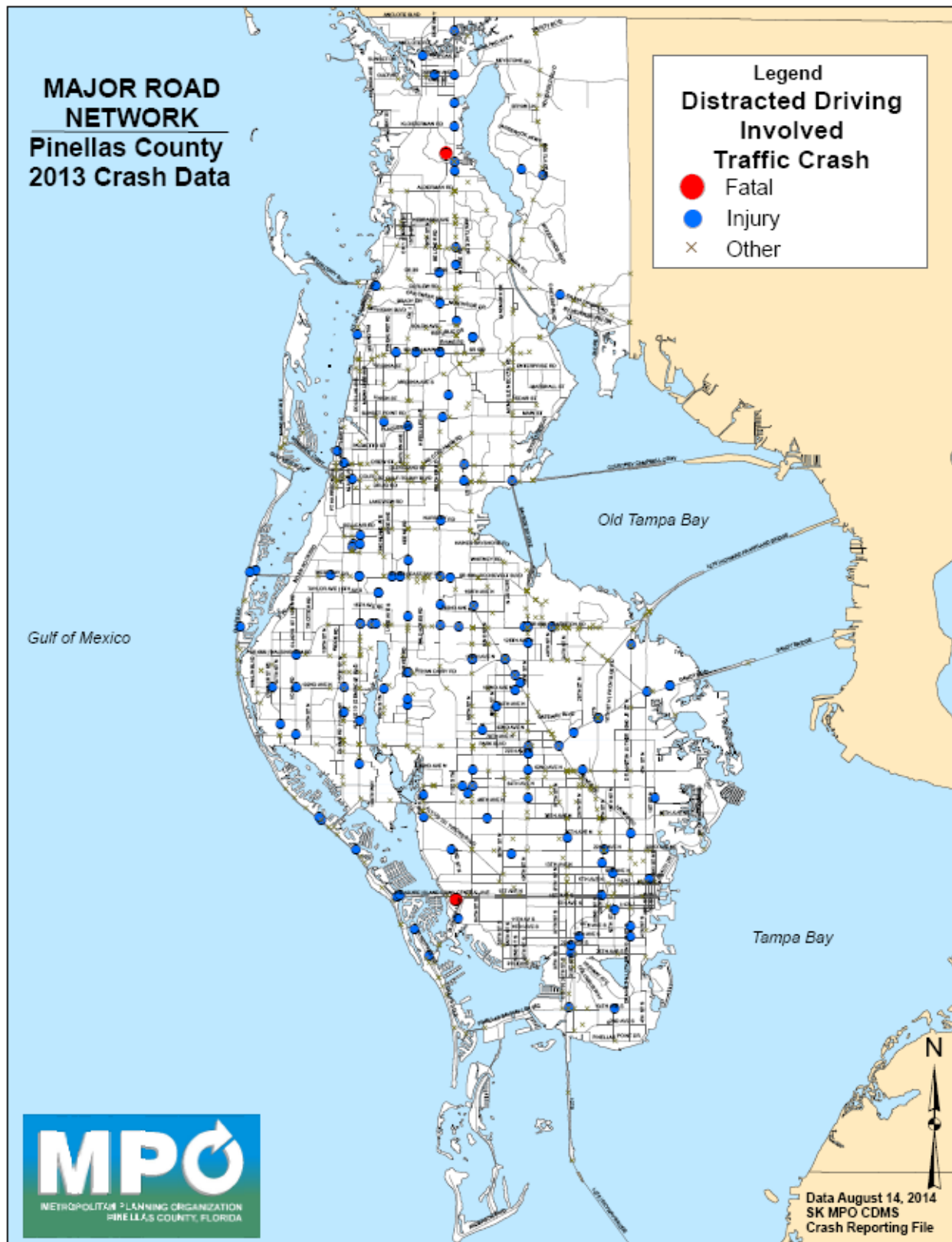


As seen in Figure 16, the overwhelming cause of distracted driver crashes during the report period was driver inattention. In 2013, driver inattention (691) accounted for more crashes than electronic communications-cell phone, etc. (142), other electronic device-navigation device, DVD player, etc. (63), and texting (13) combined. While there is a lot of attention given to “don’t text while driving” campaigns, the data indicates that there is a larger problem with driver focus and other types of distractions that are occurring inside and outside of the vehicle.

Figure 16. Type of Distraction Summary, 2011-2013



MAP 8. DISTRACTED DRIVER FATALITY, INJURY AND CRASH LOCATIONS, 2013



Aggressive Driving

Table 9 contains basic data on Pinellas County aggressive driving-related crashes from 2011 through 2013. As stated earlier in the report, aggressive driving-related crashes are crashes involving a driver who; failed to yield right-of-way, failed to keep in the proper lane, followed too closely, ran a red light, ran a stop sign, passed improperly, exceeded the posted speed limit, disregarded other road markings, operated a motor vehicle in an erratic or reckless manner, or who disregarded other traffic signage. The data shows that annual aggressive driving-related crashes in the County increased from 3,762 in 2011 to 5,444 in 2013. This represents a 44.71% increase since 2011. During this period, population showed a small increase (1.27%) and as a result of the combination of these variables, the population-based crash rate (expressed as the number of aggressive driving-related crashes per 100,000 population) increased by 42.84%. On the other hand, total injuries have declined during the time period by 11.39% to 926 injuries in 2013. Also, aggressive driving-related fatalities decreased for the second year in a row. The 2013 number of aggressive driving-related fatalities (14) has declined by 61.76% since 2011.

TABLE 9. AGGRESSIVE DRIVING CRASH DATA

	2011	2012	2013	2011-2013 % Change
Total Crashes	3,762	4,191	5,444	44.71%
Total Injuries	1,045	812	926	-11.39%
Total Fatalities	34	24	14	-61.76%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	410.25	455.05	586.01	42.84%

*Crash Rate per 100,000 population

As Figure 17 shows, for Pinellas County, the month with the highest number of fatal crashes involving aggressive drivers was February (3, 21.43% of the total). For crashes involving aggressive drivers, the months of March (501, 9.20% of the total), May (503, 9.24% of the total), and December (512, 9.40% of the total) had the highest totals. The data also indicates a lack of statistical significance in the number of crashes for 2013 due to the fact that 9 of the 12 months had between 441 and 512 crashes. Injury crashes involving aggressive drivers saw March (96, 10.37% of the total), October (86, 9.29% of the total), and December (87, 9.40% of the total) with the highest number of incidents.

Figure 18 contains a breakdown of total crashes, injuries, and fatalities by the day of the week for aggressive drivers. The days of the week with the highest number of fatal crashes involving aggressive drivers in Pinellas County was Monday (3, 21.43% of the total) and Tuesday (3, 21.43% of the total). Total crashes were somewhat evenly distributed between Monday, Tuesday, Wednesday, Thursday, and Friday with each day accounting for between 14.77% and 16.72% of the total number. Injury crashes also were mostly distributed between Wednesday, Thursday, and Friday which accounted for over 51% of the total number.

Lastly, the 3-hour window in which the most fatal, injury, and total crashes involving aggressive drivers was during the 3 p.m. to 6 p.m. (1,148 crashes, 222 injuries, 3 fatalities) timeframe.

Figure 17. Aggressive Driver Month Summary, 2013

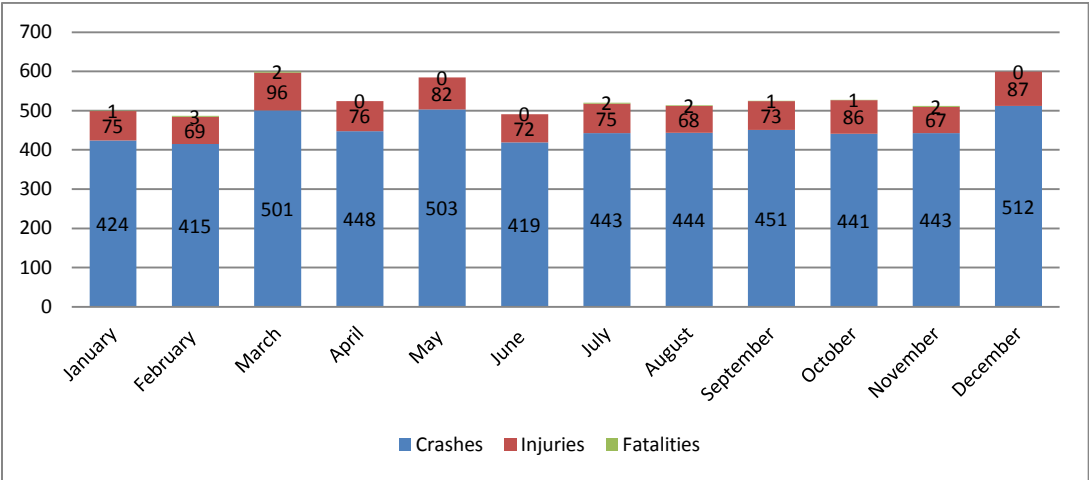
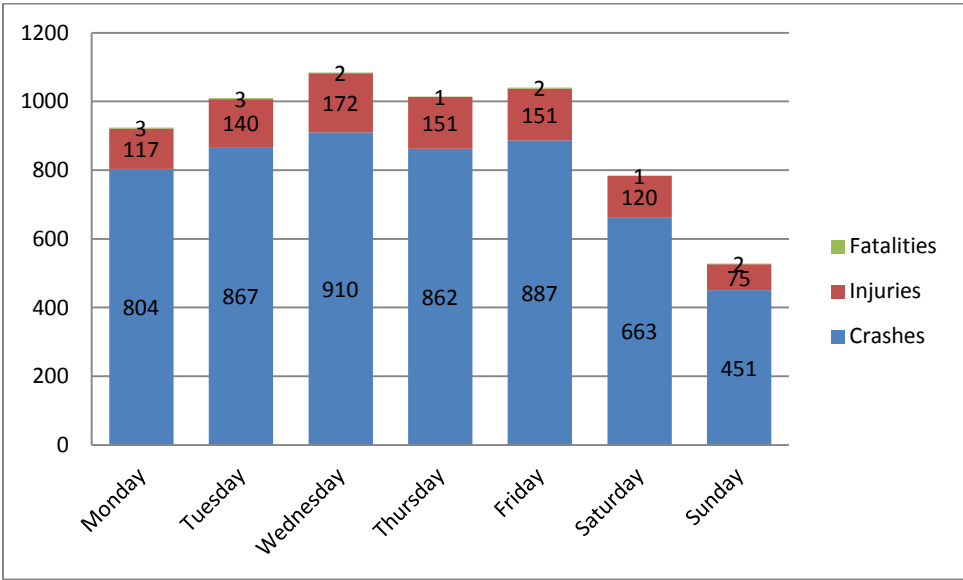
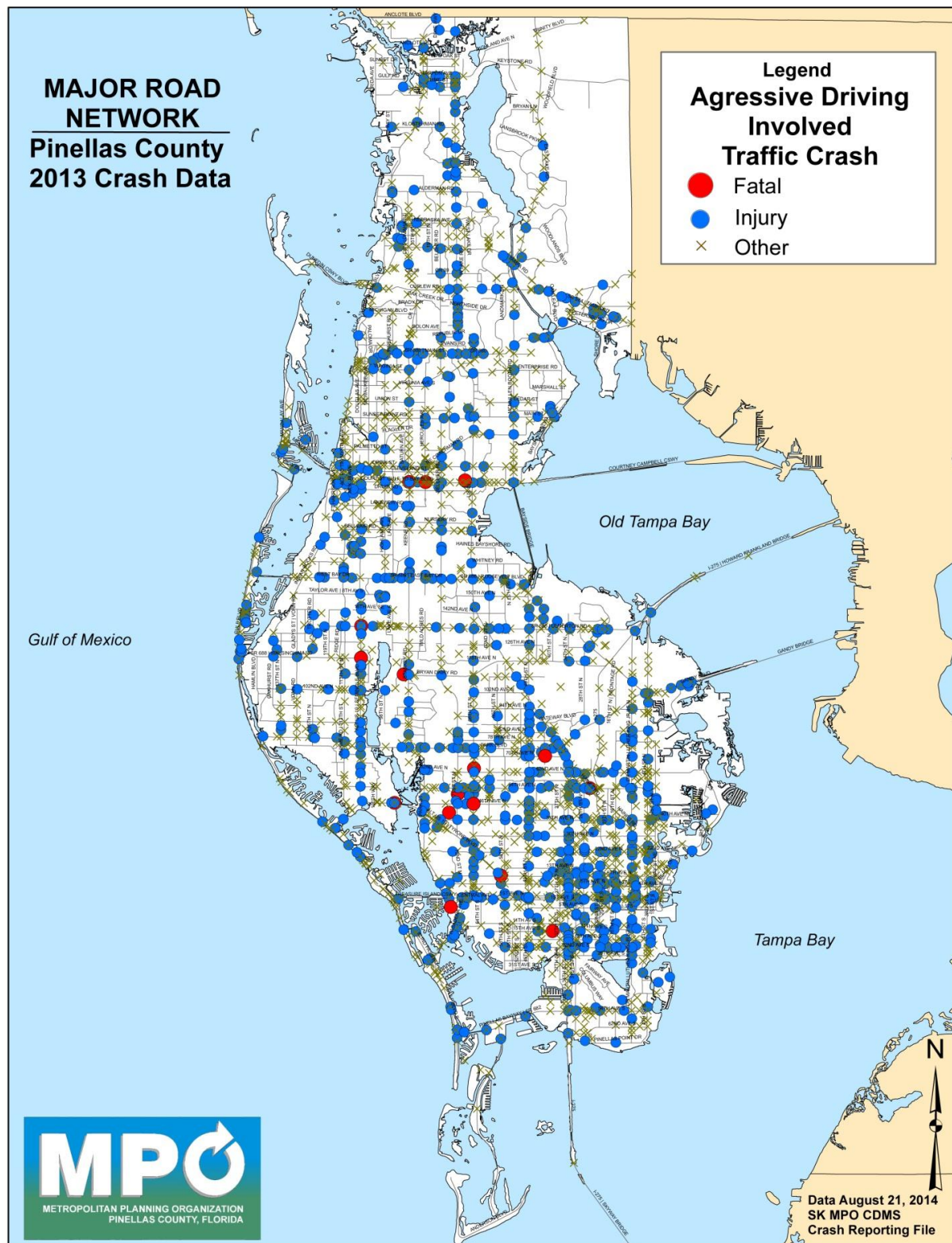


Figure 18. Aggressive Driver Day of the Week Summary, 2013



MAP 9. AGGRESSIVE DRIVING FATALITY, INJURY AND CRASH LOCATIONS, 2013



LANE DEPARTURES

Lane departure crashes are frequently severe and account for a growing number of roadway fatalities across the country. In 2011, there were 15,307 fatal roadway departure crashes resulting in 16,948 fatalities, which was 51 percent of the fatal crashes in the United States³. A lane departure crash is defined as a non-intersection crash which occurs after a vehicle crosses an edge line or a center line, or otherwise leaves the traveled way.

Table 10 contains basic data on Pinellas County lane departure crashes from 2011 through 2013. The data shows that lane departure crashes in the County increased from 3,157 in 2011 to 4,494 in 2013. This represents a 42.35% increase since 2011. During this period, population showed a small increase (1.27%) and as a result of the combination of these variables, the population-based crash rate (expressed as the number of lane departure crashes per 100,000 population) increased by 40.51%. On the other hand, total injuries have declined during the report period by 18.42% to 474 injuries in 2013. Also, lane departure fatalities decreased for the second year in a row. The 2013 number of lane departure fatalities (14) has declined by 36.36% since 2011.

As Figure 19 shows, for Pinellas County, the month with the highest number of fatalities involving lane departure crashes was July (5 fatalities, 35.71% of the total). For crashes involving lane departures, the months of July (399 crashes, 8.88% of the total) and October (393 crashes, 8.74% of the total) had the highest totals. The data also indicates a lack of statistical significance in the number of crashes by month due to the fact that 10 of the 12 months had between 372 and 399 crashes. Injury crashes involving lane departures saw March (75, 11.01% of the total) and January (66, 9.69% of the total) with the highest number of incidents.

Figure 20 contains a breakdown of total crashes, injuries, and fatalities by the day of the week for lane departure crashes. The day of the week with the highest number of fatal crashes involving lane departure crashes in Pinellas County was Saturday (4 fatalities, 28.57% of the total). Total crashes were somewhat evenly distributed between throughout the week with Friday accounting for 15.89% of the total number. Injury crashes also were mostly distributed between Wednesday and Saturday which accounted for over 34% of the total number.

The 3-hour window in which the most fatalities (6) occurred was the 9 p.m. to 12 a.m. timeframe. The most total crashes (9,512) and injuries (141) involving lane departure crashes was during the 3 p.m. to 6 p.m. timeframe.

³ "Roadway Departure Safety", Federal Highway Administration, accessed January 21, 2015, http://safety.fhwa.dot.gov/roadway_dept/

TABLE 10. LANE DEPARTURE CRASH DATA

	2011	2012	2013	2011-2013 % Change
Total Crashes	3,157	3,576	4,494	42.35%
Total Injuries	581	479	474	-18.42%
Total Fatalities	22	21	14	-36.36%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	344.27	388.27	483.75	40.51%

*Crash Rate per 100,000 population

Figure 19. Lane Departure Month Summary, 2013

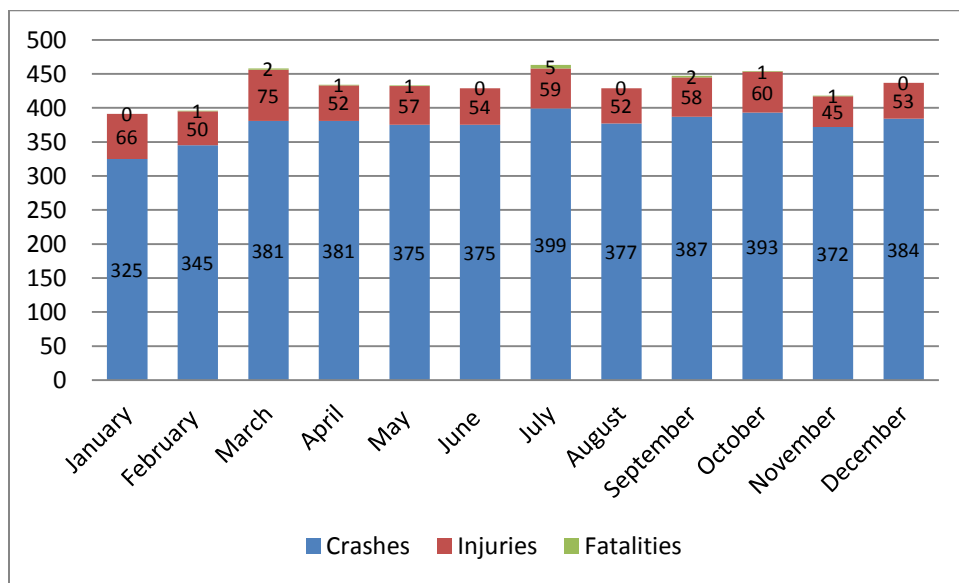
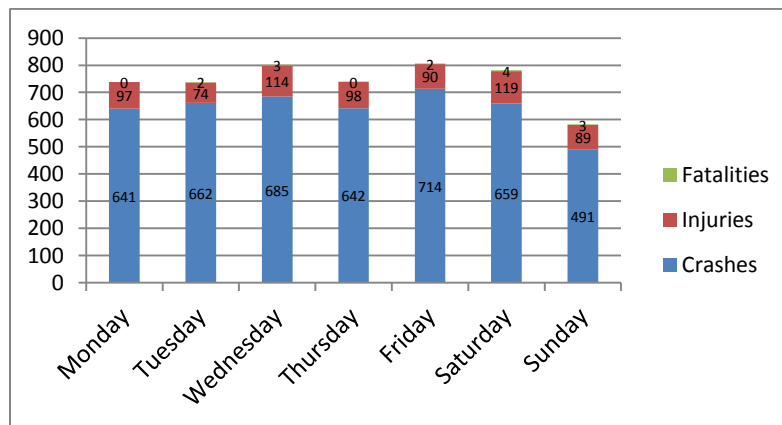
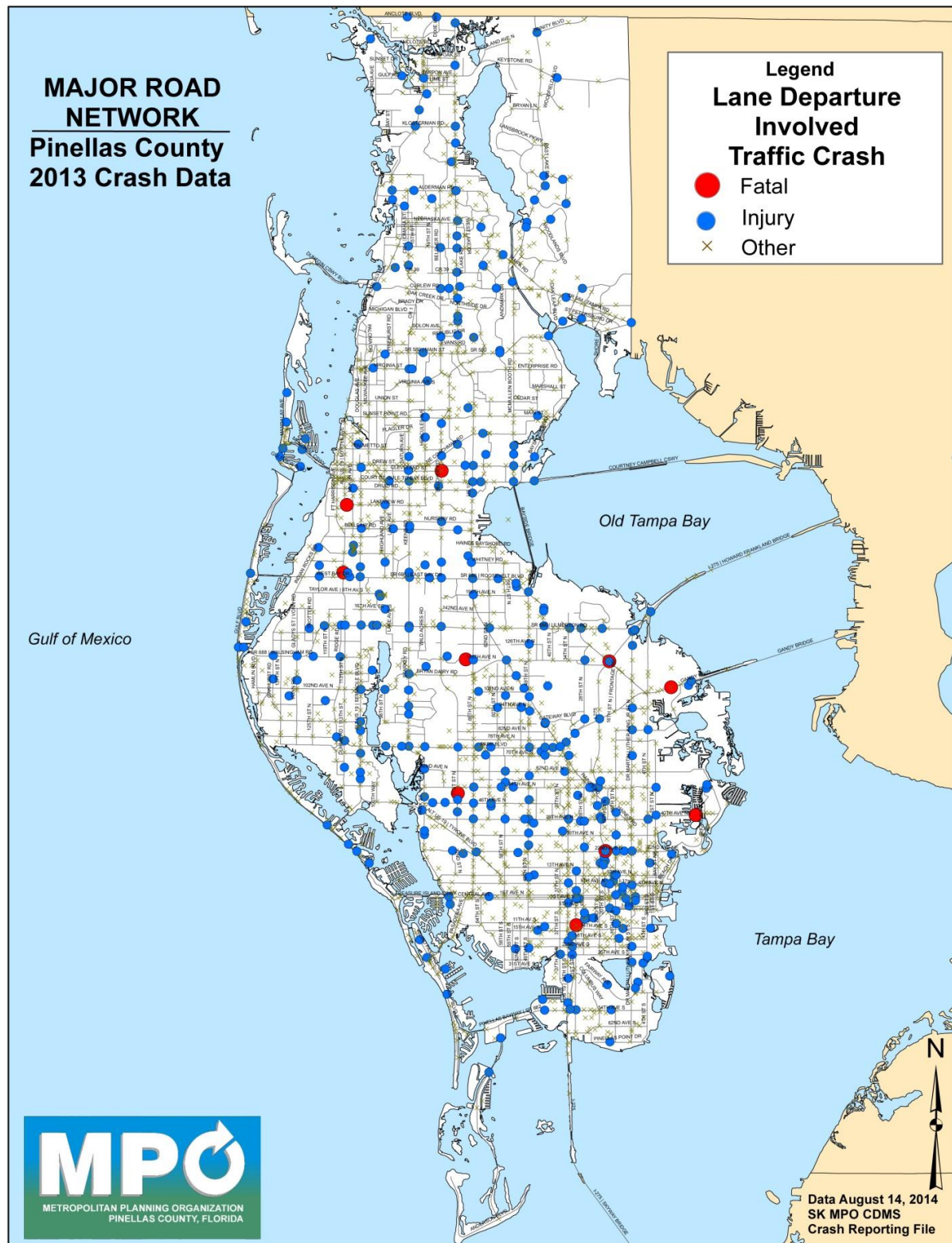


Figure 20. Lane Departure Day of the Week Summary, 2013



MAP 10. LANE DEPARTURE FATALITY, INJURY AND CRASH LOCATIONS, 2013



IMPAIRED DRIVING

Impaired driving-related crashes are crashes involving a driver who is suspected of being under the influence of alcohol, drugs, or medication. The impaired driver data contained in the Pinellas County CDMS is slightly different than the data collected and published in Florida's *Official Traffic Crash Statistics*. The state statistics separate the data between "confirmed" or "suspected" alcohol or drug-related crashes while the data reported to the CDMS classifies any crash where the driver is suspected of using drugs and/or alcohol as an impaired crash.

Table 11 contains basic data on Pinellas County impaired driving-related crashes from 2011 through 2013. The data shows that annual impaired driver-related crashes in the County decreased from 1,160 in 2011 to 1,033 in 2013. This represents a 10.95% decrease since 2011. During this period, population showed a small increase (1.27%) and as a result of the combination of these variables, the population-based crash rate (expressed as the number of aggressive driving-related crashes per 100,000 population) decreased by 12.10%. Furthermore, total injuries have declined during the report period by 25.00% to 243 injuries in 2013. Also, impaired driving-related fatalities have decreased substantially after a slight increase in 2012. The 2013 number of impaired driving-related fatalities (15) has declined by 62.50% since 2011. Impaired driver crashes accounted for 4.20% of total crashes in Pinellas County which is a 46.08% decrease since 2011.

TABLE 11. IMPAIRED DRIVER CRASH DATA

	2011	2012	2013	2011-2013 % Change
Total Crashes	1,160	1,232	1,033	-10.95%
Total Injuries	324	281	243	-25.00%
Total Fatalities	40	44	15	-62.50%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	126.50	133.77	111.19	-12.10%
Percent of Pinellas County Crashes	7.79%	6.84%	4.20%	-46.08%

*Crash Rate per 100,000 population

As Figure 21 shows, for Pinellas County, the months with the highest number of fatalities involving impaired drivers was January (3 fatalities, 20.00% of the total) and March (3, 20.00% of the total). For crashes involving impaired drivers, the months of March (98 crashes, 9.49% of the total) and April (100 crashes, 9.68% of the total) had the highest totals. The data also indicates a significant drop in the number of crashes in July (68) although the reason for this change is unclear. Injury crashes involving impaired drivers saw March (28 injuries, 11.52% of the total) with the highest number of incidents.

Figure 22 contains a breakdown of total crashes, injuries, and fatalities by the day of the week for impaired driver crashes. The day of the week with the highest number of fatal crashes involving impaired drivers in Pinellas County was Friday (7 fatalities, 46.67% of the total). Total crashes were heavily skewed between Friday, Saturday, and Sunday which accounted for

54.89% of the total number. Injury crashes were also mostly distributed between Friday, Saturday, and Sunday which accounted for over 52% of the total number.

The 3-hour window in which the most fatalities (9) occurred was the 9 p.m. to 12 a.m. timeframe. The most total crashes (172) and injuries (69) involving impaired drivers was also during the 9 p.m. to 12 a.m. timeframe.

Figure 21. Impaired Driver Month Summary, 2013

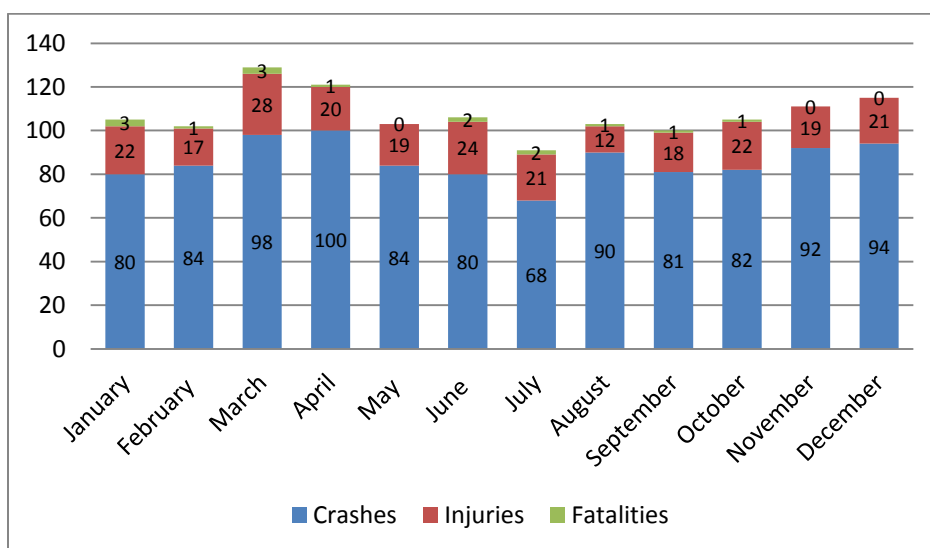
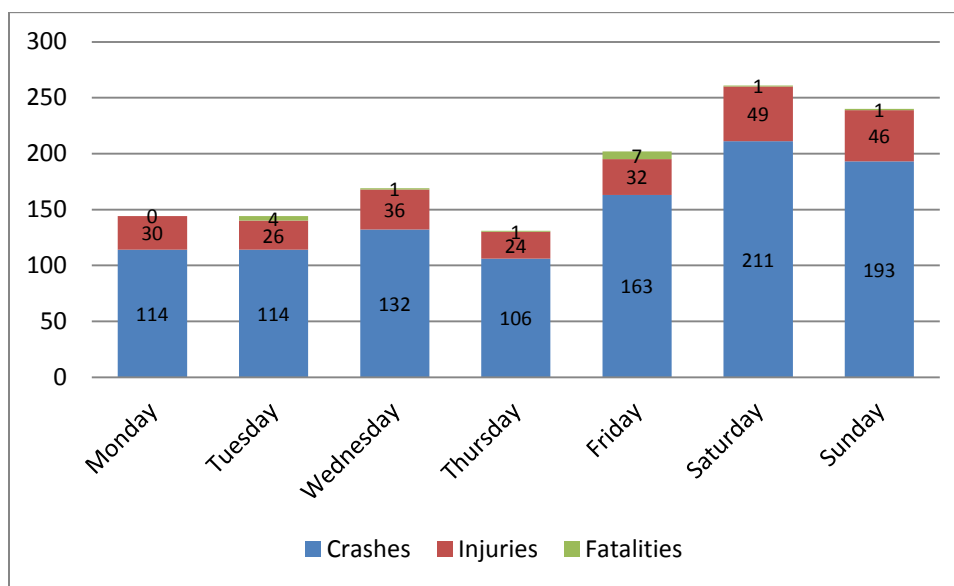
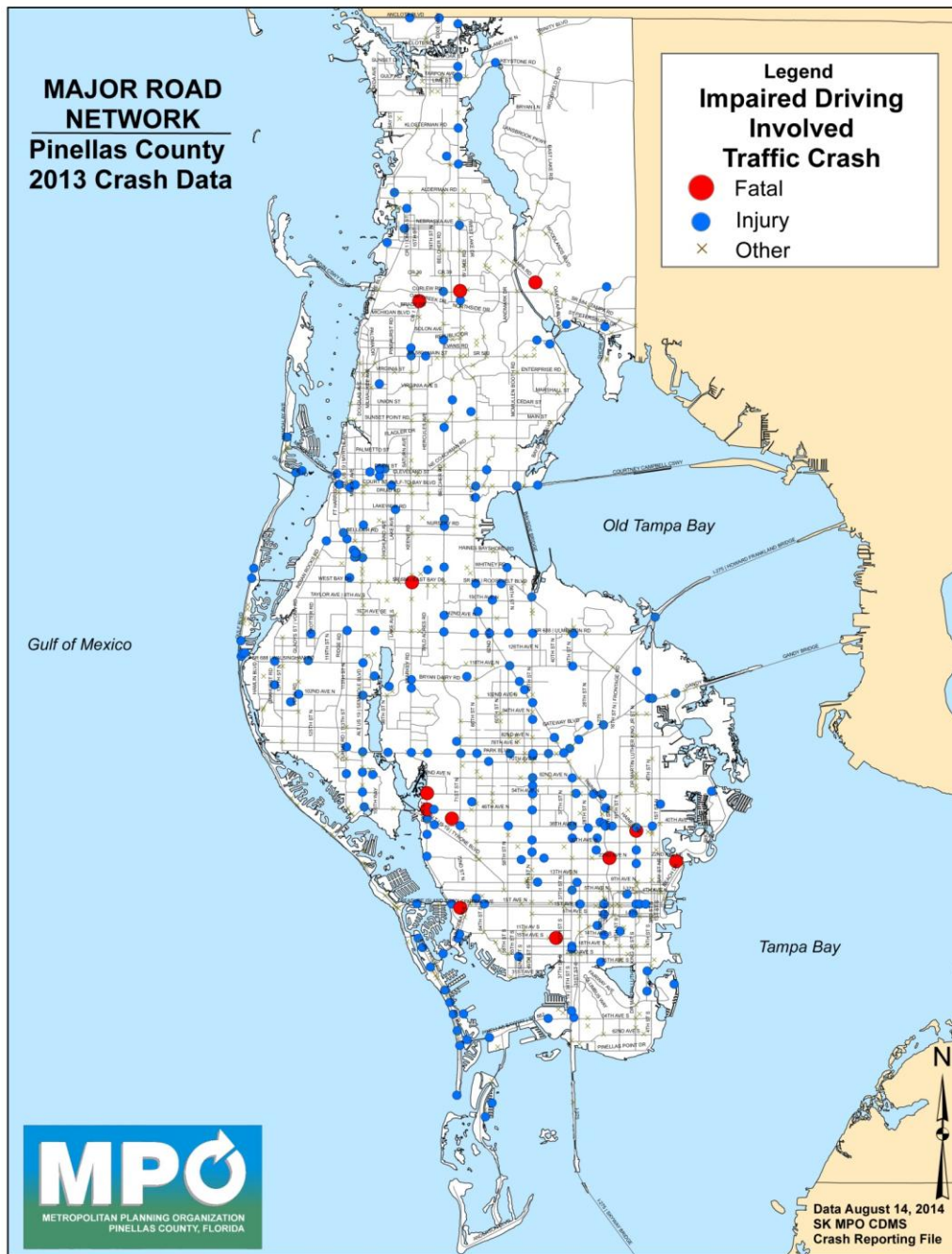


Figure 22. Impaired Driver Day of the Week Summary, 2013



MAP 11. IMPAIRED DRIVING FATALITY, INJURY AND CRASH LOCATIONS, 2013



SPEEDING

A speeding-related crash is defined as one that occurred where a driver was charged with a speeding-related offense or where an officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor.

Table 12 shows that speeding-related crashes in Pinellas County steadily decreased each year between 2011 (102) and 2013 (70). The count in 2013 represents a 31.37% decrease over the 2011 baseline year. The population-based crash rate also showed annual decreases over the three-year period, with the 2013 rate (7.53) representing a 32.28% decrease compared to the 2011 rate. The proportion of speeding-related crashes to total crashes in the County also decreased over the reporting period.

TABLE 12. SPEEDING CRASH DATA

	2011	2012	2013	2011-2013 % Change
Total Crashes	102	89	70	-31.37%
Total Injuries	36	24	20	-44.44%
Total Fatalities	5	8	3	-40.00%
Population	917,434	921,319	929,048	1.27%
Population Crash Rate*	11.12	9.66	7.53	-32.28%
Percent of Pinellas County Crashes	0.68%	0.49%	0.28%	-58.82%

*Crash Rate per 100,000 population

As seen in Figure 23, the months with the greatest number of speeding-related crashes in Pinellas County were January (9 crashes, 12.86% of total) and December (8 crashes, 11.43% of total). For 2013, there were only 3 speeding-related fatalities and these occurred in July (1) and August (2). Injury crashes involving speeding were evenly distributed throughout the year with the exception of May where no injury crashes occurred.

Looking at Pinellas County's speeding-related crashes by day as depicted in Figure 24, the greatest number occurred on Saturday (16 crashes, 22.86%), followed by Sunday (12 crashes, 17.14%), and then Wednesday (11 crashes, 15.71% of the total). The 3-hour window in which the most total crashes (14) and injuries (7) involving speeding was during the 12 a.m. to 3 a.m. timeframe.

Figure 23. Speeding Month Summary, 2013

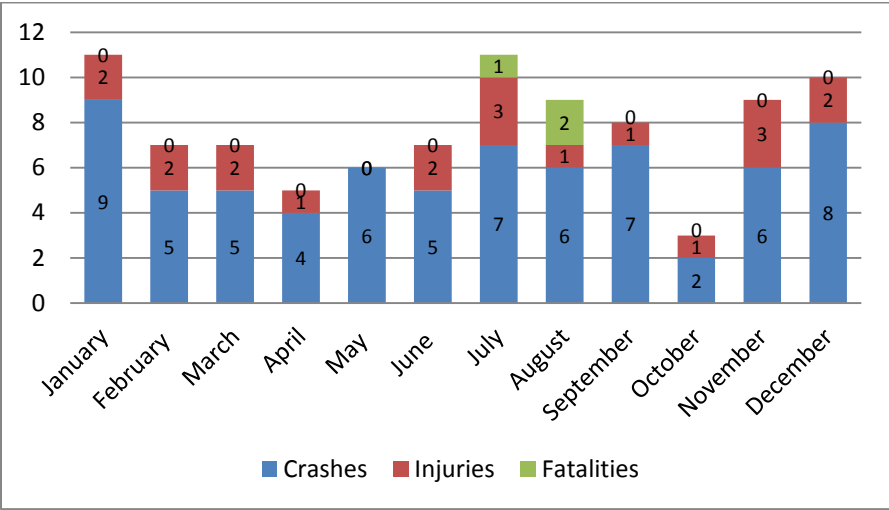
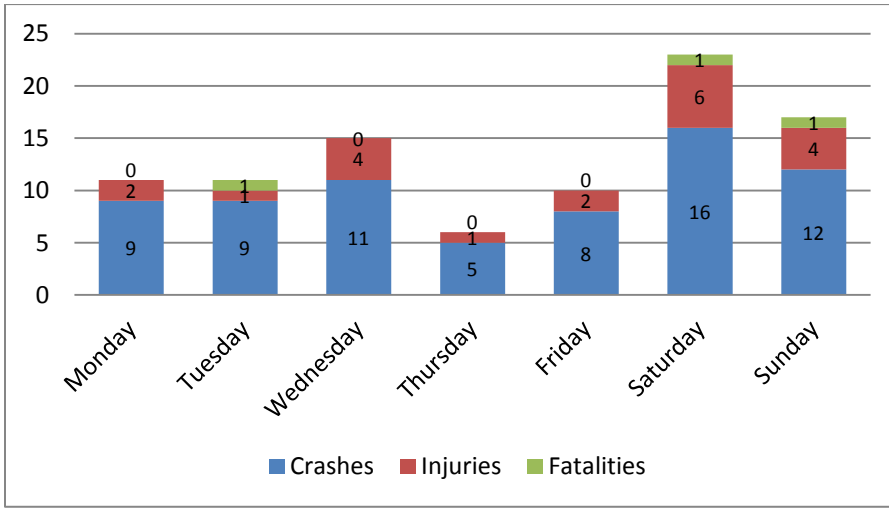
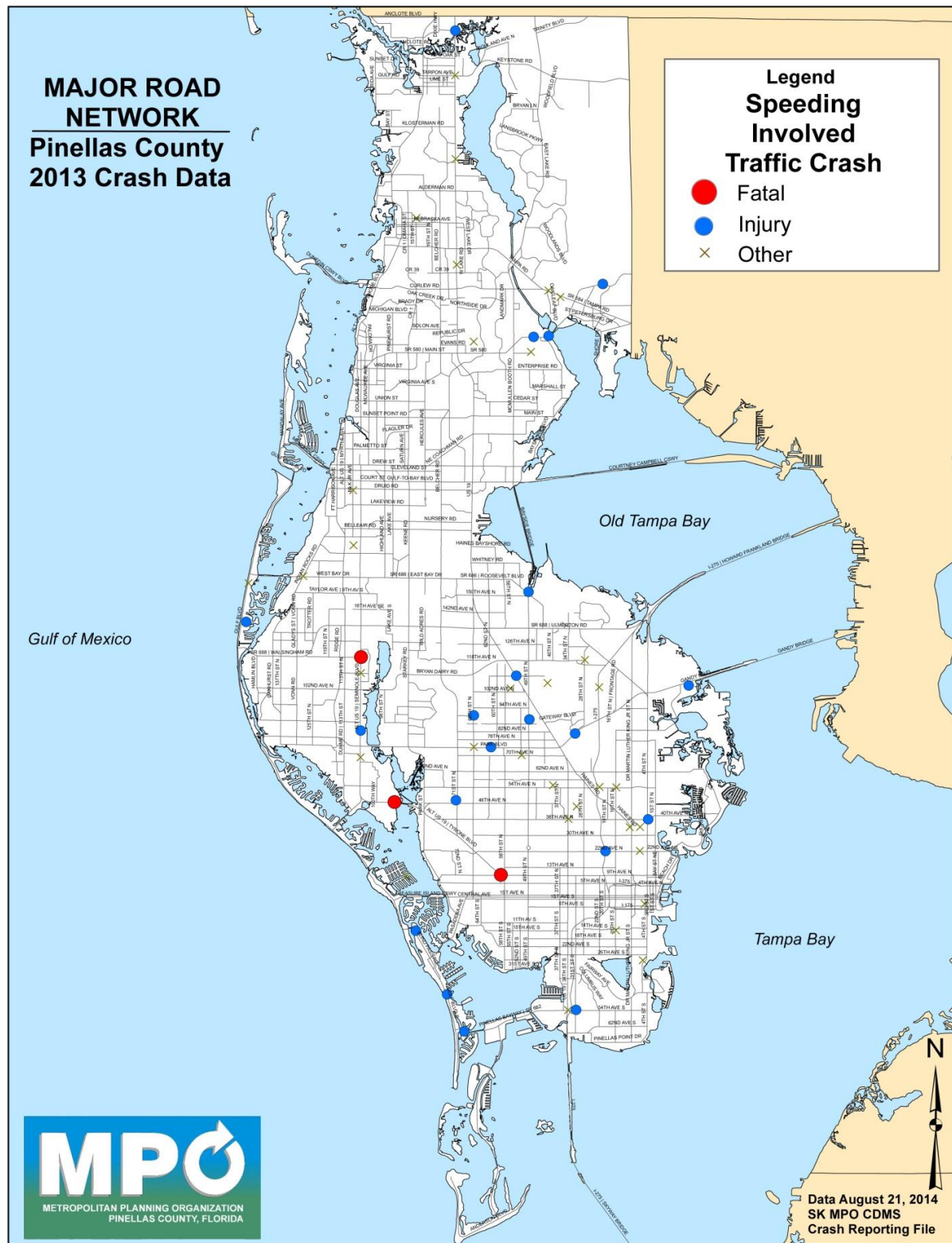


Figure 24. Speeding Day of Week Summary, 2013



MAP 12. SPEEDING FATALITY, INJURY AND CRASH LOCATIONS, 2013



CRASHES BY TYPE AND LOCATION

Crashes by Vehicle Type

The crash data provides information regarding the “first vehicle type” involved in a crash. For 2013, the data reveals the following information for crashes by vehicle type; passenger car (10,469 or nearly 42.5%), sport utility vehicle (3,248 or 13.2%), pickup truck (2,360 or 9.6%). Data is also collected for other types of vehicles such as all terrain vehicle (ATV's), cargo van (10,000 lbs or 4,536 kg or less), medium/heavy trucks (more than 10,000 lbs or 4,536 kg), moped, motorcycle, other light trucks (10,000 lbs or 4,536 kg or less), passenger van, and others not specified in a category.

Crashes by Location

The following two tables include data that can be analyzed for possible roadway changes or upgrades to improve safety for all modes of travel. For example, approximately 63% of traffic crashes occur in the roadway travel lanes and the remaining 37% happen off-road, e.g., on the shoulder, in a median or parking lot.

TABLE 13. CRASH LOCATION ON ROADWAY, 2013

	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Vul. User	Agg. Driver	Lane Departure	At Intersection
Gore	2	0	0	0	0	0	0	0	1	0
In Parking Lane or Zone	1,566	0	100	69	22	26	117	69	289	7
Median	192	2	44	3	1	9	13	20	129	8
Off Roadway	1,694	9	288	66	51	31	147	115	802	40
On Roadway	15,577	65	3,920	403	419	533	1,335	4,549	2,452	2,511
Outside of Right-of-Way	22	0	3	1	2	0	3	3	6	0
Roadside	117	0	25	8	12	6	26	22	47	6
Separator	10	0	2	0	0	0	0	1	5	0
Shoulder	465	3	104	17	12	13	42	25	324	13
Unknown	4,977	1	16	11	27	1	39	640	439	4

TABLE 14. CRASH LOCATION RELATION TO JUNCTION SUMMARY, 2013

	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Vul. User	Agg. Driver	Lane Departure	At Intersection
Acc./Dec. Lane	5	0	0	0	0	0	0	0	0	0
Crossover	26	0	6	0	0	0	0	19	5	0
Driveway	586	1	151	24	56	20	100	241	81	0
Entrance/Exit Ramp	171	2	32	2	0	6	8	18	66	0
Intersection	2,589	16	1,026	64	111	105	277	1,376	321	2,589
Intersection-Related	1,832	4	392	56	75	58	189	384	248	0
Non-Junction	9,914	41	1,966	316	161	292	756	1,716	2,330	0
Other	183	0	26	12	7	7	26	21	45	0
Railway Grade Crossing	8	0	1	0	0	1	1	1	2	0
Shared-Use Path or Trail	4	0	1	0	1	0	1	2	1	0
Through Roadway	69	0	10	1	0	2	5	25	16	0
Unknown	9,235	16	891	103	133	128	359	1,641	1,379	0

INTERSECTIONS

Nearly 29 percent of the statewide traffic fatalities, which occurred between 2006 to 2010, were at or within 250 feet of signalized or unsignalized intersections⁴. In response to these crash types being identified as an emphasis area in the 2012 Strategic Highway Safety Plan (SHSP), the CDMS data is further analyzed to evaluate and rank intersections based on the occurrence of traffic crashes. This section provides a summary and analysis of the Top 40 High Crash locations by total crashes for intersections on the Pinellas County road network. These locations include all crashes (crash, injury, fatality) recorded during the 2011-2013 report period. This information is used to determine the appropriate programmatic approaches to apply strategies and countermeasures to address the identified prevailing safety challenges. The following crash types were evaluated in the development of the “Top 40” intersections portion of this report:

- Total Crashes
- Fatalities
- Bicycles
- Pedestrians
- Motorcycles
- Distracted Driving

⁴ Florida Strategic Highway Safety Plan, 2012

Total Crashes

As displayed in Table 15, the Top 40 high crash intersections based on total number of crashes reveal a significant number of roadways, some of which include multiple intersections, are responsible for a large number of traffic incidences. For example, fifteen intersections are located along U.S. Highway 19, six intersections are located along I-275; and three intersections are located along State Road 60 (Gulf to Bay Boulevard). As shown, a total of 14 intersection locations have 200 or more crashes. Overall, a total of 7,621 crashes were recorded at the Top 40 intersections. Analysis of the 40 high crash intersections shows that there were a total of 47 fatal crashes and 1,446 injury crashes. The most common type of crash at these intersections was an angle crash (24.6%).

TABLE 15. TOP 40 INTERSECTIONS, CRASHES 2011-2013

No.	Facility	Total Crashes	Total Injuries	Total Fatalities
1	US 19 @ Tampa Rd.	494	92	1
2	US 19 @ Curlew Rd.	416	59	1
3	I-275 @ 4 th St. N. Bridge	299	76	0
4	US 19 @ Alderman Rd.	251	42	2
5	I-275 @ Gandy Blvd.	249	61	3
6	US 19 @ 38 th Ave. N.	249	81	0
7	I-275 @ 22 nd Ave. N.	245	90	4
8	US 19 @ Nebraska Ave.	244	32	0
9	Seminole Blvd. @ Park Blvd.	238	35	1
10	I-275 @ 38 th Ave. N.	235	56	0
11	SR 686 @ 34 th St. N.	209	36	0
12	I-275 @ Roosevelt Blvd.	208	57	4
13	SR 60 @ S. Belcher Rd.	206	27	1
14	US 19 @ Gulf to Bay	203	22	0
15	US 19 @ Main St.	193	24	1
16	SR 688 @ 49 th St. N.	181	30	2
17	East Bay Dr. @ Starkey	178	32	1
18	CR 1 @ Bryan Dairy	176	43	1
19	SR 584 @ Forest Lakes	173	19	1
20	I-275 @ 54 th Ave. S.	168	28	0
21	49 th St. @ Roosevelt Blvd.	167	34	1
22	Starkey Rd. @ Park Blvd.	165	33	0
23	SR 586 @ McMullen Booth Rd.	157	18	1
24	US 19 @ Drew St.	154	21	1
25	US 19 @ Hammock Pine Blvd.	151	43	2
26	US 19 @ Belleair Rd.	151	23	0
27	US 19 @ Klosterman Rd.	148	24	1
28	SR 60 @ Bayside Bridge	146	23	0
29	US 19 @ Ulmerton	144	26	1
30	SR 580 @ Keene Rd.	142	16	0
31	East Bay @ Belcher	139	26	0
32	US 19 @ Enterprise	135	15	1
33	US 19 @ 62 nd Ave. N.	132	25	0
34	US 19 @ East Bay Dr.	130	36	1
35	SR 688 @ Belcher	129	25	1
36	113 th St. @ Park Blvd.	128	25	1
37	USA 19 @ Ulmerton	125	22	1
38	Tyrone Blvd. @ Park St. N.	123	13	1
39	SR 693 @ 54 th Ave. N.	120	35	1
40	SR 688 @ 66 th St. N.	120	21	0

Fatalities

Table 16 displays the Top 40 intersections based on total number of fatal crashes from 2011-2013 that occurred on the Pinellas County road network. The data shows that the largest number of fatal crashes occurred on I-275, with three of the top five also occurring on the I-275 corridor. Other high fatality corridors include; U.S. Alternate 19 (8 fatalities) and U.S. Highway 19 (8 fatalities). 51% of the total fatalities for 2013 occurred at top 40 intersections. The data also revealed that 3.9% of fatalities at the Top 40 intersections were due to driver impairment, 49% of vulnerable road user fatalities occurred at top 40 intersections, 31% of fatal crashes were angle crashes at top 40 intersections, and 18% of fatal crashes at the top 40 intersections were identified as lane departure crashes.

TABLE 16. TOP 40 INTERSECTIONS, FATALITIES 2011-2013

No.	Facility	Total Fatalities
1	I-275 @ 22 nd Ave. N.	4
2	I-275 @ Roosevelt Blvd.	4
3	Memorial Causeway @ Island Way	3
4	US 92 @ San Fernando Blvd. N.	3
5	I-275 @ Gandy Blvd.	3
6	US 92 @ Brighton Bay Blvd. NE	2
7	USA 19 @ Turner St.	2
8	Belcher Rd. @ Sunset Point Rd.	2
9	US 19 @ 1 st Ave. S.	2
10	Indian Rocks Rd. @ Anglers Lane	2
11	Belcher Rd. @ Cleveland St.	2
12	US 19 @ Alderman Rd.	2
13	Central Ave. @ 31 st St. S.	2
14	Walnut St. NE @ Coffee Pot Blvd. NE	2
15	Gulf Blvd. @ Gulf Winds Dr.	2
16	SR 93 @ 31 st St. S.	2
17	SR 686 @ Dr. Martin Luther King Jr. St.	2
18	SR 688 @ 49 th St. N.	2
19	Betty Lane @ Fairmont St.	2
20	US 19 Hammock Pine Blvd.	2
21	I-275 @ 28 th St. S.	2
22	5 th Ave. S. @ Park St.	2
23	62 nd Ave. N. @ 22 nd St.	2
24	US 19 @ Bryan Dairy Rd.	2
25	Belleair Rd. @ Belcher Rd.	2
26	USA 19 @ Meres Blvd.	2
27	I-275 @ Sunshine Skyway	2
28	SR 600 @ Sunset Blvd.	2
29	East Bay Dr. @ 36 th St. SE	2
30	USA 19 @ 94 th St. N.	2
31	Gulf Blvd. @ 59 th Ave.	2
32	113 th St. N. @ 70 th Ave. N.	2
33	Tall Pines Dr. @ 138 th Pl.	2
34	Main St. @ Belcher Rd.	2
35	SR 693 @ 78 th Ave. N.	1
36	Dr. Martin Luther King Jr. St. @ 79 th Ave. N.	1
37	USA 19 @ 119 th Ave. N.	1
38	USA 19 @ 127 th Pl.	1
39	49 th St. N. @ Roosevelt	1
40	N. Myrtle Ave. @ Drew St.	1

Bicycles

As indicated on the bicycle crash map, a total of 8 fatal crashes involving bicyclists occurred on the Pinellas County road network during the three-year time period. The largest number of bicycle crashes occurred at the US 19/38th Ave. N. intersection (Table 17). Overall, the total number of bicycle crashes over the three-year period was 180.

TABLE 17. TOP 40 INTERSECTIONS, BICYCLE CRASHES 2011-2013

No.	Facility	Total Crashes
1	US 19 @ 38 th Ave. N.	13
2	US 19 @ 62 nd Ave. N.	8
3	49 th St. N. @ Park Blvd. N.	7
4	SR 688 @ 49 th St. N.	7
5	US 19 @ 50 th Ave. N.	6
6	US 19 @ Central Ave.	6
7	East Bay Dr. @ Starkey Rd.	6
8	CR 1 @ Bryan Dairy Rd.	5
9	US 19 @ Curlew Rd.	5
10	SR 693 @ 118 th Ave. N.	5
11	SR 693 @ 46 th Ave. N.	5
12	US 19 @ Sunset Point Rd.	5
13	34 th St. N. @ 5 th Ave. N.	5
14	SR 584 @ Forest Lakes Blvd.	5
15	I-275 @ Gandy Blvd.	4
16	SR 688 @ S. Belcher Rd.	4
17	SR 693 @ 38 th Ave. N.	4
18	Dr. Martin Luther King Jr. St. @ 49 th Ave.	4
19	US 19 @ 30 th Ave. N.	4
20	Dr. Martin Luther King Jr. St. @ 22 nd Ave. S.	4
21	CR 611 @ 70 th Ave. N.	4
22	CR 296 @ Belcher Rd.	4
23	US 19 @ 22 nd Ave. S.	4
24	SR 586 @ Countryside Blvd.	4
25	58 th St. N. @ 38 th Ave. N.	4
26	Starkey Rd. @ Park Blvd.	4
27	4 th St. @ 1 st Ave.	4
28	Dr. Martin Luther King Jr. St. @ 50 th Ave. N.	4
29	1 st Ave. S. @ 31 st St. S.	3
30	SR 693 @ 68 th Ave. N.	3
31	N. Belcher Rd. @ Sunset Point Rd.	3
32	Pinellas Trail @ Court St.	3
33	54 th Ave. N. @ 49 th St.	3
34	66 th St. N. @ Park Blvd. N.	3
35	Seminole Blvd. @ Park Blvd.	3
36	SR 693 @ 78 th Ave. N.	3
37	USA 19 @ 122 nd Ave. N.	3
38	Pinellas Trail @ 22 nd Ave. N.	3
39	US 19 @ Main St.	3
40	SR 60 @ S. Lake Dr.	3

Pedestrians

A total of 15 fatal crashes involving pedestrians occurred at the Top 40 intersections during the three-year time period. The largest number of pedestrian crashes occurred at the East Bay Drive/Starkey Road intersection (Table 18). Overall, the total number of pedestrian crashes over the three-year period was 188. It is also important to note that 15.7% of pedestrian crashes occurred at top 40 intersections and 10% of the pedestrian crashes involved some form of impairment at the top 40 intersections.

TABLE 18. TOP 40 INTERSECTIONS, PEDESTRIAN CRASHES 2011-2013

No.	Facility	Total Crashes
1	East Bay Dr. @ Starkey Rd.	12
2	Central Ave. @ 22 nd St. N.	7
3	SR 693 @ 54 th Ave. N.	7
4	SR 688 @ 49 th St. N.	7
5	34 th St. N. @ 5 th Ave. N.	6
6	66 th St. N. @ Park Blvd. N.	6
7	SR 688 @ S. Belcher Rd.	6
8	USA 19 @ Ulmerton Rd.	6
9	USA 19 @ Jasper St.	5
10	US 19 @ Tampa Rd.	5
11	East Bay Dr. @ Country Club Dr.	5
12	US 19 @ Main St.	5
13	54 th Ave. N. @ Haines Rd.	5
14	Starkey Rd. @ Park Blvd. N.	5
15	East Bay Dr. @ S. Belcher Rd.	5
16	4 th St. N. @ 22 nd Ave. N.	4
17	US 19 @ 66 th St. N.	4
18	SR 686 @ 58 th St. N.	4
19	Pasadena Ave. @ Majestic Way	4
20	US 19 @ 66 th Ave. N.	4
21	US 19 @ 38 th Ave. N.	4
22	US 19 @ 78 th Ave. N.	4
23	58 th St. N. @ 38 th Ave. N.	4
24	SR 693 @ 118 th Ave. N.	4
25	US 19 @ Citrus Dr.	4
26	54 th Ave. N. @ 28 th St. N.	4
27	N. Missouri Ave. @ East Bay Dr.	4
28	SR 580 @ Keene Rd.	4
29	Belcher Rd. @ Park Blvd. N.	4
30	US 19 @ Ulmerton Rd.	4
31	Nursery Rd. @ S. Belcher Rd.	4
32	SR 60 @ Bayview Ave.	4
33	CR 611 @ 70 th Ave. N.	4
34	USA 19 @ Lakeview Rd.	4
35	SR 60 @ S. Belcher Rd.	4
36	SR 60 @ S. Acturas Ave.	4
37	USA 19 @ Turner St.	3
38	SR 693 @ 102 nd Ave. N.	3
39	38 th Ave. N. @ 64 th St. N.	3
40	CR 611 @ 48 th Ave. N.	3

Motorcycles

Table 19 displays the Top 40 intersections based on the total number of motorcycle crashes from 2011-2013 that occurred on the Pinellas County road network. The data shows that the largest number of motorcycle crashes occurred on US 19 at Curlew and Tampa Roads, with four of the top five high crash locations occurring on the US 19 corridor as well. The other high motorcycle crash corridor was I-275 (24 crashes). 17% of the motorcycle crashes occurred at top 40 intersections.

TABLE 19. TOP 40 INTERSECTIONS, MOTORCYCLE CRASHES 2011-2013

No.	Facility	Total Crashes
1	US 19 @ Curlew Rd.	10
2	US 19 @ Tampa Rd.	10
3	US 19 @ Nebraska Ave.	9
4	US 19 @ Bryan Dairy	8
5	I-275 @ Roosevelt Blvd.	8
6	CR 1 @ Bryan Dairy Rd.	8
7	Drew St. @ N. Belcher Rd.	6
8	East Bay Dr. @ Starkey Rd.	6
9	Blind Pass Rd. @ 93 rd Ave.	6
10	34 th St. N. @ 5 th Ave. N.	6
11	I-275 @ Gandy Blvd.	6
12	SR 686 @ 34 th St. N.	6
13	SR 60 @ Courtney Campbell Causeway	6
14	US 19 @ 38 th Ave. N.	6
15	I-275 @ 54 th Ave. S.	6
16	US 92 @ Brighton Bay Blvd. NE	5
17	SR 60 @ S. Highland Ave.	5
18	SR 694 @ 43 rd St. N.	5
19	Belcher Rd. @ Park Blvd. N.	5
20	113 th St. N. @ Park Blvd. N.	5
21	SR 693 @ 38 th Ave. N.	5
22	58 th St. N. @ 38 th Ave. N.	5
23	USA 19 @ 102 nd Ave. N.	5
24	US 19 @ Ulmerton Rd.	5
25	Starkey Rd. @ Park Blvd. N.	5
26	I-275 @ 22 nd Ave. N.	4
27	CR 611 @ 46 th Ave. N.	4
28	Seminole Blvd. @ Park Blvd.	4
29	Memorial Causeway @ Island Way	4
30	CR 611 @ Lake Blvd.	4
31	Pasadena Ave. N. @ 66 th St. N.	4
32	CR 611 @ 25 th Ave. N.	4
33	US 19 @ 62 nd Ave. N.	4
34	I-275 @ I-175	4
35	US 92 @ San Fernando Blvd.	4
36	SR 693 @ 54 th Ave. N.	4
37	Central Ave. @ 31 st St. S.	4
38	N. Missouri Ave. @ East Bay Dr.	4
39	49 th St. N. @ Park Blvd. N.	4
40	US 19 @ Unknown 3760	4

Hot Spot Intersections for Vulnerable Users

The Top 40 intersection locations were further analyzed to assess the potential for clustering of high crash locations based on crash incidences involving vulnerable users. A crash Hot Spot or cluster is a small area where groups of crashes involving different vulnerable road users (bicycle, pedestrian, and/or motorcycle) occur. As opposed to a single vulnerable user, a Hot Spot listed in this section involves multiple bicycle, pedestrian, and/or motorcycle user crashes at different points in time over the length of the report period. Table 20 shows the types of vulnerable user crashes that have occurred at intersections on the Pinellas County road network. These intersections should be studied further for a more in-depth technical analysis of intersection operating conditions and potential countermeasures with the goal of reducing the occurrence of crashes involving vulnerable users.

TABLE 20. HOT SPOT INTERSECTIONS FOR VULNERABLE USERS 2011-2013

Facility	Bicycle Crashes	Pedestrian Crashes	Motorcycle Crashes
US 19 @ Curlew Rd.	X		X
US 19 @ Tampa Rd.		X	X
SR 693 @ 38 th Ave. N.	X		X
US 19 @ Ulmerton Road		X	X
Starkey Rd. @ Park Blvd.		X	X
US 19 @ 62 nd Ave. N.	X		X
SR 693 @ 54 th Ave. N.		X	X
East Bay Dr. @ Starkey Rd.	X	X	X
I-275 @ Gandy Blvd.	X		X
US 19 @ 38 th Ave. N.	X		X
N. Missouri Ave. @ East Bay Dr.		X	X
49 th St. N. @ Park Blvd. N.	X		X
CR 611 @ 70 th Ave. N.	X	X	
US 19 @ Main St.	X	X	

CRASHES REPORTED ALONG GULF BOULEVARD

Gulf Boulevard has been selected for further traffic crash analysis due to its close proximity to the beaches, high rates of pedestrian and bicycle activity, and high concentration of tourist-oriented uses. The crash data analyzed for this corridor is used to uncover any crash trends that may be happening along this popular stretch of roadway. Several safety initiatives, including WalkWise Key to Safety cards and the Gulf Boulevard Beautification Project program, have been instituted in this area with the goal of reducing pedestrian crashes, injuries, and fatalities. The WalkWise Key to Safety card is an insert the same size as a room key which allows hotels along Gulf Boulevard to distribute them to guests during check-in. The goal of this insert is to educate and inform tourists regarding pedestrian safety through the WalkWise tips. The tips include;

- Walk without distraction – wait to text or talk on cell phones
- Always follow the Walk/DON'T Walk signals – use pedestrian push buttons at crossings
- Look left, right and left again before crossing
- Know your surroundings
- Wear bright colors – be seen night and day
- Impaired walking can be dangerous
- Stay on sidewalks – walk facing traffic and use crosswalks
- Expect the unexpected – walk defensively

The Gulf Boulevard Beautification Project program encompasses 11 beach communities and includes a manual that provides guidance on strategies to make the corridor consistent with common amenities and streetscape improvements.

Analysis of the crashes that occur along this corridor can help the county, cities, and FDOT develop projects that will enhance safety features, reduce visual distractions, and improve wayfinding signage while keeping an attractive roadway experience as safe as possible.

Figures 25, 26, 27 and 28 show the crash incidences over the past 3 years along the corridor and how the reported crash numbers reflect crashes happening during certain Months, Days of the Week, and Time of Day. These trends show when this corridor is more vulnerable to accidents, allowing beach communities to educate, enforce and enhance areas that are identified.

Figure 25. Crashes, Injuries, and Fatalities along Gulf Blvd. by Year, 2011-2013

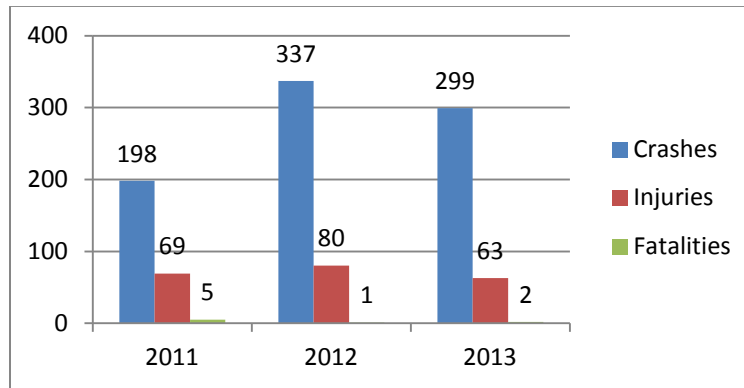


Figure 26. Crashes, Injuries, and Fatalities along Gulf Blvd. by Month, 2011-2013

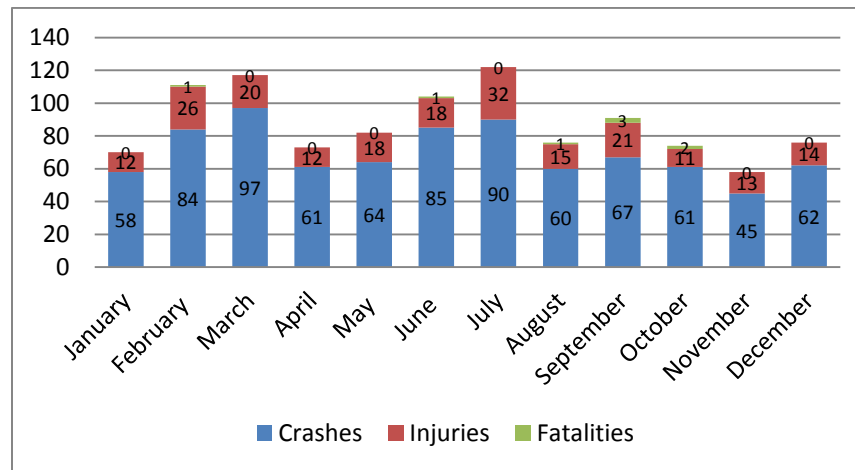


Figure 27. Crashes, Injuries, and Fatalities along Gulf Blvd. by Day of Week, 2011-2013

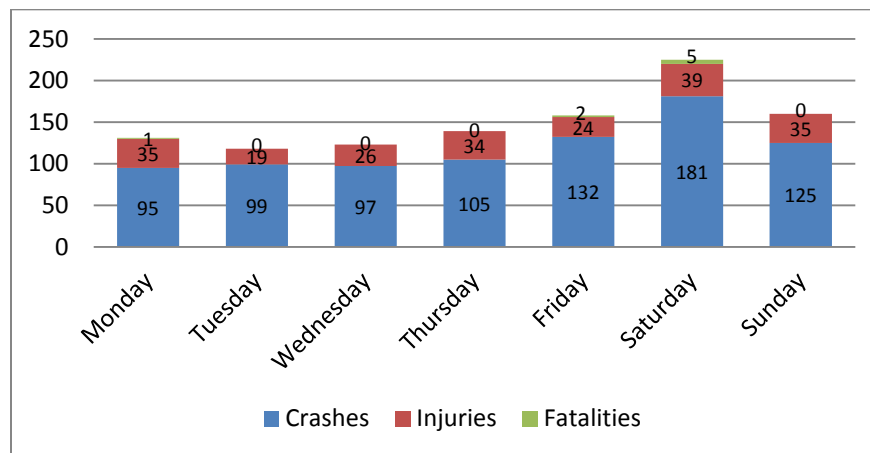
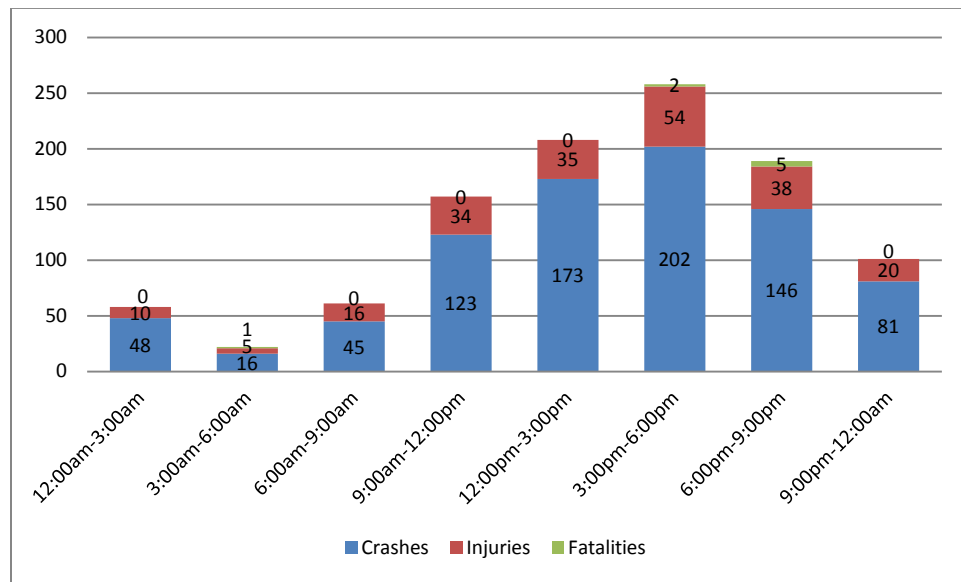


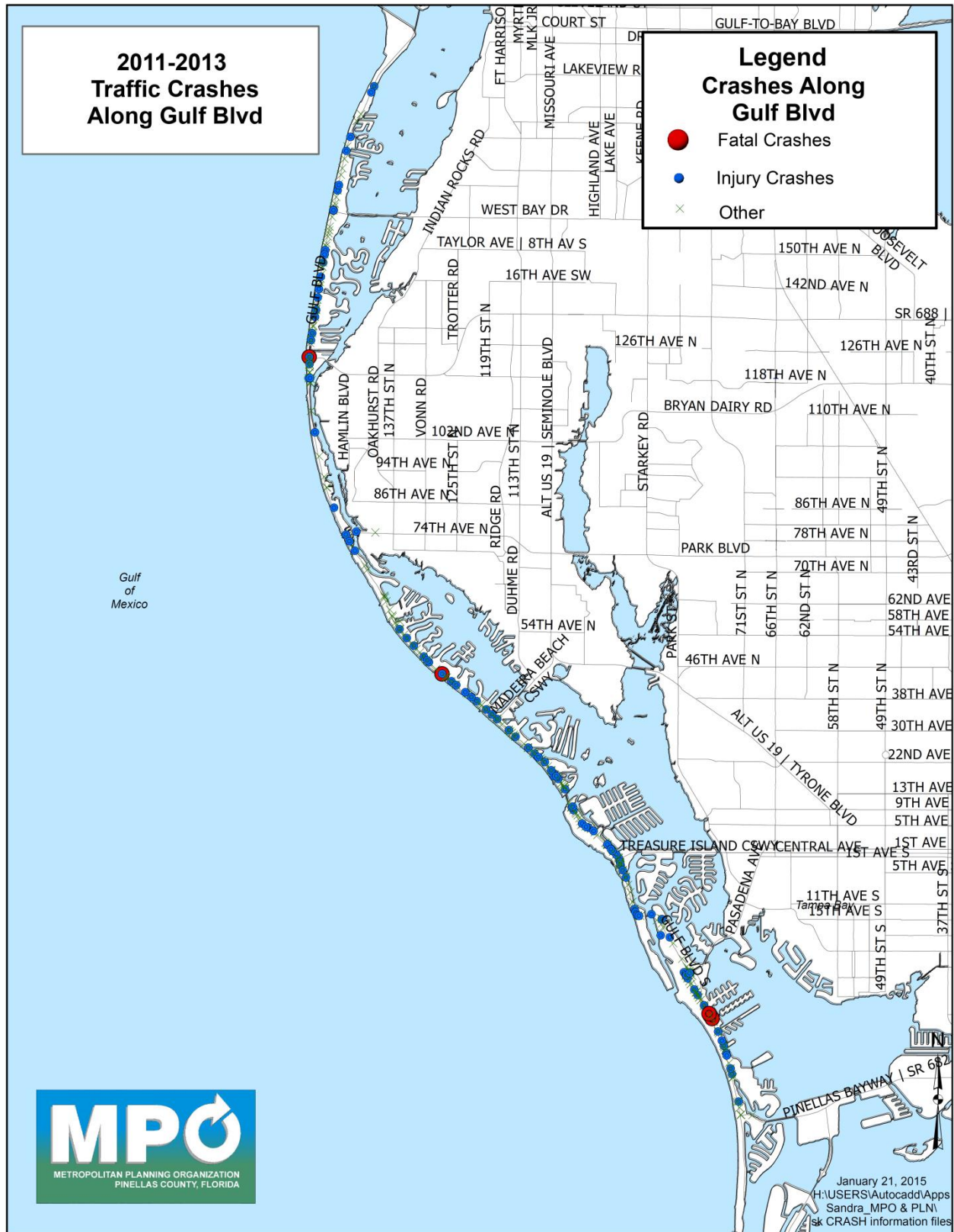
Figure 28. Crashes, Injuries, and Fatalities along Gulf Blvd. by Time of Day, 2011-2013



Some other stats that were charted in the queried report in the appendix are as follows:

- Of the 834 crashes analyzed throughout this corridor, 25% had resulted in a reported injury, and just less than 1% resulted in a fatality.
- The 20 to 24 year old age group had the highest number of crashes averaged over the past 3 years.
- Almost 2% of the crashes along this corridor involved impairment.
- 16% of the traffic crashes involved a vulnerable user.
- 50% of the fatalities happened at the Top 40 intersections along this corridor.
- 44% of the crashes along this corridor were front to rear crashes, while 17% were angle crashes.
- Restraint, Lightning, or Weather had very low impact on the cause of the crashes along this corridor.

MAP 13. CRASHES, INJURIES, AND FATALITIES ALONG GULF BLVD., 2011-2013



PEDESTRIAN CRASH COUNTERMEASURES

As pedestrian crashes typically result in injuries, this section aims to identify countermeasures that will reduce the occurrence and severity of crashes involving pedestrians. Pedestrian crashes occur both at signalized intersections and at mid-block. Crashes involving turning traffic at signalized intersections could be prevented by eliminating the potential for vehicle-pedestrian conflicts. At locations with high pedestrian volumes, prohibiting right turns on red could be an easy strategy to minimize pedestrian conflicts involving right-turning vehicles. At intersections with high right-turning traffic and pedestrian volumes, a leading pedestrian interval (LPI) could improve pedestrian safety. The LPI, also known as “Pedestrian Head Start” or “Delayed Vehicle Green” provides the “Walk” signal for additional 3-5 seconds before the adjacent through movement phase. This strategy gives pedestrians a head start while crossing the intersection, reducing conflicts between pedestrians in the crosswalk and the right-turning vehicles. It also makes the pedestrians more visible. Pedestrian crashes involving left-turning vehicles could be reduced by providing either a protected left-turn phase or an exclusive protected pedestrian signal. Several pedestrian crashes occur when the pedestrian attempted to cross a roadway at mid-block and was struck by approaching traffic. These types of pedestrian crashes could be prevented by providing properly signed and marked mid-block crossings at logical locations, improving roadway lighting, and providing curb extensions. At locations where pedestrians are expected to cross multi-lane roads with high travel speeds and heavy traffic, the following countermeasures could be effective in reducing pedestrian crash frequency and severity:

- ensure curb ramps are provided to make crossing easier for all pedestrians,
- install lighting along the corridor,
- require pedestrians to cross the roadway at logical, designated crossing locations such as crosswalks, and
- install traffic calming measures, such as providing speed bumps, lane narrowing, roundabouts, etc.

County-wide education campaigns on the laws pertaining to pedestrians and the safety benefits of using pedestrian facilities such as crosswalks, sidewalks, and pedestrian refuge islands could improve pedestrian safety. Furthermore, extensive driver education campaigns that focus on driver compliance with pedestrian right-of-way laws and stricter enforcement could prevent the crashes that were due to driver error.

Research has found that undivided roadway segments experience a greater number of pedestrian crashes compared to the locations with raised medians. Raised medians act as pedestrian refuge areas, providing an opportunity for pedestrians to pause while crossing multiple lanes of traffic. Therefore, constructing raised medians is an effective countermeasure on multi-lane corridors with high traffic volumes. In addition to the construction of raised medians, County-wide pedestrian education campaigns focusing on the safety benefits of raised medians could discourage pedestrians from crossing multiple travel lanes without stopping and waiting for sufficient gaps to cross.

Sidewalks not only encourage walking but also significantly improve pedestrian safety. At locations with no sidewalks, pedestrians are forced to walk along the edge of the roadway, increasing the potential for pedestrian crashes. Sidewalks should be provided along all roadways, where technically feasible, or at a minimum paved shoulder, on both sides of the road.

Reductions in vehicle speeds can also have a very significant influence on pedestrian crashes and injuries. Pedestrians suffer much more serious injuries when struck by high-speed vehicles than when struck by vehicles going more slowly. Also, many pedestrian crashes would be prevented entirely had the vehicles been traveling more slowly, since driver and pedestrian would have had more time to perceive the risk and react. Programs should be considered to lower overall vehicle speeds in areas where pedestrians and vehicles commonly share the roadway. Key elements to such programs can include regulation (speed limits), signage, public information, education, enforcement, and engineering modifications.

CONCLUSION

Traffic crashes, injuries, and fatalities have a major impact on the safety and well being of motorists, pedestrians and bicyclists using the Pinellas County transportation system. The crash data reported to the CDMS indicates that a high percentage of crashes are caused by younger drivers between the ages of 20 to 29 that are impaired due to their use of drugs, alcohol or medication. Distracted driving crashes occurred most often with persons between the ages of 15 to 34. Of the fatal traffic crashes; driver impairment, disregarding traffic control devices, and intersection crashes played a role in more than half of all traffic fatalities in Pinellas County in 2013. Younger drivers between the ages of 25 to 29 accounted for the highest number of crashes and 30% of those involved an impaired driver. Most of the traffic fatalities (63%) also involved vulnerable road users which is an increase from 2012. Pedestrians made up more than half (51%) of the fatalities of all vulnerable road users in 2013. Lastly, CDMS statistics indicate that the most significant cause of crashes for all users is drivers operating their vehicles in a careless or negligent manner.

It is imperative that local governments, transportation planners, law enforcement agencies, traffic engineers and the general public continue to find ways to reduce traffic crashes through the planning and/or programming of transportation-related safety projects, long-range transportation forecasting, targeted law enforcement activities, and public education initiatives. It is only by these means that Pinellas County will be able to consistently reduce its incidences of traffic crashes and provide a safer transportation system for all users.

APPENDIX A