

Collision Data

May 30, 1896

**First Bicycle/Auto Crash in
New York City**

The evaluation of collision data can be helpful to determine appropriate countermeasures and actions for both improving pedestrian and bicycle safety and developing educational programs. This section presents the data collection process in the City of Clearwater and an examination of relevant bicycle and pedestrian collision data.

Data Collection Process

Before an analysis of crash data can be performed, it is important to understand the data collection and reporting procedures utilized in the City of Clearwater.

Three entities collect and track collision data in the City of Clearwater: the City of Clearwater Police Department, the Pinellas County Metropolitan Planning Organization's Crash Data Center and the Florida Department of Highway Safety and Motor Vehicles (DHSMV).

The City of Clearwater Police Department collects the initial data and adheres to the *Florida Highway Patrol Policy on Crash Reports*. There are two forms that are used in reporting, the Long Form and the Short Form.

The Long Form Crash Investigation

"The Florida Highway Patrol shall respond to, investigate and document on the Long Form. Report, all traffic crashes brought to their attention which involve:

- Bodily injury or the death of any person.
- Leaving the scene of a traffic crash or involve driving under the influence.
- Hazardous material incidents, involving the actual/suspected release of toxic substances into the environment, or other unusual conditions that pose a significant threat to public safety.
- Vehicle crashes involving DHSMV vehicles.

Collision Data

- Damage to vehicles/property owned by components of government. Such investigations will only be undertaken at the direction of command or supervisory personnel.
- Crashes that result from the commission of a criminal offense (robbery, auto theft, etc.) or from any pursuit.
- Any crash which requires the completion of the Commercial Vehicle Supplement Report (HSMV 90007). “

Short Form Crash Investigation

“The Florida Highway Patrol shall respond to, investigate and document on the Short Form. Report traffic crashes which do not include any of the criteria specified under the Long Form section, but which do involve:

- Damage to any vehicle or other property in an apparent amount of at least \$500.
- Removal of a vehicle from traffic by towing.
- Serious, potentially violent arguments, disturbances or confrontations involving principals or other persons present at the scene. (If such altercations involve the commission of a criminal offense, enforcement action/preparation of "Offense/Incident/Arrest" reports may also be required.)
- Major traffic congestion brought about by the crash, if one or more of the conditions specified in the Long Form Section or the Short Form Section applies.”

After the data is collected, the City of Clearwater Police Department transmits copies of both the long and short forms to the Pinellas Metropolitan Planning Organization and the State of Florida. The data is then evaluated to determine the cause of the crash (crash type) and then each crash site is located on a map.

Crash Typing and Mapping

Both the City of Clearwater Police Department and the Pinellas Metropolitan Planning Organization perform crash typing and mapping for the information that is entered in both the short and long forms. The Florida Department of Highway Safety and Motor Vehicles maintains a separate database of long forms.

Collision Data

Collision Data Examination

Bicycle and pedestrian collision data will be examined during the following section. For the purposes of this examination, data provided by the Pinellas Metropolitan Planning Organization and Clearwater Police Department will be presented. Although it is important to examine collisions, it is also important to note the limitations of the data.

Collision data tends to locate areas of high pedestrian and bicycle activity, such as downtown Clearwater and US Hwy 19. In contrast, collision data does not highlight areas where there is no bicycle or pedestrian activity due to lack of infrastructure.

Due to the limitations associated with the collision data, the *City of Clearwater's Pedestrian and Bicycle Master Plan* evaluates other existing conditions, such as roadway and trail infrastructure and plans, policies and programs to gain a comprehensive perspective and to recommend appropriate implementation actions.

Pedestrian Collision Data

Pedestrian collision data will be examined according to the number of pedestrian injuries and fatalities, reasons for pedestrian collisions, reasons for pedestrian fatality collisions, pedestrian fatality locations, fatality lighting conditions and fatality age groups.

Number of Pedestrian Injuries and Fatalities

Exhibit C-1 delineates Clearwater's pedestrian fatalities from all other traffic fatalities (motor vehicle and bicycle) in the past five years. From 1999 through 2003, pedestrian fatalities accounted for 36% of Clearwater's total traffic fatalities.

To

Traffic Fatalities	1999	2000	2001	2002	2003	Total	Percent of Total
<i>Pedestrian Fatalities</i>	12	6	1	7	3	27	36%
<i>All Other Traffic Fatalities</i>	6	17	11	8	4	48	64%
<i>Total</i>	18	23	12	15	7	75	

Exhibit C-1: Traffic Fatalities

Collision Data

	1999	2000	2001	2002	2003	Total	Percent of Total
Injuries	59	52	44	71	56	282	91%
Fatalities	12	6	1	7	3	29	9%
Total	71	58	45	78	59	311	100%

Exhibit C-2: Pedestrian Injuries and Fatalities

account for the number of pedestrian injuries reported, Exhibit C-2 and C-3 demonstrate that reported pedestrian injuries represent 91% of all pedestrian injuries and fatalities from 1999 to 2003, while fatalities represent 9%.

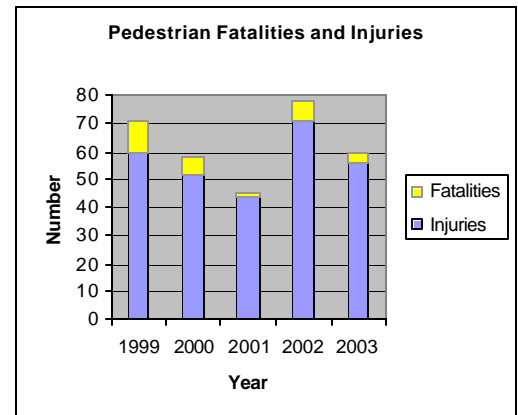


Exhibit C-3: Injuries and

Collision Reasons

As demonstrated in Exhibit C-4, pedestrians were responsible for 55% of pedestrian – motor vehicle collisions from 1999-2003, while motor vehicles account for 44% of the collisions.

On further examination, 45% of those collisions that were caused by pedestrians were due to failure of the pedestrians to yield the right-of way to motor vehicles and 22% specifically were failure of the pedestrian to yield the right-of-way mid-block (not in an intersection). In the

Injuries and Fatalities	1999	2000	2001	2002	2003	Total	Percentage of Total
Pedestrian At-Fault							
Alcohol Related	15	10	5	12	5	47	15%
Failure to Yield Right-of-Way: Mid-Block	18	20	4	14	12	68	22%
Failure to Yield Right-of-Way: Intersection	11	8	4	16	10	49	16%
Failure to Yield Right-of-Way: Other	3		8	6	5	22	7%
Disregarded Traffic Control	3	3		3	2	11	4%
Other Pedestrian Violations	5	5	3	5	4	22	7%
Total	40	36	19	44	33	172	55%
Bicycle At-Fault	2	0	2	0	0	4	1%
Motor Vehicle At-Fault							
Alcohol Related	0	0	1	2	2	2	1%
Careless Driving	14	7	14	12	15	62	20%
Disregarded Traffic Signal	1	0	0	6	0	7	2%
Speeding	0	1	0	1	1	3	1%
Failure to Yield Right-of-Way	10	12	7	13	5	47	15%
Other Motor Vehicle Violations	4	2	3	2	5	16	5%
Total	29	22	24	34	26	137	44%
TOTAL	71	58	45	78	59	313	100%

Exhibit C-4: Collision Reasons for Injuries and Fatalities

Collision Data

State of Florida, pedestrians are required to yield the right-of-way to motor vehicles when the pedestrian is not in a crosswalk. A crosswalk is defined by the 2002 Florida Statutes, Title XXIII (Motor Vehicles), Section 318, as

- “ 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.”

The leading cause of the collisions caused by motor vehicles is careless driving, followed by failure to yield the right-of-way to pedestrians.

Fatality Collision Reasons

Of the pedestrian collisions that resulted in a fatality between 1999 and 2003, 83% were the fault of the pedestrian, while 17% were the fault of the motor vehicle. (Exhibit C-5). The leading action that led the pedestrian to cause a harmful event was again failure to yield the right of way to the motor vehicle. When the vehicle was the cause of the fatality, the leading action was what was

Fatalities	1999	2000	2001	2002	2003	Total	Percentage of Total
Pedestrian At-Fault							
Alcohol Related	5	3		2	1	11	38%
Failure to Yield Right-of-Way: Mid-Block Crossing	8	4		4	3	19	66%
Failure to Yield Right-of-Way: Intersection	1	1				2	7%
Standing/Playing in Road	1	0				1	3%
Other Pedestrian Violations	1	1				2	7%
Total	11	6	0	4	3	24	83%
Motor Vehicle At-Fault							
Alcohol Related			1			1	3%
Careless Driving	1		1	1		3	10%
Disregarded Traffic Signal				1		1	3%
Speeding						0	0%
Failure to Yield Right-of-Way				1		1	3%
Other Motor Vehicle Violations						0	0%
Total	1	0	1	3	0	5	17%
TOTAL	12	6	1	7	3	29	100%

Exhibit C-5: Collision Reasons for Pedestrian Fatalities

Collision Data

recorded as careless driving.

It is also important to note that 38% of the total fatalities were alcohol related (either had been drinking or were under the influence) on the part of the pedestrian, where only 3% of the fatalities caused by vehicles were alcohol related. When examining only the fatal collisions caused by the pedestrian, alcohol consumption accounts for 45% of those fatalities.

Pedestrian Fatality Locations	Number	Percentage
US Hwy 19	11	38%
Gulf-To-Bay Blvd. (SR 60)	5	17%
Cleveland Street	3	10%
Missouri Avenue	2	7%
Jeffords	1	3%
Belcher Road	1	3%
Ft. Harrison Ave.	1	3%
Myrtle Ave.	1	3%
Sunset Point Road	1	3%
Saturn Ave.	1	3%
NE Coachman	1	3%
Causeway Blvd.	1	3%
Total	29	100%

Exhibit C-6: Roadway Location of Fatality

Both of these roadways support high pedestrian activity and are higher speed, multiple lane roadways with large distances between signalized intersections. The specific intersection of Drew Street and US Hwy 19 had more pedestrian fatalities than any other intersection in the City of Clearwater. The pedestrian fatalities are located by year on the map on the following page (Exhibit C-8).

Fatality Collision Locations

There are two areas of note regarding pedestrian fatality locations: the roadway and intersection where the fatality occurred and the actual position of the pedestrian in the roadway. US Hwy 19 and Gulf-to-Bay Boulevard (SR 60) had the highest incidents of pedestrian fatalities in Clearwater from 1999-2003.

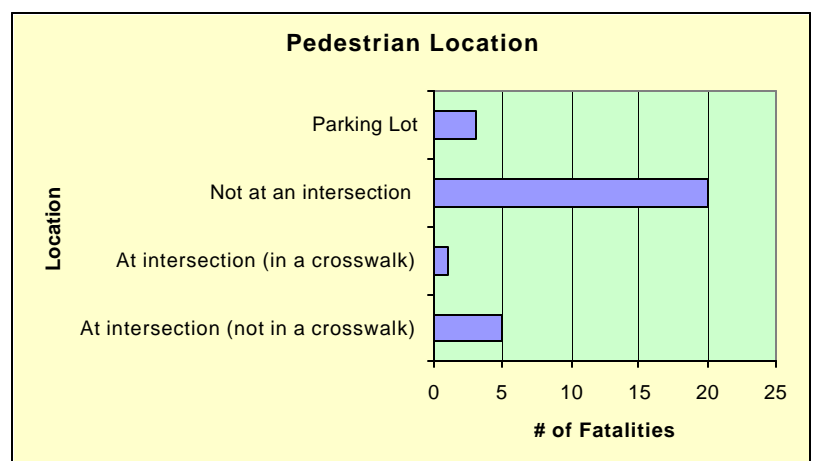
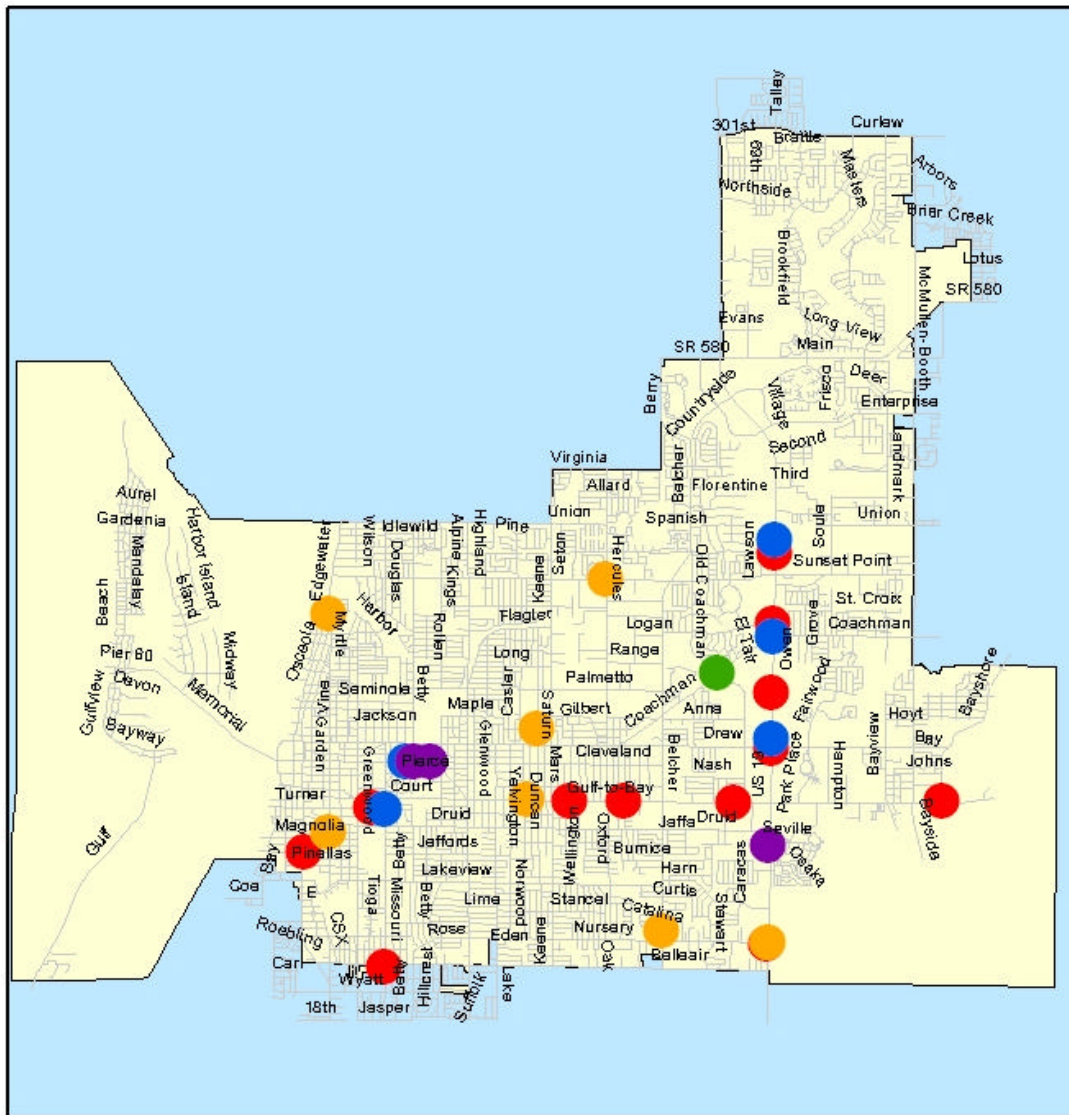


Exhibit C-7: Pedestrian Fatality Location

Collision Data

Exhibit C-8: Pedestrian Fatalities



Pedestrian Fatalities 1999-2003

Legend

- 1999
- 2000
- 2001
- 2002
- 2003



Collision Data

The pedestrian's location on the roadway is important to note when evaluating collision data. The majority of Clearwater's fatalities occurred away from an intersection in Clearwater from 1999-2003. Of the fatality occurrences at an intersection, only one was within a crosswalk. However, that fatality occurred in an unmarked crosswalk.

Lighting Conditions

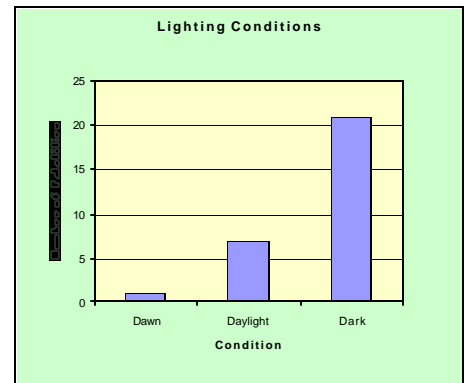


Exhibit C-9: Lighting

As demonstrated by Exhibit C-9, most of the City's

pedestrian fatalities occurred between 1999 and 2003 in Clearwater when it was dark. Only 7 of the 29 fatalities between 1999 and 2003 occurred in the daylight hours.

Age Groups	Number of Pedestrian Fatalities	Percent of Fatalities	Percent of 2000 Population
0-5	1	3.4%	5.2%
5-10	0	0.0%	5.5%
10-14	0	0.0%	5.3%
15-19	3	10.3%	5.4%
19-24	2	6.9%	5.8%
25-34	1	3.4%	12.8%
35-44	7	24.1%	14.8%
45-54	8	27.6%	13.7%
55-59	2	6.9%	5.5%
60-64	0	0.0%	4.7%
65-74	0	0.0%	9.7%
75-84	2	6.9%	8.2%
85 +	2	6.9%	3.6%
Unknown	1	3.4%	
Total	29	100%	100%

Age of Fatalities

Exhibits C-10 and C-11 demonstrates the number of fatalities by age group and compares the percentage of the fatalities per age group to the

Exhibit C-10: Fatality Age Groups

percentage of that age group in the 2000 United States Census from 1999 to 2003.

The age group with the highest number of pedestrian fatalities in the City of Clearwater is 45 to 54 years of age (27.6%), followed by age groups 35 to 44 (24.1%) and 15-19 (10.3%). All three of these age groups have a higher

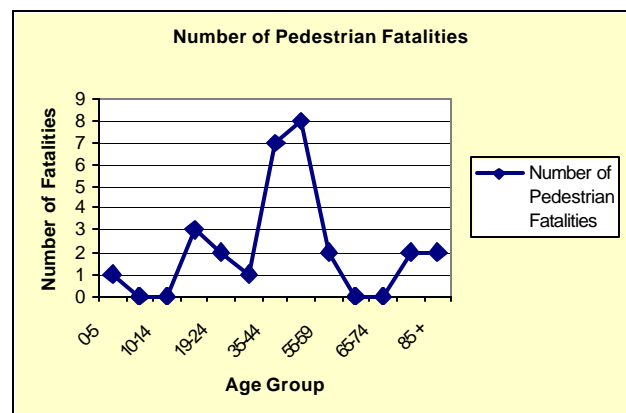


Exhibit C-11: Fatality Age Groups

Collision Data

representation in the number of pedestrian fatalities in Clearwater than their overall population representation.

The age groups with zero pedestrian fatalities from 1999 through 2003 include 5-10, 10-14, 60-64 and 65-74 years of age.

Bicycle Collision Data

In the following section, bicycle collision data will be examined according to the number of bicycle injuries and fatalities, reasons for bicycle collisions, reasons for bicycle fatality collisions, bicycle fatality locations, bicycle fatality lighting conditions and bicycle fatality age groups.

Number of Bicycle Fatalities and Injuries

Exhibit C-12 illustrates the number of bicycle fatalities and compares those fatalities with the City of Clearwater's total number of traffic fatalities from 1999 through 2003. Bicycle fatalities only comprised 7% of Clearwater's total number of traffic fatalities.

Traffic Fatalities	1999	2000	2001	2002	2003	Total	Percent of Total
<i>Bicycle Fatalities</i>	2	2	0	1	0	5	7%
<i>All Other Traffic Fatalities</i>	16	21	12	14	7	70	93%
<i>Total</i>	18	23	12	15	7	75	100%

C-12: All Traffic Fatalities

	1999	2000	2001	2002	2003	Total	Percent of Total
<i>Injuries</i>	48	66	43	52	66	275	98%
<i>Fatalities</i>	2	2	0	1	0	5	2%
<i>Total</i>	50	68	43	53	66	280	100%

C-13: Bicycle Injuries and Fatalities

Collision Data

Exhibit C-13 presents the total number of bicycle fatalities and reported bicycle injuries. As shown in the exhibit, there were 275 (or 98%) reported bicycle injuries and only 5 fatalities (or 2%).

Collision Reasons

Injuries and Fatalities	1999	2000	2001	2002	2003	Total	Percentage of Total
Bicyclist At-Fault							
Alcohol Related	3	0	0	3	5	11	4%
Failure to Yield Right-of-Way: Ride Out	9	11	2	6	13	41	15%
Failure to Yield Right-of-Way: Other	4	9	5	4	3	25	9%
Wrong Way Riding	3	6	2	2	4	17	6%
Disregarded Traffic Control	6	7	2	4		19	7%
Careless Driving	2	4	2	6	7	21	8%
Other Bicyclist Violations	4	2	2	1	4	13	5%
Total	28	39	15	23	31	136	49%
Motor Vehicle At-Fault							
Alcohol Related	0	0	2	2	0	4	1%
Careless Driving	3	6	8	12	15	44	16%
Disregarded Traffic Signal	2	2	0	0	2	6	2%
Speeding	1	0	1	2		4	1%
Failure to Yield Right-of-Way	13	19	17	16	14	79	28%
Other Motor Vehicle Violations	3	2	2	0	4	11	4%
Total	22	29	28	30	35	144	51%
TOTAL	50	68	43	53	66	280	100%

Exhibit C-14: Reasons for Injuries and Fatalities

From 1999 through 2003, 49% of all bicycle injuries and fatalities were the fault of the bicyclist (Exhibit C-14), and 51% were the fault of the motor vehicle. For both the motorist and the bicyclist, the number one contributing cause was the failure to yield the right-of-way followed by careless driving. Alcohol consumption was only indicated in 5% of the total bicycle injuries and fatalities as illustrated in Exhibit C-14.

Collision Data

It is important to note that failure to yield to the right-of-way, ride-out was the most frequent cause when the bicyclist is at fault. A bicycle ride-out occurs when the cyclist enters a roadway from the sidewalk, driveway stop sign or at a mid block location.

Bicycle Fatality Collision Reasons

As there were only 5 bicycle fatalities between 1999 and 2003, it is not possible to draw any solid conclusions. However, of the bicycle collisions that resulted in a fatality between 1999 and 2003, 80% were due to the fault of the bicyclist, while 20% were the fault of the motor vehicle. (Exhibit C-15). The leading action that led the bicyclist to cause the harmful event was failure to yield the right of way to the motor vehicle. When the vehicle was the cause of the fatality, the leading action was also failure to yield the right of way.

Fatalities	Total	Percentage
Bicyclist At-Fault		
Alcohol Related	1	20%
Failure to Yield Right-of-Way: Ride Out	1	20%
Failure to Yield Right-of-Way: Other	2	40%
Wrong Way Riding	1	20%
Total	4	80%
Motor Vehicle At-Fault		
Alcohol Related	1	20%
Careless Driving	0	0%
Disregarded Traffic Signal	0	0%
Speeding	0	0%
Failure to Yield Right-of-Way	1	20%
Other Motor Vehicle Violations	0	0%
Total	1	20%
TOTAL	5	100%

Exhibit C-15: Bicycle Fatalities

It is also important to note that 40% of all bicycle fatalities were alcohol related (either had been drinking or were under the influence).

Fatality Collision Locations

As with pedestrian fatalities, there are two areas of note regarding bicycle fatality locations: the

Bicycle Fatality Locations	Number	Percentage
Drew Street	3	60%
US Hwy 19	1	20%
Gulf to Bay (SR 60)	1	20%
Total	5	100%

Exhibit C-16: Bicycle Fatality Locations

Collision Data

roadway and intersection where the fatality occurred and the actual position of the bicyclist in the roadway. All of the fatalities occurred on Drew Street, US Hwy 19 and Gulf-to-Bay Boulevard (SR 60) from 1999-2003 (Exhibit C-16). These roadways support high bicyclist activity and are higher speed, multiple lane roadways. Only one of the bicycle fatalities occurred within an intersection. The bicycle fatalities are located by year on the map on the following page (Exhibit C-19).

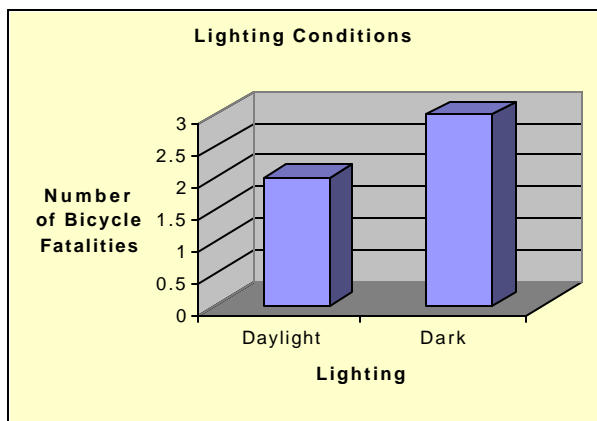


Exhibit C-17: Lighting Conditions

Fatality Lighting Conditions

As illustrated by Exhibit C-17, most of the City's bicycle fatalities occurred between 1999 and 2003 in Clearwater when it was dark.

Bicycle Fatality Age Groups

Again, due to the small number of bicycle fatalities, it is impossible to draw accurate conclusions. Exhibit C-18 demonstrates the number of fatalities by age group and compares the percentage of the fatalities per age group to the percentage of that age group in the 2000 United States Census from 1999 to 2003.

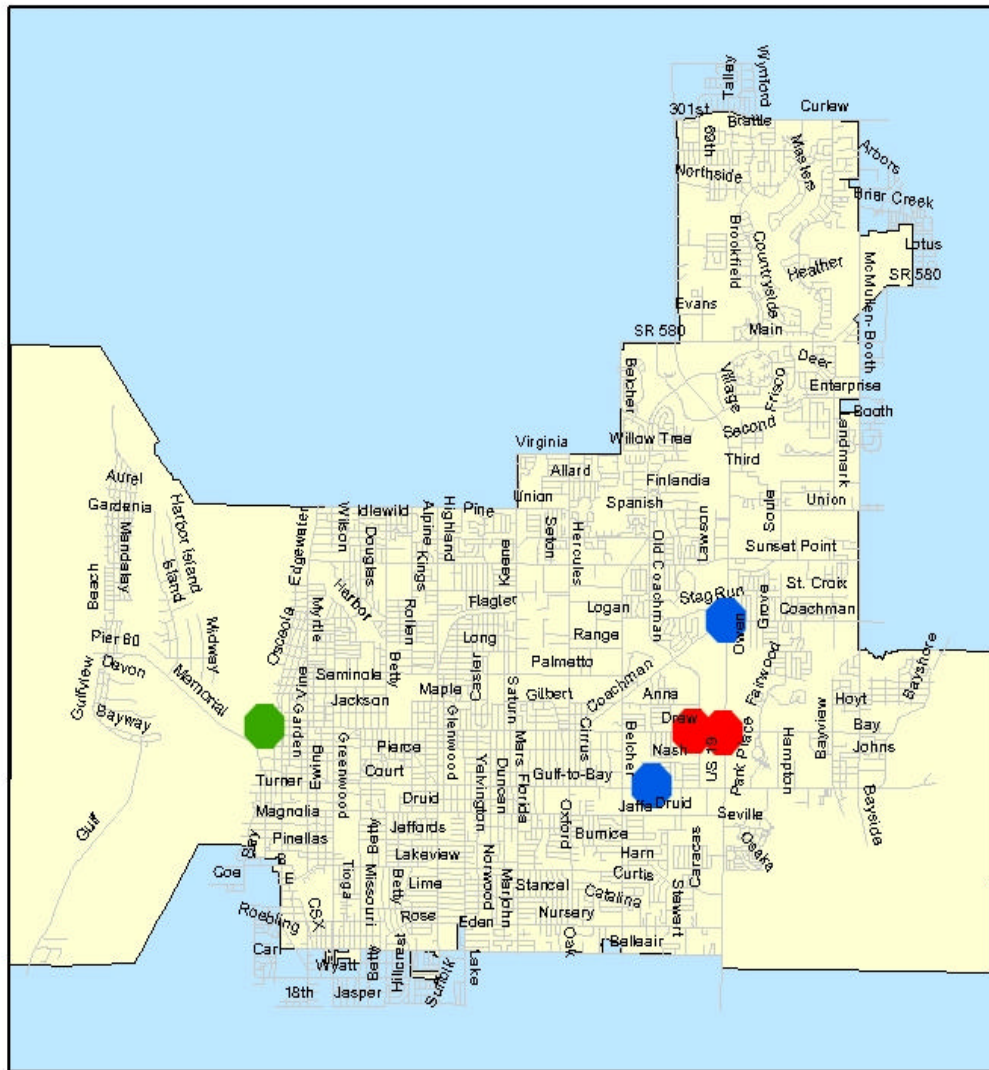
The age group with the highest number of pedestrian fatalities in the City of Clearwater is 15 to 19 years of age and 45 to 54 years of age.

Age Groups	Number of Bicycle Fatalities	Percent of Fatalities	Percent of 2000 Population
0-5	0	0%	5.2%
5-10	0	0%	5.5%
10-14	0	0%	5.3%
15-19	2	40%	5.4%
20-24	0	0%	5.8%
25-34	0	0%	12.8%
35-44	0	0%	14.8%
45-54	2	40%	13.7%
55-59	0	0%	5.5%
60-64	0	0%	4.7%
65-74	0	0%	9.7%
75-84	1	20%	8.2%
85 +	0	0%	3.6%
Total	5	100%	100%

Exhibit C-18: Bicycle Fatality Age Groups

Collision Data

Exhibit C-19: Bicycle Fatalities



Bicycle Fatalities 1999-2003

Legend

- 1999
- 2000
- 2002

Please note there were no bicycle fatalities in 2001 or 2003.



Collision Data

Conclusion

This section of the Existing Environment chapter of the Pedestrian and Bicycle Master Plan presented the collision data collection, reporting and crash typing process of the City of Clearwater, Pinellas County and the State of Florida. This section also evaluated bicycle and pedestrian collision data according to the number of pedestrian injuries and fatalities, reasons for pedestrian collisions, reasons for pedestrian fatality collisions, pedestrian fatality locations, fatality lighting conditions and fatality age groups.