

# **San Francisco 2007 Collision Report**



**City and County of San Francisco  
Municipal Transportation Agency**

**October 14, 2008**

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## INTRODUCTION

This report summarizes long-term collision trends. It also lists intersections with the highest collision totals in San Francisco. This information is used to help identify locations that may need special attention and evaluate previous mitigation measures.

The intersections in this report are not a list of the "most dangerous" intersections in San Francisco. Vehicular traffic and pedestrian activity play a key role in determining collision totals: the more people that use an intersection, the more likely a collision can occur. A higher number of collisions could be due to higher levels of activity, thus some of the locations mentioned in this report may statistically be safer than other intersections with lower collision and traffic totals. Any short-term annual increase in collisions could also be the result of random yearly fluctuations. Out of the thousands of intersections in San Francisco, in any one year some will have more collisions than usual, while other locations will have lower collisions than the expected annual average. Looking at multi-year trends can help minimize these effects.

The source of the collision data is the Statewide Integrated Traffic Records Systems (SWITRS) maintained by the California Highway Patrol (CHP). California Vehicle Code Section 20008 requires that local governments send their police collision reports to the state. The CHP provides electronic summaries of these reported collisions, which are then processed by local jurisdictions. The data used in this report excludes collisions that occurred on San Francisco freeways or private property but includes collisions on city streets that are classified as state highways (such as 19<sup>th</sup> or Van Ness Avenues). State SWITRS totals for 2007 were not considered official by the CHP until September 12, 2008, thus delaying the preparation of this report.

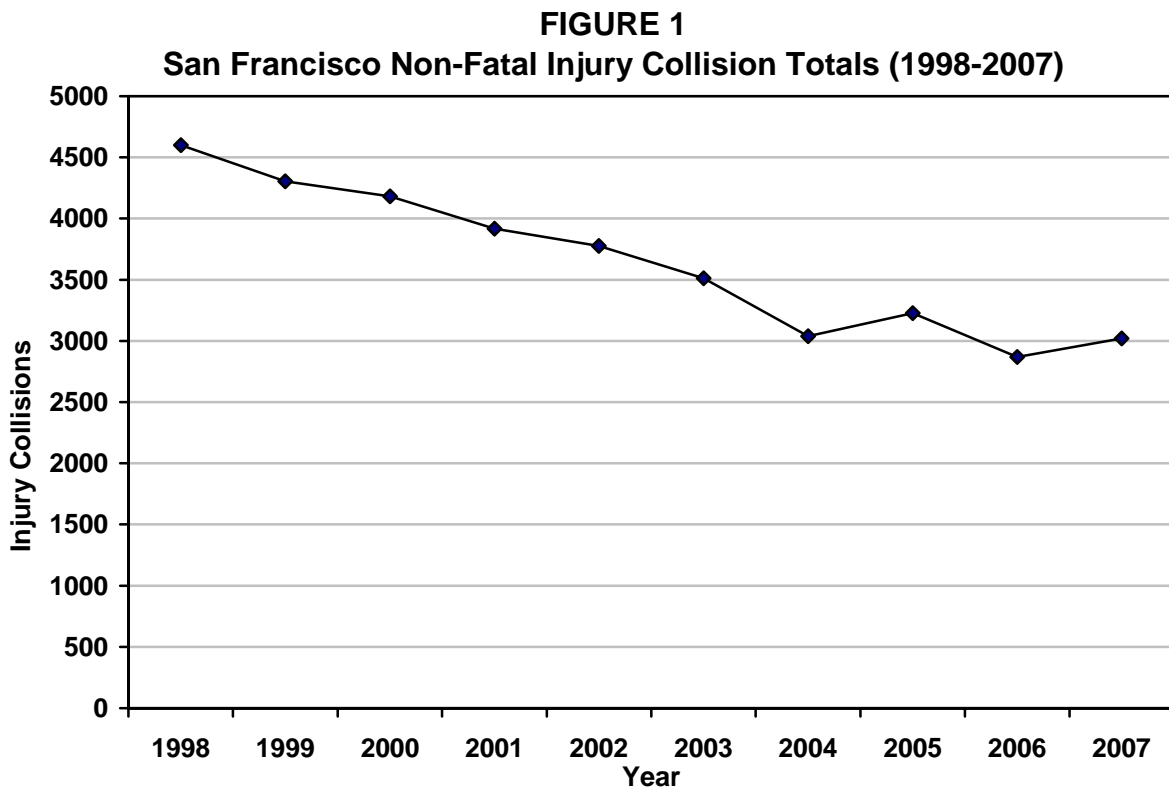
Due to limited San Francisco Police Department resources, property damage only (non-injury) collisions are typically not reported. Injury and fatal collisions are reported more consistently over time, however. This report focuses on collisions that involve an injury to at least one of the parties involved in order to minimize the influence that changes in reporting procedures can have on collision trend analysis. Unless otherwise stated, the term "injury collision" in this report also includes fatal collisions.

This report (Part 5) also includes for the first time an analysis of Muni-involved collisions using Municipal Railway collision statistics separate from those provided by SWITRS.

## PART 1: CITYWIDE INJURY AND FATAL COLLISION TRENDS

Reported non-fatal injury collisions in San Francisco totaled 3,021 in 2007. This figure remains the second lowest injury collision total of the past ten years (Figure 1) but is up 5 percent from the 2,869 injury crashes reported in 2006. The total number of people injured by these collisions was approximately 3,957.

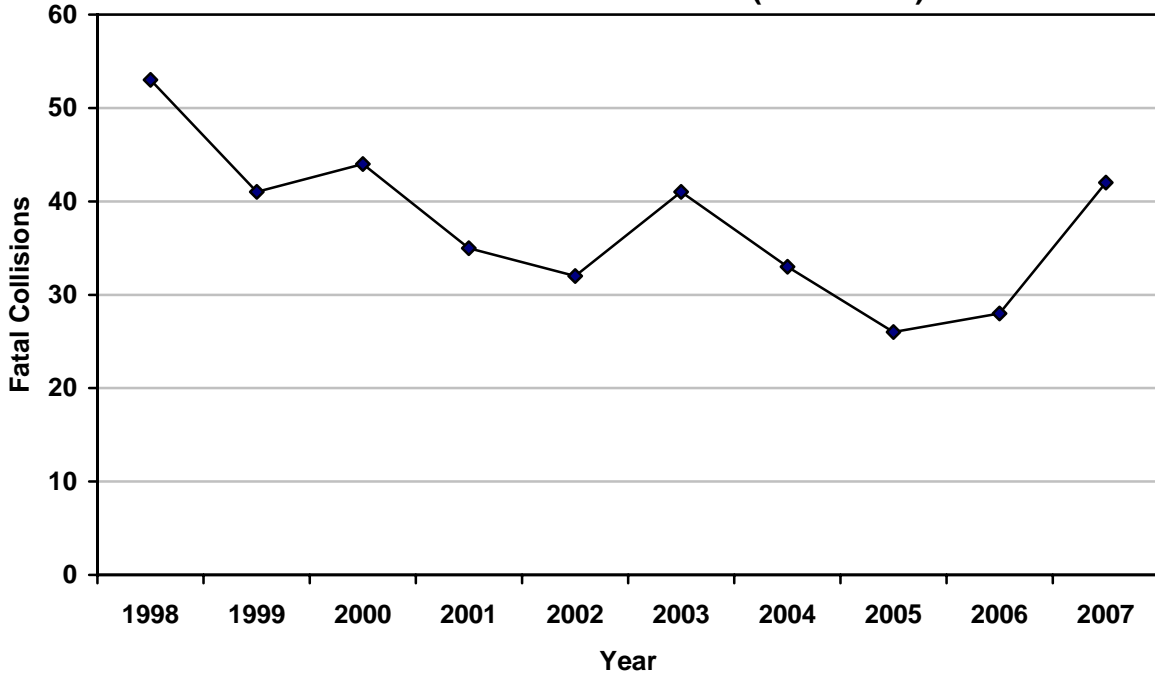
The number of collisions resulting in fatalities in 2007, 42, increased from the 2006 total of 28, breaking a recent downward trend (Figure 2). In general, injury collisions are a more reliable indicator of collision trends over time because fatal collisions, being rarer events, are more subject to random annual fluctuations. This is illustrated in the higher year-to-year variance seen in Figure 2 compared to Figure 1.



**FIGURE 1**  
**San Francisco Non-Fatal Injury Collision Totals (1998-2007)**

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total</b>	4,599	4,304	4,182	3,917	3,777	3,511	3,038	3,227	2,869	3,021

**FIGURE 2  
San Francisco Fatal Collision Totals (1998-2007)**



**FIGURE 2  
San Francisco Fatal Collision Totals (1998-2007)**

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total</b>	53	41	44	35	32	41	33	26	28	42

Table 1 lists the previous five-year injury collisions according to the three non-fatal injury severity categories used by all police departments in the state. The percentage of visible/severe injuries appears to be increasing slightly over the past five years, going from 32 percent of the injury total in 2003 to 36 percent in 2007.

**TABLE 1  
San Francisco 2003-2007 Injury Collision Severity  
(With percentage of annual total injury collisions)**

Year	Complaint of Pain	Other Visible Injury	Severe Injury
<b>2007</b>	1,937 (64%)	896 (30%)	188 (6%)
<b>2006</b>	1,895 (66%)	807 (28%)	167 (6%)
<b>2005</b>	2,118 (66%)	936 (29%)	173 (5%)
<b>2004</b>	2,006 (66%)	882 (29%)	150 (5%)
<b>2003</b>	2,411 (69%)	942 (27%)	157 (4%)

## PART 2: COLLISION TYPES AND CAUSES

Tables 2 and 3 break down injury collision totals by primary collision type and cause. The two most common types of collisions, broadsides and vehicle-pedestrian, comprise 56 percent of all reported injury collisions. The most common type of primary collision cause is speeding. Many collisions can be the result of more than one violation factor, some not readily apparent. Typically the officer at the scene will determine through witness and party statements the most likely cause of the collision.

**TABLE 2**  
**2007 Non-Fatal Injury Collisions by Primary Collision Types**

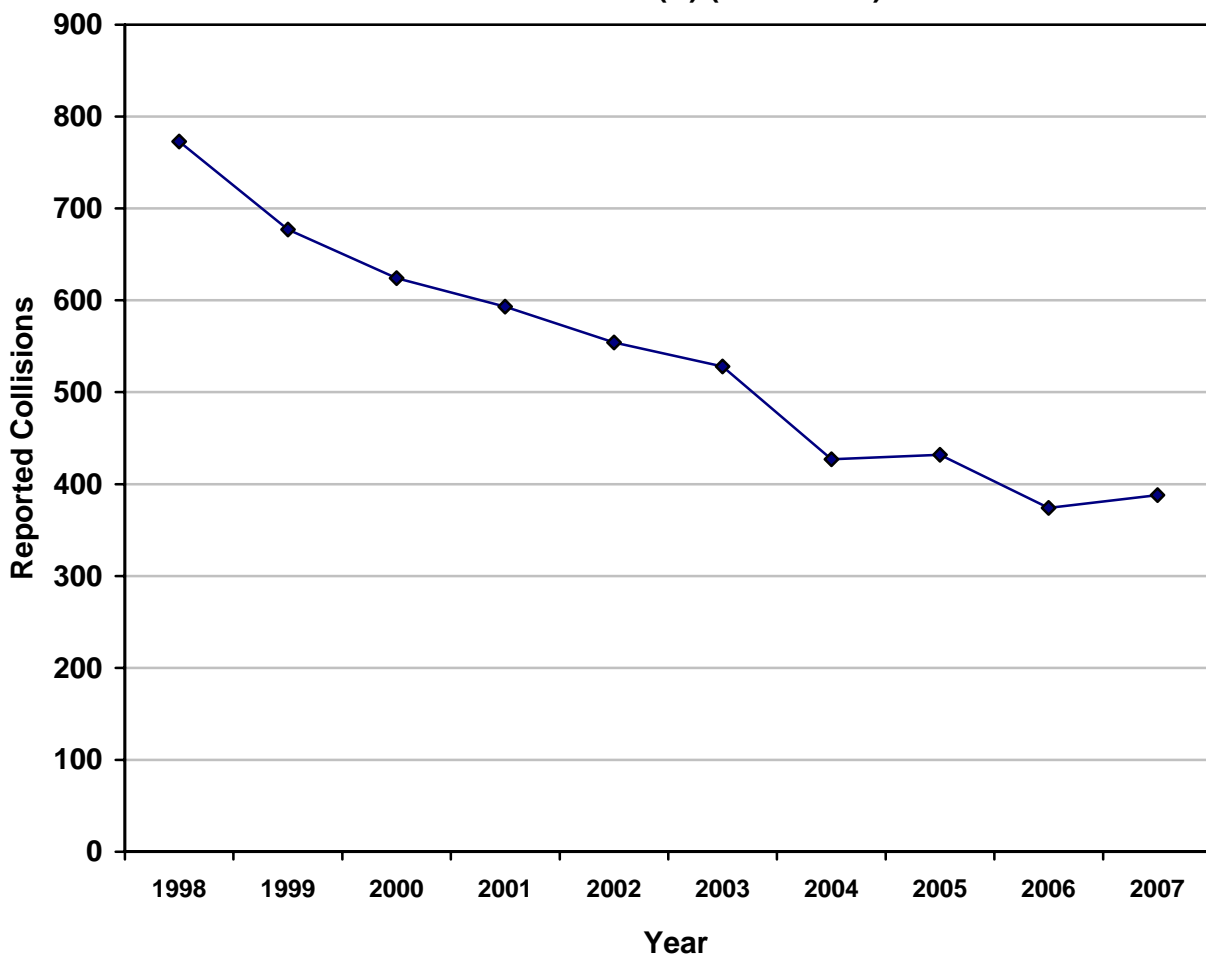
Type	Collisions	Percent
<b>Broadside (Right-Angle)</b>	1,005	33
<b>Vehicle-Pedestrian</b>	690	23
<b>Rear-End</b>	533	17
<b>Sideswipe</b>	306	10
<b>Head-On</b>	143	5
<b>Other</b>	344	11

**TABLE 3**  
**2007 Non-Fatal Injury Collisions by Primary Collision Causes**

Cause	Collisions	Percent
<b>Unsafe Speed</b>	589	20
<b>Violation of Traffic Signals and Signs</b>	472	16
<b>Vehicle Right-of-Way Violations</b>	388	13
<b>Driver Violations of Pedestrian Right-of-Way</b>	330	11
<b>Violations by the Pedestrian</b>	238	8
<b>Improper Turning</b>	212	7
<b>Other</b>	792	26

Figure 3 illustrates the trend in red light running injury collisions using California Vehicle Code Section 21453(A), failure by a motorist to obey traffic signals. Red light running collisions have shown a general decrease since the early 1990's, with 2007 recording the second lowest annual total in ten years. Signal hardware improvements funded by the City's transportation sales tax have helped reduce these types of collisions, most notably in the South of Market area. This drop also coincides with the city's deployment of red light photo enforcement.

**FIGURE 3**  
**San Francisco Injury Red Light Violation Collisions**  
**CVC 21453(A) (1998-2007)**



**FIGURE 3**  
**San Francisco Injury Red Light Running Collisions, CVC 21453(A) (1998-2007)**

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total</b>	773	677	624	593	554	528	427	432	374	388

### PART 3: HIGHEST COLLISION INTERSECTIONS

Intersection collisions comprise the majority of injury collisions in San Francisco. In 2007, nearly two-thirds of injury collisions (2,093) were collisions at or immediately adjacent to an intersection. As documented in previous annual reports, the number of intersections with double digit annual injury collision totals has gradually decreased. This is in part due to the City's targeted safety efforts. In 2007 no location reported ten or more injury collisions.

Table 4 lists the locations with the most collisions reported during 2007 (seven or more collisions resulting in injury to at least one party).

**TABLE 4**  
**2007 Highest Injury Collision Total Intersections**  
**Intersections with 7 or more collisions resulting in injury during 2007**

<b>Street A</b>	<b>Street B</b>	<b>2007 Injury Collisions</b>	<b>2006 Injury Collisions</b>	<b>Change</b>
Gough St.	Market St.	9	8	+1
10 <sup>th</sup> St./ Market St.	Fell St./Polk St.	8	3	+5
13 <sup>th</sup> St.	S. Van Ness Ave.	8	5	+3
13 <sup>th</sup> St. / Otis St.	Mission St.	8	2	+6
19 <sup>th</sup> Ave.	Sloat Blvd.	8	7	+1
6 <sup>th</sup> St./ Market St.	Taylor/Golden Gate	8	5	+3
Market St.	Octavia Blvd.	8	5	+3
19 <sup>th</sup> Ave.	J. Serra Blvd.	7	6	+1
6 <sup>th</sup> St.	Howard St.	7	3	+4
Bayshore Blvd.	Silver Ave.	7	6	+1
Oak St.	Octavia Blvd.	7	14	-7

The 2007 highest collision location, Gough and Market Streets, will be receiving signal hardware changes shortly as part of a planned Prop. K signal modification. The changes will add a median signal facing Market Street to improve signal visibility.

Larger overhead signals were also installed facing eastbound Market Street on October of 2007 by the Agency's Signal Division. A red light camera installation is also planned.

10<sup>th</sup> Street, Fell, Polk and Market Streets is scheduled for a timing change this year. The signal change will extend the all-red phase, or the duration of the pause between the time a signal light turns yellow in one direction and the signal turns green in the cross direction. Signage has also been modified to minimize illegal turns from Polk and Fell Streets.

13<sup>th</sup> Street at Mission Street and 13<sup>th</sup> Street and South Van Ness Avenue are both locations impacted by the closure of the Central Freeway in 1996. The opening of Octavia Boulevard in 2005 diverted some traffic away from these two intersections, making it possible to make signal timing adjustments at the end of 2007 that decreased the total cycle length of these two intersections. In addition, the Agency's Signal Division installed pedestrian signals crossing 13<sup>th</sup> Street at South Van Ness Avenue in August of 2008. SFMTA will monitor how these changes affect collision totals in 2008.

At 19<sup>th</sup> Avenue and Sloat Boulevard, the Agency received permission from Caltrans in 2007 to install a left turn signal arrow at the end of the green light phase facing eastbound Sloat Boulevard at 19<sup>th</sup> Avenue. This intersection is located at the junction of State Routes 35 and 1. The state and the city are working on making signal improvements to the intersection of 19<sup>th</sup> Avenue and Junipero Serra Boulevard, part of a larger group of signal improvements planned for all of Highway 1 in San Francisco. At Bayshore Boulevard and Silver Avenue, meanwhile, the city and state reached an agreement that the City will take over operation of this intersection from Caltrans. SFMTA is now working on adding signalized left turn arrows from Bayshore Boulevard.

Market Street and Octavia Boulevard is being actively reviewed by SFMTA staff and various options are under consideration for changes at this location. It was the City's highest bicycle collision intersection for 2007, with many of these collisions related to illegal right turns from eastbound Market Street to the freeway on-ramp.

The largest decrease in collisions occurred at Oak Street and Octavia Boulevard, which was the city's highest collision intersection in 2006. Changes to the location of various signal indications were made facing eastbound Oak Street in April of 2007 by the Agency's Signal Division. Further changes, such as installation of a red light camera, are being planned. SFMTA will continue to monitor this intersection.

The intersections of 6<sup>th</sup> Street, Golden Gate Avenue, Taylor and Market Streets and 6<sup>th</sup> and Howard Streets are new to the highest collision locations list and will be reviewed by SFMTA staff.

Table 5 presents the highest ten collision intersections during the three-year period from 2005 to 2007. The previous three-year period is provided in order to measure how individual intersection collision trends have been changing.

**TABLE 5**  
**Three-Year Highest Injury Collision Intersections**  
**Intersections with 16 or more collisions resulting in injury, 2005-2007**

<b>Street A</b>	<b>Street B</b>	<b>2005-2007 Injury Collisions</b>	<b>2002-2004 Injury Collisions</b>	<b>Three year change</b>
Gough St.	Market St.	26	26	0
Oak St.	Octavia Blvd.	23	3	+20
19 <sup>th</sup> Ave.	Sloat Blvd.	21	21	0
19 <sup>th</sup> Ave.	J. Serra Blvd.	20	13	+7
Bayshore Blvd.	Silver Ave.	20	22	-2
13 <sup>th</sup> St.	S. Van Ness Ave.	19	14	+5
Market St.	Octavia Blvd.	17	6	+11
Bayshore Blvd.	Paul Ave.	17	14	+3
13 <sup>th</sup> St.	Harrison St.	16	11	+5
6 <sup>th</sup> St. / Market St.	Taylor /Golden Gate	16	7	+9
Broadway	Van Ness Ave.	16	21	-5

Of the eleven intersections in this list, two show significant increases and both are related to the opening of Octavia Boulevard in September of 2005: Oak Street at Octavia Boulevard and Market Street at Octavia Boulevard. SFMTA has implemented various changes in the past three years in response to the observed collision patterns.

The remaining eight intersections are mentioned as a result of their inclusion in Table 4, with the following exceptions:

- Bayshore Boulevard and Paul Avenue. The SFMTA has obtained a state grant to make signal improvements at this intersection. Design of these changes will begin shortly and include pedestrian and overhead traffic signals.
- Broadway and Van Ness Avenue. The SFMTA installed pedestrian signals at all four legs of this intersection in October of 2007.
- 13<sup>th</sup> and Harrison Streets. The SFMTA prohibited left turns from eastbound 13<sup>th</sup> Street in December of 2007 after internal review of existing collision patterns.

## PART 4: PEDESTRIAN AND BICYCLE COLLISIONS

Table 6 shows collisions that had pedestrians and bicyclists as one of the involved parties. About a fourth of San Francisco's 3,021 injury collisions and 57 percent of the 42 fatal collisions involve pedestrians as a direct or indirect party to the collision. Bicycles are involved in 15 percent of injury collisions and around two percent of citywide fatal collisions.

**TABLE 6**  
**2007 Non-Fatal Injury and Fatal Collisions by Parties Involved**

Party	Total Injury Collisions	Percent of Injury Collisions	Total Fatal Collisions	Percent of Fatal Collisions
Pedestrian	796	26%	24	57%
Bicyclist	451	15%	1	2%

Table 7 details the collisions using the SWITRS field "Motor Vehicle Involved with." The most common motor vehicle collision is with another motor vehicle, comprising exactly half of injury collisions and half of fatal collisions reported last year. Some of these "other motor vehicle" collisions may still involve other parties, such as pedestrians.

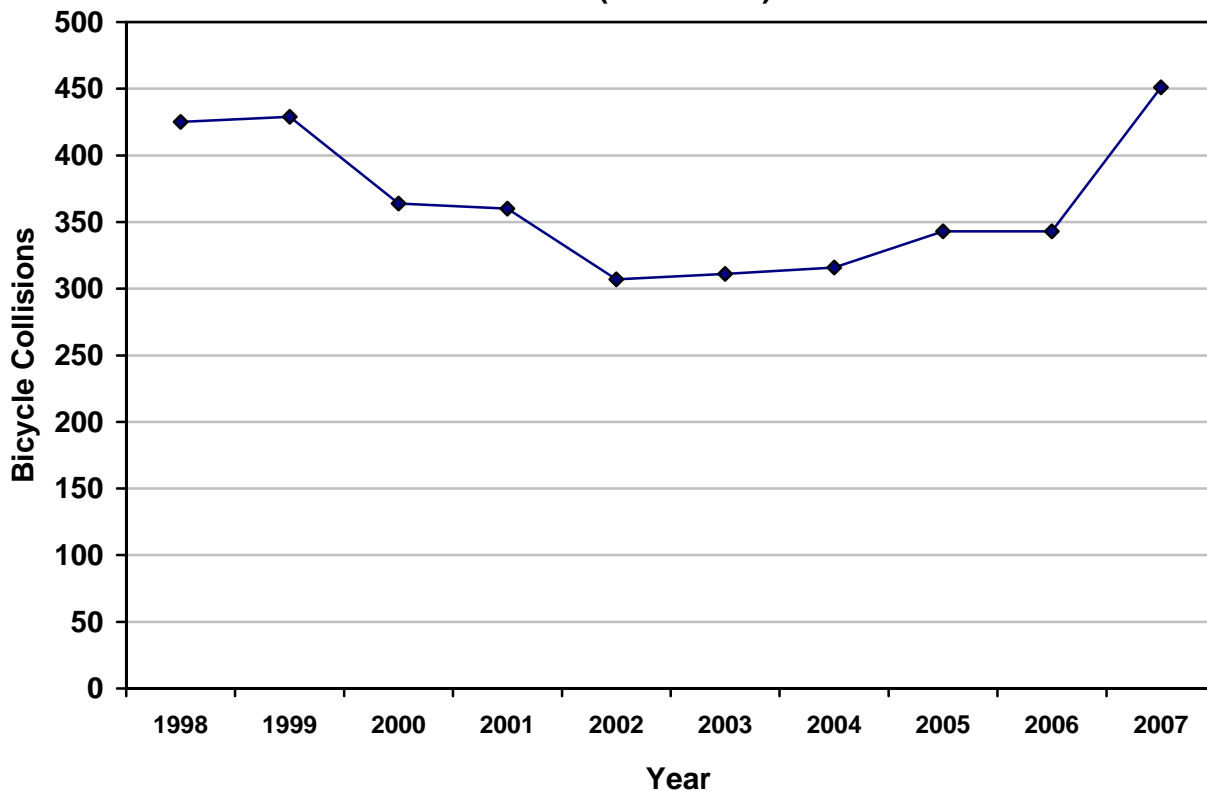
**TABLE 7**  
**2007 Non-Fatal Injury and Fatal "Motor Vehicle Involved with" Collisions**

Motor Vehicle Involved with	Total Injury Collisions	Percent of Injury Collisions	Total Fatal Collisions	Percent of Fatal Collisions
Other Motor Vehicle	1,507	50%	21	50%
Pedestrian	738	24%	11	26%
Bicyclist	382	13%	1	2%
Fixed Object	113	4%	6	14%
Others	281	9%	3	7%

## Bicycle Collision Totals

There were 451 collisions in 2007 involving bicyclists, up 31 percent from the 343 total recorded in 2005 and 2006. The 2007 injury collision total is the highest in the past ten years. Bicycle-involved collisions have not dropped to the same degree as other collision types have in the past decade (Figure 4). This increase could be related to an increasing number of bicyclists on city streets, a trend observed in annual bicycle counts taken by the Agency. Exact reasons for any annual change in collision totals are nevertheless always difficult to establish. The SFMTA Bicycle Program is preparing a separate and more detailed report on bicycle collision statistics for 2007.

**FIGURE 4**  
**San Francisco Injury Collisions Involving Party Type Bicyclist**  
**(1998-2007)**



**Figure 4**  
**San Francisco Injury Collisions Involving Party Type Bicyclist (1998-2007)**

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total</b>	425	429	364	360	307	311	316	343	343	451

Table 8 summarizes the last five-year fatal bicycle collision totals, which have remained in the range of one to two a year.

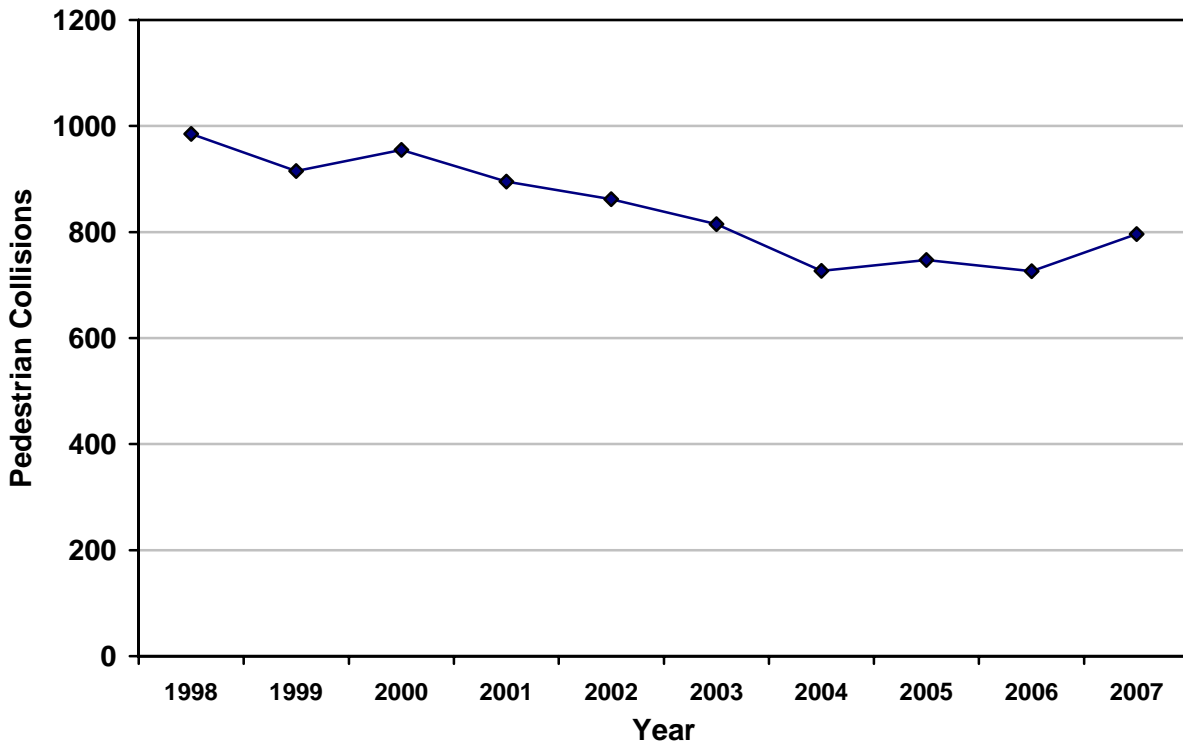
**TABLE 8 - Fatal Collisions Involving Bicycles, 2002-2007**

2002	2003	2004	2005	2006	2007
1	1	1	2	2	1

**Pedestrian Collisions**

The 2007 total of 796 injury collisions involving a pedestrian as a party is up 10 percent from the 2006 total of 726 (Figure 5). In recent years pedestrian collisions have come down from the over 1,000 recorded annually in the 1990's, but further declines have unfortunately not been reported in recent years.

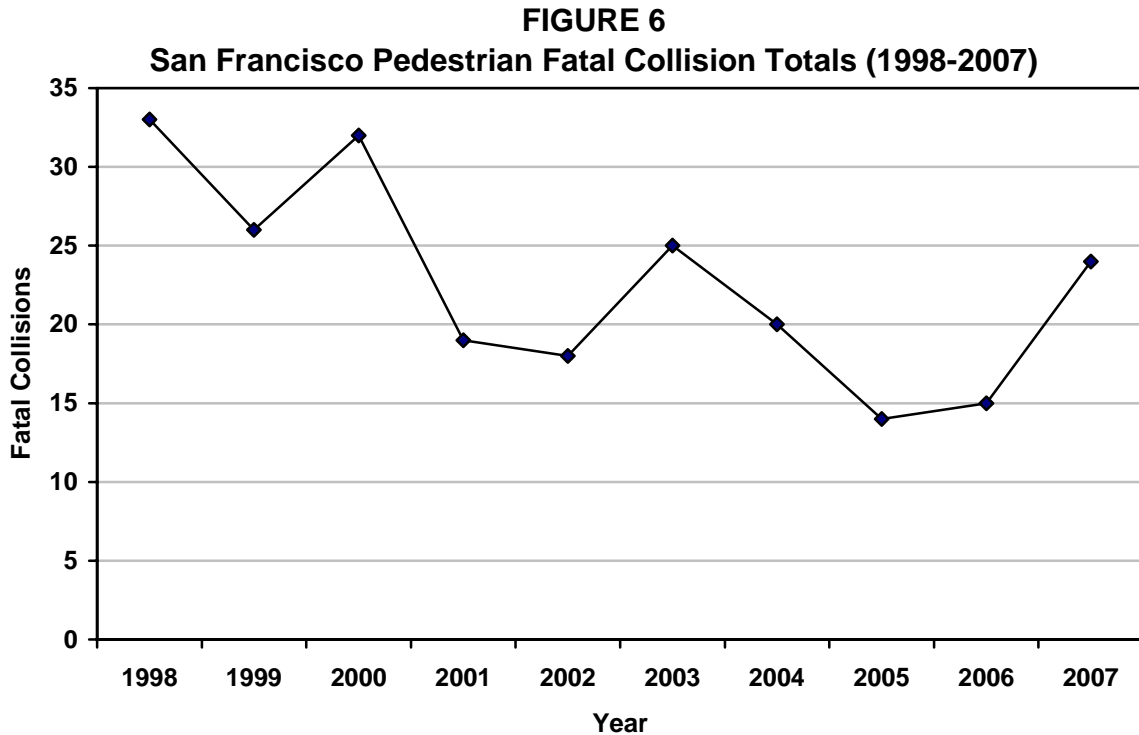
**FIGURE 5  
San Francisco Injury Collisions Involving Pedestrians  
(1998-2007)**



**Figure 5  
San Francisco Injury Collisions Involving Party Type Pedestrian (1998-2007)**

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total</b>	985	915	955	895	862	815	727	747	726	796

The number of pedestrian fatal collisions increased to 24, slightly above the median of the past ten years (Figure 6). This constitutes a disappointing reversal from the declines seen after 2003.



**FIGURE 6**  
**San Francisco Pedestrian Fatal Collision Totals (1998-2007)**

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total</b>	33	26	32	19	18	25	20	14	15	24

The City has implemented a variety of measures to improve pedestrian safety, including the upgrade of various pedestrian signs and markings, signal timing changes, countdown pedestrian signals, new traffic regulations, traffic calming measures, and targeted enforcement and education efforts. General signal upgrades also benefit pedestrians by installing pedestrian signals at intersections where these devices are not present and by improving the visibility of signal indications to motorists.

Table 9 breaks down collisions classified as “vehicle-pedestrian” by the direction preceding the collision. It confirms results in previous studies that show that left turn pedestrian collisions are more common than right turn pedestrian collisions.

**TABLE 9**  
**2007 Vehicle-Pedestrian Injury Collisions by Movement Preceding Collision**

Vehicle Action Prior to Collision	2007
Making Left Turn	215
Making Right Turn	81
Making U Turn	3
Backing	48

Finally, Table 10 shows the four highest injury vehicle-pedestrian collision locations during 2005-2007. Three of these four intersections are located in the immediate vicinity of 6<sup>th</sup> and Market Streets. The intersection of Jones Street at Golden Gate Avenue received new pedestrian signals in 2005. Sixth and Mission Streets received a pedestrian leading signal interval in 2006. Silver Avenue at Mission Street reported five pedestrian collisions in 2007. This intersection will be reviewed by SFMTA Pedestrian Program staff for possible improvements.

**TABLE 10**  
**Three Year Highest Injury Vehicle-Pedestrian Collision Intersections**  
**Intersections with 7 or more collisions resulting in injury, 2005-2007**

Street A	Street B	2005-2007 Injury Collisions	2002-2004 Injury Collisions	Three year change
6 <sup>th</sup> St. / Market St.	Golden Gate/ Taylor	11	7	+4
6 <sup>th</sup> Street	Mission Street	8	5	+3
Jones Street	Golden Gate Ave.	7	9	-2
Mission Street	Silver Avenue	7	2	+5

**Bicycle-Pedestrian Collisions**

A small number of collisions (three percent of pedestrian collisions and five percent of bicycle collisions) involve both bicyclists and pedestrians, as summarized in Table 11.

**TABLE 11**  
**2007 Bicycle- Pedestrian Injury Collisions by Pedestrian Action**

Pedestrian Action	2007
Pedestrian crossing in crosswalk	14
Pedestrian crossing not in crosswalk	7
Other	3
Total	24

## **PART 5: MUNICIPAL RAILWAY COLLISIONS**

The source of the collision data in Part 5 is the SFMTA's TransitSafe database, maintained by the Agency's Health and Safety Division. Transit agencies usually keep their own collision tracking statistics to monitor reported incidents, some of which but not all may overlap with collisions reported by police departments to the state through SWITRS. San Francisco's TransitSafe data includes all reported safety incidents involving Muni vehicles regardless of location and whether a police collision report was filed. Although non-injury collision data are provided in Table 12, this report focuses on injury collisions in order to minimize the influence that changes in reporting procedures can have on collision trend analysis.

Reported non-injury collisions involving Muni vehicles totaled 1,417 in 2007 and non-fatal injury collisions totaled 197 in 2007. Compared to 2006, non-injury property damage only collisions declined five percent but non-fatal injury collisions increased three percent. The number of injury collisions resulting in fatalities in 2007, eight, increased by four collisions from the 2006 total. The overall number of collisions involving Muni vehicles declined four percent in 2007 compared to 2006.

Table 12 provides a summary of the collision totals from 2006 and 2007 by degree of severity.

**TABLE 12**  
**2006-2007 Muni Collisions by Severity**

Year	Non-Injury	Non-Fatal Injury	Fatal	TOTAL
2006	1,486	191	4	1,681
2007	1,417	197	8	1,622

Table 13 breaks down total injury collisions (including fatal collisions) by collision type. The three most common types of collisions, front end collisions and sideswipes, comprise 65 percent of all collisions.

**TABLE 13  
2007 Muni Injury Collisions by Primary Collision Type**

<b>Type</b>	<b>Total</b>	<b>Percent</b>
Right Sideswipe	48	23%
Front	45	22%
Left Sideswipe	41	20%
Back	21	10%
Angle	7	3%
Fixed Object	2	1%
None Specified	41	20%
<b>TOTAL</b>	<b>205</b>	<b>100%</b>

Table 14 breaks down injury collision totals by the movement of the Muni vehicle immediately before the time of collision.

**TABLE 14  
2007 Muni Injury Collisions by Vehicle Movement**

<b>Vehicle Movement</b>	<b>Total</b>	<b>Percent</b>
Going Straight	119	58%
Parked / Stopped	28	14%
Turning Left / Right	16	8%
Pulling Into / From Curb	12	6%
Stopping / Starting	6	3%
Other	24	12%
<b>TOTAL</b>	<b>205</b>	<b>100%</b>

**Highest Muni Collision Areas**

For the summary of highest collision frequency locations, a collision's location was coded to the closest intersecting cross street. Table 15 thus is not a list of intersection collisions but rather areas of highest concentration, including mid-block collisions. For example, a collision that took place near, but not at, the intersection of Market Street and Van Ness Avenue is coded as a collision at that intersection in order to identify the general area where special attention may be needed.

**TABLE 15**  
**Highest Muni Injury Collision Areas**  
**Vicinity of Intersections with 4 or more injury collisions, 2005-2007**

<b>Main Street</b>	<b>Cross Street</b>	<b>2005-2007 Injury Collisions</b>
6 <sup>th</sup> St. / Market Street	Golden Gate / Taylor	8
3 <sup>rd</sup> St. / Market Street	Kearny St. / Geary Street	7
5 <sup>th</sup> Street	Market Street	7
Market Street	Powell Street	7
24 <sup>th</sup> Street	Mission Street	5
4 <sup>th</sup> St. / Market Street	Stockton St. / Ellis Street	5
10 <sup>th</sup> St. / Market Street	Fell St. / Polk Street	4
1 <sup>st</sup> Street	Mission Street	4
7 <sup>th</sup> Street	Market Street	4
9 <sup>th</sup> Avenue	Irving Street	4
Beach Street	Jones Street	4
California Street	Powell Street	4
Cesar Chavez Street	Mission Street	4
Geary Street	Powell Street	4
Mission St. / Otis Street	South Van Ness Avenue	4
Powell Street	Sutter Street	4
Ulloa Street	West Portal Avenue	4

Overall, collisions tend to be higher at locations with more frequent transit service. These include major downtown transfer points and places where there are also high numbers other roadway users present such as pedestrians. Market Street is the street with most reported Muni collisions. The downtown section of Market Street between

Van Ness Avenue and Spear Street accounted for approximately 10 percent of all reported injury collisions in this three year period. Market Street had five of the top six injury locations for 2005-2007. Detailed collision reports will be reviewed to identify possible collision trends and measures for these locations.

**Highest Injury Collision Lines**

Table 16 summarizes injury collision data by the line on which the collision occurred. As would be expected, the Muni lines in Table 16 include some of those with the highest ridership, including the 14, 38 and N lines. However, the historic F-Line and Powell/Mason cable cars appear to have a higher proportion of collisions when compared to busier lines. These two rail lines operate mostly on city streets and in mixed traffic conditions. Rail lines with fewer collisions (like the K, L or M) travel much of their route on exclusive right-of-way, which can result in a more predictable operating environment.

**TABLE 16**  
**Highest Injury Muni Collision Lines**  
**Muni Lines with 15 or more injury collisions, 2005-2007**

Line Number	Route	2005-2007 Injury Collisions
F	Market and Wharves	44
38 / 38L	Geary / Geary Limited	35
N	Judah	26
Cable Car	Powell / Mason	26
14	Mission	25
9	San Bruno	20
15	Third Street	19
49	Van Ness / Mission	18
1	California	17
5	Fulton	17
21	Hayes	15
28	19 <sup>th</sup> Avenue	15
43	Masonic	15

**Collisions by Transit Vehicle Type and Party Involved**

Table 17 summarizes the parties that bus, rail and non-revenue (service) vehicles have collided with. The majority of Muni injury collisions involve other motor vehicles, which is similar to the collision patterns for non-Muni vehicles (Table 7). Pedestrian-involved collisions account for about a fourth of bus collisions and a third of rail collisions.

**TABLE 17  
2007 Muni Injury Collisions by Vehicle Type and Parties Involved**

Party Involved	Bus		Rail		Non-Revenue	
	Injury Collisions	Percent	Injury Collisions	Percent	Injury Collisions	Percent
Other Motor Vehicle	76	54%	34	57%	2	67%
Pedestrian	39	27%	20	33%	0	0%
Bicycle	10	7%	2	3%	0	0%
Other	17	12%	4	7%	1	33%

Table 18 summarizes the number of Muni injury collisions by the parties involved from 2006 through 2007. Pedestrian-involved collisions increased 25 percent between 2006 and 2007, with motor vehicle and bicycle-involved collisions decreasing slightly.

**TABLE 18  
2006-2007 Muni Injury Collisions by Parties Involved**

Party Involved	2006		2007	
	Injury Collisions	Percent	Injury Collisions	Percent
Other Motor Vehicle	122	63%	112	55%
Pedestrian	47	24%	59	29%
Bicycle	16	8%	12	6%
Other	10	5%	22	11%

It is the SFMTA's goal to reduce the total Muni-involved collisions per 100,000 service miles by five percent during fiscal year 2009.

## **PART 6: CONCLUSION**

City and regional collision trends like those described in this report can be influenced by many factors, some difficult to control or measure. Among some of the key factors that can influence long-term collision trends are:

- Demographic changes that affect the number of drivers, pedestrians and other users of the streets in a certain population group (such as younger drivers).
- Economic fluctuations that lead to more driving, whether these be commuters (jobs), visitors (tourism), or residents (population growth).
- Incentives that change the amount of driving individuals engage in (such as higher gas prices).
- Improvements in vehicular technology and safety standards (for example air bags).
- Changes in local enforcement levels, fines or laws, making drivers less or more willing to engage in risky driving practices (for example double fine zones).
- Cultural changes and educational efforts that lead to fewer injuries or increases in safer behavior (such as increased seat belt usage).
- Improvements in roadway infrastructure and traffic controls.

The annual collision totals reported in any one year are a result of an unknown and fluctuating combination of these factors. How San Francisco's overall totals will change in the coming years is thus impossible to predict. However, concerted education, engineering and enforcement efforts should help to make San Francisco's streets safer for everyone.