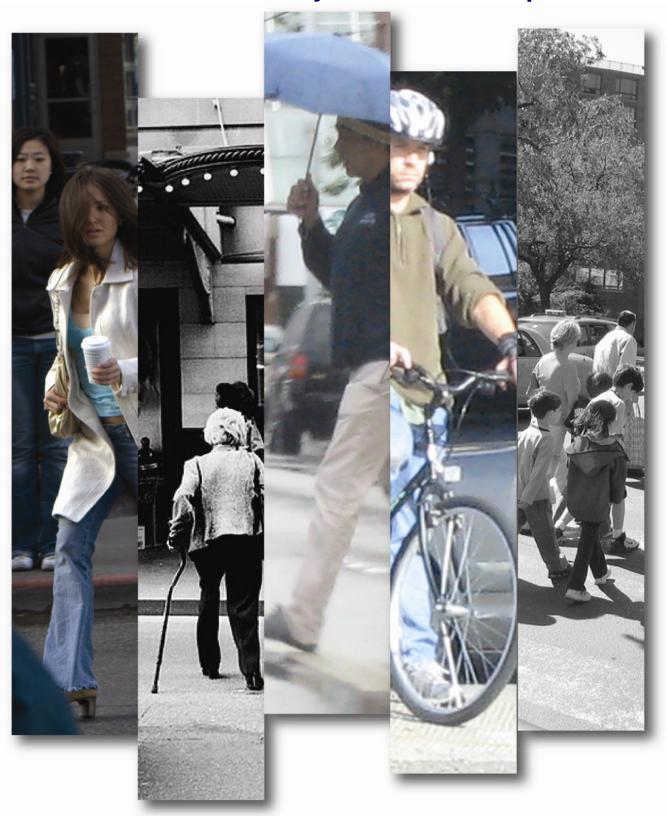
# 2007 Pedestrian and Bicycle Collision Report





SEATTLE DEPARTMENT OF TRANSPORTATION

#### INTRODUCTION

Safety is the top priority at the Seattle Department of Transportation (SDOT) and pedestrian and bicyclist safety is of particular importance. In an effort to provide comprehensive and informative data on pedestrian and bicycle collisions, SDOT has produced this report summarizing collisions in the city of Seattle in 2007.

This report is intended to provide only data about collisions and does not attempt to identify solutions. The information will be provided to SDOT engineers, policy makers, and citizens to help increase awareness of recent trends and to inform decision-making related to pedestrian and bicyclist safety.

The data for this report come primarily from Washington State Police Traffic Collision Reports produced by the Seattle Police Department (SPD). Data from Vehicle Collision Reports submitted by citizens are also included in cases where SPD did not produce a report.

These reports reflect collisions on city-owned right-of-way (ROW) involving pedestrians and bicyclists. The information is processed by the Washington State Department of Transportation and transmitted to the city of Seattle's Collision Records System, which is owned and maintained by SDOT.

This report was produced by the Traffic Data and Records unit in SDOT's Traffic Management Division. For additional information, contact (206) 684-5099.



#### **EXECUTIVE SUMMARY**

- In 2007, the number of pedestrian and bicycle collisions were lower than 2006, but were above the five-year averages. Fatalities were also lower in 2006 and below the five-year averages.
- Pedestrian and bicycle collisions occurred most frequently downtown and along arterial roadways.
- Pedestrians involved in collisions were twice as likely to be struck in intersections as in mid-block locations. Bicyclists were equally likely to be struck in intersection and mid-block locations.
- Pedestrians and bicyclists between the ages of 15 and 34 were most frequently involved in collisions.
   Pedestrian fatalities, however, were more frequent among older pedestrians. Sixty-six percent occurred among pedestrians ages 65 and older, an age group that comprises seven percent of the Seattle population.
- Males represent a higher percentage of pedestrians, bicyclists, and drivers involved in pedestrian and bicycle collisions. The gender split is most dramatic among bicyclists involved in collisions, who were male in 74 percent of incidents.
- More pedestrians were involved in collisions during the winter months. November (67) and December (62) saw the highest totals, while the August total (19) was the lowest in at least five years.
- More bicyclists were involved in collisions during the spring and summer months. August (44) and July (41)saw the highest totals, while January, October, and December saw the lowest totals (18 each).
- Pedestrians and bicyclists were more frequently involved in collisions during the work week than on weekends. Sunday saw the lowest daily total for both.
- Pedestrians and bicyclists were most frequently involved in collisions during the evening rush. The hour between 5 and 6 p.m. saw the highest totals. All fatalities occurred between 9 a.m. and 8 p.m. in 2007.
- Pedestrians were most frequently involved in collisions with vehicles traveling forward in a straight line. Bicyclists were most frequently involved in collisions while riding with traffic on the roadway.
- Pedestrians and bicyclists were most frequently involved in collisions with passenger cars, such as sedans.
- Pedestrians involved in collisions while attempting to cross at intersections were most frequently crossing with the traffic signal.
- Pedestrians and bicyclists were most frequently involved in collisions under clear or partly cloudy weather conditions.
- Where the pedestrian was reported to have contributed to the collision, the most common contributing factor was a failure to use a crosswalk. The most common contributing factor for drivers was a failure to grant the pedestrian right-of-way.
- Where the bicyclist was reported to have contributed to the collision, the most common contributing factors for both bicyclists and drivers was a failure to grant right-of-way.
- The "pedestrian" designation includes not just people on foot, but also roller skaters, skate boarders, people using wheelchairs, and flaggers working in the right of way. There were 23 people involved in collisions who fell into these categories, including nine people in wheelchairs.



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### **SECTION I: HISTORICAL COMPARISON**

Table 1 indicates the number of pedestrian collisions and fatalities from 2002 to 2007. This includes the 2002-2006 five-year average for comparison.

Fatalities 4 1 **Collisions** Year 5-Yr Avg 

**Table 1: Annual Pedestrian Collision Totals** 

Between 2002 and 2006, there was an average of 485 pedestrian collisions resulting in nine pedestrian fatalities per year in the city of Seattle. In 2007, there were 492 pedestrian collisions resulting in six fatalities. The total number of collisions is significantly lower than 2006 but still above the five-year average. The number of fatalities is the lowest since 2002.



**Table 2: Historical Comparison of Pedestrian Collisions** 



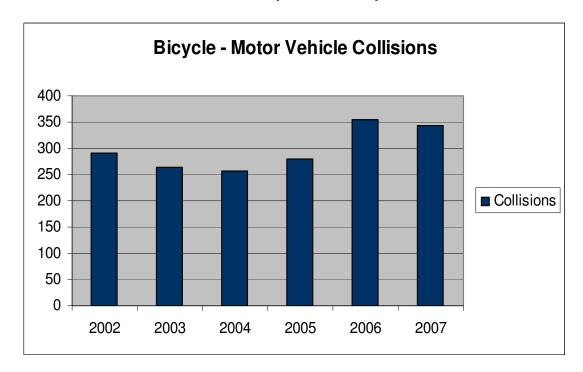
Table 3 indicates the number of bicycle collisions and fatalities from 2002 to 2007. This includes the 2002-2006 five-year average for comparison.

**Table 3: Annual Bicycle Collision Totals** 

Year	Collisions	Fatalities
2002	291	1
2003	263	0
2004	257	1
2005	279	0
2006	354	2
5-Yr Avg	289	0.8
2007	343	1

Between 2002 and 2006, there was an average of 289 bicycle collisions resulting in an average of .8 fatalities per year. In 2007, there were 343 bicycle collisions resulting in one fatality. The total number of collisions is below the 2006 total but above the five-year average.

**Table 4: Historical Comparison of Bicycle Collisions** 





### **SECTION II: LOCATION AND ROAD TYPE**

Section II examines the location and road type for pedestrians and bicyclists involved in collisions. The total number of pedestrians and bicyclists involved in collisions is greater than the total number of collisions primarily because a single collision sometimes involves multiple pedestrians and/or bicyclists.

Table 5 indicates the injury type by roadway classification for pedestrians involved in collisions. Injury types and roadway classifications are defined in the appendix.

Table 5: Roadway Classification by Pedestrian Injury

		Roadway Class							
Injury	Residential	Collector	Minor	Principal	Unknown	Total			
No Injury	3	1	7	12	0	23			
Possible Injury	21	5	58	140	0	224			
<b>Evident Injury</b>	28	10	58	108	0	204			
Disabling Injury	9	1	12	31	0	53			
Fatality	0	1	0	4	0	5			
Non-Traffic Fatality	0	0	0	1	0	1			
Unknown	2	2	7	10	0	21			
Total	63	20	142	306	0	531			

Pedestrians were most frequently involved in collisions along arterial roadways. There were 306 pedestrians (58 percent) struck on principal arterial roadways and another 142 (27 percent) struck on minor arterial roadways.

All six pedestrian fatalities occurred on arterials and five of the six occurred on principal arterials.

The "non-traffic fatality" category seen on this and subsequent charts is a classification used in the reports for situations that do not meet the state definition of a fatal collision; in this case it was because the fatality occurred more than 30 days after the collision.

Table 6 indicates the injury type by roadway classification for bicyclists involved in collisions.

Table 6: Roadway Classification by Bicyclist Injury

		Roadway Class							
Injury	Residential	Collector	Minor	Principal	Unknown	Total			
No Injury	7	0	11	14	0	32			
Possible Injury	10	8	28	39	0	85			
Evident Injury	19	6	86	64	0	175			
Disabling Injury	5	2	20	20	0	47			
Fatality	0	0	0	1	0	1			
Unknown	3	1	4	6	0	14			
Total	44	17	149	144	0	354			

Bicycle collisions were also concentrated along arterial roadways. However, bicyclists were most frequently involved in collisions along minor arterials; there were 149 bicyclists (43 percent) struck on minor arterial roadways and 144 (41 percent) struck on principal arterial roadways. The bicycle fatality occurred on a principal arterial.



Table 7 examines the roadway classification by location type for pedestrians involved in collisions. For reporting purposes, all collision locations occur either at an intersection, or at a mid-block location. An example of an intersection would be Fourth Avenue and Pike Street, while a mid-block location would be anywhere along a roadway between two intersecting streets, such as Fourth Avenue between Pike and Pine streets.

Table 7: Pedestrians Involved in Collisions - Roadway Classification by Location Type

Location	Residential	Collector	Minor	Principal	Unknown	Total
Intersection	12	12	93	231	0	348
Mid-block	51	8	49	75	0	183
Total	63	20	142	306	0	531

Even though mid-block locations make up a higher proportion of the total roadway space than do intersections, pedestrians are more likely to be struck in intersections. In 2007, 66 percent of pedestrians involved in pedestrian collisions were in intersections.

Collisions occurred more frequently at intersections than at mid-block locations for each of the arterial roadway types. On residential (non-arterial) streets, however, approximately 81 percent of pedestrians struck were at mid-block locations.

Table 8 examines the roadway classification by location type for bicyclists involved in collisions.

Table 8: Bicyclists Involved in Collisions - Roadway Classification by Location Type

Location	Residential	Collector	Minor	Principal	Unknown	Total
Intersection	18	6	72	86	0	182
Mid-block	26	11	77	58	0	172
Total	44	17	149	144	0	354

As Table 8 indicates, there were nearly as many bicycle collisions in mid-block locations as in intersections (172 to 182). Collisions along principal arterials were more frequent at intersections, but mid-block collisions occurred more frequently in each of the other roadway class categories.

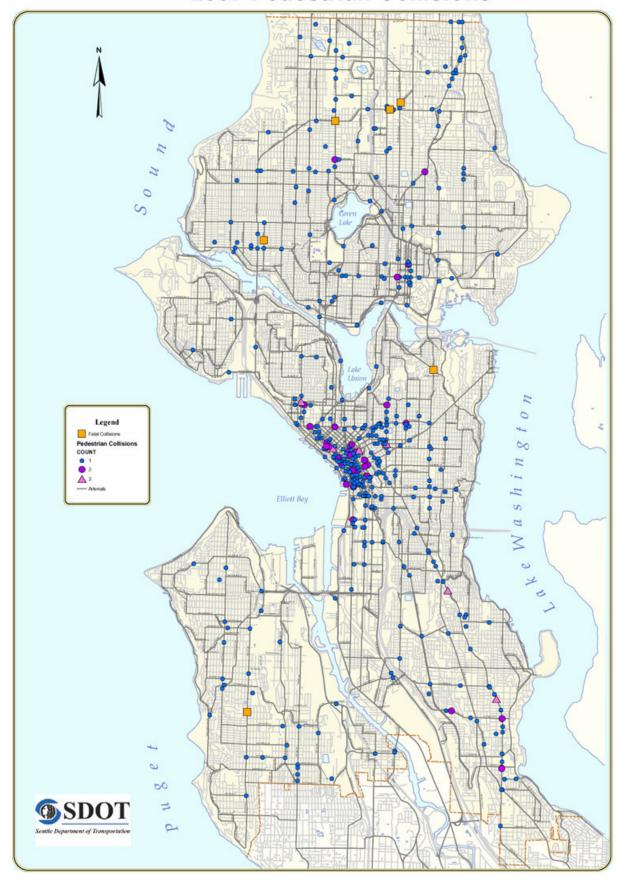
The maps on the following pages illustrate pedestrian and bicycle collision locations. The first two maps reflect pedestrian and bicycle collisions in 2007. The following two maps focus on the most injurious pedestrian collisions -- those resulting in disabling injuries or fatalities.

Disabling injuries are defined as those which prevent the injured person from walking, driving or continuing normal activities at the time of the accident. They do not necessarily result in permanent disabilities. More information about injury type is available in Section III. For complete definitions of injury types, refer to the appendix.

Consistent with previous years, pedestrian and bicycle collisions in Seattle are most frequent in the downtown area and along arterial roadways, where motor vehicle, pedestrian, and bicycle volumes are highest.

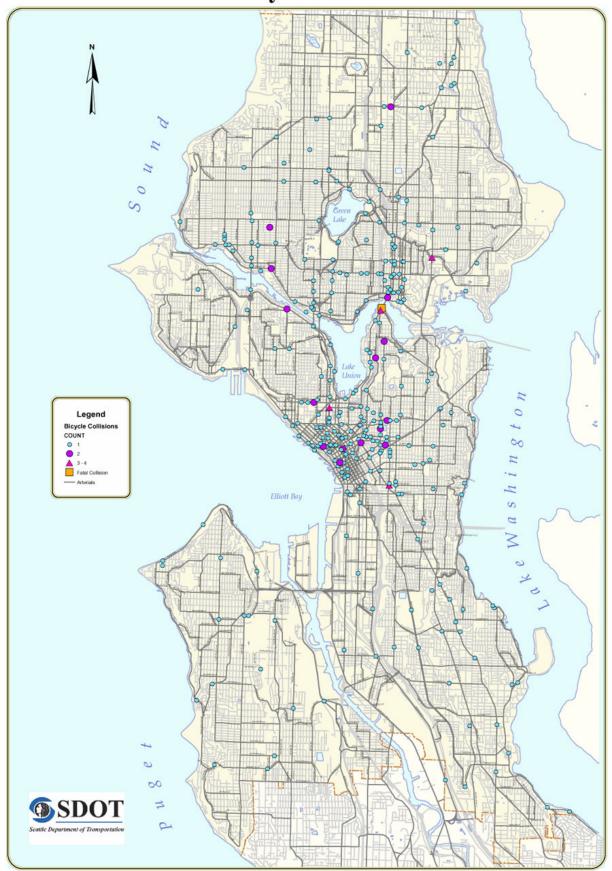


# 2007 Pedestrian Collisions



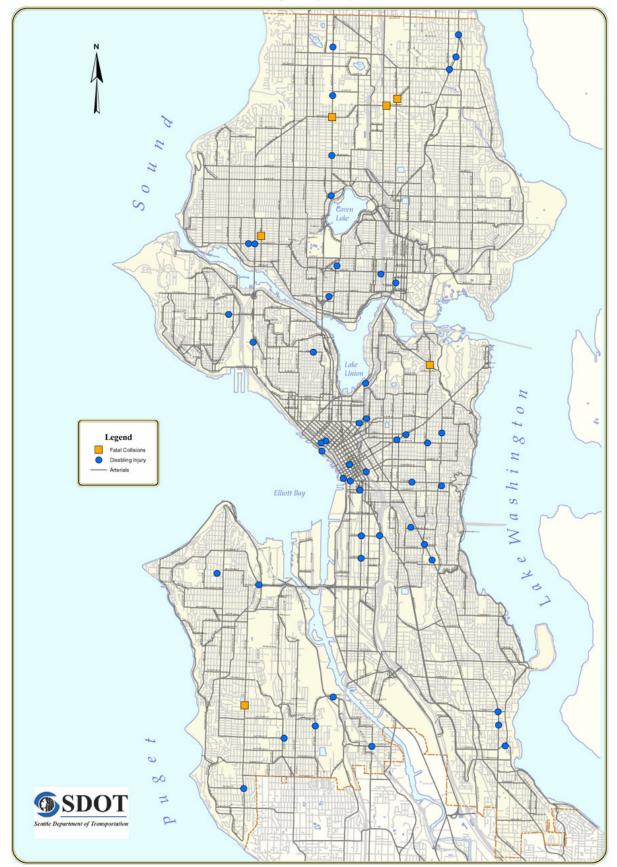


# 2007 Bicycle Collisions



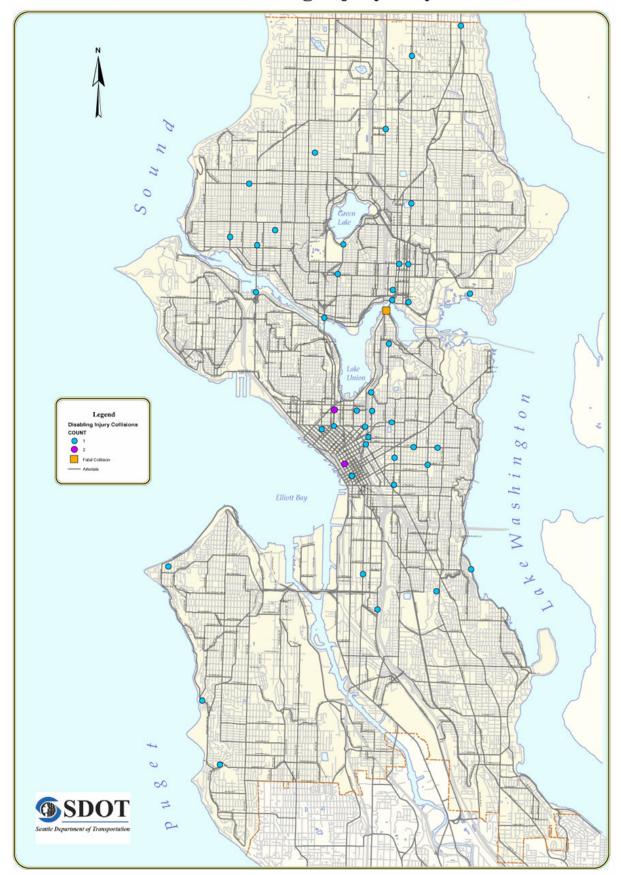


# 2007 Fatal & Disabling Injury Pedestrian Collisions





# 2007 Fatal & Disabling Injury Bicycle Collisions





#### SECTION III: DEMOGRAPHIC CHARACTERISTICS

Section III examines the available demographic characteristics of pedestrians, bicyclists, and drivers in pedestrian and bicycle collisions.

Table 9 indicates the age group by injury for pedestrians involved in collisions. The final two columns compare the percentage of pedestrians involved in collisions to their share of the population in Seattle. The age group ranges vary slightly in the number of years they include, but are consistent with U.S. Census statistics.

**Table 9: Pedestrian Age Group by Injury** 

		Injury								
Age Group	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total	% of Total	% of Seattle Pop
0 to 4	0	2	1	0	0	0	0	3	1%	5%
5 to 14	3	5	11	3	0	0	0	22	4%	8%
15 to 24	2	47	33	7	0	0	1	90	17%	14%
25 to 34	6	44	43	11	1	0	3	108	20%	22%
35 to 44	6	31	21	6	0	1	1	66	12%	17%
45 to 54	2	31	28	14	0	0	5	80	15%	15%
55 to 64	1	24	19	7	0	0	3	54	10%	7%
65 & Up	0	8	20	4	4	0	1	37	7%	12%
Unknown	3	32	28	1	0	0	7	71	13%	N/A
Total	23	224	204	53	5	1	21	531	100%	100%

A comparison of the last two columns suggests that the percentage of pedestrians in each age group is roughly proportional to its share of the population.

One hundred and eight pedestrians between the ages of 25 and 34 were involved in collisions, the highest total for any age group, followed by 90 pedestrians between the ages of 15 and 24.

Older pedestrians, however, were involved in more fatalities. Four of the six pedestrian fatalities occurred in the 65 and up age group. By contrast, no pedestrians under the age of 25 suffered fatalities in 2007.

Table 10 indicates the age group by injury for bicyclists involved in collisions.



Table 10: Bicyclist Age Group by Injury

Age Group	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total	% of Total	% of Seattle Pop
0 to 4	0	0	0	0	0	0	0	0%	5%
5 to 14	3	4	6	1	0	0	14	4%	8%
15 to 24	7	14	43	10	1	0	75	21%	14%
25 to 34	8	25	51	11	0	0	95	27%	22%
35 to 44	5	16	17	10	0	2	50	14%	17%
45 to 54	2	12	17	7	0	0	38	11%	15%
55 to 64	0	3	9	3	0	0	15	4%	7%
65 & Up	1	1	1	0	0	0	3	1%	12%
Unknown	6	10	31	5	0	12	64	18%	N/A
Total	32	85	175	47	1	14	354	100%	100%

Ninety-five bicyclists between the ages of 25 and 34 were involved in bicycle collisions, the highest total for any age group, followed by 75 bicyclists between the ages of 15 and 24.

A comparison of the last two columns suggests that bicyclists ages 15 to 34 appear over-represented relative to their proportion of the population, while the youngest and oldest age groups tend to be under-represented. A more comprehensive analysis, however, would also need to take bicycle ridership into consideration.

Tables 11 through 14 look at gender compared to age group and injury type. According to U.S. Census data, the ratio of males to females in Seattle is approximately equivalent. Gender information is not reported in a significant percentage of the Police Traffic Collision Reports. It is difficult to determine what, if any, impact this has on the comparisons between male and female cohorts.

Table 11: Pedestrian Age Group by Gender

Age Group	Male	Female	Unreported	Total
0 to 4	2	1	0	3
5 to 14	5	14	3	22
15 to 24	35	40	15	90
25 to 34	55	45	8	108
35 to 44	37	24	4	65
45 to 54	45	26	9	80
55 to 64	33	13	8	54
65 & Up	15	17	5	37
Unknown	24	21	27	72
Total	251	201	79	531

Pedestrians were involved in 452 collisions where gender was reported. Males represent 56 percent of this group, while females represent 44 percent. Males appear most over-represented in the 45-54 and 55-64 age groups. Females are most over-represented in the 5-14 age group.



Table 12: Bicyclist Age Group by Gender

Age Group	Male	Female	Unreported	Total
0 to 4	0	0	0	0
5 to 14	10	1	3	14
15 to 24	44	21	10	75
25 to 34	62	25	8	95
35 to 44	30	11	9	50
45 to 54	30	4	4	38
55 to 64	11	2	2	15
65 & Up	0	1	2	3
Unknown	26	10	28	64
Total	213	75	66	354

Bicyclists were involved in 288 collisions where gender was reported. Males represent 74 percent of this group, while females represent the remaining 26 percent. Males were involved in significantly more collisions in every age group except for the youngest and oldest, 0-4 and 65 and up. Again, more detailed information regarding ridership would be required to draw more substantive conclusions.

**Table 13: Pedestrian Injury by Gender** 

Injury	Male	Female	Unreported	Total
No Injury	14	7	2	23
Possible Injury	97	87	40	224
Evident Injury	94	85	25	204
Disabling Injury	34	13	6	53
Fatality	2	3	0	5
Non-Traffic Fatality	1	0	0	1
Unknown	9	6	6	21
Total	251	201	79	_ 531

Males were involved in fifty more pedestrian collisions than females in 2007, including 21 more disabling injuries. There were an equal number of males and females (three) who suffered fatalities.

Table 14: Bicyclist Injury by Gender

Injury	Male	Female	Unreported	Total
No Injury	20	3	9	32
Possible Injury	53	21	11	85
Evident Injury	104	39	32	175
Disabling Injury	30	11	6	47
Fatality	1	0	0	1
Unknown	5	1	8	14
Total	213	75	66	354

Males were involved in significantly more bicycle collisions than females for each injury type, including 65 more evident injuries, 32 more possible injuries, and 19 more disabling injuries.



Tables 15 and 16 look at the age groups and genders of the motor vehicle drivers in pedestrian and bicycle collisions. The numbers cited in these two tables are collisions. This is because for each collision there is only one driver, but potentially multiple pedestrians or bicyclists.

Table 15: Driver Age Group by Gender in Pedestrian Collisions

		Gender		
Driver Age Group	Male	Female	Unreported	Total
0 to 15	0	1	0	1
16 to 24	24	31	0	55
25 to 34	40	31	0	71
35 to 44	42	18	0	60
45 to 54	56	31	1	88
55 to 64	29	16	1	46
65 & Up	22	22	1	45
Unknown	12	6	108	126
Total	225	156	111	492

The driver age groups with the most collisions are ages 45-54 (18 percent) and ages 25-34 (14 percent). Data on age and/or gender is unreported in a significant number of collision reports. Where gender is reported, however, 59 percent were male. Males were involved in more pedestrian collisions in each age group between the ages of 25 and 64. The largest disparity was in the 45-54 age group; male drivers were involved in 64 percent of collisions compared to 36 percent for female drivers.

Though not shown in the table, a female was identified as the driver in four of six pedestrian fatalities.

Table 16: Driver Age Group by Gender in Bicycle Collisions

		Gender		
Driver Age Group	Male	Female	Unreported	Total
0 to 15	0	0	0	0
16 to 24	24	20	0	44
25 to 34	36	20	0	56
35 to 44	34	21	1	56
45 to 54	23	14	1	38
55 to 64	21	13	0	34
65 & Up	18	4	0	22
Unknown	8	6	79	93
Total	164	98	81	343

Where gender is reported, 63 percent were male. Males were involved in more bicycle collisions in every age group of legal driving age. The largest disparity was in the 25-34 age group; male drivers were involved in 64 percent of bicycle collisions compared to 34 percent for female drivers. Though not shown in the table, the driver involved in the bicyclist fatality was male.

Table 17 examines the driver's age group by pedestrian collisions and fatalities.



Table 17: Driver's Age Group by Pedestrian Collisions and Fatalities

Age Group	Total Collisions	Fatality
0 to 15	1	0
16 to 24	55	1
25 to 34	71	0
35 to 44	60	1
45 to 54	88	3
55 to 64	46	0
65 & Up	45	1
Unknown	126	0
Total	492	6

Drivers between the ages of 45 and 54 were in the highest percentage of pedestrian collisions (18 percent) and were involved in three of the six fatalities. Drivers ages 25 to 34 were involved in 14 percent of collisions.

Table 18 examines the driver's age group by bicycle collisions and fatalities.

Table 18: Driver's Age Group by Bicycle Collisions and Fatalities

Age Group	Total Collisions	Fatality
0 to 15	0	0
16 to 24	44	0
25 to 34	56	0
35 to 44	56	0
45 to 54	38	0
55 to 64	34	1
65 & Up	22	0
Unknown	93	0
Total	343	1

The driver age groups most frequently involved in bicycle collisions are ages 25-34 and 35-44 (16 percent each). The one bicycle fatality involved a driver in the 55-64 age group.

Table 19 provides more detail about the types of pedestrians involved in collisions. For traffic collision reporting purposes, the term "pedestrian" includes not only people walking on foot, but also roller skaters, skateboarders, people working in the right-of-way, and people in wheelchairs.



**Table 19: Pedestrian Classifications by Injury** 

				Injury				
Pedestrian Class	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total
Person on Foot	22	216	194	49	5	1	21	508
Roller Skater/ Skateboarder	0	0	2	1	0	0	0	3
Motorized Wheelchair	1	2	2	0	0	0	0	5
Non- Motorized Wheelchair	0	1	2	1	0	0	0	4
Flagger	0	1	3	0	0	0	0	4
Other	0	4	1	2	0	0	0	7
Total	23	224	204	53	5	1	21	531

While 96 percent of pedestrians involved in collisions fall into the "persons on foot" class, it is important to note the additional classifications of pedestrians. There were twenty-three people struck, including nine in wheelchairs, three roller skaters/skateboarders, and four flaggers (individuals working in the street right-of-way). All six pedestrian fatalities, however, involved persons on foot.



#### **SECTION IV: TIME CHARACTERISTICS**

Section IV examines the time-related characteristics of pedestrian and bicycle collisions, month of the year, day of the week and hour of the day.

Table 20 indicates the number of pedestrians involved in collisions by month and injury type.

**Table 20: Month by Pedestrian Injury** 

				Injury				
Month	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total
January	2	23	18	3	0	0	2	48
February	1	27	21	6	0	0	1	56
March	4	19	19	10	0	1	4	57
April	1	17	14	2	1	0	0	35
May	4	20	11	4	1	0	1	41
June	1	8	18	7	0	0	0	34
July	1	22	15	3	0	0	3	44
August	1	10	7	0	0	0	1	19
September	2	11	12	3	0	0	1	29
October	1	15	15	5	1	0	2	39
November	2	26	27	8	0	0	4	67
December	3	26	27	2	2	0	2	62
Total	23	224	204	53	5	1	21	531

There were on average 44 pedestrians involved in collisions per month. Consistent with historical averages, the winter months saw higher numbers of pedestrians involved in collisions.

Pedestrian totals were highest in November (67) and December (62). August, by contrast, saw only 19 pedestrians involved in collisions, the lowest monthly total over at least the last five years.

There is no discernable correlation between pedestrian fatalities and month. December was the only month with more that one fatality. In general, the relatively low number of fatalities makes it challenging to come to any conclusions of statistical significance.

Table 21 indicates the number of bicyclists involved in collisions by month and injury type.



**Table 21: Month by Bicyclist Injury** 

			Inj	ury			
Month	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
January	4	5	5	2	0	2	18
February	2	4	16	6	0	0	28
March	2	3	13	3	0	0	21
April	4	10	12	4	0	1	31
May	2	12	21	4	0	0	39
June	5	9	16	5	0	1	36
July	4	7	20	7	0	3	41
August	3	7	27	6	0	1	44
September	3	6	16	5	1	3	34
October	0	6	8	2	0	2	18
November	1	7	16	1	0	1	26
December	2	9	5	2	0	0	18
Total	32	85	175	47	1	14	354

There were on average 30 bicyclists involved in collisions per month. Unlike pedestrian figures, bicycle collisions peaked during the spring and summer months, with a high of 44 collisions in August. The months with the lowest numbers of collisions were January, October, and December with 18 each. The bicycle fatality occurred in September.

Table 22 examines pedestrians involved in collisions by day of the week and injury type.

Table 22: Day of Week by Pedestrian Injury

		Injury										
Day of Week	No Injury	Possible Injury	Evident   Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total				
Monday	2	36	41	7	0	0	3	89				
Tuesday	5	31	27	8	0	0	4	75				
Wednesday	2	43	21	12	2	0	2	82				
Thursday	4	29	27	8	1	1	5	75				
Friday	4	29	40	8	0	0	4	85				
Saturday	3	37	26	5	2	0	2	75				
Sunday	3	19	22	5	0	0	1	50				
Total	23	224	204	53	5	1	21	531				

Monday saw the highest number of pedestrians involved in collisions, with 89. Totals for Monday through Saturday were fairly uniform, ranging from 75 to 89 pedestrians on a given day. Totals on Sunday were significantly lower (50). Pedestrian fatalities occurred on Wednesday, Thursday, and Saturday, with two each.

Table 23 examines bicyclists involved in collisions by day of the week and injury type.



Table 23: Day of Week by Bicyclist Injury

		Injury								
Day of Week	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total			
Monday	6	11	24	5	0	2	48			
Tuesday	6	19	32	8	0	1	66			
Wednesday	4	15	30	9	0	4	62			
Thursday	3	17	25	7	0	4	56			
Friday	5	8	31	10	1	1	56			
Saturday	5	10	21	4	0	2	42			
Sunday	3	5	12	4	0	0	24			
Total	32	85	175	47	1 _	14	354			

Tuesday saw the highest number of bicyclists involved in collisions, with 66. Once again, the Sunday total was significantly lower (24) than the other days. The bicycle fatality occurred on a Friday.

Table 24 examines the time of day by injury class for pedestrians involved in collisions.

Table 24: Time of Day by Pedestrian Injury

		Injury									
Hour	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total			
12-1 am	0	8	4	1	0	0	0	13			
1-2 am	0	3	9	1	0	0	0	13			
2-3 am	1	7	2	1	0	0	0	11			
3-4 am	0	0	2	0	0	0	0	2			
4-5 am	0	3	0	0	0	0	0	3			
5-6 am	0	0	2	0	0	0	0	2			
6-7 am	1	10	2	1	0	0	1	15			
7-8 am	0	11	9	3	0	0	1	24			
8-9 am	1	3	8	1	0	0	0	13			
9-10 am	0	4	6	1	1	0	1	13			
10-11 am	2	9	12	1	0	0	3	27			
11-12 am	2	13	8	2	1	0	1	27			
12-1 pm	1	13	15	2	0	0	2	33			
1-2 pm	2	11	12	1	1	0	1	28			
2-3 pm	0	14	15	3	0	0	2	34			
3-4 pm	4	13	10	4	0	0	2	33			
4-5 pm	1	15	7	7	1	0	3	34			
5-6 pm	2	30	17	4	0	0	2	55			
6-7 pm	2	11	11	6	0	0	0	30			
7-8 pm	1	16	17	2	1	1	1	39			
8-9 pm	1	5	8	5	0	0	0	19			
9-10 pm	1	10	12	5	0	0	1	29			
10-11 pm	1	12	5	1	0	0	0	19			
11-12 pm	0	3	11	1	0	0	0	15			
Total	23	224	204	53	5	1	21	531			



The six hours with the highest numbers of pedestrians involved in collisions were all between 2 and 8 p.m. The rush hour between 5 and 6 p.m. saw the highest number of pedestrians involved in collisions, with 55.

The morning travel peak saw significantly lower totals. The morning hour with the highest number of pedestrians involved in collisions was 7 to 8 a.m., with 24.

Pedestrian fatalities occurred throughout the day between 9 a.m. and 8 p.m. There were no late night/early morning pedestrian fatalities in 2007.

Table 25 examines the time of day by injury class for bicyclists involved in collisions.

Table 25: Time of Day by Bicyclist Injury

			Inj	ury			
Hour	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
12-1 am	0	1	2	1	0	1	5
1-2 am	0	0	2	0	0	0	2
2-3 am	0	0	1	1	0	0	2
3-4 am	0	0	0	0	0	0	0
4-5 am	0	0	0	0	0	0	0
5-6 am	1	2	1	2	0	0	6
6-7 am	0	1	6	0	0	0	7
7-8 am	0	3	12	4	0	2	21
8-9 am	1	8	10	3	0	2	24
9-10 am	1	4	10	4	0	0	19
10-11 am	1	2	7	0	0	0	10
11-12 am	1	3	8	1	0	0	13
12-1 pm	1	5	14	2	0	0	22
1-2 pm	2	6	7	1	0	1	17
2-3 pm	5	8	12	5	1	2	33
3-4 pm	3	8	13	2	0	0	26
4-5 pm	0	7	13	1	0	1	22
5-6 pm	4	9	18	4	0	0	35
6-7 pm	4	8	15	6	0	2	35
7-8 pm	2	5	9	2	0	1	19
8-9 pm	2	0	6	1	0	0	9
9-10 pm	1	2	4	2	0	0	9
10-11 pm	3	3	2	3	0	1	12
11-12 pm	0	0	3	2	0	1	6
Total	32	85	175	47	1	14	354

As with pedestrians, bicycle collisions also were most frequent during the afternoon, peaking at 35 bicyclists involved in collisions between 5 and 6 p.m. and also between 6 and 7 p.m. The morning travel peak also saw significantly lower totals, peaking at 24 between 8 and 9 a.m. The bicycle fatality occurred between 2 and 3 p.m.



### **SECTION V: COLLISION TYPE, ACTIONS AND CONDITIONS**

Section V examines the collision types, actions and reported conditions when pedestrians and bicyclists were involved in collisions.

Table 26 indicates the collision type by injury for pedestrians involved in collisions.

**Table 26: Collision Type by Pedestrian Injury** 

				Injury				
Collision Type	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total
Vehicle Going Straight	7	70	104	41	4	1	13	240
Vehicle Turning Left	4	84	59	5	1	0	2	155
Vehicle Turning Right	6	43	22	4	0	0	5	80
Vehicle Backing	0	11	9	1	0	0	0	21
Vehicle Hits Ped - Other	3	7	5	0	0	0	1	16
Vehicle Parking	1	3	1	2	0	0	0	7
Entering @ Angle	2	2	1	0	0	0	0	5
Bicycle Hits Ped	0	0	3	0	0	0	0	3
In Driveway	0	1	0	0	0	0	0	1
Sideswipe	0	1	0	0	0	0	0	1
Hit in Rear	0	1	0	0	0	0	0	1
Fixed Object	0	1	0	0	0	0	0	1
Total	23	224	204	53	5	1	21	531

Pedestrians were most frequently involved in collisions with vehicles traveling straight (45 percent), turning left (29 percent), and turning right (15 percent). Collectively, these three collision types represent 89 percent of pedestrians involved in collisions.

Five of the six pedestrians who suffered fatalities were struck by vehicles going straight.

Table 27 indicates the bicyclist action by injury.



**Table 27: Bicyclist Action by Injury** 

			Inju	ıry			
Bicyclist Action	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Riding with Traffic	13	42	104	29	1	7	196
Crossing or Entering Traffic	12	27	51	13	0	4	107
Riding against Traffic	2	5	4	2	0	1	14
Turned into Path of Vehicle Traveling in Same Direction	1	1	3	0	0	0	5
Turned into Path of Vehicle Traveling in the Opposite Direction	0	0	5	0	0	0	5
Crossing Diagonally	1	0	1	0	0	0	2
Fell into Path of Vehicle	0	0	0	1	0	0	1
Other Actions	3	7	5	2	0	2	19
Unknown	0	3	2	0	0	0	5
Total	32	85	175	47	1	14	354

Bicyclists were riding with traffic in 55 percent of collisions and crossing or entering traffic another 30 percent of the time. The bicyclist was riding with traffic at the time of the fatal collision.

Table 28 indicates the facility type by injury for bicyclists involved in collisions.

Table 28: Facility Type by Bicyclist Injury

		Injury							
Facility Type	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total		
Roadway	17	48	116	31	0	13	225		
Bike Route	2	8	21	9	1	0	41		
Marked Crosswalk	6	9	17	1	0	1	34		
<b>Unmarked Crosswalk</b>	3	10	9	2	0	0	24		
Sidewalk	3	5	6	2	0	0	16		
Shoulder	1	2	3	2	0	0	8		
Walkway	0	0	1	0	0	0	1		
Other	0	1	1	0	0	0	2		
Unknown	0	2	1	0	0	0	3		
Total	32	85	175	47	1	14	354		

Bicyclists were riding in the roadway 64 percent of the time they were involved in a collision. Collisions occurred on bicycle routes – sections of the roadway with facilities such as bike lanes - 12 percent of the time, including the bicyclist fatality.

Tables 29 and 30 examine motor vehicle type by pedestrian and bicycle collisions. As in Tables 15 through 18, these tables total collisions rather than pedestrians or bicyclists because for each collision there is only one vehicle, but potentially multiple pedestrians or bicyclists.



Table 29: Motor Vehicle Type by Pedestrian Collisions and Fatalities

Motor Vehicle Type	Total Collisions	Fatality
Passenger Car	247	5
Pickup – Panel Truck	157	1
Bus or Motor Stage	11	0
Taxi	11	0
Flatbed Truck	8	0
Motorcycle	5	0
School Bus	3	0
Truck & Trailer	2	0
Other	2	0
Unknown	46	0
_Total	492	6

Passenger cars were most frequently involved in pedestrian collisions (50 percent) and fatalities (83 percent). Pick-up/panel trucks, including sport utility vehicles, were also involved in a significant number of pedestrian collisions (32 percent) and one fatality.

Table 30: Motor Vehicle Type by Bicycle Collisions and Fatalities

Motor Vehicle Type	Total Collisions	Fatality
Passenger Car	189	0
Pickup or Panel Truck	96	0
Flatbed Truck	7	1
Bus	5	0
Taxi	4	0
School Bus	2	0
Motorcycle	1	0
Truck & Trailer	1	0
Truck Tractor	1	0
Other	2	0
Unknown	35	0
Total	343	1

Passenger cars were also most frequently involved in bicycle collisions (55 percent). Pick-up/panel trucks, including sport utility vehicles, were involved in 28 percent of collisions. The bicyclist fatality involved a collision with a flatbed truck.

Tables 31 through 34 look at the traffic signalization at locations where pedestrians and bicyclists were involved in collisions. Traffic signals are generally located at intersections with the exception of a small number of mid-block traffic signals. Thus, these tables look primarily at pedestrians and bicyclists involved in collisions at intersections. Traffic signal types are defined in the appendix.

Table 31 examines pedestrian injuries by signalization.



**Table 31: Pedestrian Injury by Signalization** 

		Signal								
Injury	No Signal	Mid-Block Signal	Half Signal	Full Signal	Total					
No Injury	3	0	0	14	17					
Possible Injury	38	1	3	117	159					
Evident Injury	46	0	4	79	129					
Disabling Injury	9	1	0	16	26					
Fatality	3	0	0	1	4					
Non-Traffic Fatality	0	0	0	1	1					
Unknown	3	0	1	8	12					
Total	102	2	8	236	348					

The majority of intersections in Seattle have either full signals or no signals; there are relatively few mid-block and half signals. It is not surprising, therefore, that the majority of pedestrians involved in collision at intersections occurred at locations with either a full traffic signal or no signal. Sixty-eight percent occurred in locations with a full traffic signal and 29 percent occurred at intersections with no signals.

Of the five pedestrian fatalities that occurred at intersections, three occurred at intersections with no signal and two occurred at intersections with a full signal.

Table 32 examines bicyclist injuries by signalization.

Table 32: Bicyclist Injury by Signalization

		Signal							
Injury	No Signal	Mid-Block Signal	Half Signal	Full Signal	Total				
No Injury	2	0	0	9	11				
Possible Injury	21	0	0	25	46				
<b>Evident Injury</b>	50	0	2	40	92				
Disabling Injury	20	0	0	7	27				
Fatality	0	0	0	1	1				
Unknown	2	0	0	3	5				
Total	95	0	2	85	182				

For bicyclists, 52 percent of injuries at intersections occurred where there was no traffic signal and 47 percent occurred where there was a full signal. The bicyclist fatality occurred at a fully signalized intersection.

Table 33 looks at pedestrian actions by signalization.



**Table 33: Pedestrian Actions by Signalization** 

		Sig	nal		
Action	No Signal	Mid-Block Signal	Half Signal	Full Signal	Total
Cross @ Intrsc With Signal	0	0	4	172	176
Cross @ Intrsc Against Signal	0	0	1	36	37
Cross @ Intrsc - No Signal	90	0	3	4	97
Cross @ Intrsc - Diagonally	1	0	0	0	1
Cross @ Intersection But Did Not Use Crosswalk	1	0	0	3	4
Not in Roadway	0	0	0	3	3
Standing in Roadway	1	0	0	2	3
Fell into Path of Vehicle	0	0	0	1	1
From Behind Parked Vehicle	1	0	0	0	1
Cross Mid-Block No Crosswalk	1	0	0	0	1
Cross Mid-Block In Crosswalk	3	2	0	0	5
Walk in Road with Traffic	1	0	0	0	1
Other Actions	2	0	0	11	13
Unknown	1	0	0	4	5
Total	101	2	8	236	348

The pedestrian was crossing with the signal in 51 percent of pedestrian collision incidents at intersections. Pedestrians were crossing at an intersection with no signal 28 percent of the time. Pedestrians crossing against a traffic signal were the third most common pedestrian action, though these accounted for only 11 percent.

Table 34 looks at bicyclist actions by signalization.

Table 34: Bicyclist Actions by Signalization

		Sigr	nal		
Action	No Signal	Mid-Block Signal	Half Signal	Full Signal	Total
Riding with Traffic	49	0	0	36	85
Crossing or Entering Traffic	35	0	2	37	74
Riding against Traffic	4	0	0	5	9
Turned into Vehicle Path Traveling in Same Direction	3	0	0	0	3
Turned into Vehicle Path Traveling in Opposite Direction	0	0	0	1	1
Crossing Diagonally	0	0	0	1	1
Fell into Path of Vehicle	0	0	0	0	0
Other Actions	4	0	0	3	7
Unknown	0	0	0	2	2
Total	95	0	2	85	182

In 52 percent of bicycle collision incidents at intersections, the bicyclist was struck riding through an intersection with no traffic signal. The bicyclist was traveling through an intersection with a full signal in 47 percent of incidents.

Table 35 examines weather and injury type for pedestrians involved in collisions.



**Table 35: Weather by Pedestrian Injury** 

_		Injury								
Weather	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total		
Clear or Partly Cloudy	13	129	115	26	2	0	12	297		
Raining	4	60	50	17	3	1	5	140		
Overcast	5	28	34	8	0	0	1	76		
Snowing	0	1	1	0	0	0	0	2		
Sleet or Hail	0	0	1	0	0	0	0	1		
Unknown	1	6	3	2	0	0	3	15		
Total	23	224	204	53	5	1	21	531		

Fifty-six percent of pedestrians involved in collisions were struck under clear or partly cloudy conditions. Twenty-six percent of pedestrians were struck under rainy conditions and 14 percent under overcast conditions. Four of the six pedestrian fatalities occurred rainy conditions, while the other two occurred under clear or partly cloudy conditions.

Table 36 examines weather and injury type for bicyclists involved in collisions.

Table 36: Weather by Bicyclist Injury

		Injury							
Weather	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total		
Clear or Partly Cloudy	21	53	124	29	1	10	238		
Raining	6	11	15	12	0	2	46		
Overcast	5	20	33	4	0	0	62		
Snowing	0	0	0	0	0	0	0		
Sleet or Hail	0	0	0	0	0	0	0		
Unknown	0	1	3	2	0	2	8		
Total	32	85	175	47	1	14	354		

Sixty-seven percent of bicyclists involved in collisions were struck under clear or partly cloudy conditions. Eighteen percent were struck under overcast conditions and 13 percent under raining conditions. The bicyclist fatality occurred under clear or partly cloudy conditions.

Table 37 examines clothing visibility by injury for pedestrians involved in collisions.



Table 37: Clothing Visibility by Pedestrian Injury

				Injury				
Clothing Visibility	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total
Mixed	12	121	97	29	4	1	13	277
Dark	4	67	69	19	1	0	3	163
Light	4	26	31	3	0	0	2	66
Retro – Reflective	0	1	3	0	0	0	0	4
Other Reflective Apparel	0	5	3	0	0	0	1	9
Unknown	3	4	1	2	0	0	2	12
Total	23	224	204	53	5	1	21	531

Fifty-two percent of pedestrians involved in collisions were a mix of dark and light clothing. Thirty-one percent were dark clothing and twelve percent were light clothing. Five pedestrians suffering fatalities were mixed clothing, while one were dark clothing.

Table 38 examines clothing visibility by injury for bicyclists involved in collisions.

Table 38: Clothing Visibility by Bicyclist Injury

		Injury								
Clothing Visibility	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total			
Mixed	16	50	105	25	1	7	204			
Dark	7	16	30	16	0	5	74			
Light	4	10	24	3	0	1	42			
Retro – Reflective	5	3	11	3	0	0	22			
Other Reflective Apparel	0	2	3	0	0	0	5			
Unknown	0	4	2	0	0	1	7			
Total	32	85	175	47	_ 1 _	14	354			

Fifty-eight percent of bicyclists involved in collisions wore a mix of dark and light clothing. Twenty-one percent wore dark clothing and twelve percent wore light clothing. The bicyclist who suffered the fatality wore mixed clothing.



### **SECTION VI: CONTRIBUTING CIRCUMSTANCES**

This section looks at the contributing circumstances attributed to pedestrians, bicyclists and drivers in pedestrian and bicycle collisions. The primary contributing circumstance is attributed to each driver and pedestrian; "none" is one of the options, which indicates that the individual's actions did not contribute to the collision.

Table 39 examines pedestrian contributing circumstances by injury.

**Table 39: Pedestrian Contributing Circumstances by Injury** 

				Injury				
Pedestrian Contributing Circumstance	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Non- Traffic Fatality	Unknown	Total
Failure to Use Crosswalk	1	14	20	10	2	0	1	48
Failure to Grant Right-of-Way to Vehicle	2	9	17	3	1	1	2	35
Under Influence of Alcohol	0	8	15	5	0	0	0	28
Disregard for Traffic Signal	1	4	3	3	0	0	1	12
Inattention	0	6	2	2	0	0	0	10
Disregard for Stop Sign	0	0	1	0	0	0	0	1
Under Influence of Drugs	0	0	1	0	0	0	0	1
Other	3	32	19	9	0	0	6	69
None	15	141	114	19	2	0	10	301
Unknown	1	10	12	2	0	0	1	26
Total	23	224	204	53	5	1	21	531

In 57 percent of reports, the pedestrian contributing circumstance was identified as "none." The most commonly specified contributing circumstances were failure to use a crosswalk, failure to grant right-of-way to a vehicle and the pedestrian being under the influence of alcohol.

In pedestrian fatalities, the pedestrian contributing circumstance was identified as "none" in two instances. Two fatalities identified the pedestrian's failure to use a crosswalk, and two identified a failure to grant right-of-way.

Table 40 examines bicyclist contributing circumstances by injury.



Table 40: Bicyclist Contributing Circumstances by Injury

		Injury					
Bicyclist Contributing Circumstance	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Failure to Grant Right-of- Way to Vehicle	2	10	13	4	0	1	30
Inattention	0	6	8	0	0	2	16
Disregard for Traffic Signal	2	3	7	2	0	1	15
Exceeding Safe Speed	0	1	7	0	0	0	8
Headlight Violation	1	1	2	4	0	0	8
Operating Defective Equipment	2	1	3	1	0	0	7
On Wrong Side of Road	2	1	1	0	0	1	5
Following Too Closely	1	0	2	1	0	0	4
Improper Turn	1	1	2	0	0	0	4
Improper Passing	0	0	3	0	0	0	3
Under Influence of Alcohol	0	0	1	1	0	0	2
Failure to Grant Right-of- Way to Pedestrian	1	1	0	0	0	0	2
Disregard for Stop Sign	0	0	0	1	0	0	1
Disregard for Yield Sign	0	0	1	0	0	0	1
Failing to Signal	0	0	1	0	0	0	1
Other	5	10	20	12	0	7	54
None	12	44	94	20	1	2	173
Unknown	3	6	10	1	0	0	20
Total	32	85	175	47	1	14	354

In 52 percent of reports, the bicyclist contributing circumstance was identified as "none." The most commonly specified contributing circumstances were failure to grant right-of-way to a vehicle, inattention, and disregard for the traffic signal. No bicyclist contributing factor was identified in the fatal collision.

Table 41 examines pedestrian contributing circumstances by gender.

**Table 41: Pedestrian Contributing Circumstances by Gender** 

Pedestrian Contributing Circumstances	Male	Female	Unreported	Total
Failure to Use Crosswalk	23	17	8	48
Failure to Yield to Vehicle	17	13	5	35
Under Influence of Alcohol	22	4	2	28
Disregard for Traffic Signal	9	1	2	12
Inattention	5	4	1	10
Disregard for Stop Sign	1	0	0	1
Under Influence of Drugs	0	1	0	1
Other	36	23	10	69
None	132	124	45	301
Unknown	6	14	6	26
Total	251	201	79	531



As mentioned in the discussion of gender in Section III, more males were identified as being involved in pedestrian collisions than females. The largest over-representations were the percentage of males involved in collisions while disregarding a traffic signal (90 percent male) and walking under the influence of alcohol (85 percent male).

Table 42 examines bicyclist contributing circumstances by gender.

Table 42: Bicyclist Contributing Circumstances by Gender

Bicyclist Contributing Circumstances	Male	Female	Unreported	Total
Failure to Grant Right-of- Way to Vehicle	20	8	2	30
Inattention	11	3	2	16
Disregard for Traffic Signal	5	3	7	15
Exceeding Safe Speed	3	3	2	8
Headlight Violation	5	3	0	8
Operating Defective Equipment	5	1	1	7
On Wrong Side of Road	4	0	1	5
Following Too Closely	3	1	0	4
Improper Turn	0	2	2	4
Improper Passing	2	0	1	3
Under Influence of Alcohol	0	1	1	2
Failure to Grant Right-of- Way to Pedestrian	1	0	1	2
Disregard for Stop Sign	1	0	0	1
Disregard for Yield Sign	0	0	1	1
Failing to Signal	1	0	0	1
Other	30	13	11	54
None	110	31	32	173
Unknown	12	6	2	20
Total	213	75	66	354

Failure to grant right-of-way to the vehicle was the top bicyclist contributing circumstance identified for both males (20) and females (8).

Table 43 examines Driver Contributing Circumstances by Pedestrian Collisions and Fatalities.



Table 43: Driver Contributing Circumstances by Pedestrian Collisions and Fatalities

Driver Contributing Circumstances	Total Collisions	Fatalities
Failure to Grant Right-of-Way to Pedestrian	219	2
Disregard for Stop Light	9	0
Inattention	9	0
Improper Backing	8	0
Operating Telcom Device	6	0
Exceeding Safe Speed	5	1
Under Influence of Alcohol	4	0
Unknown Distractions	3	0
Disregard for top Sign	3	0
Improper Passing	3	0
Disregard for Flagger	2	0
Improper Turn	2	0
Failure to Grant Right-of-Way to Vehicle	2	0
Distractions Outside Vehicle	1	0
Exceeding Stated Speed	1	0
Operating Hands-Free Telcom Device	1	0
Under Influence of Drugs	1	0
Other	78	1
None	111	1
Unknown	24	1
Total	492	6

The most frequent driver contributing factor was a failure to grant the pedestrian right-of-way, cited in 45 percent of pedestrian collisions. It also was cited as a contributing factor in two fatalities. The driver contributing factor was cited as "none" in 23 percent of pedestrian collisions.

Table 44 examines Driver Contributing Circumstances by Bicyclist Collisions and Fatalities.



Table 44: Driver Contributing Circumstances by Bicycle Collisions and Fatalities

Driver Contributing Circumstances	Total Collisions	Fatalities
Failure to Grant Right-of-Way to Bike	120	1
Inattention	11	0
Disregard for Stop Sign	4	0
Disregard for Traffic Signal	3	0
Distracted Outside Vehicle	3	0
Improper Turn	3	0
Exceeding Safe Speed	2	0
Failing to Signal	2	0
Following Too Closely	2	0
Improper Passing	2	0
Improper U-Turn	2	0
Under Influence of Alcohol	2	0
Improper Signal	1	0
Improper Parking Location	1	0
Other	52	0
None	81	0
Unknown	52	0
Total	343	1

The most frequent driver contributing factor was a failure to grant the bicyclist right-of-way, cited in 35 percent of bicycle collisions. It also was cited as a contributing factor in two fatalities. The driver contributing factor was cited as "none" in 24 percent of bicycle collisions.

Table 45 examines driver contributing circumstances by gender in pedestrian collisions.



Table 45: Pedestrian Collisions - Driver Contributing Circumstances by Gender

Driver Contributing Circumstances	Male	Female	Unreported	Total
Failure to Yield to Pedestrian	109	67	43	219
Disregard for Stop Light	2	3	4	9
Inattention	6	2	1	9
Improper Backing	2	3	3	8
Operating Telcom Device	3	2	1	6
Exceeding Safe Speed	2	3	0	5
Under Influence of Alcohol	2	2	0	4
Disregard for Stop Sign	1	2	0	3
Improper Passing	2	1	0	3
Unknown Distraction	0	1	2	3
Disregard for Flagger	2	0	0	2
Improper Turn	0	1	1	2
Failure to Yield to Vehicle	0	2	0	2
Distractions Outside Vehicle	0	1	0	1
Exceeding Stated Speed	0	0	1	1
Operating Hands-Free Telcom Device	1	0	0	1
Under Influence of Drugs	1	0	0	1
Other	30	9	39	78
None	59	50	2	111
Unknown	3	7	14	24
Total	225	156	111	492

As discussed in Section III, reports indicate that males are much more likely to be the driver in a pedestrian collision. Failure to Yield to Pedestrian was the most frequently cited driver contributing circumstance for both male (49 percent) and female (43 percent) drivers.

Table 46 examines driver contributing circumstances by gender in bicycle collisions.



Table 46: Bicycle Collisions - Driver Contributing Circumstances by Gender

Driver Contributing Circumstances	Male	Female	Unreported	Total
Failure to Grant Right-of-Way to Bike	49	39	23	111
Inattention	9	2	0	11
Failure to Grant ROW to Vehicle	5	3	1	9
Disregard for Stop Sign	2	1	1	4
Disregard for Traffic Signal	0	1	2	3
Improper Turn	2	0	1	3
Distraction Outside Vehicle	2	1	0	3
Exceeding Safe Speed	2	0	0	2
Failing to Signal	1	1	0	2
Following Too Closely	1	0	1	2
Improper Passing	2	0	0	2
Improper U-Turn	0	2	0	2
Under Influence of Alcohol	2	0	0	2
Improper Signal	0	1	0	1
Improper Parking Location	1	0	0	1
Other	24	10	18	52
None	49	30	2	81
Unknown	13	7	32	52
Total	164	98	81	343

Males are also more likely to be the driver in a bicycle collision. Failure to Yield to Bicyclist was the most frequently cited driver contributing circumstance for both male (30 percent) and female (40 percent) drivers.



#### **APPENDIX: DEFINITIONS**

### **Injury Types**

Source - State of Washington Police Traffic Collision Report Instruction Manual and SDOT

No Injury: applies when the officer at the scene has no reason to believe that, at the time of the collision, the person received any bodily harm due to the collision.

<u>Possible Injury</u>: any injury reported to the officer or claimed by the individual such as momentary unconsciousness, claim of injuries not evident, limping, complaint of pain, nausea, hysteria, etc.

<u>Evident (Non-Disabling) Injury</u>: any injury other than fatal or disabling at the scene. Includes: broken fingers or toes, abrasions, etc.

<u>Disabling Injury</u>: any injury which prevents the injured person from walking, driving, or continuing normal activities at the time of the collision.

Non-Traffic Fatality: a pedestrian fatality that does not meet the State of Washington's definition of a traffic fatality resulting from a motor vehicle/pedestrian collision. The one non-traffic fatality in 2007 was the result of collision where the pedestrian died more than 30 days afterwards.

### **Roadway Classification Types**

Source - City of Seattle Comprehensive Plan, Section 3.4 and SDOT

<u>Residential (Non-Arterial) Streets</u>: roadways that provide localized traffic circulation, including access to neighborhood land uses, commercial and industrial land uses, and access to higher level traffic streets.

<u>Collector Arterials</u>: roadways that collect and distribute traffic from principal and minor arterials to local access streets or provide direct access to destinations.

Minor Arterials: roadways that distribute traffic from principal arterials to collector arterials and access streets.

<u>Principal Arterials</u>: roadways that are intended to serve as the primary routes for moving traffic through the city, connecting urban centers and urban villages to one another, or to the regional transportation network.

### **Traffic Signal Types**

Source - SDOT

<u>Mid-Block Signal</u>: a traffic signal located between intersections. It is pedestrian activated and provides a controlled pedestrian crossing across the street. It typically remains green for the vehicular traffic until a pedestrian activates it.

<u>Half Signal</u>: also known as a "Pedestrian Signal". At an intersection, this signal provides control only for the vehicular traffic on the main street, while the side street will be controlled with a stop sign. It is pedestrian activated, and provides a controlled pedestrian crossing across the main street. It typically remains green for the vehicular traffic until a pedestrian activates it.

<u>Full Signal</u>: a traditional traffic signal located at an intersection, controlling all vehicular approaches into the intersection and pedestrian crossings with signal control. This count includes collisions at State Signals, which are traffic signals owned and operated by the Washington State Department of Transportation. These are primarily located adjacent to the freeway system, at on- and off-ramps where the City and State street systems intersect.

