



## 2008 Seattle Traffic and Collision Report



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January 15, 2010

This report has been prepared in compliance with Seattle Municipal Code 11.16.220, which requires the City Traffic Engineer to present an annual report that includes information about traffic trends and traffic collisions on city streets. It is organized into the following sections:

- Section One: Traffic and Collision Trends
- Section Two: All Collisions
- Section Three: Pedestrian Collisions
- Section Four: Bicycle Collisions
- Section Five: Motorcycle Collisions
- Section Six: Rail Collisions
- Section Seven: Fatal Collisions

In gathering and compiling the information in this report, the Seattle Department of Transportation does not waive the limitations on this information's discoverability or admissibility under 23 U.S.C § 409.

For additional information about collisions on Seattle streets, readers may contact Eric Widstrand, City Traffic Engineer, at [eric.widstrand@seattle.gov](mailto:eric.widstrand@seattle.gov)

Charles Bookman, Director  
Traffic Management Division  
Seattle Department of Transportation

Eric Widstrand, P.E., P.T.O.E.  
City Traffic Engineer  
Seattle Department of Transportation



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## Section One: Traffic and Collision Trends

### Traffic Trends

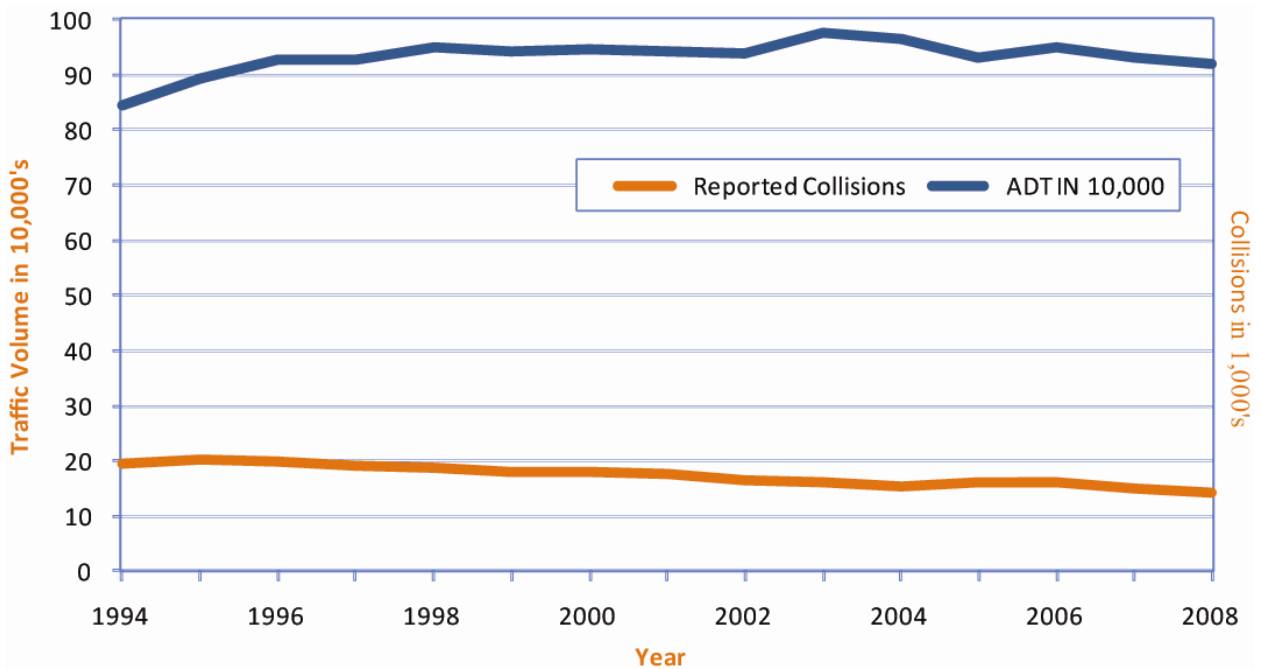
From 2007 to 2008, vehicle travel on city streets decreased approximately six percent, based on traffic volumes measured at city bridges. Based on counts taken in 2009, bicycle traffic has increased 15 percent since 2007.

### Collision Trends

There were 14,186 reported collisions on Seattle streets in 2008. Between 2007 and 2008, the total number of traffic collisions reported on Seattle streets decreased by six percent.

Pedestrian collisions decreased by six percent, while the number of bicycle collisions remained essentially level, and the number of motorcycle collisions decreased by seven percent. Figures in this report are rounded to the nearest one percent.

### Trends in Traffic Volume and Collisions in Seattle 1994 - 2008



Volumes are Average Daily Traffic for all major Seattle bridges.



## Section Two: All Collisions

There were 14,186 reported collisions on Seattle streets in 2008. Between 2007 and 2008, the total number of traffic collisions reported on Seattle streets decreased by six percent.

### Fatal Collisions

There were 20 fatal collisions reported on Seattle streets in 2008, resulting in a total of 20 fatalities. For reporting purposes, fatal collisions are defined as those that result in death within 30 days of the collision. Seven of the fatalities were motor vehicle drivers or passengers, nine were pedestrians, two were classified as cyclists (including one who was a passenger in a pedicab), and two were riding motor scooters or mopeds. There were no motorcycle fatalities in 2008. Section Seven provides additional information about fatal collisions.

### Injury Collisions

Of the 14,186 collisions on city streets in 2008, 28 percent resulted in injury. The most common types of collision that resulted in injury were rear end collisions (25 percent of injury collisions were of this type) and right angle collisions (21 percent of injury collisions were of this type).

About 23 percent of the injury collisions reported in Seattle involved pedestrians, bicyclists or motorcyclists.

### Primary Contributing Factors to Collisions

The most frequently cited primary causes of collisions on Seattle streets in 2008 were:

- failure to yield the right-of-way;
- following too closely;
- exceeding reasonable safe speed, and;
- driver distraction.

### Collision by Street Type and Location

Collisions occur more frequently on arterials than on non-arterials, and more frequently at mid-block locations than at intersections.

#### Collision Locations 2008

All Collisions	Arterial 72%	20% at Signalized Intersections
		15% at Non-Signalized Intersection
		65% Mid-Block
	Non-Arterial 28%	13% at Intersections
87% Mid-Block		



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### **Hit and Run Collisions**

Thirty-seven percent of the collisions reported on Seattle streets in 2008 were hit and run. Of these, over half (58 percent) involved parked cars.

### **Alcohol Use**

In 2008, alcohol use by a driver was given as a contributing cause in three percent of all collisions and four percent of injury collisions where driver information is available (driver information is not available for hit and run collisions). Between 2007 and 2008, there was a slight decrease in the number of collisions where alcohol use by the driver was given as a contributing cause.

### **Seatbelt Use**

Reported seatbelt use, which includes car seat use, was 99 percent for drivers and 92 percent for passengers.



## Section Three: Pedestrian Collisions

In 2008, the number of reported pedestrian collisions on Seattle streets decreased five percent from the previous year, from 490 reported collisions in 2007 to 468 in 2008. The number of pedestrians injured in collisions decreased seven percent, from 446 in 2007 to 415 in 2008. There were nine fatal pedestrian collisions in 2008. Figures 3-1 through 3-3 show pedestrian collision, injury and fatality trends between 2001 and 2008; Figure 3-4 maps the location of 2008 pedestrian collisions.

Eighty-nine percent of pedestrian collisions occurred on arterial streets. In order of frequency, the most common movements that pedestrians were making when struck were:

- crossing at a signalized intersection with the signal;
- crossing at an unsignalized intersection, and;
- crossing mid-block.

### Contributing Factors

Drivers contributed to the cause of 75 percent of pedestrian collisions, and the most common cause was the driver's failure to grant the right-of-way to the pedestrian. In some cases, both the driver and the pedestrian contributed to the cause of the collision.

Pedestrians contributed to the cause of 40 percent of pedestrian collisions. The contributing causes, in order of frequency, were:

- failure to use the crosswalk;
- failure to grant the right-of-way to the vehicle;
- under the influence of alcohol; and,
- disregard of the traffic signal.

### Fatal Pedestrian Collisions

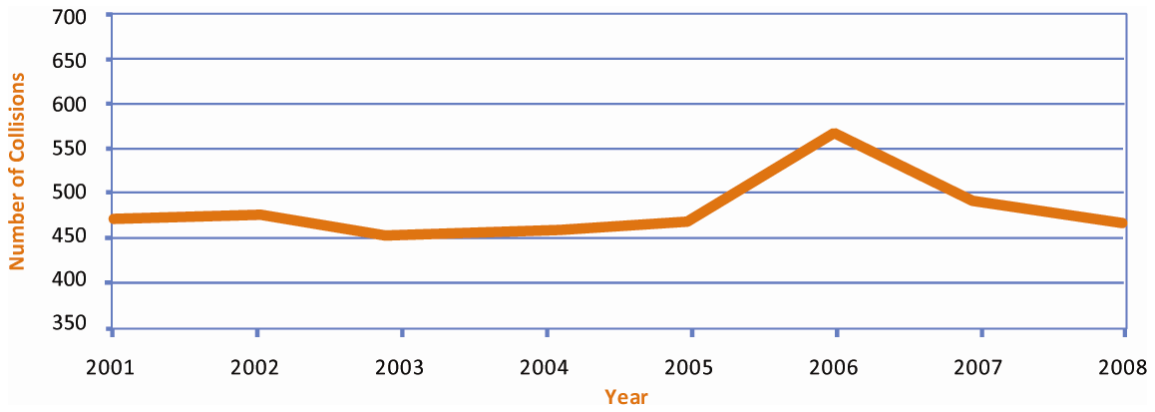
Nine fatal collisions involving pedestrians occurred on Seattle streets in 2008. This is based on the definition of a fatal collision as one that results in death from collision-related injuries within 30 days of the collision.

All of the fatal pedestrian collisions that occurred in Seattle in 2008 occurred on arterial streets:

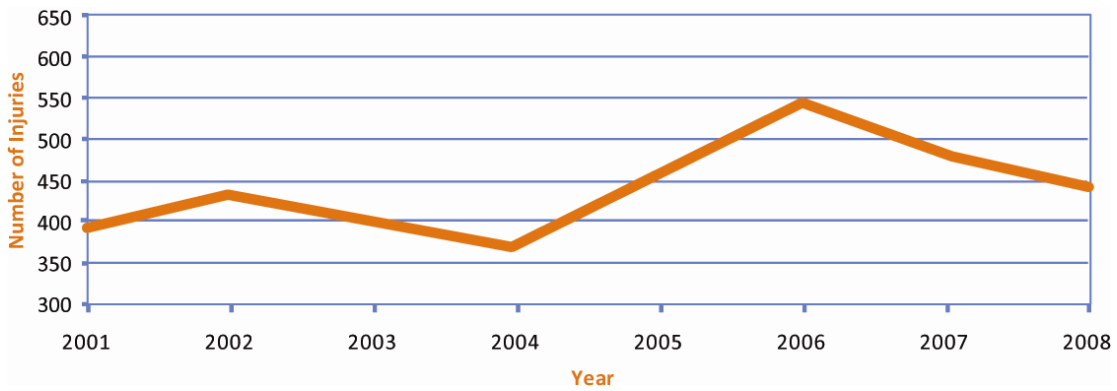
- Two occurred in marked crosswalks at signalized intersections;
- Two occurred in marked crosswalks with no signal;
- One appeared to have occurred just outside of a marked crosswalk at a signalized intersection;
- One occurred in the center of a signalized intersection;
- One occurred on the sidewalk; and,
- Two occurred in mid-block locations.



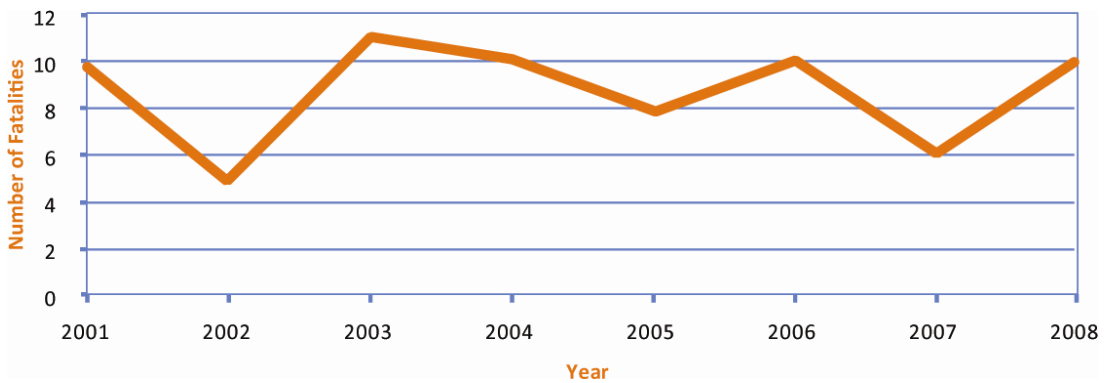
**Figure 3-1: Pedestrian Collisions 2001 - 2008**



**Figure 3-2: Pedestrian Injuries 2001 - 2008**

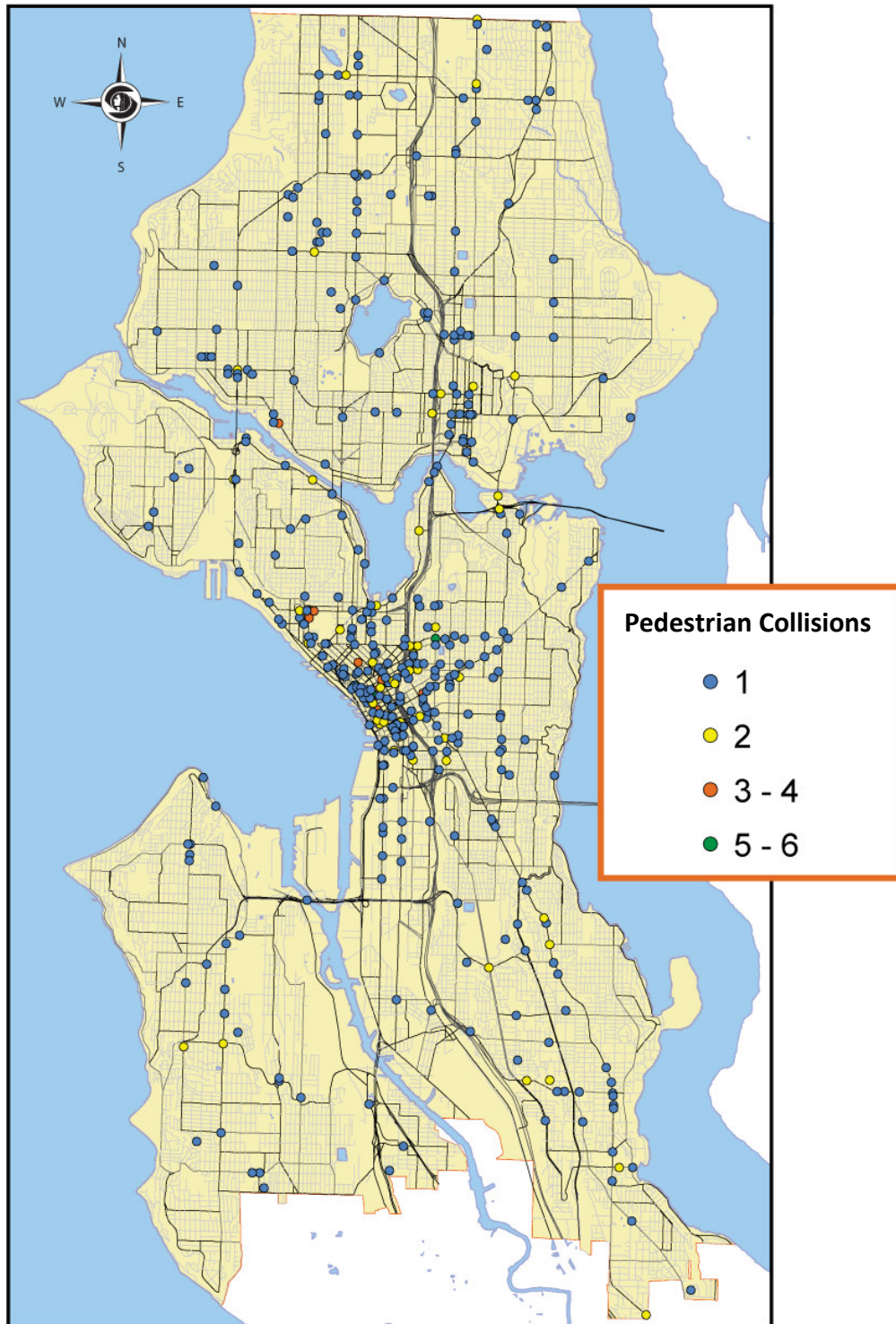


**Figure 3-3: Pedestrian Fatalities 2001 - 2008**





**Figure 3-4: 2008 Pedestrian Collision Locations**







## Section Four: Bicycle Collisions

The number of reported bicycle collisions on Seattle streets remained relatively unchanged between 2007 and 2008, with 359 reported in 2007 and 361 in 2008. The number of injuries related to these collisions has remained stable, with 310 riders injured in both 2007 and 2008. There were two bicycle fatalities in 2008. Figures 4-1 through 4-3 show bicycle collision, injury and fatality trends between 2001 and 2008; Figure 4-4 maps 2008 bicycle collisions.

Eighty-seven percent of bicycle collisions occurred on arterial streets and 55 percent occurred at intersections. Of the bicycle collisions that occurred at intersections, 47 percent occurred at signalized intersections and 53 percent at unsignalized intersections.

The greatest numbers of bicycle collisions occurred during the afternoon commute time, when bicycle and motor vehicle traffic volumes are highest. Numbers of bicycle collisions were also relatively higher during the morning commute peak and noon hour.

Bicycle collisions occurred more frequently on weekdays than on weekends, and more frequently from late spring through early fall.

### Contributing Causes

The most common movement that cyclists were making when struck was riding in the travel lane with traffic. This was reported in 62 percent of bicycle collisions. In 27 percent of the reported bicycle collisions, the cyclist was entering traffic.

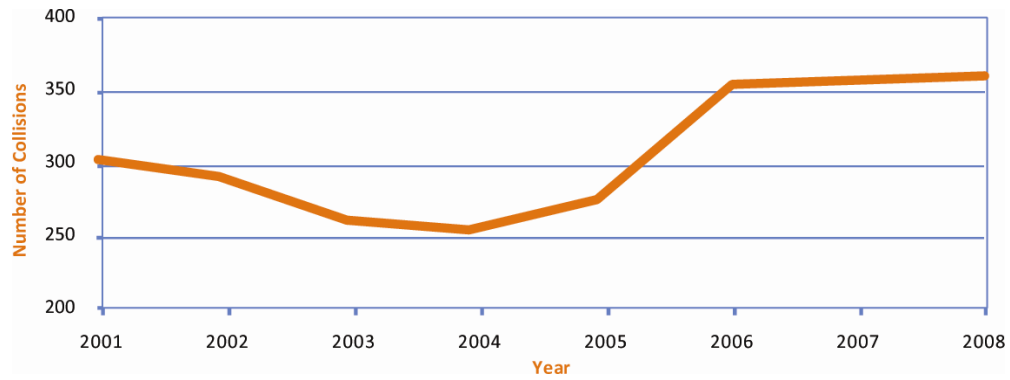
In police reports, drivers were determined to have contributed to the cause of 70 percent of bicycle collisions. In these collisions, drivers were most commonly cited for failure to grant the right-of-way to the cyclist. Cyclists contributed to the cause of 35 percent of the collisions. (This totals more than 100 percent because in some cases, both the driver and the cyclist contributed to the cause of the collision).

### Helmet Use

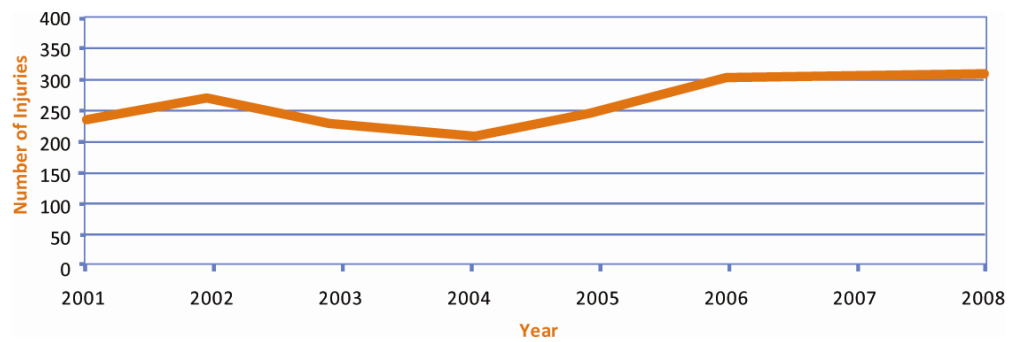
Twenty-six percent of cyclists involved in reported collisions were not wearing a helmet. Helmet use is required for all riders in Seattle.



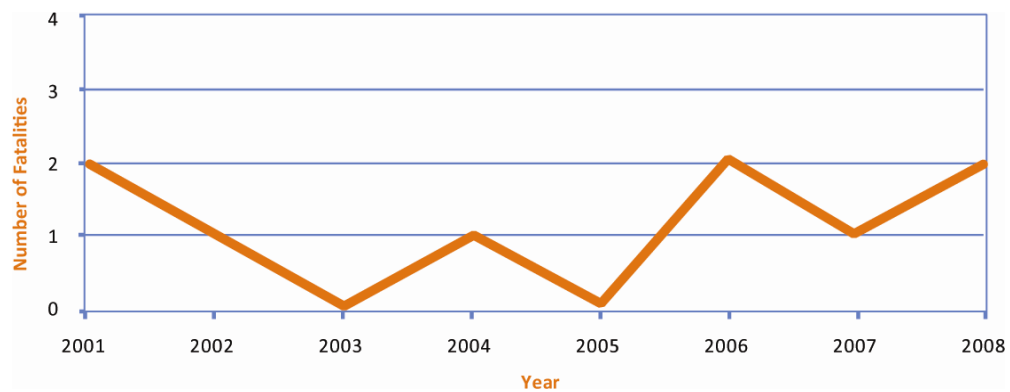
**Figure 4-1: Bicycle Collisions 2001 – 2008**



**Figure 4-2: Bicycle Injuries 2001 – 2008**

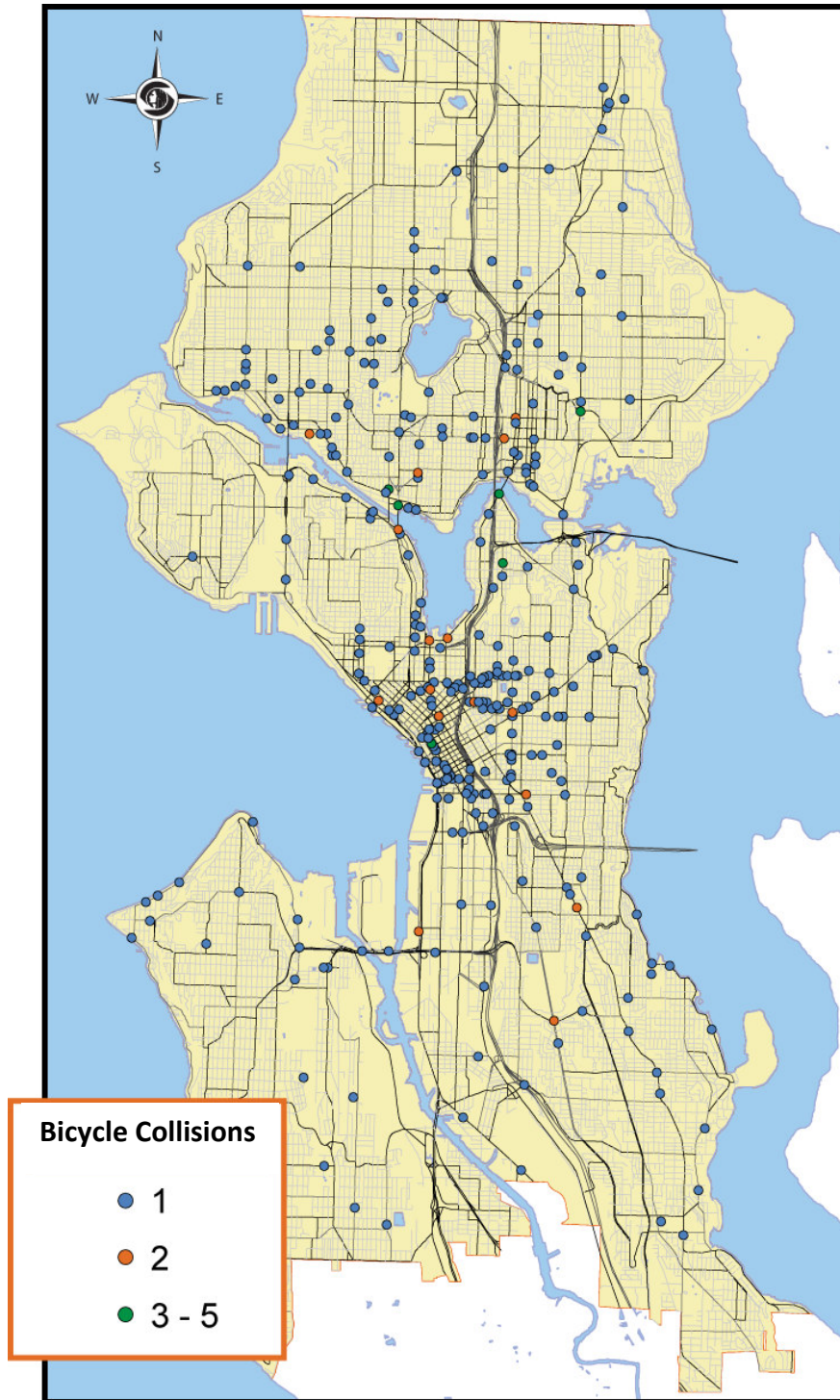


**Figure 4-3: Bicycle Fatalities 2001 – 2008**





**Figure 4-4: Bicycle Collision Locations - 2008**





## Section Five: Motorcycle Collisions

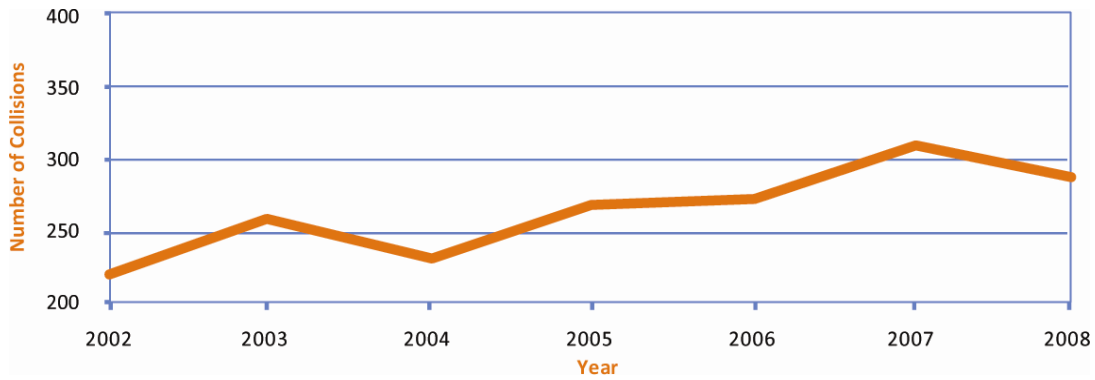
The number of motorcycle collisions on Seattle streets decreased by eight percent between 2007 and 2008, and the number of motorcycle collisions resulting in injury decreased by 29 percent. There were no fatal motorcycle collisions in 2008. There were two fatal collisions involving motor scooters or mopeds. Motor scooters and mopeds collisions are recorded as motor vehicle collisions for general reporting purposes, but are identified separately in the section on fatal collisions. In the previous five years, there was only one fatal collision involving a motor scooter.

In 2008, the primary causes of collisions in which motorcycles were involved were similar to those for all motor vehicle traffic in Seattle. Excluding collisions involving parked motorcycles, the most frequently reported causes of motorcycle collisions were:

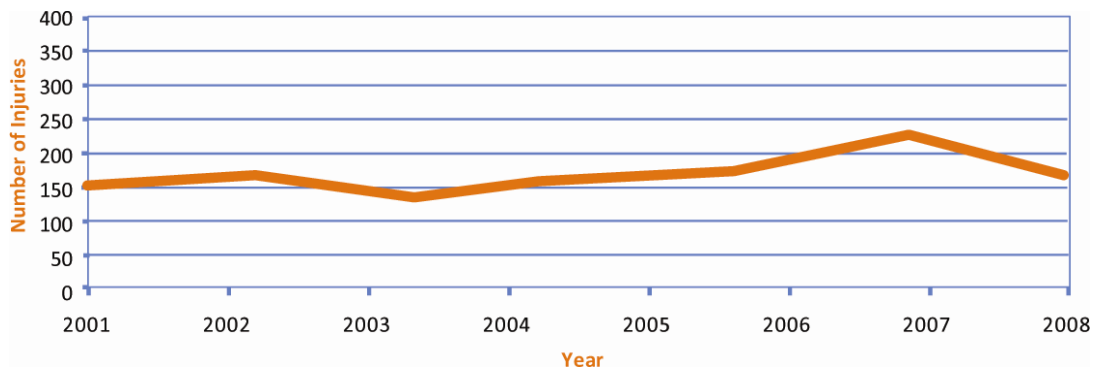
- failure to grant right-of-way;
- driver inattention/distraction;
- speeding; and
- improper turning.



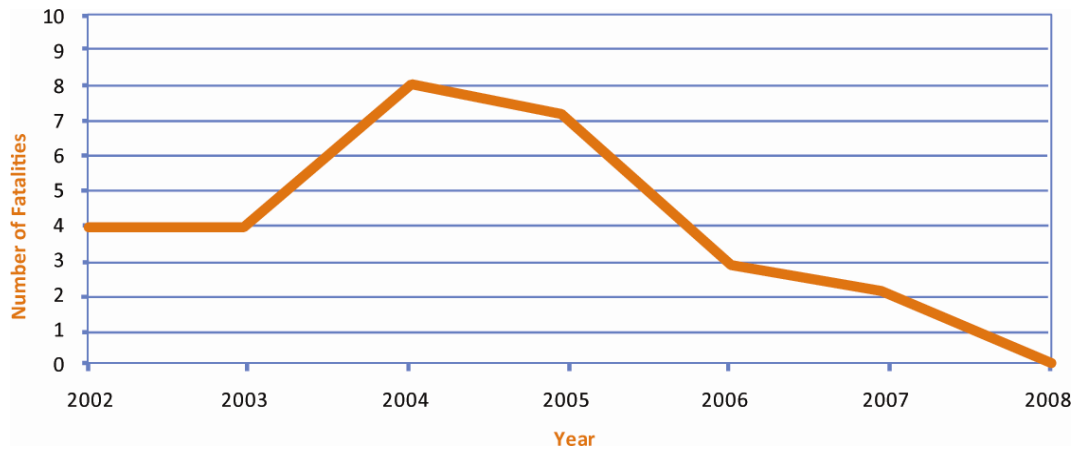
**Figure 5-2: Motorcycle Collisions**



**Figure 5-3: Motorcycle Injuries**

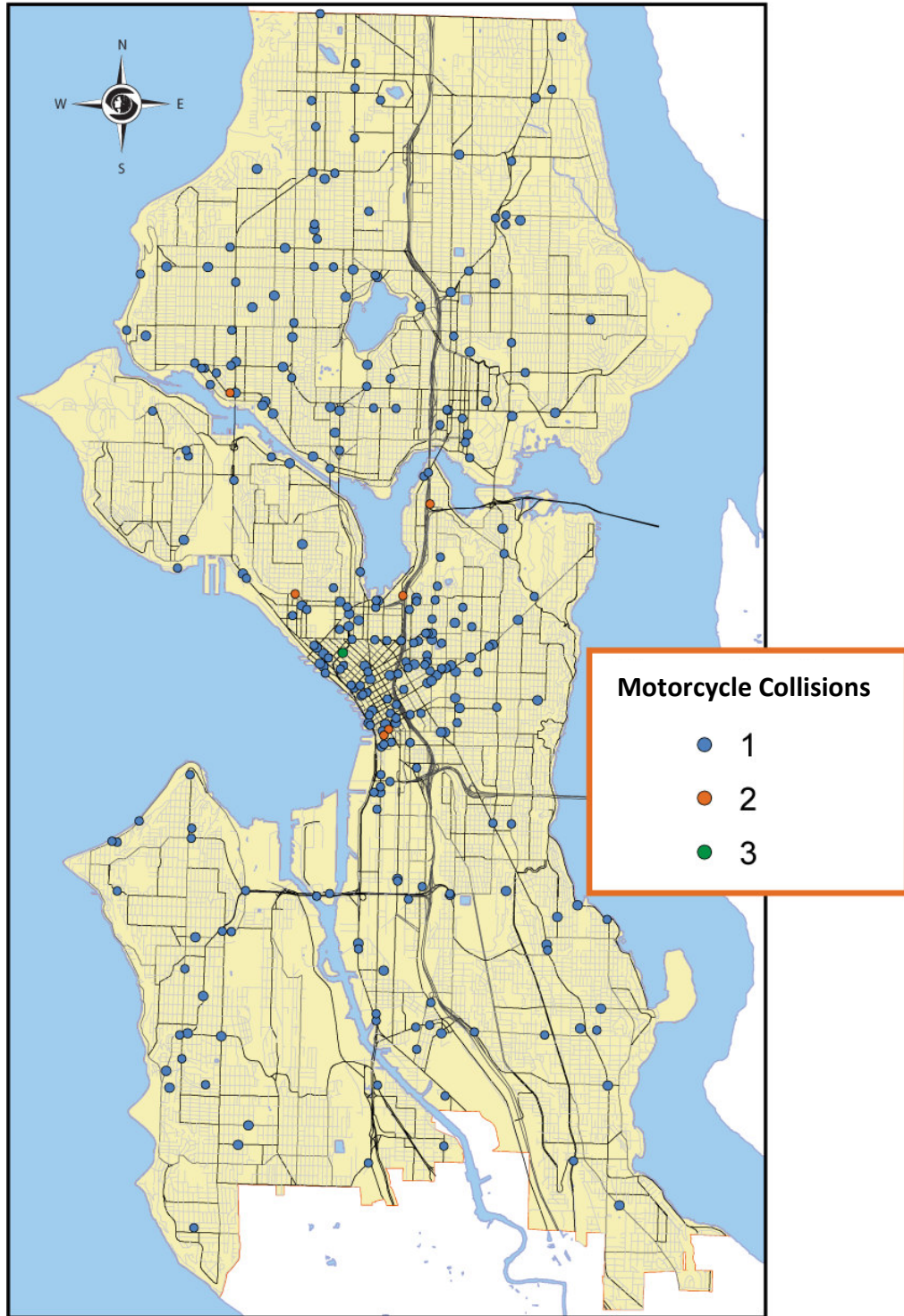


**Figure 5-4: Motorcycle Fatalities**





**Figure 5-5: Motorcycle Collision Locations - 2008**







## Section Six: Rail Collisions

Two kinds of rail systems operate within or across Seattle street rights of way: heavy rail (including Burlington Northern, Union Pacific, Sound Transit and Amtrak trains), and the Seattle Streetcar. Future reports will include information about Link light rail, which opened in 2009.

### Heavy Rail

Based on SDOT and Federal Railroad Administration data, eight traffic collisions involving heavy rail trains occurred in street rights of way in 2008. Five of these collisions occurred on improved city streets. The remaining three occurred in unimproved right of way, where there is no formal, paved street and no formal traffic control. In each of the collisions, train speeds were very low and the apparent cause was the vehicle driver disregarding the presence of the train. There were no reported injuries from heavy rail collisions.

### Seattle Streetcar

In 2008, its first full year of operation, the Seattle Streetcar was involved in seven traffic collisions. Of these collisions:

- one involved the streetcar clipping the mirror of a car backing out of a parking space;
- three involved vehicles parked too close to the streetcar tracks;
- one involved a vehicle running a stop sign and striking the streetcar;
- one involved a vehicle running a signal and striking the streetcar; and,
- one involved a vehicle alongside the streetcar making a right turn into it.

These tended to be relatively low-speed collisions, and none resulted in reported injuries.



## Section Seven: Fatal Collisions

There were 20 traffic fatalities in 2008, which were the result of 20 separate collisions. This is more than the 14 fatalities in 2007, and less than the 33 in 2006. For reporting purposes, fatal collisions are those collisions in which an injured person dies from the injury within 30 days of the collision.

In 2008, there were two fatal collisions involving cyclists (including one pedicab collision) and nine fatal pedestrian collisions. There were no motorcycle fatalities in 2008, but there were two fatal collisions involving motor scooters or mopeds. The remaining seven fatalities were motor vehicle drivers or passengers.

Almost all of the fatal collisions that occurred on Seattle streets in 2008 (19 of the 20) occurred on arterials. Half of the fatal collisions occurred at intersections and the other half occurred at mid-block locations. These collisions occurred at geographically dispersed locations throughout the city. Half of the fatal collisions occurred during the day and half during dusk and evening times.

The contributing causes most frequently cited for fatal collisions were:

- speeding/exceeding reasonable, safe speed;
- under the influence of alcohol; and
- failure to yield right-of-way to pedestrian.

Information about each fatal collision is provided in Figure 7-1, and their locations are mapped in Figure 7-2.





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**Figure 7-1: Fatal Collisions in Seattle – 2008**

No	Location	Collision Date	Time	Light Cond	Collision Type	Age	Sex
1	23rd Av S between S Lane St and S Deaborn St	1/4/2008	10:00 PM	Dark – streetlight on	Pedestrian	53	F
2	15th Av NE and NE 145th St	2/6/2008	11:18 AM	Daylight	Pedestrian	94	F
3	SW Barton St between 26th Av SW and 29th Av SW	2/8/2008	7:15 PM	Dark – streetlight on	Pedestrian	55	F
4	M L King Jr Wy S and S Temple Pl	2/28/2008	8:40 AM	Daylight	Head On	43	M
5	1st Av S and Railroad Wy S	3/30/2008	12:49 AM	Dark – streetlight on	Pedestrian	73	M
6	S Holly St between 46th Av S and Rainier Av S	3/31/2008	4:20 PM	Daylight	Right Turn	93	M
7	University Wy NE and NE 45th St	4/25/2008	1:23 AM	Dark – streetlight on	Pedestrian	19	M
8	Westlake Av N between Halladay St and Newell St	5/4/2008	4:54 PM	Daylight	Head On	23	M
9	M L King Jr Wy between Beacon Av S and Merton Wy S	6/14/2008	6:16 PM	Daylight	Fixed Object	44	M
10	24th Av E between E Miller St and E Montlake Pl E	7/27/2008	6:19 AM	Daylight	Head On (moped/scooter)	39	M
11	Cedar St and Western Av	8/6/2008	6:53 PM	Dusk	Bicycle (pedicab)	60	M
12	35th Av SW between SW Dawson St and SW Brandon St	8/10/2008	9:00 PM	Dusk	Pedestrian	39	M
13	Broadway Av and Madison St	8/23/2008	12:34 PM	Daylight	Pedestrian	59	F
14	Aurora Av N between Howe St and Lynn St	8/25/2008	9:15 PM	Dark – streetlight on	Fixed Object	25	F
15	Aurora Av N and N 84th St	8/28/2008	5:47 PM	Dusk	Pedestrian	60	F
16	California Av SW and SW Dawson S St	9/22/2008	12:47 PM	Daylight	Pedestrian	92	F
17	Greenwood Av N and N 127th St	9/26/2008	11:45 AM	Daylight	Left Turn	57	F
18	4th Av S and S Royal Brougham Wy	10/1/2008	6:29 AM	Dark – streetlight on	Bicycle	57	M
19	Aurora Av N between Garfield St and Howe St	11/12/2008	2:36 AM	Dark – streetlight on	Run off Road	32	M
20	Westlake Av between 7th Av and 8th Av	11/12/2008	3:11 PM	Daylight	Overturn (moped/scooter)	37	F



**Figure 7-2: Locations of Fatal Traffic Collisions on Seattle Streets – 2008**

