

TRAFFIC SAFETY REPORT STATISTICS

(2006~2008)

Prepared for:

**District Department of Transportation
Infrastructure Project Management Administration
Safety, Standards and Quality Control Division**

JULY 2009

Prepared by:
Precision Systems, Inc.
Sammatt Engineering Services, LLC.

Technical Report Documentation Page

1. Report No. DDOT-IPMA-2009-001		2. Report Date September 16, 2009	
3. Title and Subtitle Traffic Safety Report Statistics		4. Contract or Grant No. POKA-2006-T-0028-JJ	
5. Author(s) Jianwei Wang, James See, Mike Houh, Stephen Arhin Mesfin Lakew, Yusuf Aden			
6. Performing Organization Name and Address Precision Systems, Inc. 4301 Connecticut Ave. N.W., Suite 106 Washington, DC 20008 Sammatt Engineering Services 1515 Rising Ridge Rd Mount Airy, MD 21771		7. Type of Report and Period Covered. Crash Data Analysis 1/1/2008 ~ 12/31/2008	
8. Sponsoring Agency Name and Address District Department of Transportation Infrastructure Project Management Administration Safety, Standards and Quality Control Division 64 New York Ave. N.E. Washington, DC 20002			
9. Supplementary Notes None			
10. Abstract The objectives of this crash statistics report are to provide information regarding various contributory factors and causal effects of all vehicle crashes in Washington DC from 2006 through 2008. The statistics of traffic crashes focuses on driver, location, severity type, vehicle type, collision type, time of the crashes and various external conditions. The high hazard locations with high crash frequency, severity, rate and trend in the District of Columbia were identified. The results of the analysis in this report are valuable for identifying traffic safety issues and developing countermeasures.			
11. Key Words Crash, Safety, Traffic Accident, Statistics, Frequency, Rate, Severity, Fatal, Injury, High hazard locations		12. Distribution Statement No restrictions. This document is available through DDOT.	
13. Security Classif.(of this report) Unclassified	14. Security Classif.(of this page) Unclassified	15. No. of Pages 120	16. Price N/A

Table of Contents

CHAPTER 1 INTRODUCTION.....1
1.1 Objectives and Scope.....1
1.2 Report Organization.....2

CHAPTER 2 CRASH QUICK FACTS AND TREND3
2.1 2008 DC Crash Quick Facts3
2.2 2000~2008 DC Collisions Trend3

CHAPTER 3 COLLISION CHARACTERISTICS5
3.1 Time5
3.1.1 Traffic Collisions by Hour of the Day5
3.1.2 Traffic Collisions by Day of Week.....7
3.1.3 Traffic Collisions by Month.....8
3.2 Location9
3.2.1 Collisions by Quadrant9
3.2.2 Collisions by Ward10
3.2.3 Collisions by Police District12
3.2.4 Collisions by Advisory Neighborhood Commissions.....14
3.2.5 Collisions on Freeway/Bridge.....17
3.2.6 Collisions by On-Street Location.....17
3.2.7 Collisions by Construction Zone18
3.3 Collision Classification.....19
3.3.1 Collision Severity Type19
3.3.2 Collision Type.....20
3.3.3 Hit and Run Collisions.....21
3.3.4 DC Property Collisions23
3.3.5 Crash by Vehicle Classification.....23
3.3.6 Pedestrian Involved Collisions25
3.3.7 Bicyclist Involved Collisions.....29
3.3.8 Motorcyclist Involved Collisions.....31
3.4 The Driver33
3.4.1 Drivers by Age.....33
3.4.2 Drivers by Gender.....35
3.4.3 Drivers by State Issued License.....36
3.4.4 Drivers by Action.....37
3.5 Environmental Conditions37
3.5.1 Collisions by Roadway Type37
3.5.2 Collisions by Roadway Conditions.....38
3.5.3 Collisions by Road Surface.....39
3.5.4 Collisions by Weather Conditions40
3.5.5 Collisions by Light Conditions41
3.5.6 Collisions by Traffic Conditions.....43

3.5.7 Collisions by Traffic Control	44
3.6 Contributing Circumstance	45
3.6.1 Collisions by Primary Crash Contributing Factors	45
3.6.2 Collisions by Speed Violation	46
3.6.3 Collisions by Restraint Use (Seatbelts or Airbags).....	47
3.6.4 Collisions by Alcohol/Drug Involvement	49
3.6.5 Collisions by Drivers or Pedestrians Distractions	50
CHAPTER 4 HIGH FREQUENCY CRASH LOCATIONS	51
4.1 Methodology	51
4.1.1 Crash Frequency	51
4.1.2 Crash Rate	51
4.1.3 Crash Severity (Crash Cost).....	52
4.1.4 Crash Composite Index.....	53
4.1.5 Delta Change.....	53
4.2 Identification of High Frequency Crash Intersections	54
4.2.1 Rank by Number of Crash for Each Year	56
4.2.2 Rank by Number of Crash for Three Years	58
4.2.3 Rank by Crash Rate for Each Year	60
4.2.4 Rank by Crash Rate for Three Years	62
4.2.5 Rank by Crash Severity for Each Year	64
4.2.6 Rank by Crash Severity for Three Years	66
4.2.7 Rank by Crash Composite Index for Each Year	68
4.2.8 Rank by Crash Composite Index for Three Years	70
4.2.9 Rank by Crash Trend with Delta Change	72
4.3 High Frequency Crash Intersection by Collision Type.....	73
4.4 Identification of High Frequency Crash Traffic Corridors	75
4.4.1 Summary of Collisions on Corridors	75
4.4.2 Corridors Ranked based on Number of Crashes per Mile	78
4.4.3 Number of Crashes per Intersecting Intersection on Corridors	78
CHAPTER 5 EXPOSURE	79
5.1 Fatality Rate per 100 Million Vehicle Miles Traveled (VMT).....	79
5.2 Injury Rate per 100 Million Vehicle Miles Traveled (VMT).....	80
CHAPTER 6 APPENDICES.....	81
6.1 Top 100 Hazard Intersections	81
6.1.1 Rank by Number of Crash	81
6.1.2 Rank by Crash Rate	88
6.1.3 Rank by Crash Cost	95
6.1.4 Rank by Crash Composite Index	102
6.1.5 Rank by Crash Trend with Delta Change	109
6.2 New PD10 Form and Coding Sheet.....	113

Lists of Figures

Figure 2.1 Total Collisions and Injury Collision by Year	3
Figure 2.2 Number of Fatalities by Year	4
Figure 2.3 Number of Injuries by Year.....	4
Figure 3.1 Fatalities by Hour of Day in 2008	6
Figure 3.2 Collisions and Injuries by Hour of Day during Weekdays in 2008	6
Figure 3.3 Collisions and Injuries by Hour of Day at Weekend in 2008.....	7
Figure 3.4 Total Collisions by Day of Week in 2008.....	7
Figure 3.5 Total Collisions by Month.....	9
Figure 3.6 Number of Collisions by Quadrant.....	10
Figure 3.7 Collisions, Fatalities and Injuries by Ward in 2008	11
Figure 3.8 Number of Collisions by Ward.....	12
Figure 3.9 Collisions, Fatalities and Injuries by Police District in 2008	13
Figure 3.10 Number of Collisions by Police District	14
Figure 3.11 Collisions, Fatalities and Injuries by ANC.....	16
Figure 3.12 Fatal, Injury and PDO Collisions by On-Street Location in 2008	18
Figure 3.13 Collision Severity Type in 2008.....	19
Figure 3.14 Distribution of Crashes by Type of Collision.....	21
Figure 3.15 Percentage of Hit and Run Collisions	22
Figure 3.16 Severity of Hit and Run Collision in 2008	22
Figure 3.17 Percentage of DC Property Collisions.....	23
Figure 3.18 Three-year Trend of Collisions by Involved Vehicle Type.....	24
Figure 3.19 Three-year Trend of Fatalities by Involved Vehicle Type	24
Figure 3.20 Three-year Trend of Injuries by Involved Vehicle Type.....	25
Figure 3.21 Summary of Pedestrian Involvement by Year.....	26
Figure 3.22 Pedestrian Involved Collisions by Age	26
Figure 3.23 Pedestrian Involved Collisions by Gender	27
Figure 3.24 Pedestrian Involved Collisions at Intersections.....	28
Figure 3.25 Summary of Bicyclist Involvement by Year	29
Figure 3.26 Bicyclist Involved Collisions by Age.....	30
Figure 3.27 Bicyclist Involved Collisions by Gender.....	30
Figure 3.28 Summary of Motorcyclist Involvement by Year.....	31
Figure 3.29 Motorcyclist Involved Collisions by Age.....	32
Figure 3.30 Motorcyclist Involved Collisions by Gender	33
Figure 3.31 Number of Drivers Involved in Collisions by Age and Year.....	34
Figure 3.32 Injury of Drivers in 2008 by Age	35
Figure 3.33 Drivers involved in Collisions by Gender and Year	35
Figure 3.34 Driver Involvement by State of Permit	36
Figure 3.35 Number of Collisions and Injuries by Roadway Type	38
Figure 3.36 Number of Collisions and Injuries by Road Condition.....	39
Figure 3.37 Number of Collisions and Injuries per lane-mile by Road Surface.....	40
Figure 3.38 Number of Collisions and Injuries by Weather	41
Figure 3.39 Number of Collisions and Injuries by Street Lighting	42
Figure 3.40 Number of Collisions and Injuries by Light Condition.....	43

Table of Contents

Figure 3.41 Number of Collisions and Injuries by Traffic Condition44

Figure 3.42 Number of Collisions and Injuries by Traffic Control45

Figure 3.43 Collisions Severity involved Speed Violation in 2008.....46

Figure 3.44 Collisions Severity by Air Bag Restraint in 200847

Figure 3.45 Collisions Severity by Seat Belt Restraint in 200848

Figure 3.46 Collisions Severity by Sobriety in 200849

Figure 3.47 Collisions Severity by Distraction.....50

Figure 4.1 Top 20 Hazardous Intersections by Number of Crash Occurrences (for Each Year)56

Figure 4.2 Top 20 Hazardous Intersections by Number of Crash Occurrences from 2006 through 200858

Figure 4.3 Top 20 Hazardous Intersections by Crash Rates for Each Year60

Figure 4.4 Top 20 Hazardous Intersections by Crash Rates from 2006 through 2008.....62

Figure 4.5 Top 20 Hazardous Intersections by Crash Severities for Each Year.....64

Figure 4.6 Top 20 Hazardous Intersections by Crash Severities from 2006 through 200866

Figure 4.7 Top 20 Hazardous Intersections by Composite Indices for Each Year.....68

Figure 4.8 Top 20 Hazardous Intersections by Composite Indices from 2006 through 200870

Figure 4.9 Top 20 Hazardous Intersections by Delta Change Values for Each Year.....72

Figure 4.10 Map of Corridors with High Frequency Crash.....76

Figure 4.11 High Frequency Traffic Corridors for Each Year77

Figure 5.1 Fatality Rate per 100 Million VMT from 2004 through 200879

Figure 5.2 Injury Rate per 100 Million VMT from 2004 through 2008.....80

Figure 6.1 Top 100 High Hazard Intersections by Crash Number87

Figure 6.2 Top 100 High Hazard Intersections by Crash Rate94

Figure 6.3 Top 100 High Hazard Intersections by Crash Cost.....101

Figure 6.4 Top 100 High Hazard Intersections by Crash Composite Index.....108

Figure 6.5 Top 100 High Hazard Intersections by Crash Delta Change112

List of Tables

Table 2.1 2008 DC Crash Quick Facts3

Table 3.1 Collisions, Fatalities and Injuries by Hour of day in 20085

Table 3.2 Collisions, Fatalities and Injuries by Day of Week in 20088

Table 3.3 Collisions, Fatalities and Injuries by Month in 2008.....8

Table 3.4 Collisions, Fatalities and Injuries by Quadrant.....9

Table 3.5 Collisions, Fatalities and Injuries by Ward.....10

Table 3.6 Collisions, Fatalities and Injuries by Police District12

Table 3.7 Collisions, Fatalities and Injuries by ANC in 200814

Table 3.8 Collisions, Fatalities and Injuries on Freeway and Bridge in 200817

Table 3.9 Collisions, Fatalities and Injuries on Freeway and Bridge in 200818

Table 3.10 Summary of Collisions in 2008 Considering Construction Zone.....19

Table 3.11 Summary of Collision by Collision Type in 2008.....20

Table 3.12 Summary of Collision in 2008 by Vehicle Type Involved.....23

Table 3.13 Pedestrian Involved Collisions by Age and Year27

Table 3.14 Pedestrian Involved Collisions by Pedestrian Action and Injury in 200827

Table 3.15 Bicyclist Involved Collisions by Age and Year.....29

Table 3.16 Bicyclist Involved Collisions by Injury Code.....31

Table 3.17 Motorcyclist* Involved Collisions by Age and Year32

Table 3.18 Motorcyclist Involved Collisions by Injury Code32

Table 3.19 Number of Drivers Involved in Collisions by Age and Year34

Table 3.20 Driver Involvement by State of Permit.....36

Table 3.21 Driver Involvement by Driver Action and Year.....37

Table 3.22 Summary of Collisions by Roadway Type38

Table 3.23 Summary of Collisions by Road Condition.....39

Table 3.24 Summary of Collisions by Roadway Surface40

Table 3.25 Summary of Collisions by Weather Condition.....41

Table 3.26 Summary of Collisions by Street Lighting42

Table 3.27 Summary of Collisions by Light Condition.....42

Table 3.28 Summary of Collisions by Traffic Condition43

Table 3.29 Summary of Collisions by Traffic Control.....44

Table 3.30 Number of Collisions by Contributing Factors.....45

Table 3.31 Number of Injures by Injury Code and Air Bag Restraint in 2008.....47

Table 3.32 Number of Injures by Injury Code and Seat Belt Restraint in 2008.....48

Table 3.33 Number of Collisions by Sobriety in 200849

Table 3.34 Fatalities by the Highest Blood Alcohol Concentration (BAC) in the Crash...49

Table 3.35 Number of Collisions by Driver or Pedestrian Distractions50

Table 4.1 Top 20 Hazardous Intersections by Number of Crash Occurrences (for Each Year)57

Table 4.2 Top 20 Hazardous Intersections by Number of Crash Occurrences for Three Years59

Table 4.3 Top 20 Hazardous Intersections by Crash Rates for Each Year.....61

Table 4.4 Top 20 Hazardous Intersections by Crash Rates for Three Years.....63

Table 4.5 Top 20 Hazardous Intersections by Crash Severities for Each Year65

Table of Contents

Table 4.6 Top 20 Hazardous Intersections by Crash Severities for Three Years	67
Table 4.7 Top 20 Hazardous Intersections by Composite Indices for Each Year	69
Table 4.8 Top 20 Hazardous Intersections by Composite Indices for Three Years	71
Table 4.9 Top 20 Hazardous Intersections by Delta Change Values for Each Year	73
Table 4.10 Top 20 Hazardous Intersections by Collision Type.....	74
Table 4.11 High Frequency Crash Corridors for Each Year	75
Table 4.12 Summary of High Frequency Crash Corridors (2006~2008)	77
Table 4.13 High Frequency Crash Corridors by Number of Crash Occurrences per Mile	78
Table 4.14 Number of Crashes per Intersecting Intersection on Corridors	78
Table 5.1 Fatality Rate per 100 Million VMT from 2004 through 2008.....	79
Table 5.2 Injury Rate per 100 Million VMT from 2004 through 2008	80
Table 6.1 Rank by Number of Crash for Each Year (Rank: 1~33)	81
Table 6.1 Rank by Number of Crash for Each Year (Rank: 34~66)	82
Table 6.1 Rank by Number of Crash for Each Year (Rank: 67~100)	83
Table 6.2 Rank by Number of Crash for Three Years (Rank: 1~33)	84
Table 6.2 Rank by Number of Crash for Three Years (Rank: 34~66)	85
Table 6.2 Rank by Number of Crash for Three Years (Rank: 67~100)	86
Table 6.3 Rank by Crash Rate for Each Year (Rank: 1~33)	88
Table 6.3 Rank by Crash Rate for Each Year (Rank: 34~66)	89
Table 6.3 Rank by Crash Rate for Each Year (Rank: 67~100)	90
Table 6.4 Rank by Crash Rate for Three Years (Rank: 1~33).....	91
Table 6.4 Rank by Crash Rate for Three Years (Rank: 34~66).....	92
Table 6.4 Rank by Crash Rate for Three Years (Rank: 67~100).....	93
Table 6.5 Rank by Crash Cost for Each Year (Rank: 1~33)	95
Table 6.5 Rank by Crash Cost for Each Year (Rank: 34~66)	96
Table 6.5 Rank by Crash Cost for Each Year (Rank: 67~100)	97
Table 6.6 Rank by Crash Cost for Three Years (Rank: 1~33).....	98
Table 6.6 Rank by Crash Cost for Three Years (Rank: 34~66).....	99
Table 6.6 Rank by Crash Cost for Three Years (Rank: 67~100).....	100
Table 6.7 Rank by Composite Index for Each Year (Rank: 1~33).....	102
Table 6.7 Rank by Composite Index for Each Year (Rank: 34~66).....	103
Table 6.7 Rank by Composite Index for Each Year (Rank: 67~100).....	104
Table 6.8 Rank by Composite Index for Three Years (Rank: 1~33).....	105
Table 6.8 Rank by Composite Index for Three Years (Rank: 34~66).....	106
Table 6.8 Rank by Composite Index for Three Years (Rank: 67~100).....	107
Table 6.9 Rank by Crash Trend with Delta Change (Rank: 1~33).....	109
Table 6.9 Rank by Crash Trend with Delta Change (Rank: 34~66).....	110
Table 6.9 Rank by Crash Trend with Delta Change (Rank: 67~100).....	111

CHAPTER 1 INTRODUCTION

This report is published by the District of Columbia Department of Transportation (DDOT) to disseminate traffic crash statistics information and determine the high frequency crash locations from 2006 through 2008. This report contains information which provides for a comprehensive look at traffic crash issues in the District of Columbia (DC).

All crash statistics included in this report are based on the data obtained through the Traffic Crash Report (PD-10) provided by the DC Metropolitan Police Department. The crash data were entered and maintained through the Traffic Accident Reporting and Analysis System (TARAS), which is a Microsoft Access-based database application.

1.1 Objectives and Scope

The primary objectives of this crash statistics report are to provide insights regarding various contributory factors and causal effects of all vehicle crash types in DC from 2006 through 2008. All reports of traffic crashes including those investigated by the DDOT were tabulated and analyzed to provide the complete picture of DC accident experience. This report provides useful descriptive statistics, illustrations and applicable information regarding motor vehicle crashes involving all vehicle types (including motorcycles and mopeds), bicyclists, pedestrians and DC property. The results of the analysis in this report are valuable for identifying traffic safety issues and developing countermeasures.

In an effort to improve traffic safety in DC, a new traffic crash report form (PD-10) was adopted in May 2008. The new PD-10 form consists of additional data fields than the previous form. These new data fields were appended to identify major causes of motor vehicle crashes in DC by obtaining crucial traffic crash information. For the purposes of this report, the new and old PD-10 forms were reviewed and consolidated to obtain an optimal form.

This report begins by compiling all crash data from the assessment of crash database. The next section provides the frequency of all crash types entered into the TARAS database which is followed by a section providing a comprehensive list of the ranking and trend of the selected high frequency crash intersections and corridors in DC. The final section of this report consists of the exposure data, including vehicle miles traveled, fatality rate and injury rate per 100 million vehicle miles traveled (VMT).

1.2 Report Organization

This report is organized into six chapters. They are summarized as follows:

Chapter 1: Introduction. This chapter provides the background of the report. The section also lists the report objectives and scope.

Chapter 2: Crash Quick Facts and Trend. This chapter presents a brief summary of traffic collisions in DC and the trend from 2000 to 2008.

Chapter 3: Crash Characteristics. This chapter presents the crash statistics of all available crash information. This includes the time, location, crash classification, driver, environmental conditions and contributing circumstances.

Chapter 4: Identification of High Frequency Crash Locations. This chapter presents the results of analyses on high frequency crash locations, including freeways and bridges. The findings of the analyses were organized by high frequency crash locations, high frequency crash intersections by collision type, and identification of high frequency crash traffic corridors.

Chapter 5: Exposure: This chapter provides the information regarding vehicle miles traveled, fatality rate and injury rate per 100 million vehicle miles traveled.

Chapter 6: Appendices: Detailed information regarding the tabulated results and charts are presented in this chapter.

CHAPTER 2 CRASH QUICK FACTS AND TREND

2.1 2008 DC Crash Quick Facts

Presented in Table 2.1 is a summary of crashes recorded in the DC from 2006 through 2008.

Table 2.1 2008 DC Crash Quick Facts

	2006	2007	2008
Total collisions	16,209	15,106	16,147
Fatal Collisions	35	46	37
Injury Collisions	4,264	4,071	4,578
PDO Collisions	11,910	10,989	11,532
Fatalities	41	54	39
Non-Fatal Injuries	7,061	6,571	6,792
Total Vehicles Involved	33,249	29,961	32,656
Total Persons Involved	39,505	35,052	36,127
Total Pedestrians Involved	767	612	592
Fatalities/100 Million VMT	1.13	1.50	1.08

2.2 2000~2008 DC Collisions Trend

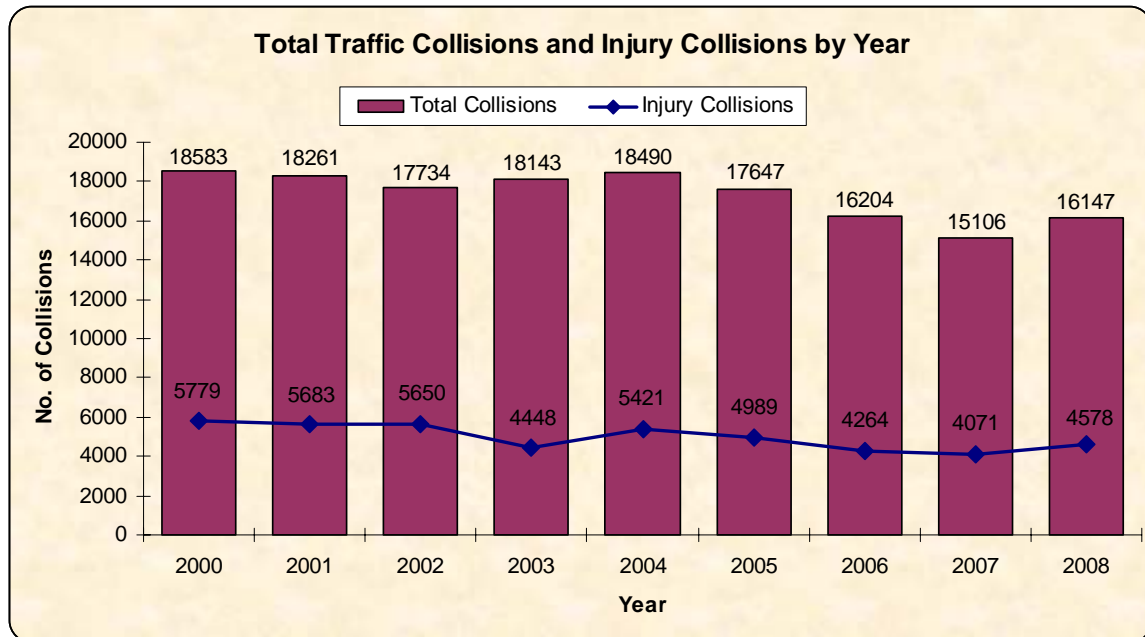


Figure 2.1 Total Collisions and Injury Collision by Year

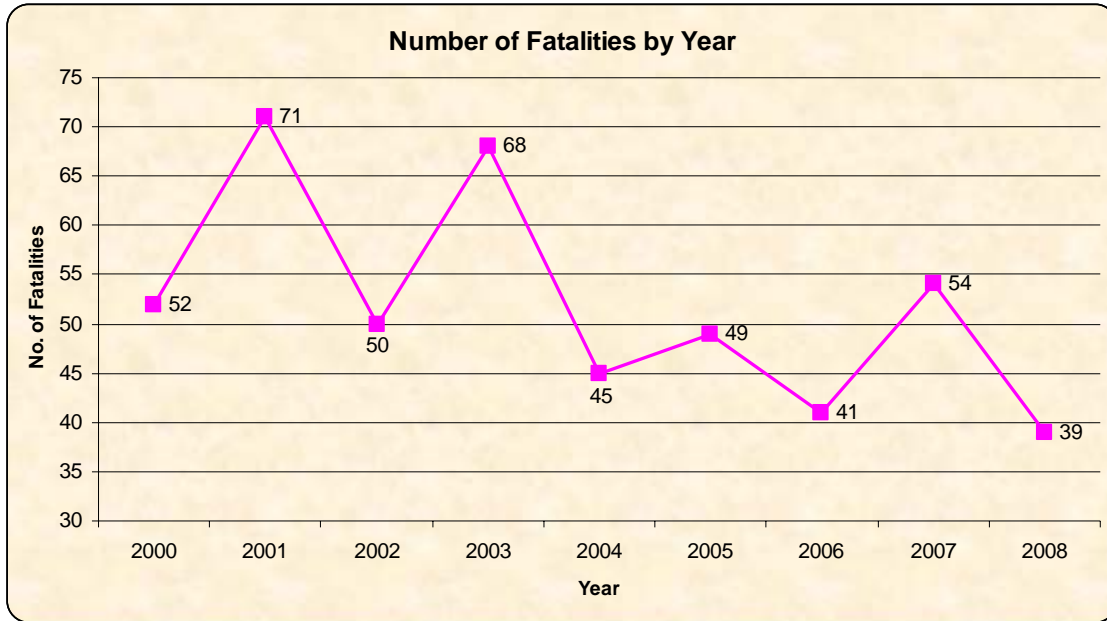


Figure 2.2 Number of Fatalities by Year

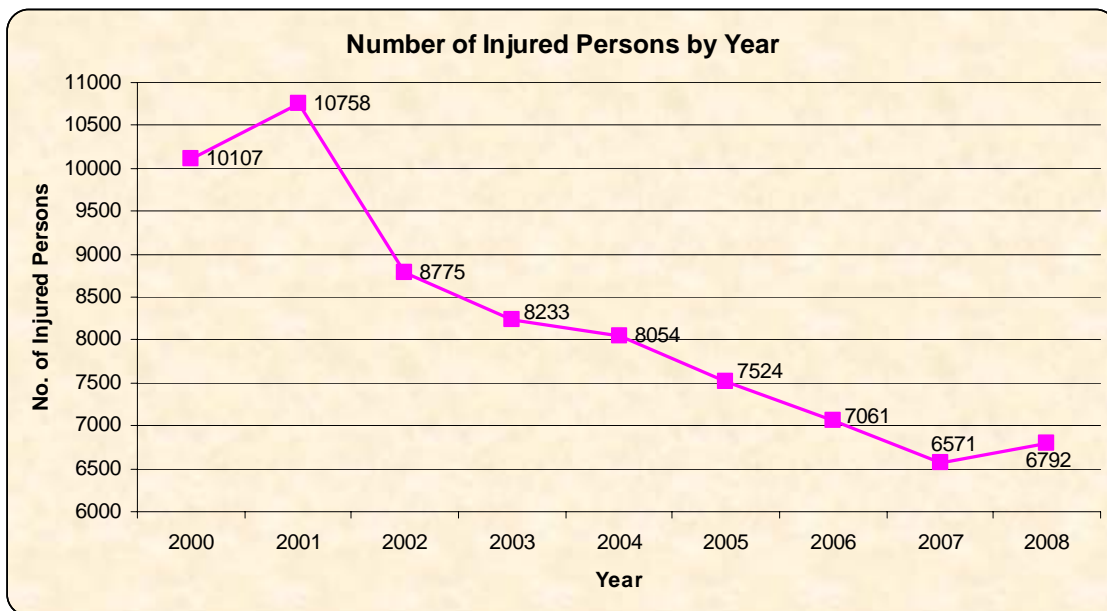


Figure 2.3 Number of Injuries by Year

As shown in tables and figures above, the overall crash frequency for motor vehicle crashes fluctuates from year to year, however, the total number and injury collisions showed a general downward trend. Similarly, the total number of fatalities and injuries from 2000 to 2008 showed a descending trend.

CHAPTER 3 COLLISION CHARACTERISTICS

3.1 Time

3.1.1 Traffic Collisions by Hour of the Day

Table 3.1 presents reported crashes by time of day in 2008. As shown in table and Figure 3.1, more motor vehicle crashes were reported between the hours of 12PM (hour 12) and 6PM (hour 18), while 2,859 of injury involved crashes occurred during this 7-hour period. Overall, the number of collisions that occurred from 12-11PM (hour 12-23) was relatively higher than those occurred from 12-11AM (hour 00-11).

Table 3.1 Collisions, Fatalities and Injuries by Hour of day in 2008

Hour	Collisions	Fatalities	Injuries
00	572	5	234
01	419	1	134
02	441	2	176
03	457	3	207
04	225	0	65
05	197	0	80
06	348	1	206
07	565	1	247
08	896	1	397
09	832	2	332
10	710	0	320
11	686	1	268
12	832	1	372
13	806	2	390
14	853	2	387
15	1,087	1	443
16	1,136	1	479
17	1,071	1	441
18	968	1	347
19	782	1	319
20	601	7	219
21	527	2	214
22	551	2	267
23	585	1	248
Total	16,147	39	6,792

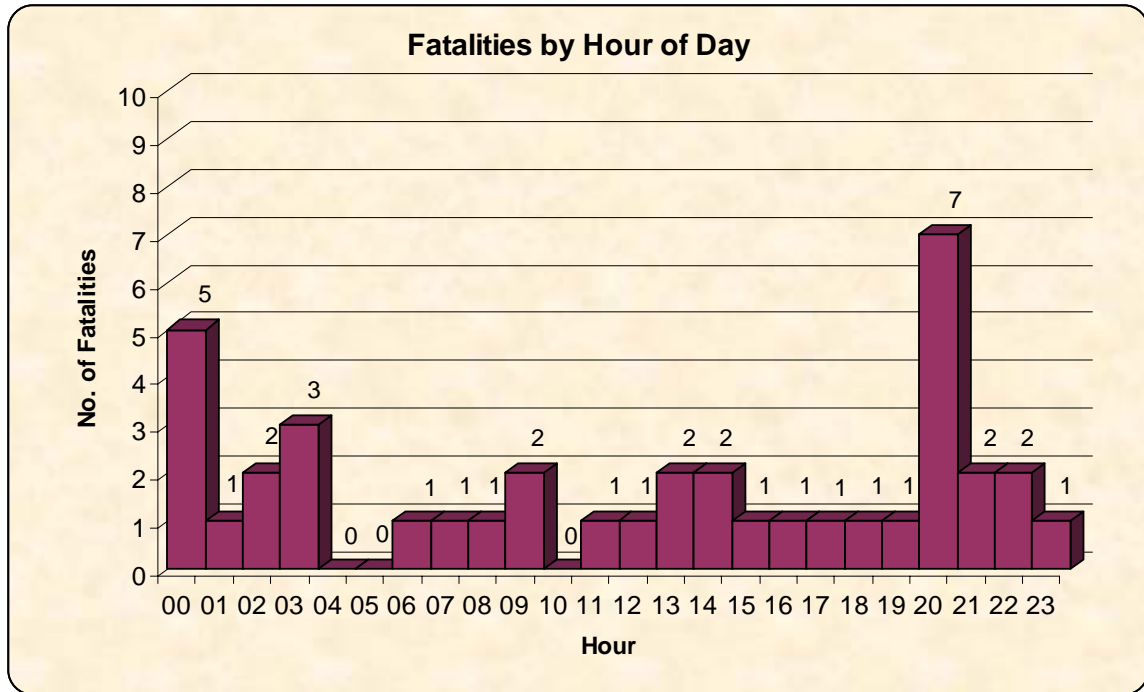


Figure 3.1 Fatalities by Hour of Day in 2008

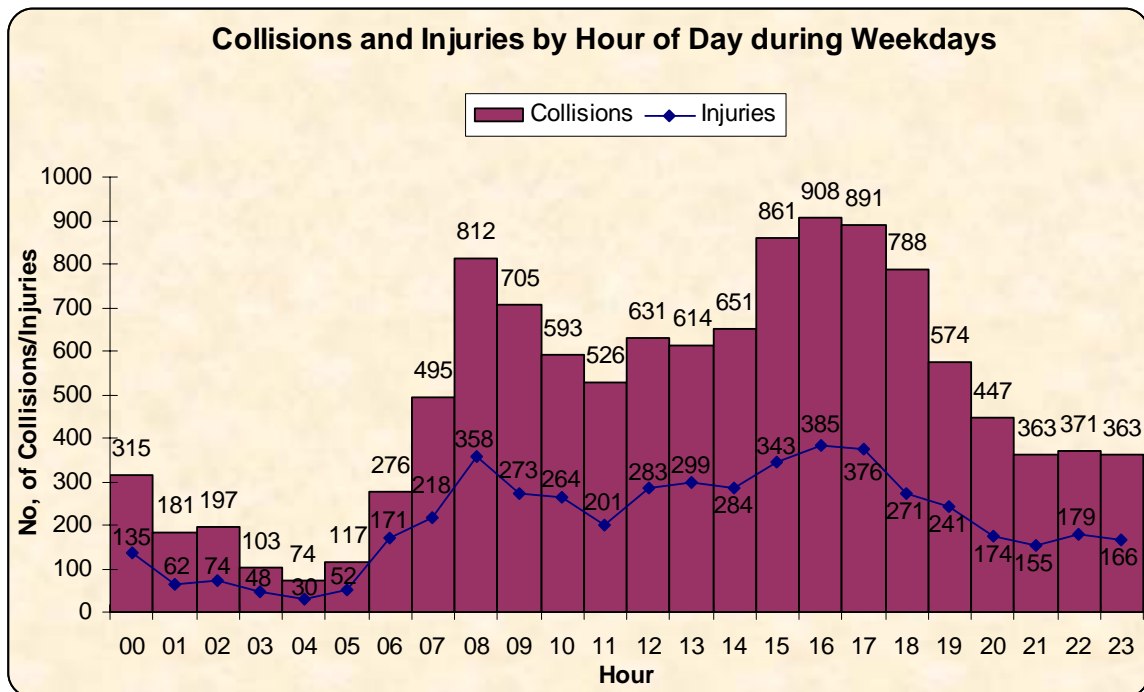


Figure 3.2 Collisions and Injuries by Hour of Day during Weekdays in 2008

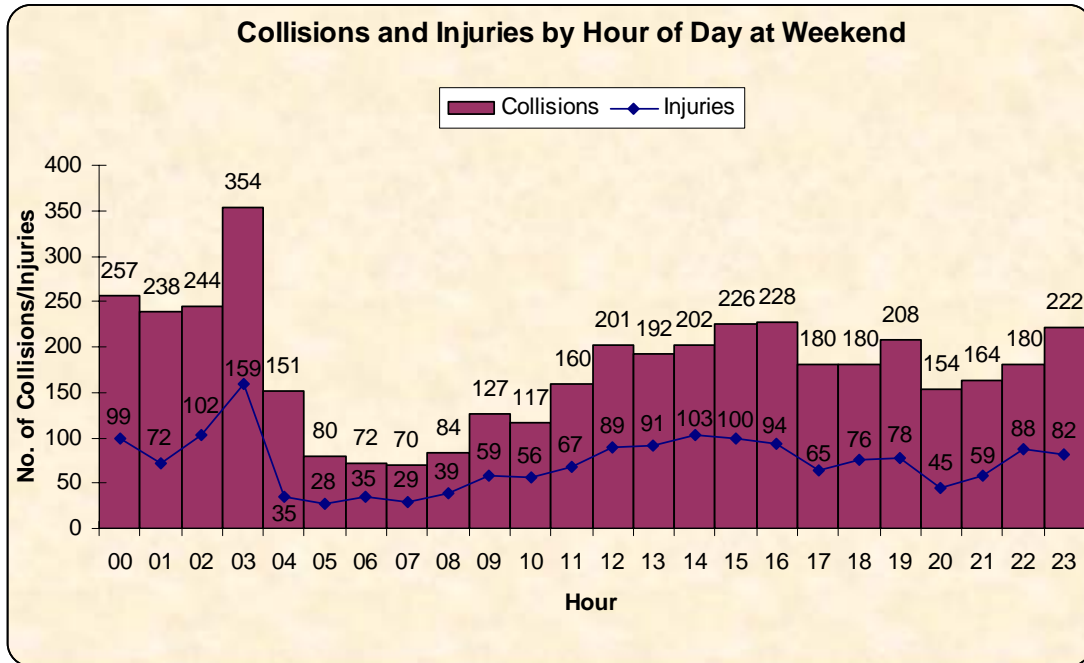


Figure 3.3 Collisions and Injuries by Hour of Day at Weekend in 2008

3.1.2 Traffic Collisions by Day of Week

As observed in Figure 3.4 and Table 3.2, the total number of collisions for weekdays was similar, with substantially higher number of crashes occurring on Fridays. The lowest total number of crashes was recorded on Sundays.

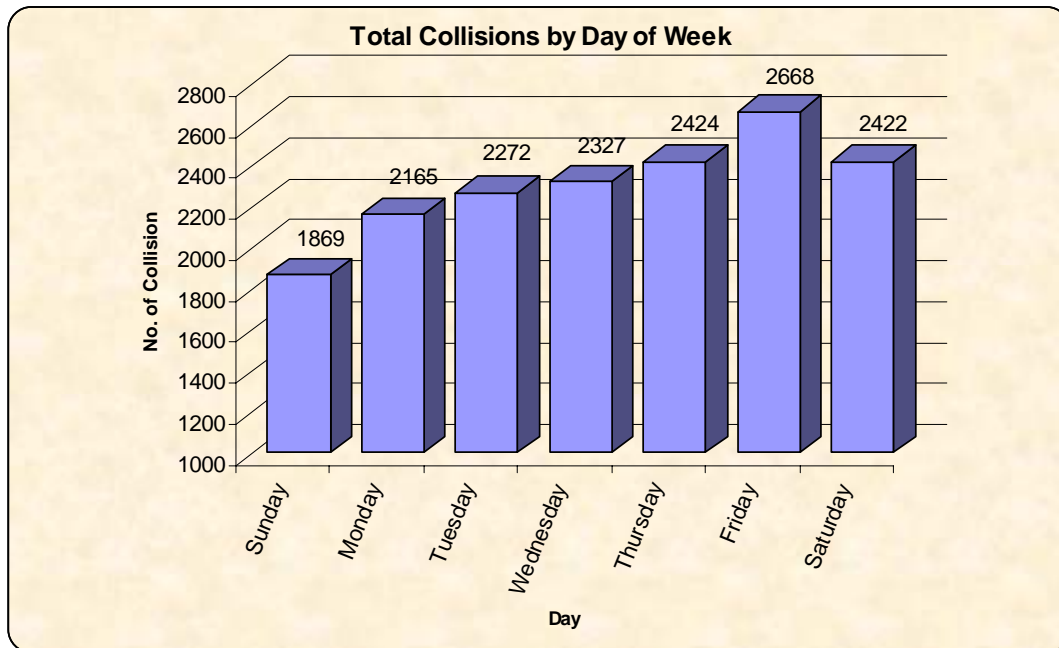


Figure 3.4 Total Collisions by Day of Week in 2008

Table 3.2 Collisions, Fatalities and Injuries by Day of Week in 2008

Weekday	Collisions	Fatalities	Injuries
Sunday	1,869	4	750
Monday	2,165	8	871
Tuesday	2,272	4	980
Wednesday	2,327	6	1,035
Thursday	2,424	4	1,061
Friday	2,668	5	1,095
Saturday	2,422	8	1,000
Total	16,147	39	6,792

3.1.3 Traffic Collisions by Month

Table 3.3 and Figure 3.5 show the overall motor vehicle crashes by month of year in 2008. As depicted in the table and illustration, the number of collisions that occurred in the first half of the year (January through June) was substantially higher than the second half (July through December). Overall, the total number of collisions varied from month to month, with the highest and lowest number of motor vehicle crashes being respectively 1,590 (May) and 1,158 (August).

Table 3.3 Collisions, Fatalities and Injuries by Month in 2008

Month	Collisions	Fatalities	Injuries
1	1,250	1	521
2	1,351	2	554
3	1,546	6	657
4	1,589	3	721
5	1,590	2	736
6	1,263	7	508
7	1,324	5	576
8	1,158	3	463
9	1,214	5	565
10	1,361	2	498
11	1,257	3	493
12	1,244	0	500
Total	16,147	39	6,792

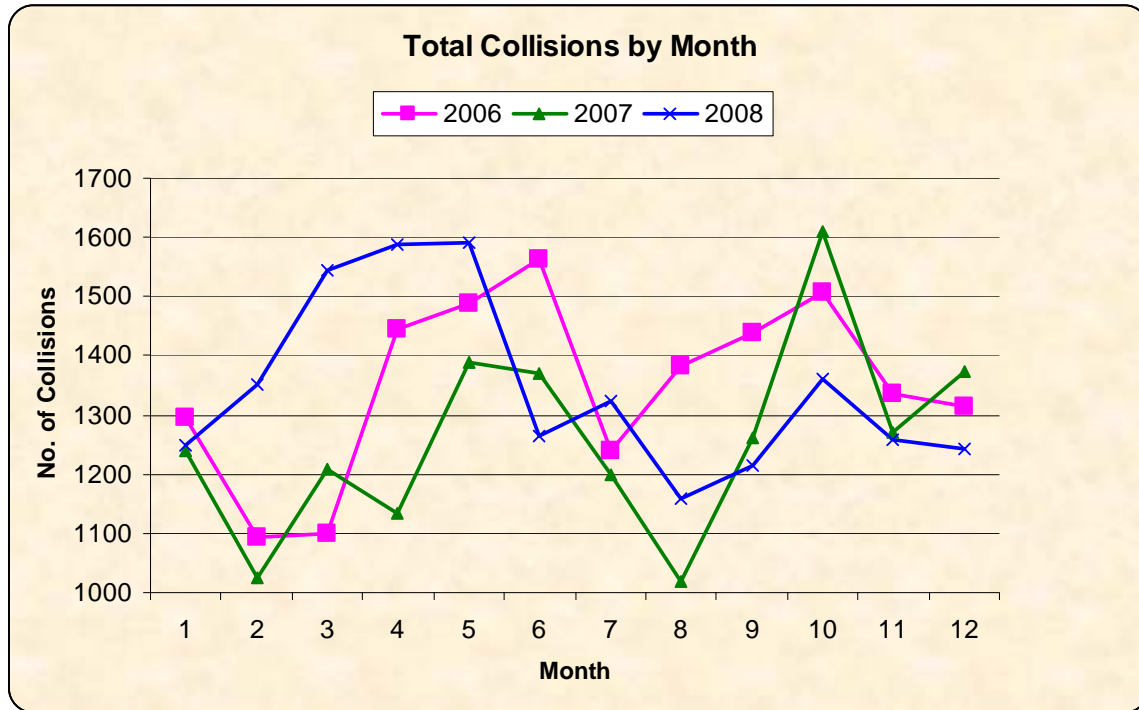


Figure 3.5 Total Collisions by Month

3.2 Location

3.2.1 Collisions by Quadrant

Based on the results in Table 3.4, it can be observed that Northwest quadrant recorded highest number of reported motor vehicle collisions from 2006 through 2008, with the total collisions in 2008 observed to be the highest among all quadrants presented. This is due to the fact that NW quadrant occupies 42.65% of area of DC and the Central Business District is located in the NW quadrant with a considerable traffic volume.

Table 3.4 Collisions, Fatalities and Injuries by Quadrant

Quadrant	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
NW	7,807	9	3,044	7,221	9	2,684	7,924	14	2,852
NE	3,658	6	1,696	3,456	7	1,680	3,311	5	1,440
SE	2,737	6	1,255	2,580	5	1,205	2,597	12	1,333
SW	437	0	210	360	1	139	725	0	321
BN	1,565	0	848	1,489	6	834	1,518	8	827
Unknown	0	\	\	0	\	\	72	0	19
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

Note: NW=Northwest, NE=Northeast, SE=Southeast, SW=Southwest, BN=Border

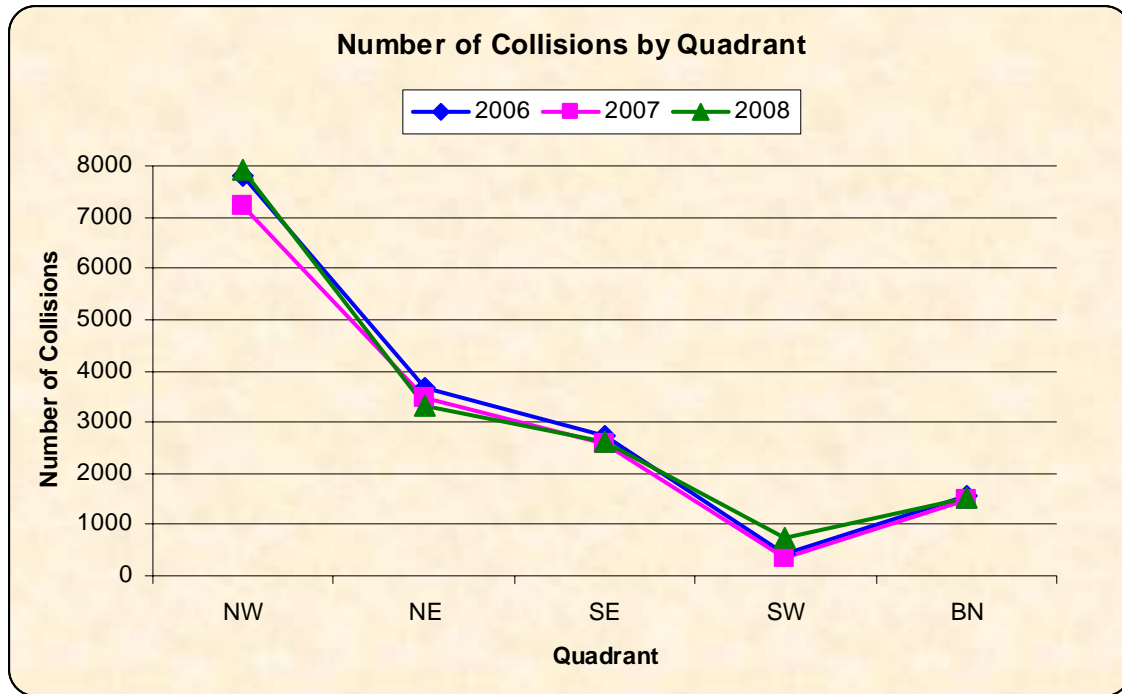


Figure 3.6 Number of Collisions by Quadrant

3.2.2 Collisions by Ward

Washington DC is divided into eight (8) wards and each ward consists of various designated neighborhoods. The frequency of motor vehicle crashes for each ward was obtained and presented in Table 3.5. The result of the computations shows that Ward 2, as the downtown area, recorded the highest number of reported motor vehicle collisions from 2006 through 2008 among all quadrants presented. Ward 3 and the border zones recorded the lowest number of crashes.

Table 3.5 Collisions, Fatalities and Injuries by Ward

Ward	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
1	1,283	1	470	1,014	6	316	1,344	1	435
2	3,379	2	1,155	3,059	2	988	3,364	8	1,094
3	1,200	1	454	1,107	4	412	1,018	4	377
4	1,574	2	853	1,537	3	751	1,260	3	579
5	2,172	8	1,023	2,038	6	1,008	1,958	4	870
6	2,052	3	892	2,127	8	952	2,149	3	889
7	1,743	6	829	1,669	14	888	1,462	9	771
8	1,668	11	792	1,465	4	720	1,541	6	903
Border	1,133	7	593	1,090	7	536	1,472	1	627
Unknown	0	NA	NA	0	NA	NA	579	0	247
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

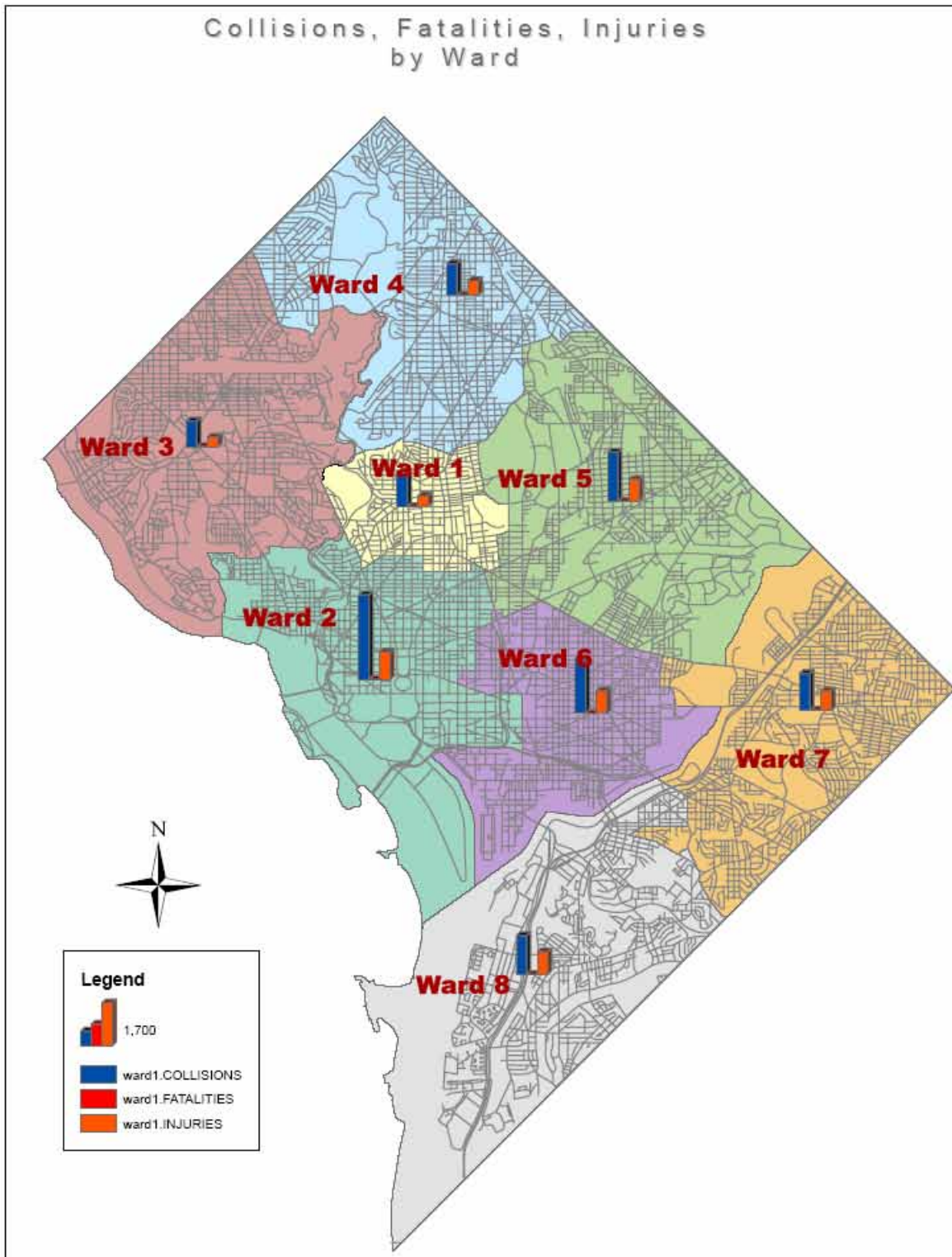


Figure 3.7 Collisions, Fatalities and Injuries by Ward in 2008

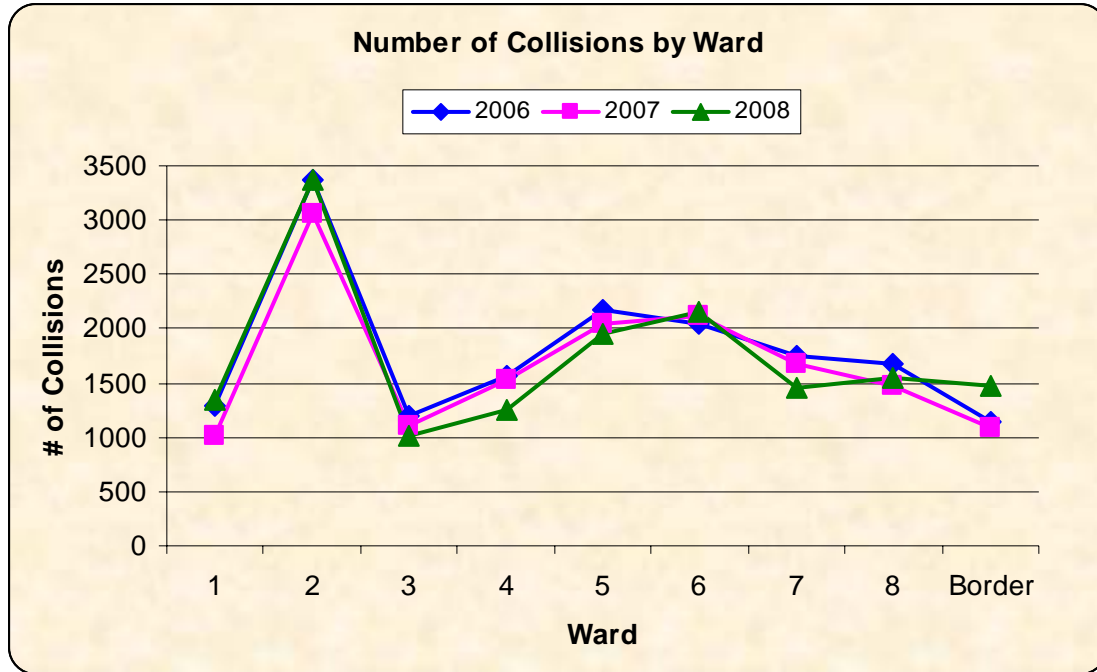


Figure 3.8 Number of Collisions by Ward

3.2.3 Collisions by Police District

As mentioned earlier, the traffic crash reports (PD-10 forms) were provided by the seven Districts of the DC Metropolitan Police Department. Each crash that occurred within the jurisdiction was managed and distributed by the designated police district. As observed from Table 3.6 and GIS map in Figure 3.9, District 1 reported the highest number of collisions (3,641) from 2006 through 2008 while District 7 recorded the least number of crashes.

Table 3.6 Collisions, Fatalities and Injuries by Police District

Police District	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
1	3,641	1	1,550	3,568	8	1,531	3,996	6	1,597
2	2,069	3	710	2,324	2	770	2,943	9	943
3	2,855	3	944	1,922	1	600	2,081	1	687
4	1,781	2	1,005	1,832	3	918	1,556	3	701
5	2,286	5	1,131	2,058	1	1,035	2,178	4	1,002
6	2,031	2	990	1,917	11	983	1,735	10	918
7	1,482	5	721	1,341	2	676	1,553	6	902
Unknown	59	20	10	144	26	58	105	0	42
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

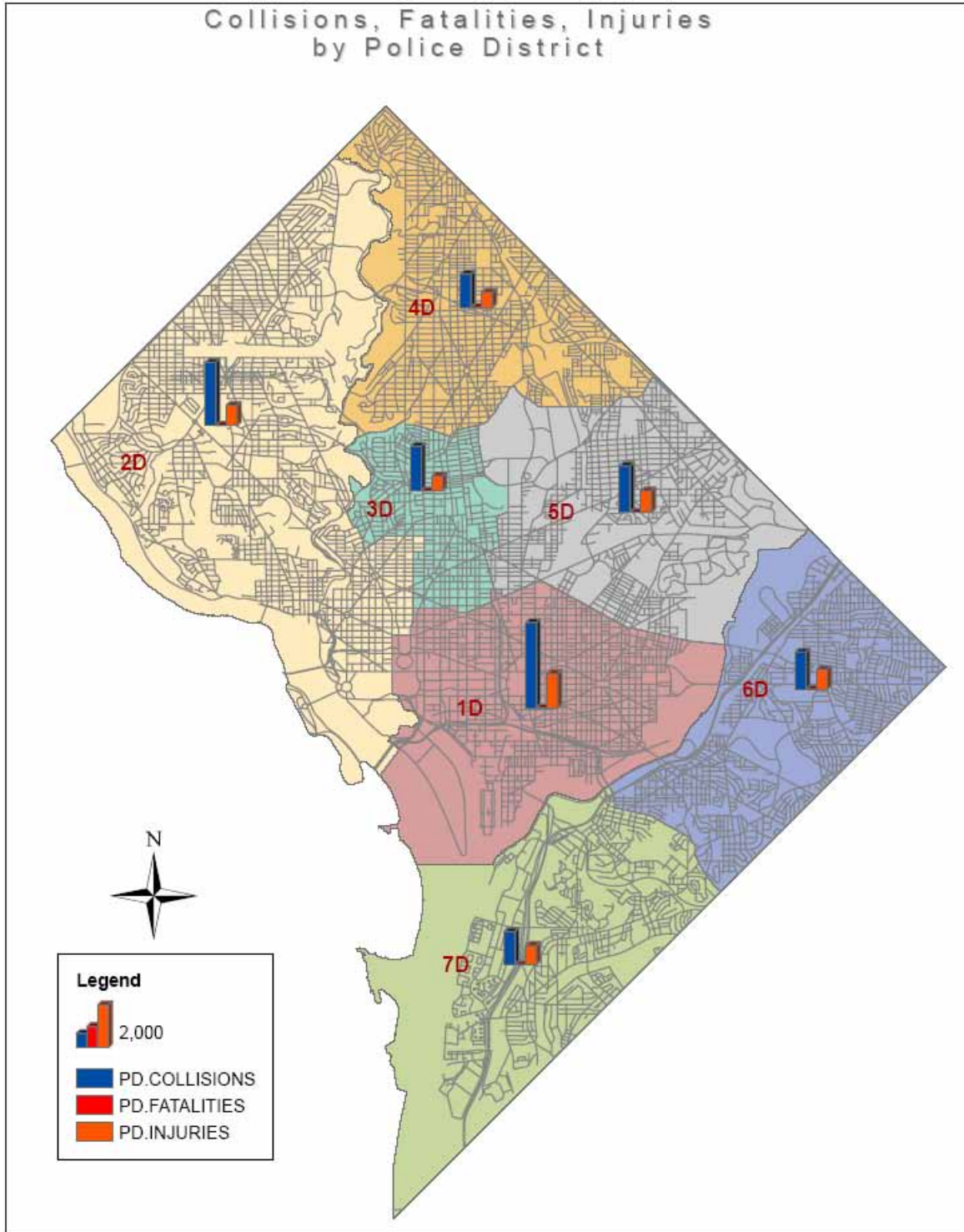


Figure 3.9 Collisions, Fatalities and Injuries by Police District in 2008

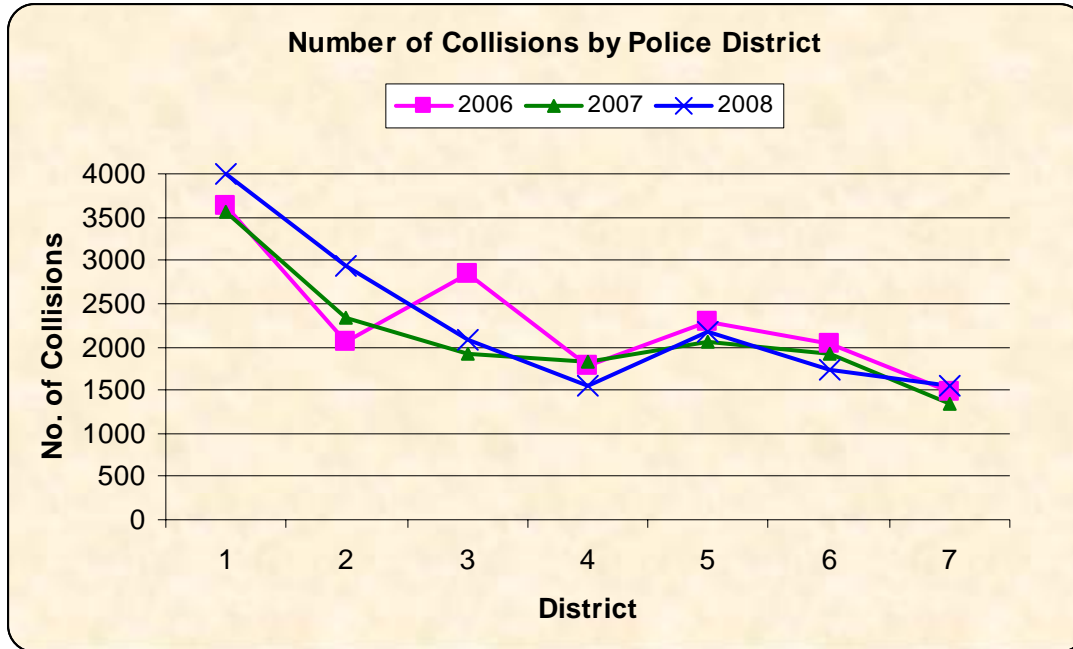


Figure 3.10 Number of Collisions by Police District

3.2.4 Collisions by Advisory Neighborhood Commissions

Washington DC comprises of 37 Advisory Neighborhood Commissions (ANCs). From the analysis of the results presented in Table 3.7, ANC 5B (Arboretum, Brentwood, Brookland, Carver, Langdon, Langston, Ivy City, Trinidad) and 6C (Near Northeast, Penn Quarter, Union Station) were the top two ANC locations that most frequently reported motor vehicle crashes in 2008.

Table 3.7 Collisions, Fatalities and Injuries by ANC in 2008

ANC	Description	Total Collision	Fatality	Injury
Unk.	Unknown	579	0	247
1A	Columbia Heights, Pleasant Plains	339	0	110
1B	Cardozo, Howard University, LeDroit Park, Shaw	577	0	192
1C	Adams Morgan, Kalorama Heights, Lanier Heights, Western U Street	207	0	46
1D	Mount Pleasant	49	1	12
2A	Foggy Bottom, West End	442	2	146
2B	Dupont Circle	612	1	167
2C	Blagden Alley, Chinatown, Logan Circle, Mount Vernon Square, Shaw	366	1	126
2D	Kalorama, Sheridan	60	0	18
2E	Burleith, Georgetown, Hilandale	439	0	104
2F	Logan Circle	686	0	215

Collision Characteristics

3B	Cathedral Heights, Glover Park	56	0	7
3C	Cathedral Heights, Cleveland Park, Massachusetts Heights, McLean Gardens, Woodley Park	299	1	119
3D	American University, Foxhall, Kent, The Palisades, Spring Valley, Wesley Heights	189	1	72
3E	American University Park, Friendship Heights, Tenleytown	140	0	55
3F	Forest Hills, North Cleveland Park, Tenleytown	180	1	61
3G	Chevy Chase	102	0	41
4A	Brightwood, Colonial Village, Crestwood, Shepherd Park, Sixteenth Street Heights	199	0	92
4B	Brightwood, Lamond-Riggs, Manor Park, Riggs Park, South Manor Park, Takoma	309	1	155
4C	Columbia Heights, Crestwood, Petworth, Sixteenth Street Heights	313	0	150
4D	Petworth	115	0	46
5A	Brookland, Fort Lincoln, Michigan Park, North Michigan Park, University Heights, Woodridge	406	0	181
5B	Arboretum, Brentwood, Brookland, Carver, Langdon, Langston, Ivy City, Trinidad	887	3	392
5C	Bloomingdale, Eckington, Edgewood	516	1	235
6A	North Lincoln Park, Rosedale, Stanton Park	305	0	128
6B	Barney Circle, Capitol Hill, Eastern Market	487	2	183
6C	Near Northeast, Penn Quarter, Union Station	872	1	375
6D	Carrollsgburg, Fort McNair, Navy Yard, Near Southwest/Southeast, Waterfront	612	2	262
7A	Fort Dupont, Greenway, River Terrace	211	2	102
7B	Fairfax Village, Hillcrest, Penn Branch, Randle Highlands	220	0	142
7C	Burrville, Deanwood, Grant Park, Lincoln Heights	217	0	87
7D	Eastland Gardens, Kenilworth, Kingman Park, Mayfair	359	2	210
7E	Benning Heights, Capitol View, Fort Davis, Marshall Heights	183	3	94
8A	Anacostia, Fairlawn, Fort Stanton, Hillsdale	289	0	137
8B	Garfield Heights, Knox Hill, Shipley Terrace	238	1	138
8C	Barry Farms, Bolling Air Force Base, Congress Heights, St. Elizabeths Hospital	455	3	327
8D	Bellevue, Far Southwest	245	0	117
8E	Congress Heights, Valley Green, Washington Highlands	149	1	98
Brd.	Border between ANCs	3,238	9	1,403

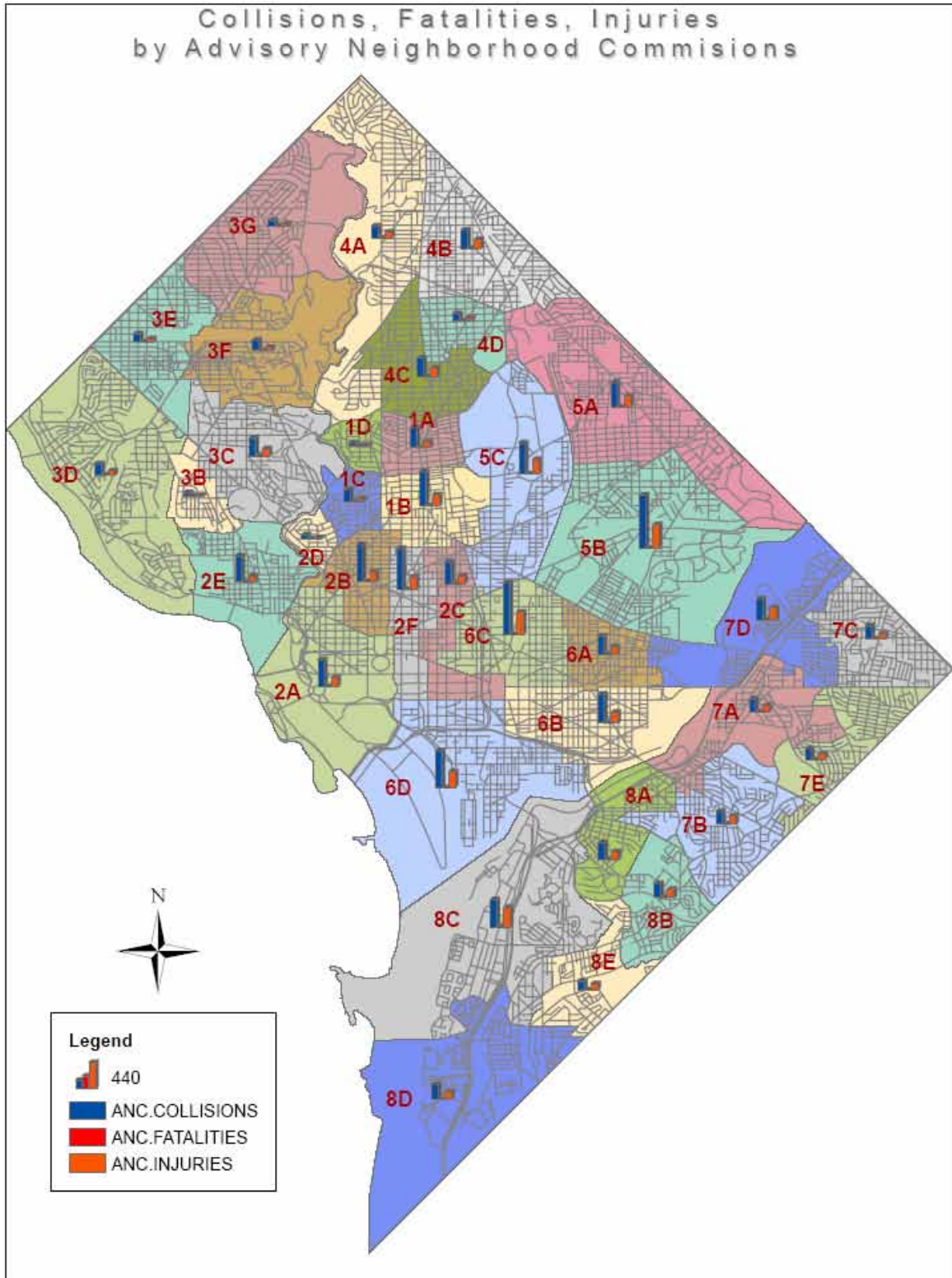


Figure 3.11 Collisions, Fatalities and Injuries by ANC

3.2.5 Collisions on Freeway/Bridge

It has been established from research that there exists a strong correlation between speeding and crash severity as well as injuries. In addition, crashes may be quantified per roadway functional classification. This section presents the frequency of motor vehicle crashes on freeways. From the results presented in Table 3.8, Interstate 295, Southwest Freeway and Kenilworth Avenue recorded the highest frequencies of reported crashes, while Memorial Bridge, New York Avenue, Key Bridge and East Capitol Bridge had the least reported freeway or bridge crashes in 2008.

Table 3.8 Collisions, Fatalities and Injuries on Freeway and Bridge in 2008

Freeway/Bridge	Collisions	Fatalities	Injuries
Southwest Freeway	148	0	65
Southeast Freeway	61	3	38
I-295	197	2	144
Anacostia Freeway	59	1	37
Kenilworth Avenue	137	1	91
Key Bridge	5	0	2
I-66 Bridge	11	0	3
Memorial Bridge	2	0	2
14th St Bridge	57	0	21
Douglass Bridge	15	0	4
11th St Bridge	32	0	19
Sousa Bridge	13	0	7
East Capitol Bridge	9	0	5
I-395 Tunnel	77	0	37
New York Avenue	3	0	3
Whitehurst & E Expwy	10	0	2
Suitland Parkway	14	0	11
Total	850	7	491

3.2.6 Collisions by On-Street Location

In order to mitigate the severity of a crash, it is crucial to identify and compare the intersection and non-intersection crashes. On the basis of the results presented in Table 3.9, most of vehicular crashes in 2008 were typically occurred within 100 feet of intersections as compared to other on street locations. These collisions comprise of 6,333 (or approximately 39%) of the total motor vehicle crashes observed in 2008. Crashes at intersection followed with 5,581 (or approximately 35%) of the total collisions. This is also presented in Figure 3.12.

Table 3.9 Collisions, Fatalities and Injuries on Freeway and Bridge in 2008

On-Street Location	Total Collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
At Intersection	5,581	4	2,095	3,482	4	3,173
Within 100' of Intersection	6,333	9	1,472	4,852	9	2,103
Not at Intersection	3,589	12	862	2,715	13	1,286
Private Property	91	0	15	76	0	17
Other	86	0	20	66	0	31
Unknown or N/A	467	12	114	341	13	182

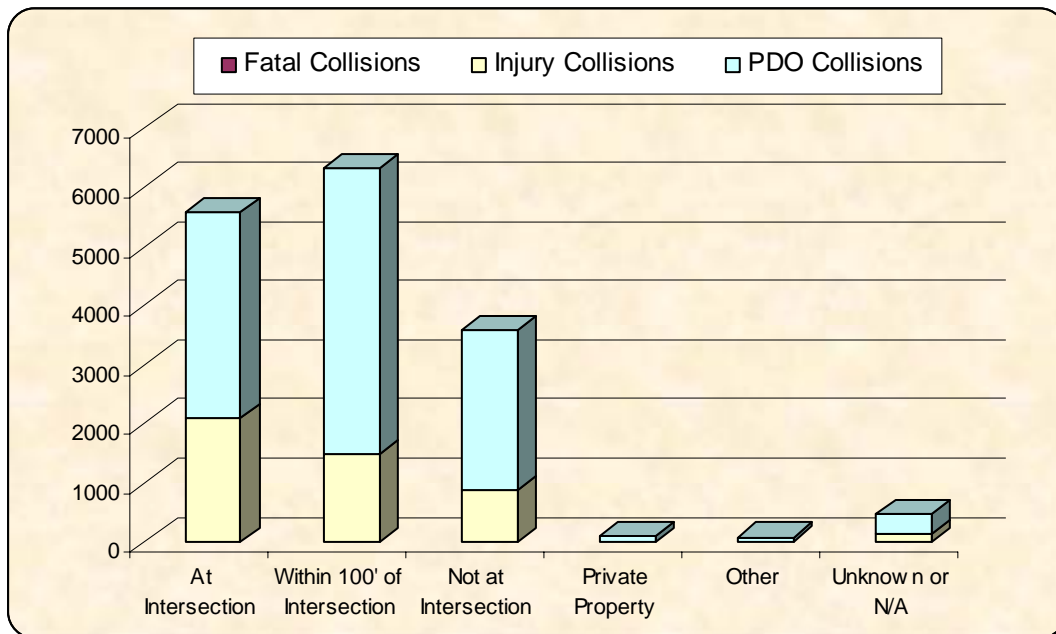


Figure 3.12 Fatal, Injury and PDO Collisions by On-Street Location in 2008

3.2.7 Collisions by Construction Zone

Work or construction zone safety continues to be a high-priority issue for traffic engineering professionals and highway agencies. Thus, there is the need to assess crashes in such zones in order to identify mitigation strategies to reduce crashes. Table 3.10 shows the summary of crashes recorded in construction and non-construction zone. These crashes were compiled in order to compare the crash experience in DC. As observed in this illustration, a total of 391 crashes in construction zones were observed in 2008, which represents approximately 2% of the total motor vehicle crashes.

Table 3.10 Summary of Collisions in 2008 Considering Construction Zone

Construction Zone	Total collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Construction Zone	391	0	99	292	0	152
Not In Construction Zone	15,756	37	4,479	11,240	39	6,640
Total	16,147	37	4,578	11,532	39	6,792

3.3 Collision Classification

3.3.1 Collision Severity Type

Crash classification continues to be an important severity indicator for government agencies and local authorities to examine the traffic safety issues at particular intersections or corridors. On the basis of the results presented in Figure 3.13 for 2008, fatal, injury and PDO collisions respectively represented approximately 0.2%, 28.4% and 71.4% of the total crashes recorded.

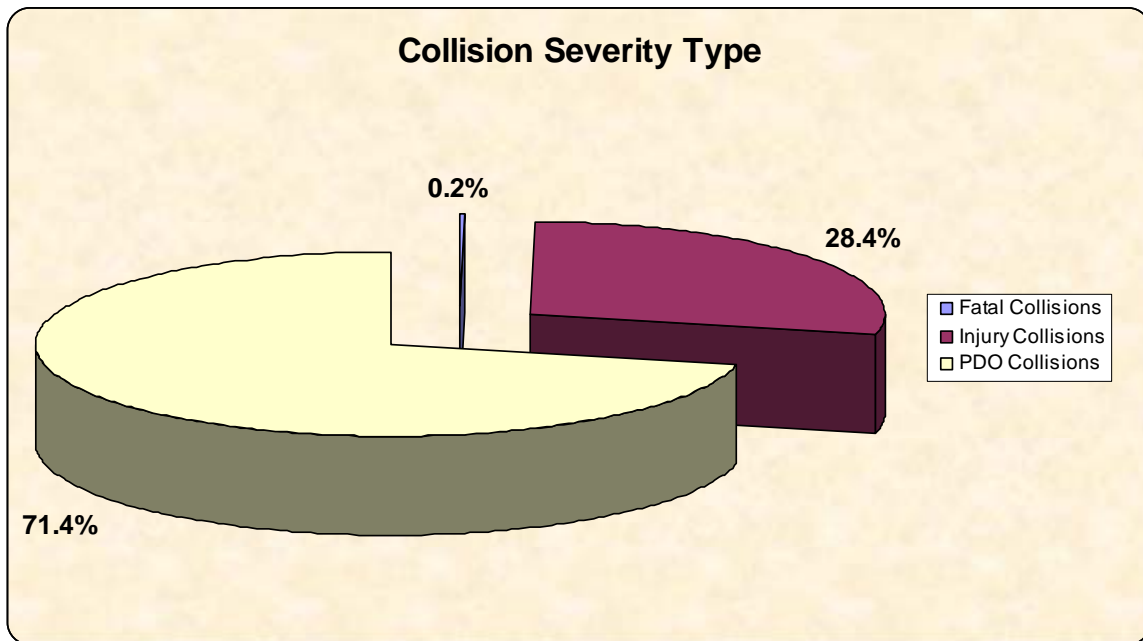


Figure 3.13 Collision Severity Type in 2008

3.3.2 Collision Type

As shown in Table 3.11 and Figure 3.14, rear end (3,519), side swipe (3,492) and parked vehicle collisions (1,871) were the three most frequently reported collision types in 2008. From Figure 3.14, it can be observed that the total number of parked vehicle collisions in 2008 was significantly higher as compared to those reported in 2006 and 2007.

Table 3.11 Summary of Collision by Collision Type in 2008

Type of Collision	Total collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Rear End	3,519	2	1,375	2,142	3	2,095
Side Swiped	3,492	0	461	3,031	0	650
Parked Vehicle	1,871	0	126	1,745	0	187
Right Angle	1,782	4	776	1,002	4	1,243
Left Turn Hit Vehicle	1,391	0	494	897	0	782
Fixed Object	885	5	237	643	5	341
Right Turn Hit Vehicle	544	0	104	440	0	131
Other	459	2	137	320	3	210
Backing Hit Parked Vehicle	455	0	14	441	0	21
Straight Hit Pedestrian	422	9	334	79	9	402
Head On	300	1	119	180	1	195
Backing Hit Moving Vehicle	232	0	19	213	0	26
Left Turn Hit Pedestrian	199	1	157	41	1	188
Ran Off Roadway	161	4	68	89	4	99
Unknown	158	8	33	117	8	54
Backing Hit Stopped Vehicle	93	0	7	86	0	19
Right Turn Hit Pedestrian	82	1	59	22	1	75
Non-Collision Accident	55	0	25	30	0	37
Backing Hit Pedestrian	46	0	33	13	0	37
Underride	1	0	0	1	0	0
Total	16,147	37	4,578	11,532	39	6,792

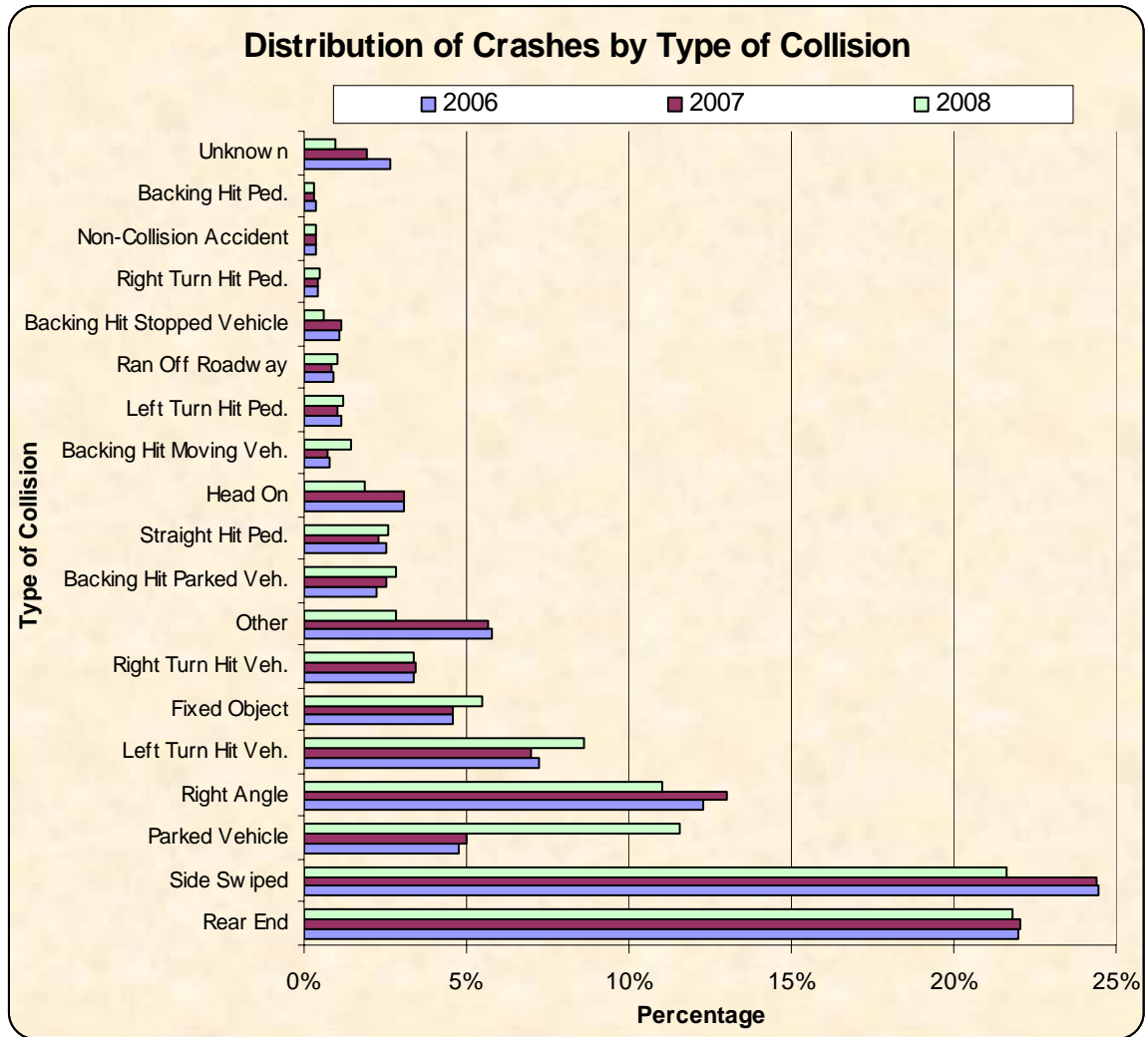


Figure 3.14 Distribution of Crashes by Type of Collision

3.3.3 Hit and Run Collisions

As shown in Figure 3.15, the number and percentage of hit and run collisions from 2006 to 2008 showed a descending trend, with the total motor vehicle collisions in 2008 observed to be the lowest (28.90%).

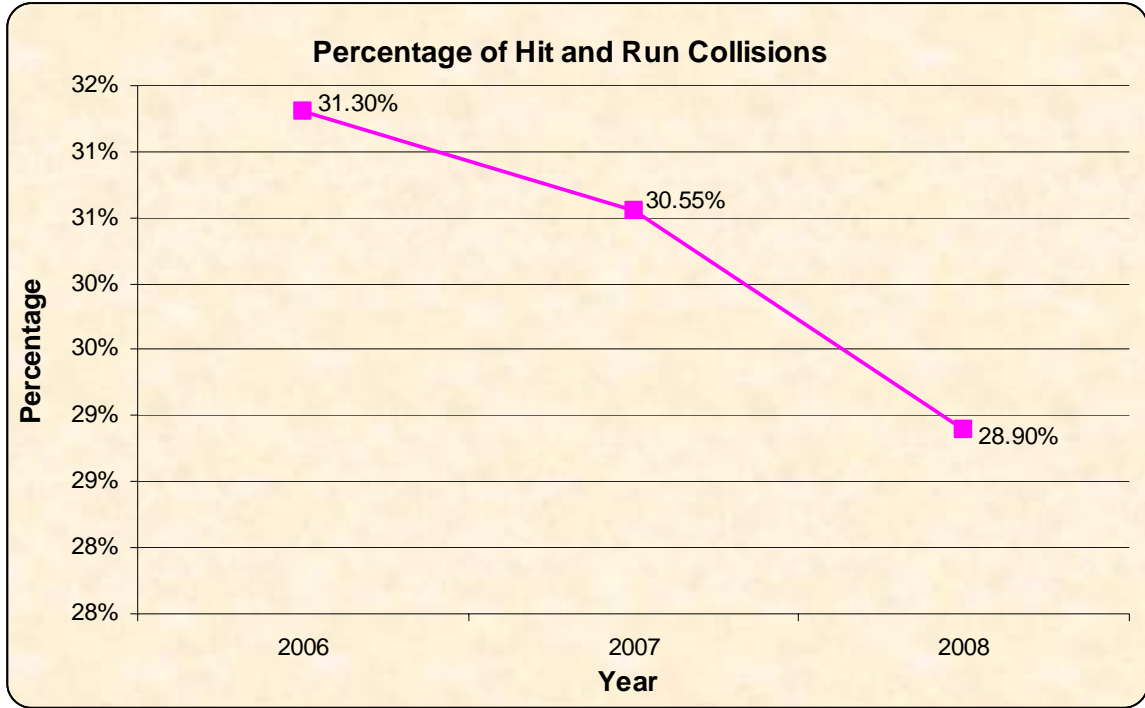


Figure 3.15 Percentage of Hit and Run Collisions

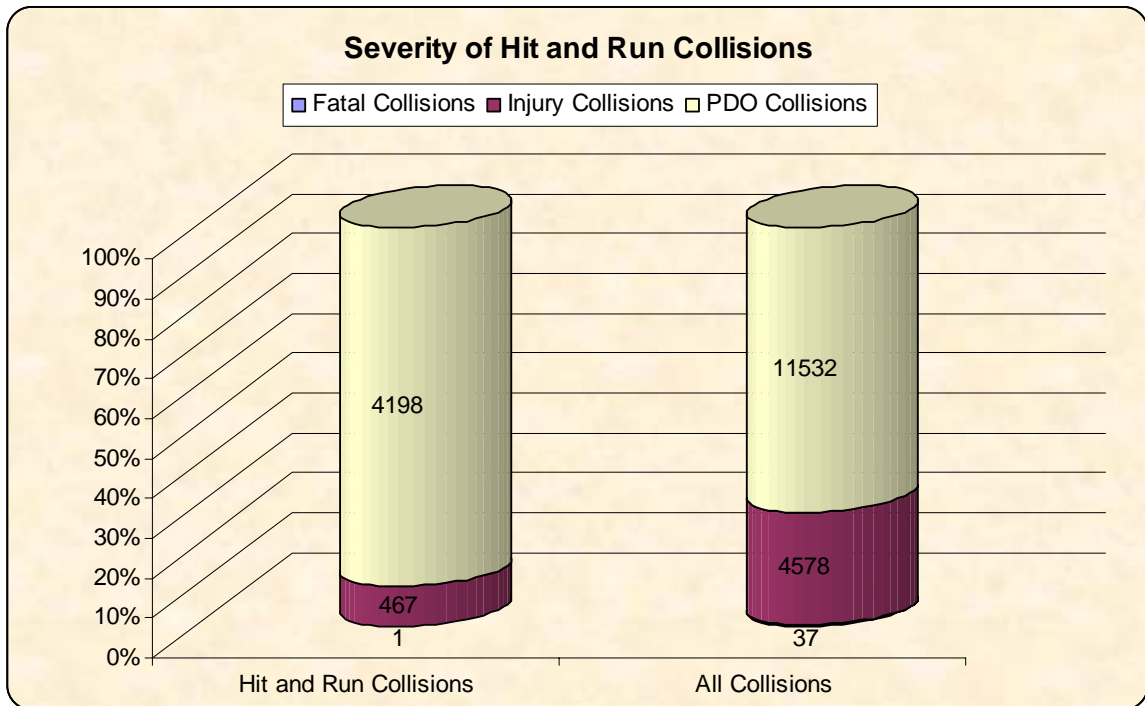


Figure 3.16 Severity of Hit and Run Collision in 2008

3.3.4 DC Property Collisions

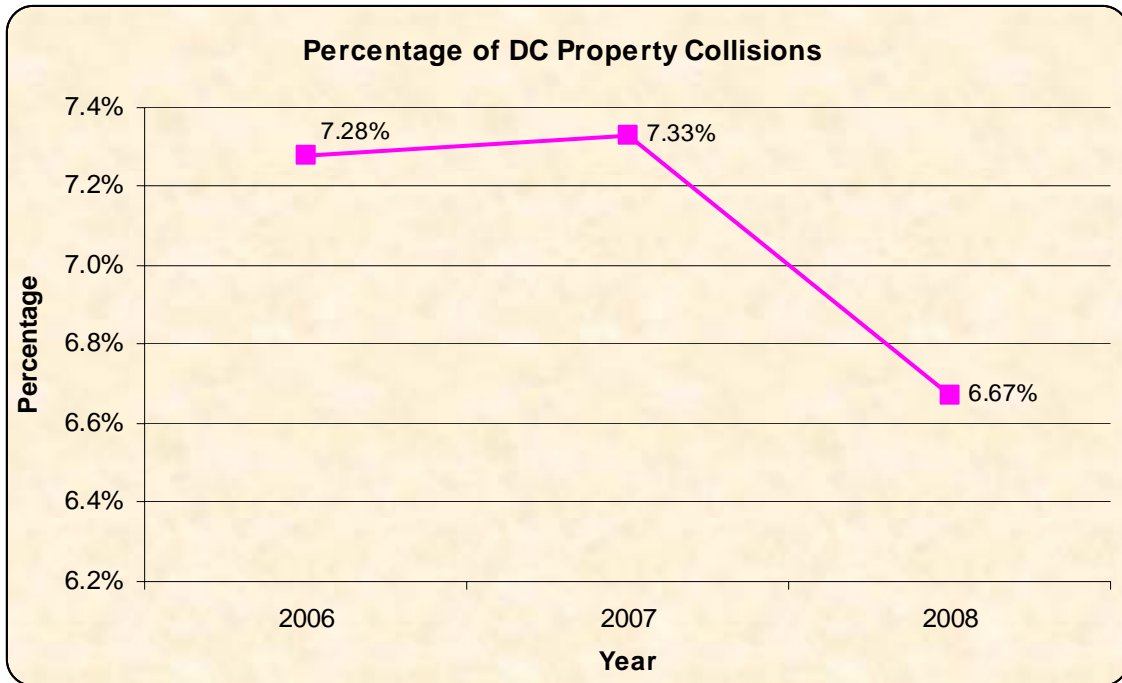


Figure 3.17 Percentage of DC Property Collisions

3.3.5 Crash by Vehicle Classification

Table 3.12 and Figure 3.18 show the summary of crashes by vehicle type. From the results, it can be observed that collisions involving passenger cars recorded the highest number of crashes, with a total of 13,764 (or approximately 85%) of the total collisions reported in 2008. This is followed by crashes involving trucks or trailers with a total of 1,495 (or 9%) of the total crashes reported.

In addition, the summary also shows there was a total of 5,977 reported passenger auto injuries with 413 injuries involving truck/trailers in 2008. Overall, the trend in reported crashes involving the various types of vehicles over the three-year period remained almost the same, with crashes involving trucks showing a decrease in the total number of injuries from 2006 through 2008, as shown in Figure 3.20.

Table 3.12 Summary of Collision in 2008 by Vehicle Type Involved

Vehicle Involved	Collisions	Fatalities	Injuries
Passenger Auto	13,764	25	5,977
Bus	1,373	3	370
Taxi Cab	1,389	1	343
Motorcycle	230	8	177
Bicycle	341	1	256
Truck/Trailer	1,495	2	413

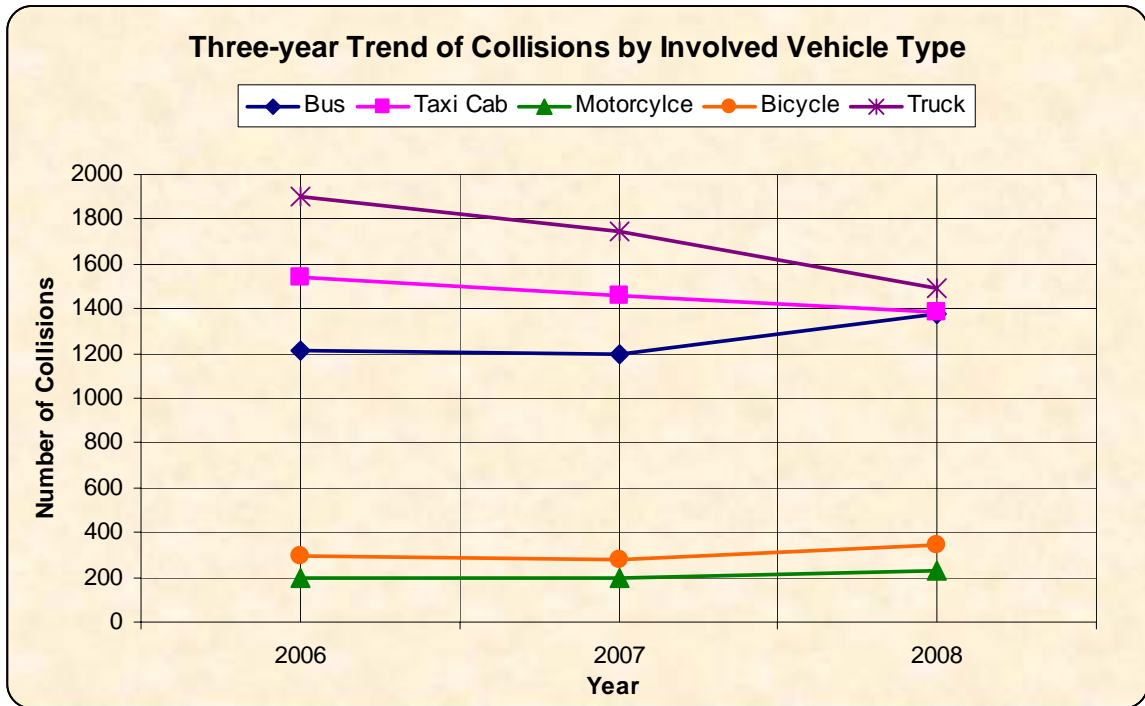


Figure 3.18 Three-year Trend of Collisions by Involved Vehicle Type

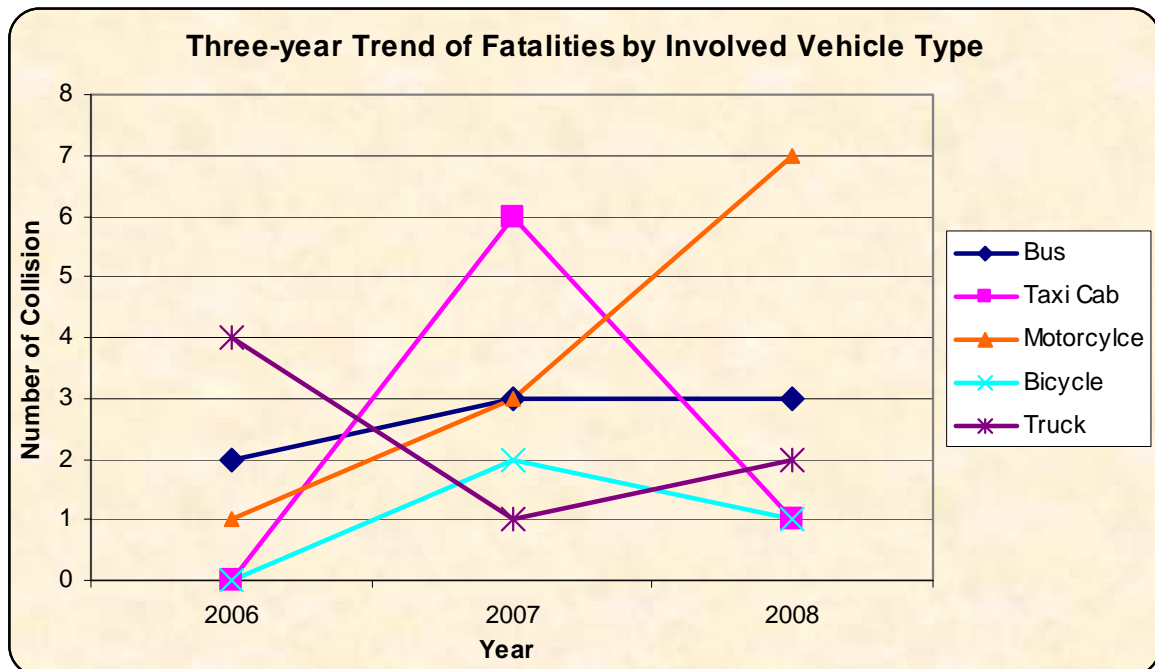


Figure 3.19 Three-year Trend of Fatalities by Involved Vehicle Type

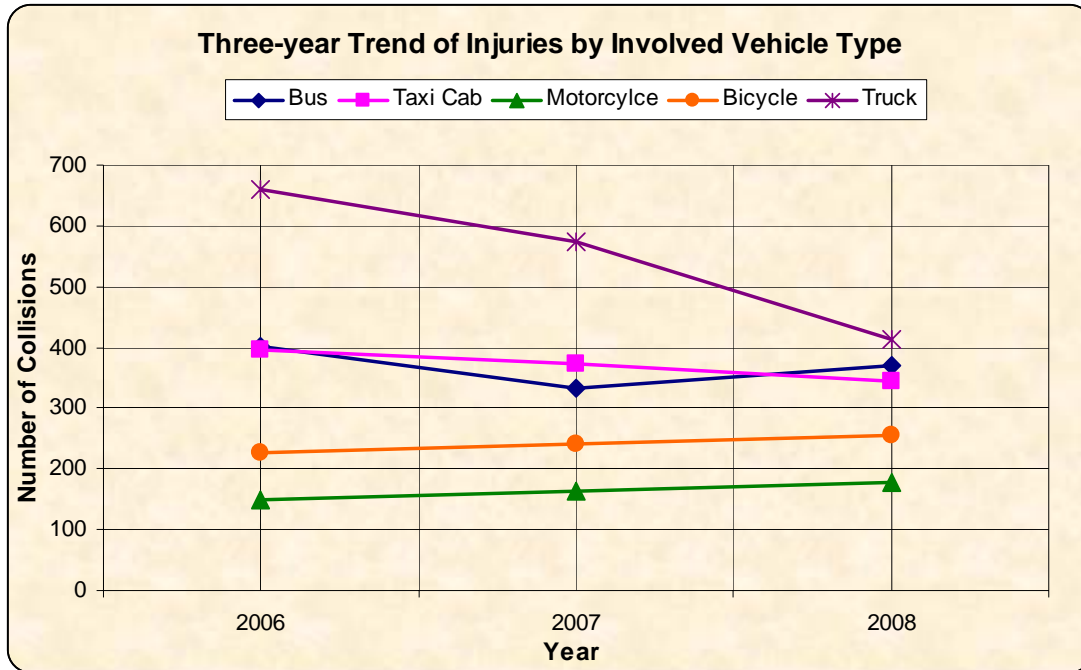


Figure 3.20 Three-year Trend of Injuries by Involved Vehicle Type

3.3.6 Pedestrian Involved Collisions

In a pedestrian friendly metropolitan area such as the District, walking is an important modal choice. With over 50% of the workers in the District either commuting by public transportation or walking to work (2006 *American Community Survey*), it is crucial to understand the causes and severity of crashes involving pedestrians in DC. Based on the results of the analysis presented in Figure 3.21, a general downward trend was observed with the total crashes involving pedestrians in 2008 being the lowest as compared to years 2006 and 2007. The overall number of collisions involving pedestrians in 2008 (592) represents a decrease of approximately 23% compared to the crashes in 2006 (767).

From Figure 3.22 and Table 3.13, it can be determined that the age group of 21-30 had the highest number of pedestrian-involved crashes from 2006 through 2008, with the total number in 2008 observed being the highest. Furthermore, the results in Figure 3.23 show that crashes involving pedestrians by gender for all three years showed an increasing and decreasing trends for both female and male pedestrians, respectively.

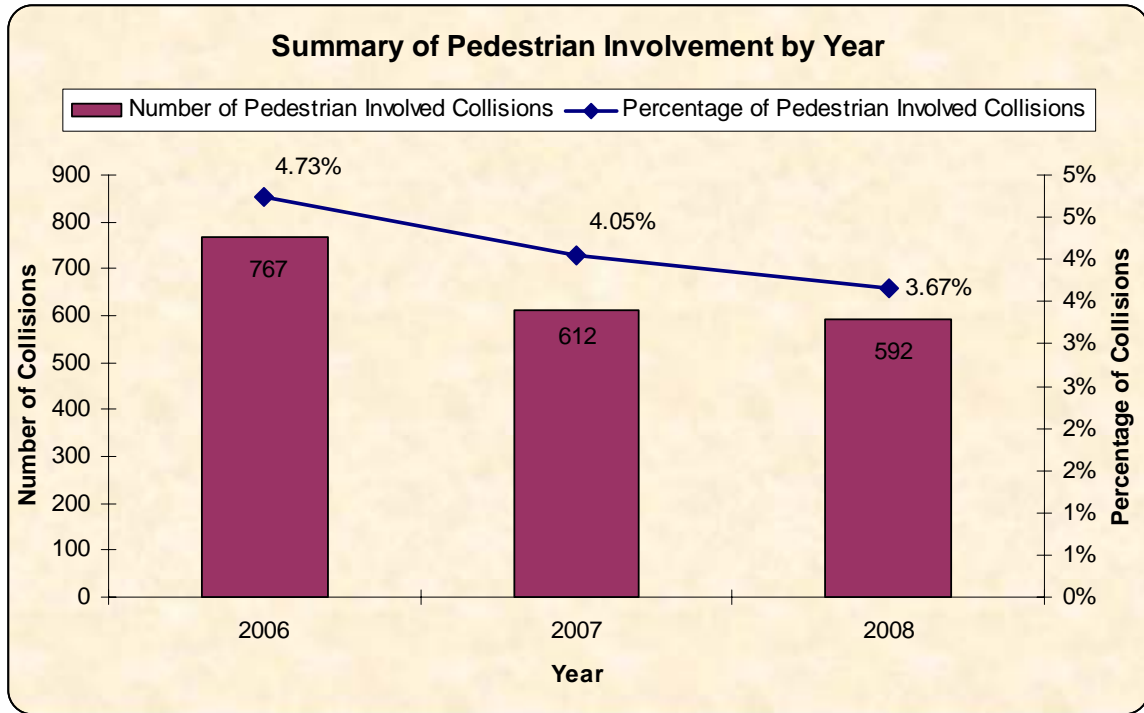


Figure 3.21 Summary of Pedestrian Involvement by Year

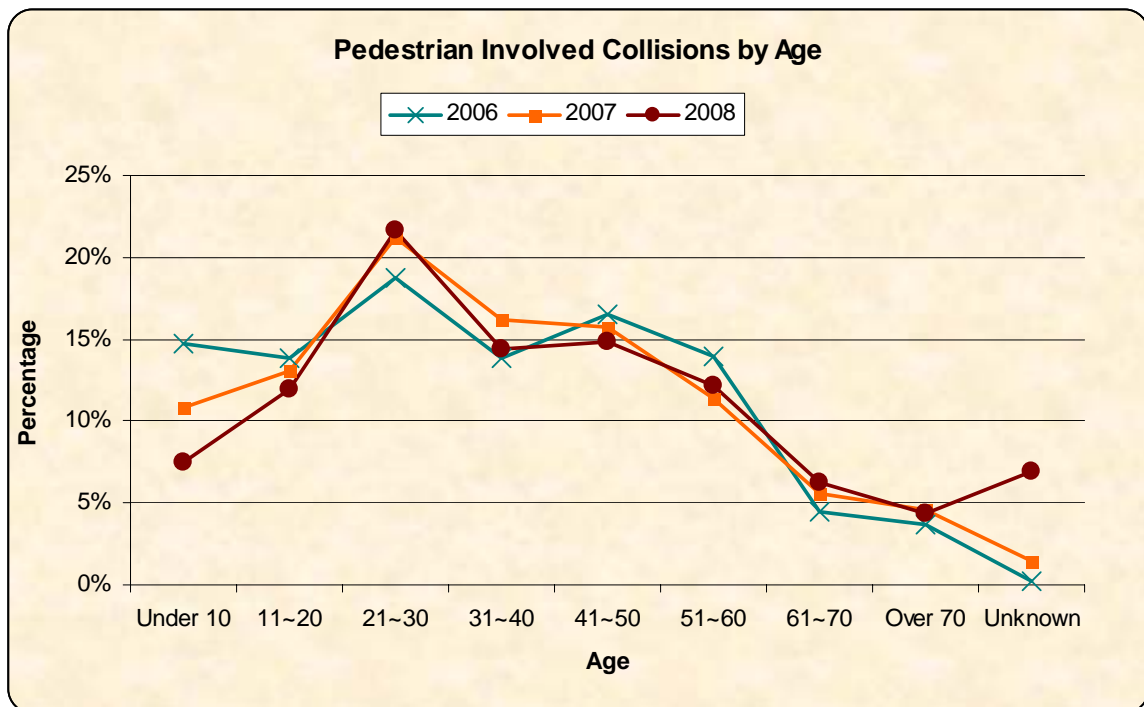


Figure 3.22 Pedestrian Involved Collisions by Age

Table 3.13 Pedestrian Involved Collisions by Age and Year

Age Group	No. of Pedestrian Involved			Percentage		
	2006	2007	2008	2006	2007	2008
Under 10	113	66	44	14.7%	10.8%	7.4%
11-20	106	80	71	13.8%	13.1%	12.0%
21-30	144	130	128	18.8%	21.2%	21.6%
31-40	106	99	85	13.8%	16.2%	14.4%
41-50	127	96	88	16.6%	15.7%	14.9%
51-60	107	70	72	14.0%	11.4%	12.2%
61-70	34	34	37	4.4%	5.6%	6.3%
Over 70	28	28	26	3.7%	4.6%	4.4%
Unknown	2	9	41	0.3%	1.5%	6.9%
Total	767	612	592	100.0%	100.0%	100.0%

Table 3.14 Pedestrian Involved Collisions by Pedestrian Action and Injury in 2008

Pedestrian Action	Fatality	Disabling	Non-Disabling	Complaint but not visible	None	Unknown	Total
With Signal in Crosswalk	1	11	36	78	13	23	162
Not in Crosswalk	5	14	38	43	10	18	128
In Crosswalk - No Signal	1	4	15	34	2	13	69
Against Signal in Crosswalk	0	4	8	15	1	10	38
From Between Parked Cars	2	5	10	8	2	2	29
In Unmarked Crosswalk	0	1	0	2	0	0	3
Other	0	6	27	23	9	11	76
Unknown	5	6	16	13	33	14	87
Total	14	51	150	216	70	91	592

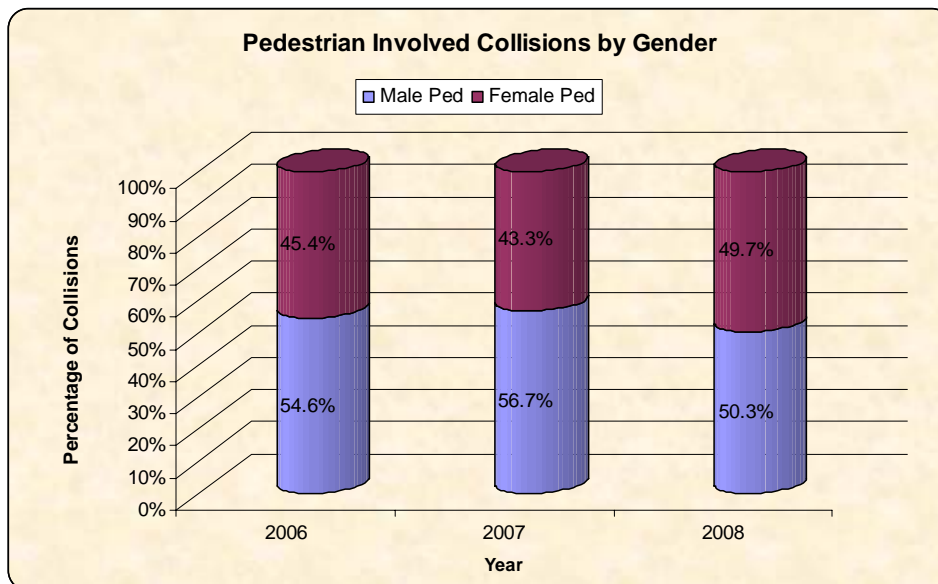


Figure 3.23 Pedestrian Involved Collisions by Gender

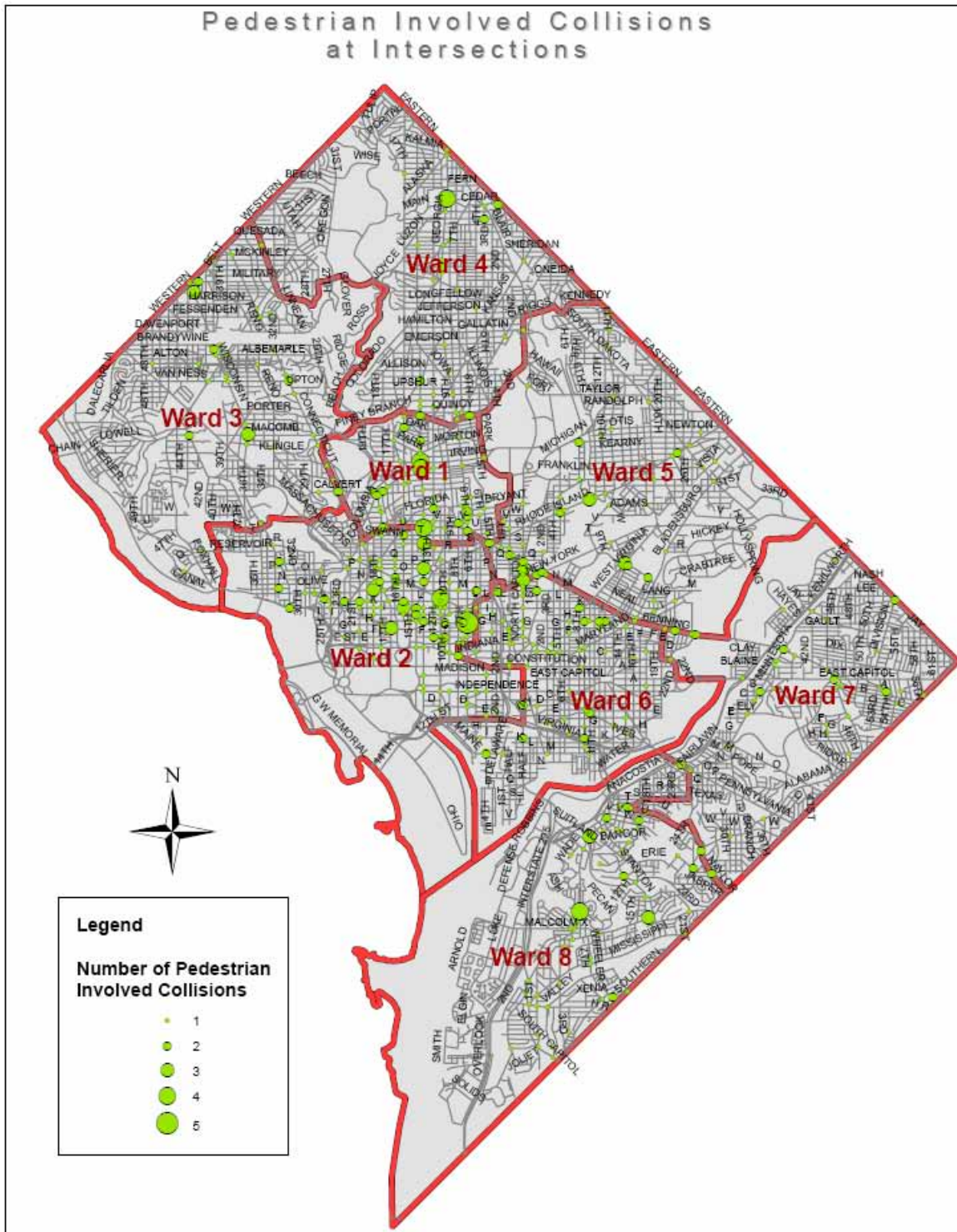


Figure 3.24 Pedestrian Involved Collisions at Intersections

3.3.7 Bicyclist Involved Collisions

With approximately 2.0% of workers in the District biking to work (*2006 American Community Survey*); it is pertinent to determine the crashes involving bicyclists on the basis of age groups and gender. Based on the results presented in Figure 3.25, crashes involving bicyclists ranged between 230 and 257 for the three-year duration. There was an increase in crashes involving bicycles from 2007 to 2008. Most of the crashes involved bicyclists were observed in the 21-30 age group, as shown in Figure 3.26. From Figure 3.27, the collisions involving bicyclists by gender remained relatively the same over the 3-year duration.

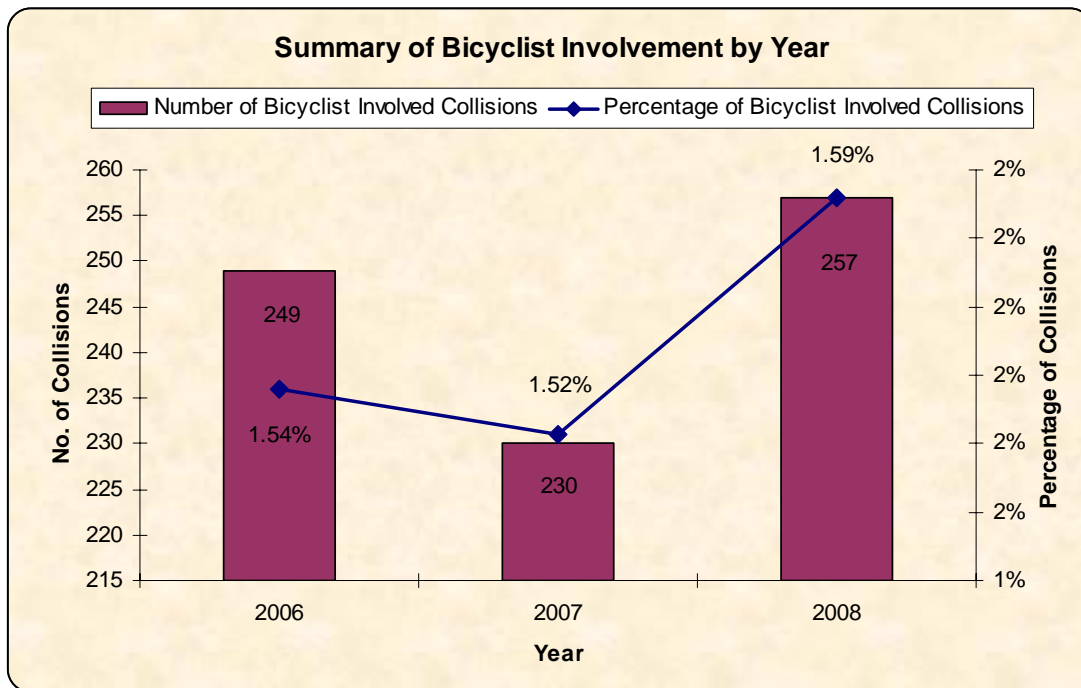


Figure 3.25 Summary of Bicyclist Involvement by Year

Table 3.15 Bicyclist Involved Collisions by Age and Year

Age Group	No. of Collisions			Percentage		
	2006	2007	2008	2006	2007	2008
Under 10	15	11	7	6.0%	4.3%	2.7%
11-20	40	29	31	16.1%	11.3%	12.1%
21-30	76	77	95	30.5%	30.0%	37.0%
31-40	40	40	44	16.1%	15.6%	17.1%
41-50	44	27	33	17.7%	10.5%	12.8%
51-60	12	25	20	4.8%	9.7%	7.8%
61-70	4	3	4	1.6%	1.2%	1.6%
Over 70	0	1	1	0.0%	0.4%	0.4%
Unknown	18	44	22	7.2%	17.1%	8.6%
Total	249	257	257	100.0%	100.0%	100.0%

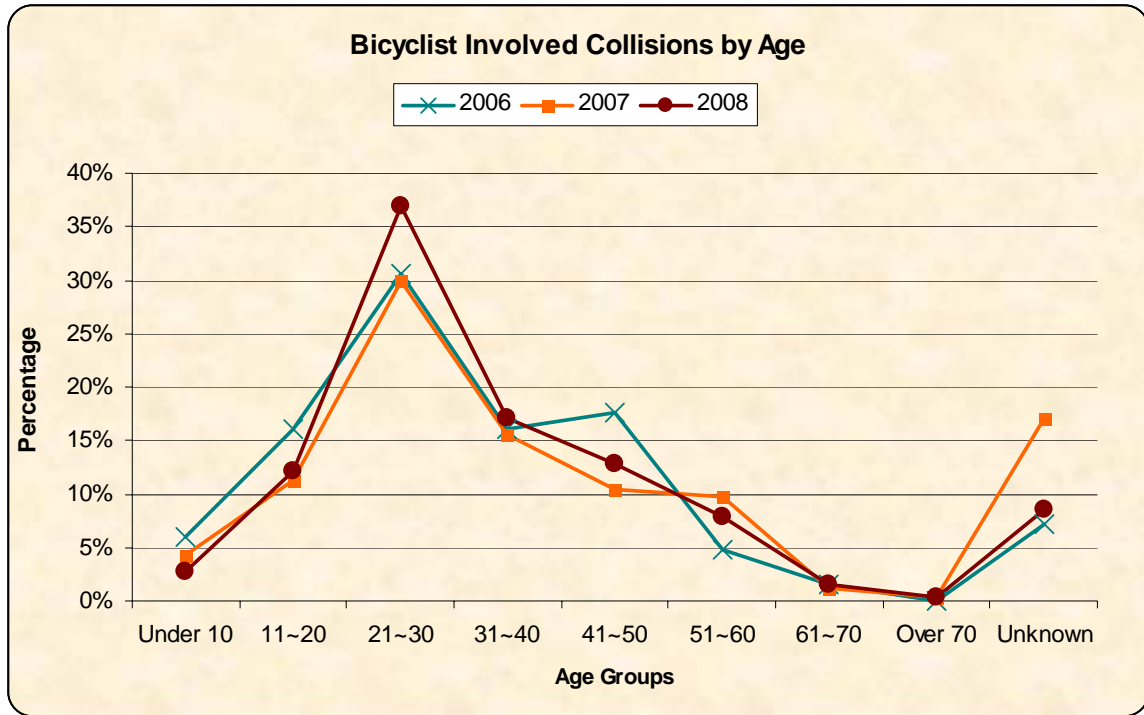


Figure 3.26 Bicyclist Involved Collisions by Age

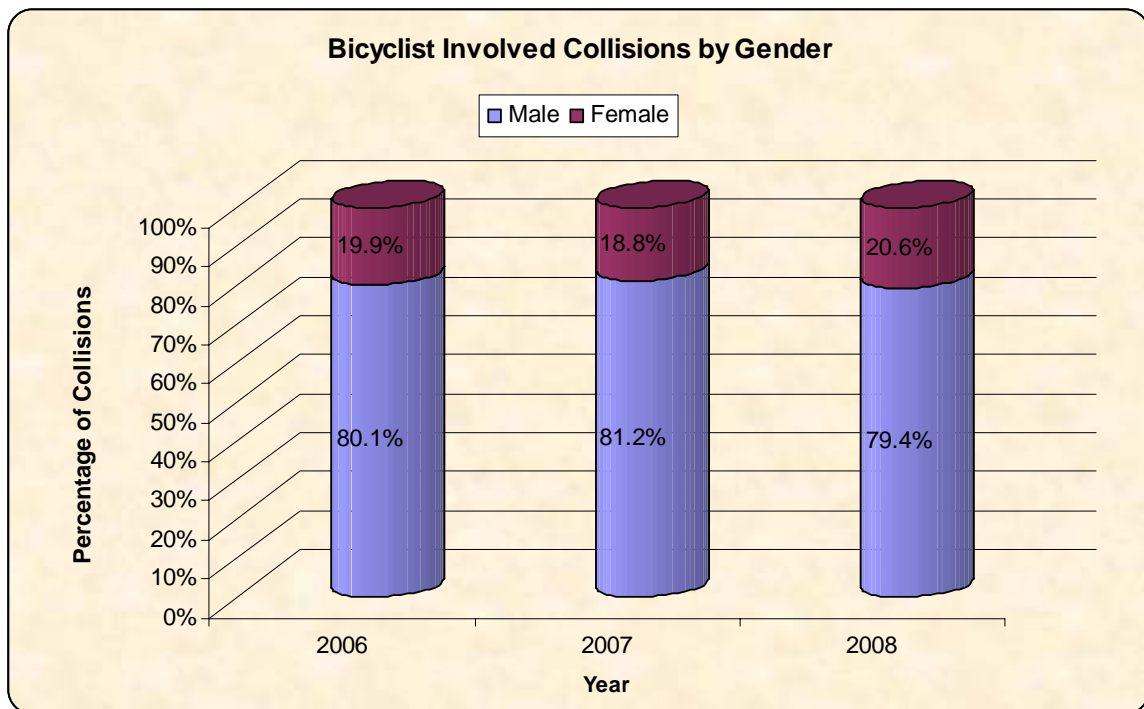


Figure 3.27 Bicyclist Involved Collisions by Gender

Table 3.16 Bicyclist Involved Collisions by Injury Code

Injury Code	Number
Complaint but not visible	72
Disabling	15
Fatal	1
Non-Disabling	87
None	54
Unknown	28
Total	257

3.3.8 Motorcyclist Involved Collisions

According to the data from the Fatality Analysis Reporting System, approximately 13% of the total fatalities in the US involve motorcyclist. This section presents crashes involving motorcycles. Figure 3.28 shows that the overall number of collisions for all three years remained relatively unchanged and ranged from 144 to 176 crashes. The figure also shows a slight decrease in the number of motorcyclist involved collisions in 2008, compared with 2006 and 2007. As shown in Figure 3.29, the motorcyclists in the age group of 21-30 recorded the highest number of crashes in 2008. Also, the results in Figure 3.30 show, from 2006 through 2008, there was an increase in crashes involving men riding motorcycles while a decline of crashes were recorded for women.

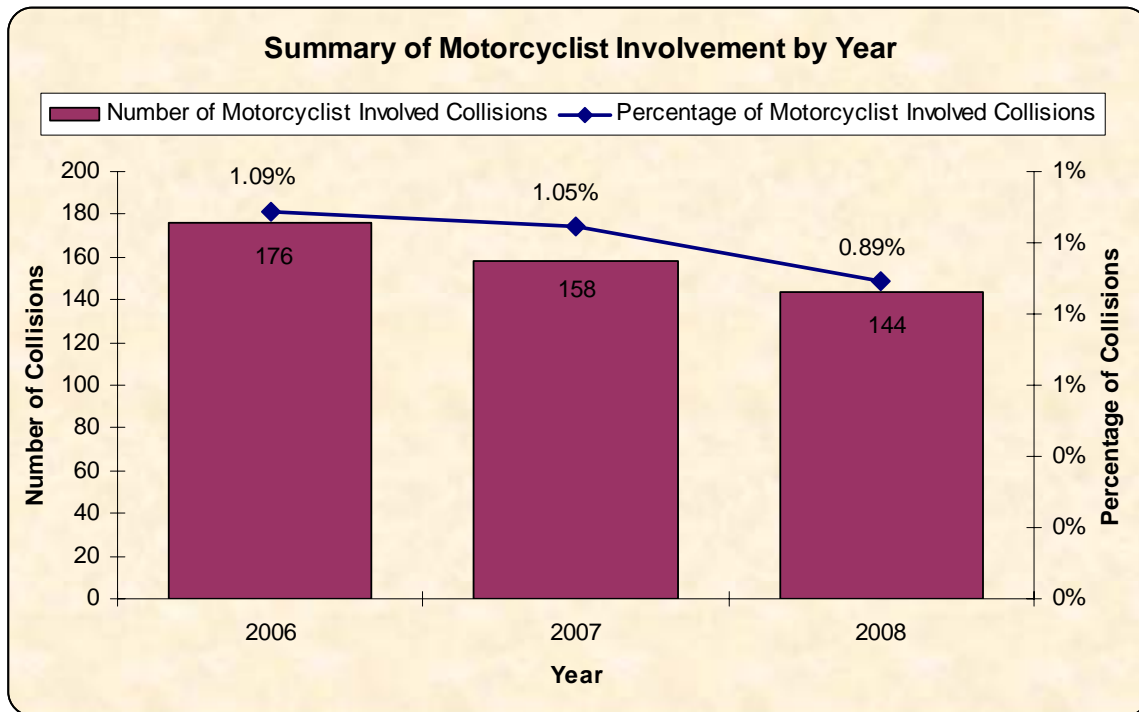


Figure 3.28 Summary of Motorcyclist Involvement by Year

Table 3.17 Motorcyclist* Involved Collisions by Age and Year

Age Group	No. of Collisions			Percentage		
	2006	2007	2008	2006	2007	2008
Under 10	5	2	4	2.8%	1.4%	2.8%
11-20	24	25	6	13.6%	17.4%	4.2%
21-30	31	31	56	17.6%	21.5%	38.9%
31-40	47	39	28	26.7%	27.1%	19.4%
41-50	29	29	31	16.5%	20.1%	21.5%
51-60	18	12	5	10.2%	8.3%	3.5%
61-70	3	2	1	1.7%	1.4%	0.7%
Over 70	0	1	1	0.0%	0.7%	0.7%
Unknown	19	3	12	10.8%	2.1%	8.3%
Total	176	144	144	100.0%	100.0%	100.0%

* including passengers of motorcycle.

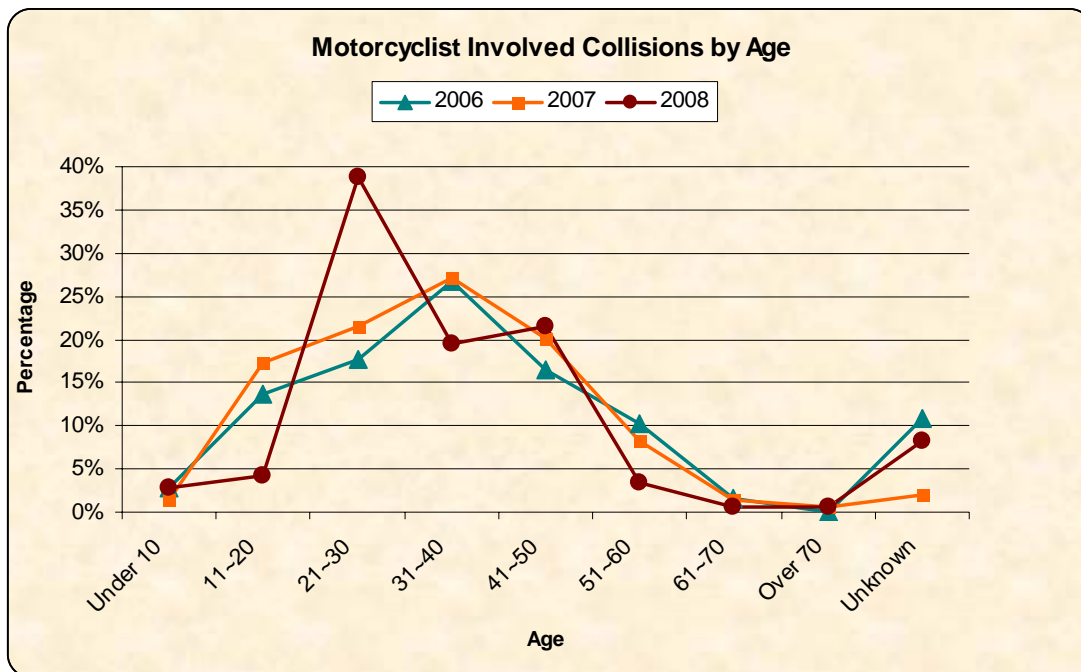


Figure 3.29 Motorcyclist Involved Collisions by Age

Table 3.18 Motorcyclist Involved Collisions by Injury Code

Injury Code	Number
Complaint but not visible	28
Disabling	17
Fatal	8
Non-Disabling	39
None	33
Unknown	20
Total	144

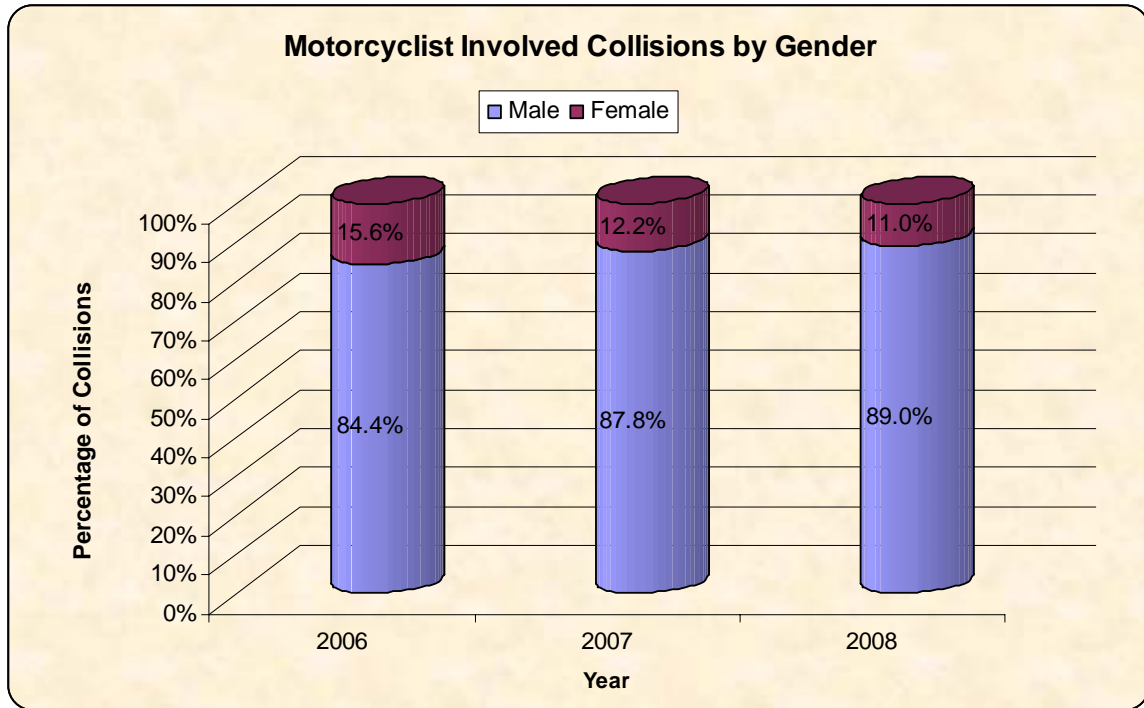


Figure 3.30 Motorcyclist Involved Collisions by Gender

3.4 The Driver

3.4.1 Drivers by Age

The age groups of drivers' involved in crashes continue to be important information for government agencies and local authorities to determine the appropriate crash prevention and mitigation strategies. Based on the results presented in Table 3.19 and Figure 3.31, it can be observed that the age group of 26-30 was found to be the highest involved drivers' age in motor vehicle crashes in DC in 2008 followed by the age group of 21-25. The data showed that approximately 19% of those involved in crashes was not recorded or were unknown.

Table 3.19 Number of Drivers Involved in Collisions by Age and Year

Age Group	No. of Drivers Involved in Collisions			Percentage		
	2006	2007	2008	2006	2007	2008
16-20	1,035	1,086	1,013	4.0%	4.6%	4.1%
21-25	2,836	2,637	2,562	11.0%	11.2%	10.4%
26-30	3,095	2,897	2,887	12.0%	12.3%	11.7%
31-35	2,781	2,471	2,356	10.8%	10.5%	9.5%
36-40	2,743	2,607	2,454	10.6%	11.0%	9.9%
41-45	2,425	2,273	2,178	9.4%	9.6%	8.8%
46-50	2,194	2,141	2,050	8.5%	9.1%	8.3%
51-55	1,756	1,655	1,587	6.8%	7.0%	6.4%
56-60	1,303	1,338	1,294	5.0%	5.7%	5.2%
61-65	746	720	720	2.9%	3.0%	2.9%
66-70	462	418	483	1.8%	1.8%	2.0%
71-75	257	269	274	1.0%	1.1%	1.1%
Over 75	389	336	300	1.5%	1.4%	1.2%
Unknown	3,830	2,772	4,593	14.8%	11.7%	18.6%
Total	25,852	23,620	24,751	100.0%	100.0%	100.0%

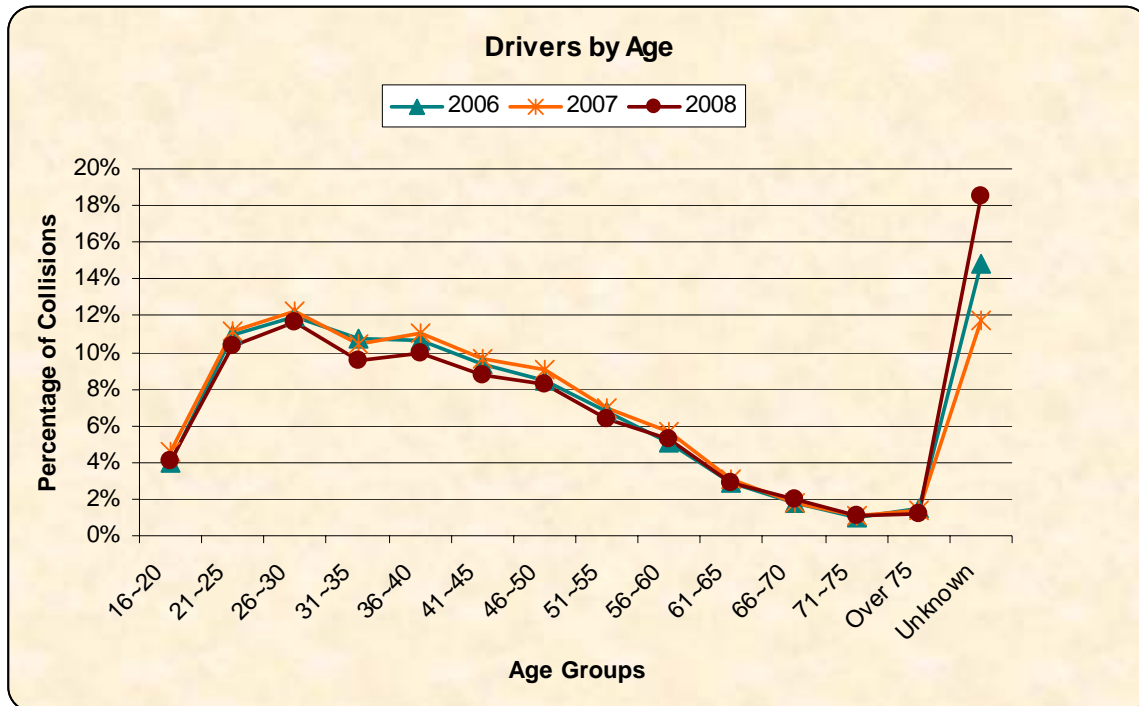


Figure 3.31 Number of Drivers Involved in Collisions by Age and Year

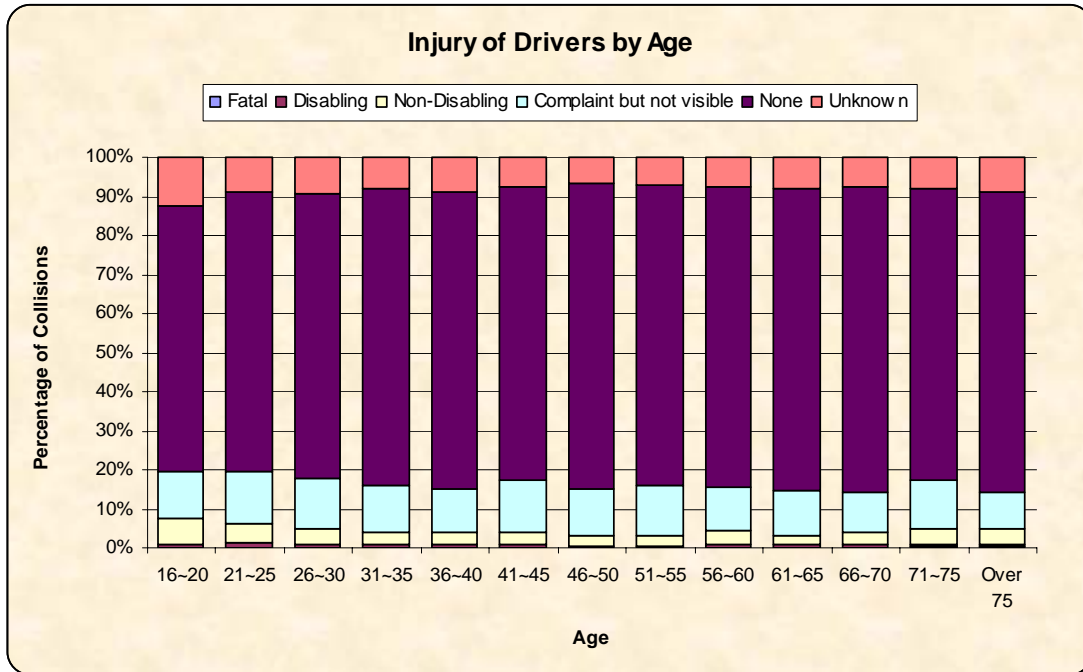


Figure 3.32 Injury of Drivers in 2008 by Age

3.4.2 Drivers by Gender

Crashes recorded by the gender of drivers, as presented in Figure 3.33, show that there was a modest decline in the percentage of crashes for male drivers, while a modest increase was also recorded for female drivers from 2006 through 2008.

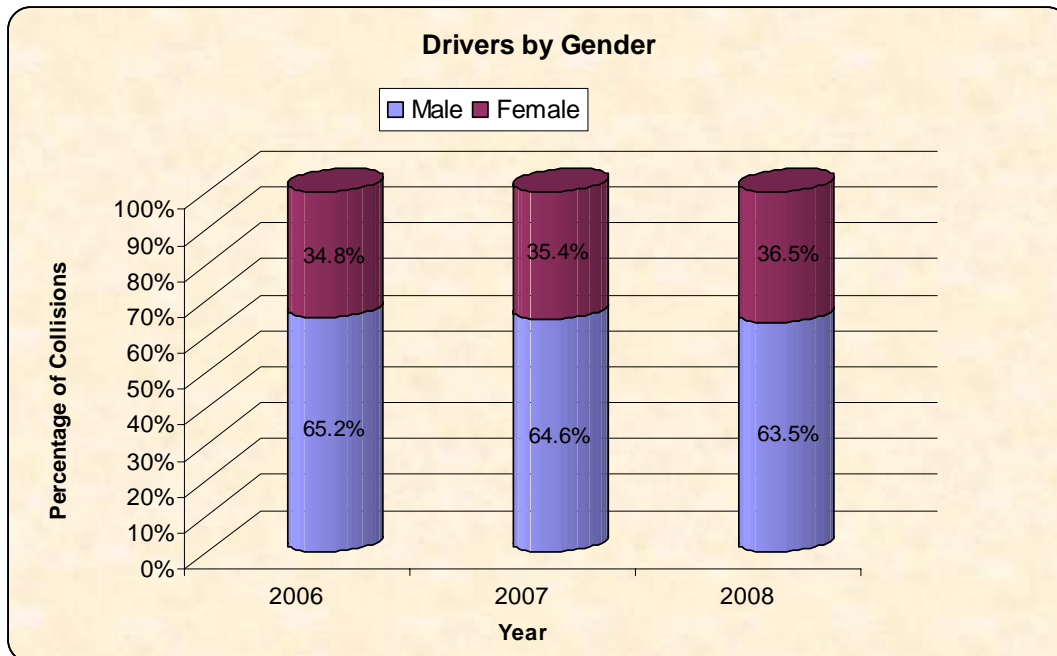


Figure 3.33 Drivers involved in Collisions by Gender and Year

3.4.3 Drivers by State Issued License

As most commuters to DC live in Washington’s outer suburbs or neighboring states such as Maryland and Virginia, it is of interest to determine the distribution of motor vehicle crashes based on drivers’ state issued licenses. From Table 3.20 and Figure 3.34, it can be stated that the majority of crashes were involved with Maryland drivers, followed by those from Washington DC with less than 30% of drivers classified as from Virginia, other states, government or unknown.

Table 3.20 Driver Involvement by State of Permit

	No. of Drivers Involved in Collisions			Percentage		
	2006	2007	2008	2006	2007	2008
DC	7,326	6,855	8,783	28.3%	29.0%	35.5%
MD	7,652	7,531	9,184	29.6%	31.9%	37.1%
VA	2,869	2,644	3,348	11.1%	11.2%	13.5%
Government	41	14	25	0.2%	0.1%	0.1%
Other States	1,500	1,511	1,788	5.8%	6.4%	7.2%
Unknown	6,464	5,065	1,623	25.0%	21.4%	6.6%
Total	25,852	23,620	24,751	100.0%	100.0%	100.0%

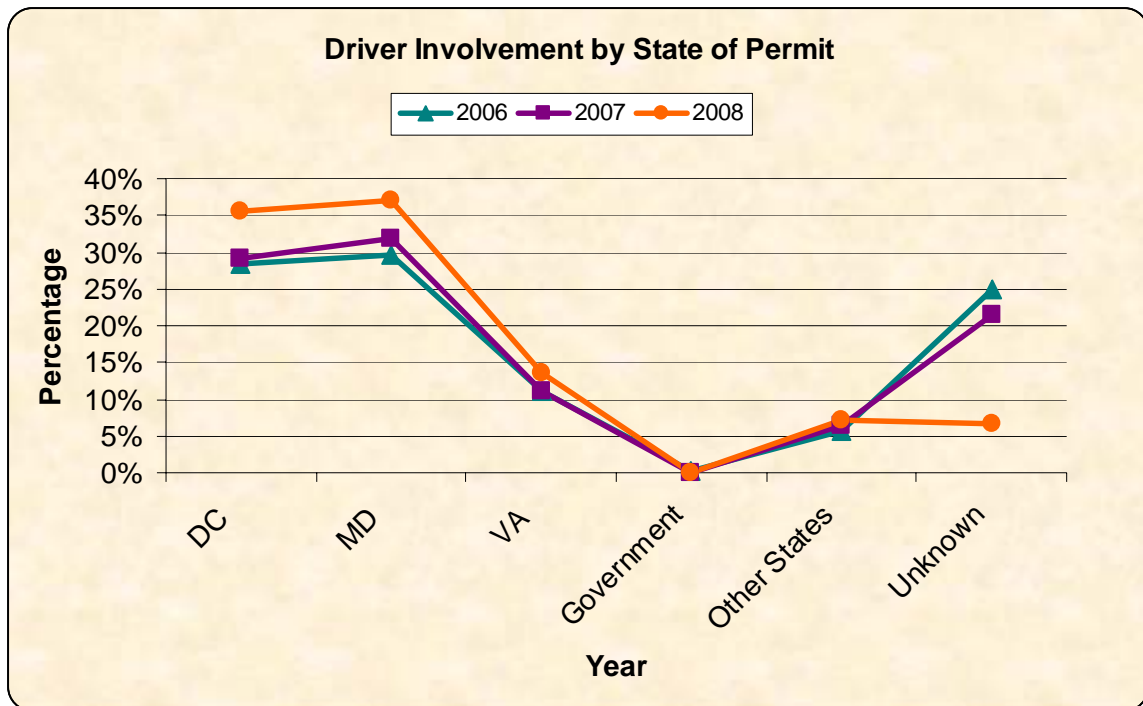


Figure 3.34 Driver Involvement by State of Permit

3.4.4 Drivers by Action

Education, enforcement and engineering are three key tools that are used to improve traffic safety. As drivers are required to make numerous driving decisions for very different roadway situations, it is of interest to examine whether drivers were at fault or not at fault for a particular motor vehicle crash in order to enhance the level of safety to potential improvements.

As observed from the Table 3.21, drivers going straight, turning left and changing lanes were three most frequently reported actions recorded on PD-10 from 2006 through 2008. On the other hand, drivers avoiding obstacles, overtaking and running off road were found to be three least reported drivers' faults recorded on the traffic crash reports.

Table 3.21 Driver Involvement by Driver Action and Year

Driver by action*	2006	2007	2008
Going Straight	7,037	6,730	6,974
Turning Left	1,889	1,680	1,796
Changing Lanes	1,092	1,145	1,216
Backing	801	802	968
Turning Right	900	761	917
Parked	382	338	496
Entering/Leaving Parked Position	333	336	388
Making U-turn	276	282	308
Slowing/Stopping	276	278	302
Stop/Stand Traffic Lane	269	244	283
Merging	270	244	276
Ran Off Road	231	230	251
Overtaking	164	157	204
Avoiding	131	114	135
Total	16,057	15,348	16,522

* Drivers reported as "No Violation" or not filled in the section of "Contributing Circumstance" in both old and new Traffic Crash Report were not counted in this table.

3.5 Environmental Conditions

3.5.1 Collisions by Roadway Type

Presented in Table 3.22 is a summary of collisions by road type. From the Table, crashes recorded as straight, level and curved roadways were the three most frequently reported roadway types from 2006 to 2008. In contrast, crashes were recorded the least on underpass roadways from 2006 to 2008.

Table 3.22 Summary of Collisions by Roadway Type

Roadway Type	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Bridge	69	0	41	68	0	53	80	0	47
Crest	59	0	40	72	3	42	70	0	49
Curve	744	4	265	733	6	275	847	2	305
Grade	814	3	429	728	1	354	631	5	289
Level	909	4	412	792	1	326	636	4	278
Other	229	0	61	190	0	60	276	1	85
Ramp	92	1	42	91	0	40	97	0	44
Straight	13,009	9	5,625	12,144	17	5,304	13,256	16	5,590
Underpass	15	0	6	13	0	10	15	0	7
Unknown	NA	20	140	NA	26	107	239	11	98
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

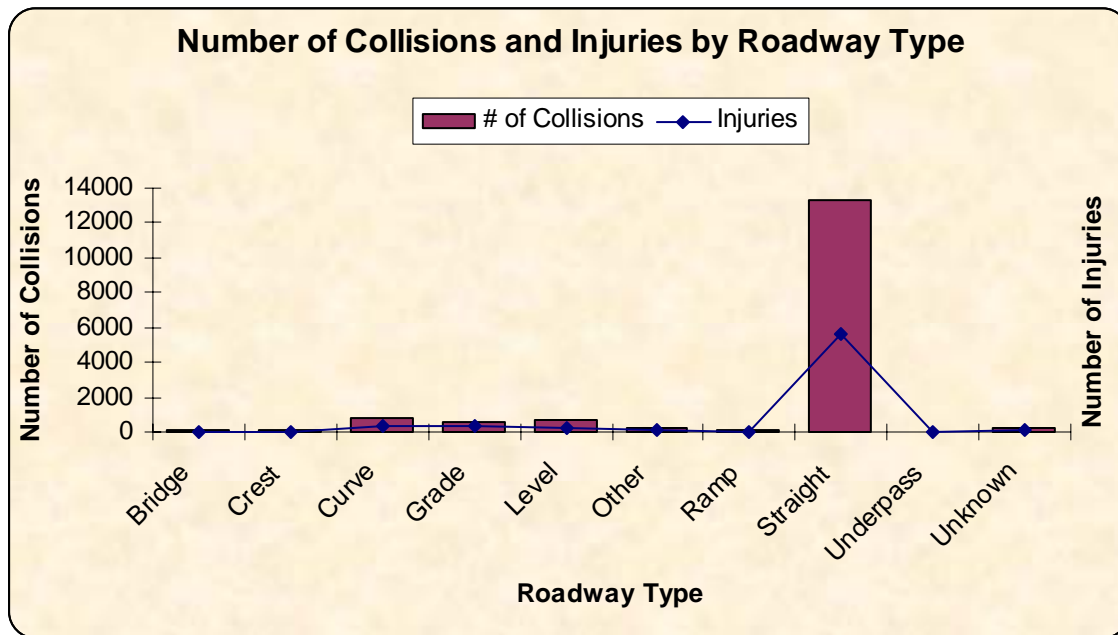


Figure 3.35 Number of Collisions and Injuries by Roadway Type

3.5.2 Collisions by Roadway Conditions

From Table 3.23 and Figure 3.36, the highest crashes were reported to have occurred on dry road conditions from 2006 through 2008. From the results, it can be stated that approximately 81% of the total motor vehicle crashes in 2008 occurred on dry roadways. The second highest (2,381 crashes) occurred on wet pavements which represents approximately 15% of the total crashes.

Table 3.23 Summary of Collisions by Road Condition

Road Condition	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Dry	13,547	18	5,940	12,390	18	5,479	13,051	24	5,527
Ice/Snow	62	0	29	423	2	135	65	0	32
Repairing	24	0	5	23	0	3	68	0	18
Wet	1,982	3	944	1,816	8	844	2,381	4	1,063
Other	0	0	0	0	0	0	35	1	15
Unknown	589	20	143	454	26	110	547	10	137
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

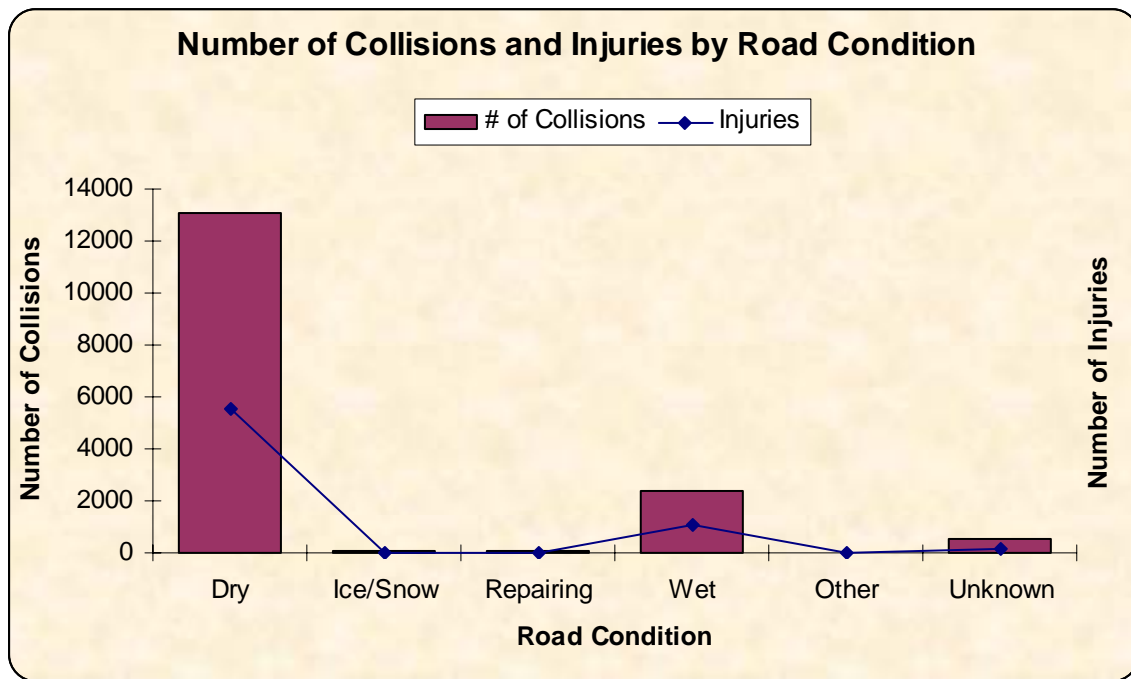


Figure 3.36 Number of Collisions and Injuries by Road Condition

3.5.3 Collisions by Road Surface

As observed from Table 3.24, it can be stated that crashes occurred most frequently on asphalt and concrete roadways from 2006 through 2008. The results also show that approximately 89% (14,441) of the total crashes occurred on asphalt roadways in 2008. This is followed by crashes on concrete surface, which constitutes approximately 9% (or 1,381) of the total reported motor vehicle collisions in 2008. As shown in Figure 3.37, concrete surface comprised of the highest number of reported collisions and injuries per lane-mile in 2008.

Table 3.24 Summary of Collisions by Roadway Surface

Roadway Surface	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Asphalt	14,828	18	6,512	13,802	27	6,000	14,441	24	6,078
Brick	36	0	9	14	0	8	38	0	10
Concrete	1,156	3	461	1,071	1	484	1,381	4	589
Dirt	13	0	5	10	0	4	16	0	9
Gravel	29	0	5	21	0	4	43	0	12
Other	36	0	15	40	0	11	43	1	22
Unknown	106	20	54	148	26	60	185	10	72
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

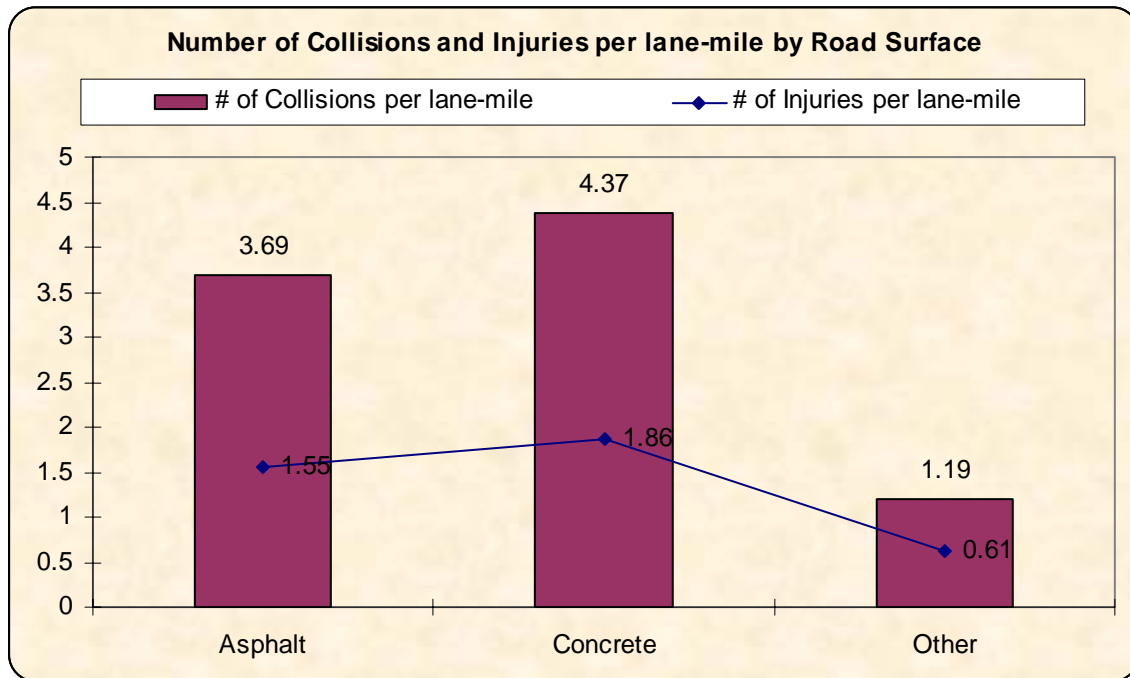


Figure 3.37 Number of Collisions and Injuries per lane-mile by Road Surface

3.5.4 Collisions by Weather Conditions

Adverse weather conditions contribute to motor vehicle crashes. Table 3.25 and Figure 3.38 show the summary of weather conditions-related crashes by severity type. From the results, it can be observed that majority of the crashes occurred during clear weather conditions. These collisions comprise of over 80% (or 12,963) of the total motor vehicle crashes in 2008. This is followed by crashes occurring during rainy conditions, which represents approximately 12% (or 1,986) of the total crashes in 2008.

Table 3.25 Summary of Collisions by Weather Condition

Weather Condition	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Clear	13,563	16	5,947	12,470	20	5,497	12,963	26	5,468
Fog/Mist	198	1	113	161	3	76	207	0	99
Rain	1,632	2	744	1,343	5	619	1,986	3	893
Sleet	8	0	1	73	0	35	38	0	12
Snow	44	0	25	301	0	108	67	0	20
Other	0	0	0	0	0	0	172	0	89
Unknown	759	22	231	758	26	236	714	10	211
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

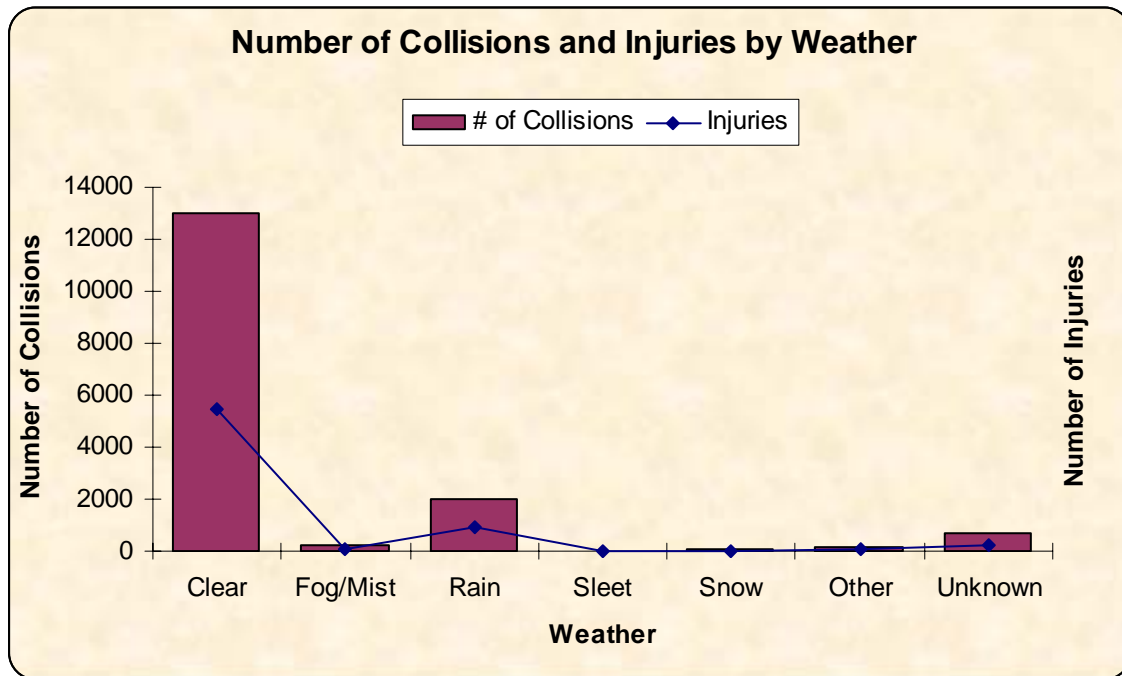


Figure 3.38 Number of Collisions and Injuries by Weather

3.5.5 Collisions by Light Conditions

Presence of street illumination is another important factor for determining the causes of motor vehicle crashes, especially during night driving. As shown in Table 3.26 and Figure 3.39, the majority of the reported crashes occurred on roadways where the streetlights were observed to be off (during daylight or night). These collisions occurred under such conditions in approximately 55% of the total reported crashes in 2008. Approximately 34% (5,428) of the total reported motor vehicle crashes in 2008 occurred on roadways when street illumination was existent.

Table 3.26 Summary of Collisions by Street Lighting

Street Lighting	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Street Lights On	5,211	12	2,133	5,099	17	2,213	5,428	17	2,312
Street Lights Off	9,237	7	4,378	8,448	7	3,847	8,959	9	3,894
Defective	12	0	9	6	0	4	29	0	14
Unknown	1,744	22	541	1,553	30	507	1,731	13	572
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

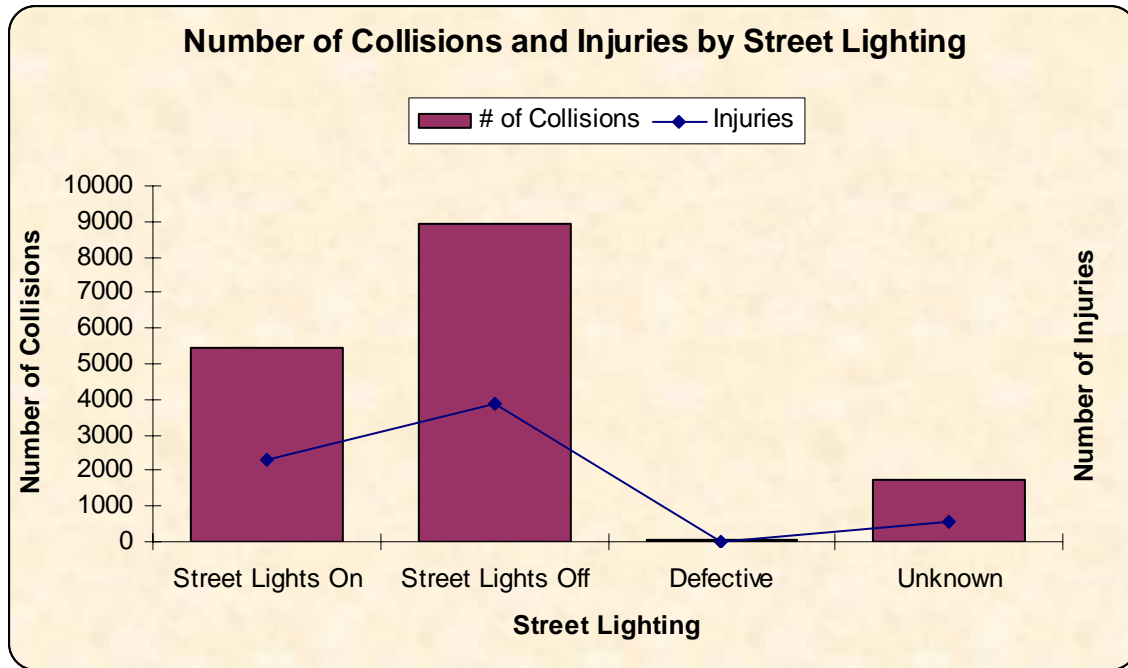


Figure 3.39 Number of Collisions and Injuries by Street Lighting

Furthermore, as shown in Table 3.27 and Figure 3.40, the majority of the crashes occurred during daylight conditions. These crashes consisted of approximately 60% (9,747) of the total reported motor vehicle crashes in 2008. About 33% (5,270) of the total reported crashes occurred in the dark which resulted in 18 fatalities and 2,200 injuries in 2008.

Table 3.27 Summary of Collisions by Light Condition

Light Condition	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Dark	4,728	13	1,939	4,699	18	2,049	5,270	18	2,200
Dawn/Dusk	919	0	381	725	3	299	576	0	251
Daylight	10,035	8	4,621	9,201	7	4,108	9,747	10	4,226
Unknown	522	20	120	481	26	115	554	11	115
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

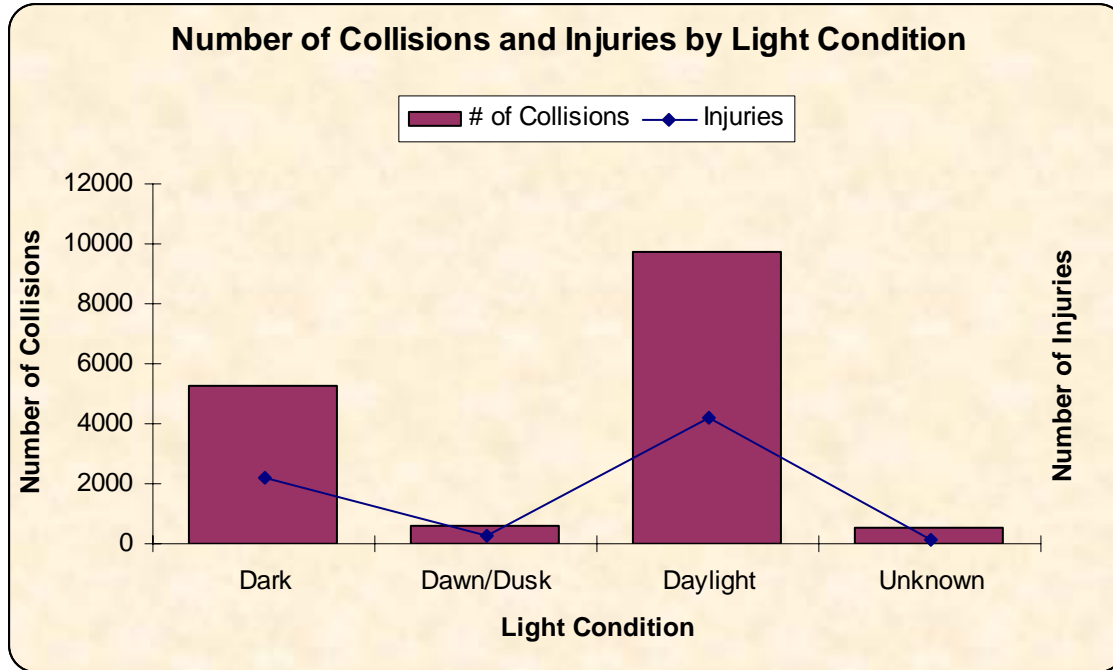


Figure 3.40 Number of Collisions and Injuries by Light Condition

3.5.6 Collisions by Traffic Conditions

Traffic condition is another new data field that was appended on the new traffic crash reports (PD-10 forms) to obtain the traffic volume conditions at the time of crash. This information was based on police officer’s observation of the traffic conditions. The summary of this information are presented in Table 3.28 and Figure 3.41. From the results, approximately 33% of the total reported crashes in 2008 occurred in light (5,404) and medium (5,344) traffic conditions.

Table 3.28 Summary of Collisions by Traffic Condition

Traffic Condition	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Heavy	2,817	1	1,407	2,612	3	1,341	2,771	3	1,338
Medium	5,595	3	2,821	5,261	5	2,619	5,344	11	2,517
Light	5,518	15	2,192	5,210	17	2,047	5,404	13	2,191
Other	620	0	74	339	0	0	345	2	61
Unknown	1,654	22	567	1,684	29	564	2,283	10	685
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

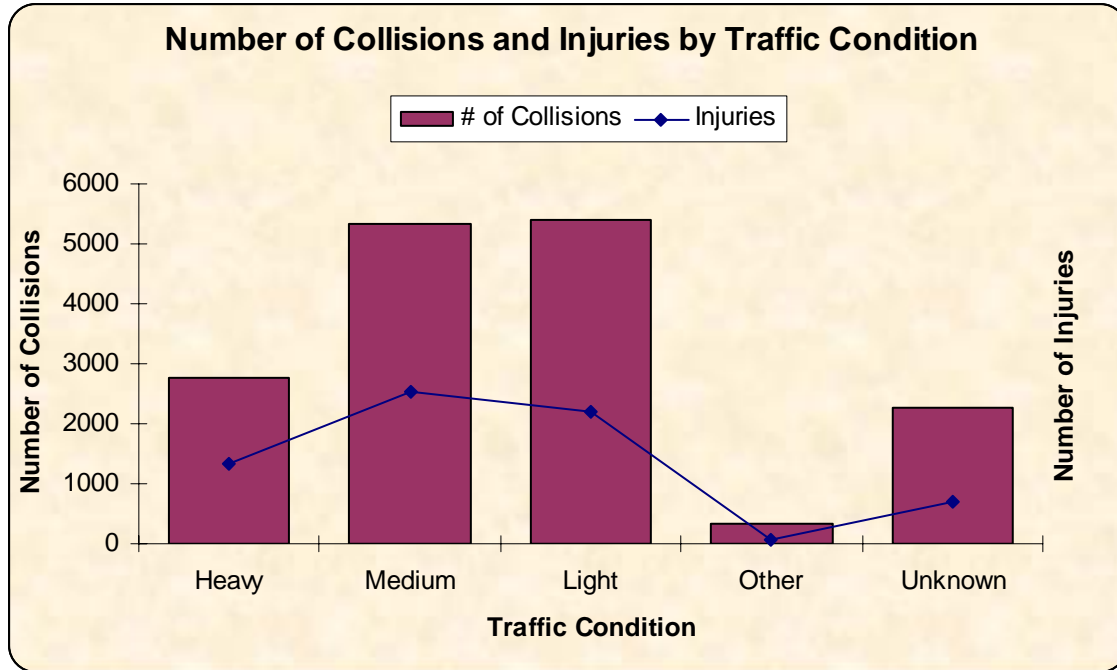


Figure 3.41 Number of Collisions and Injuries by Traffic Condition

3.5.7 Collisions by Traffic Control

Traffic control devices serve as an important vehicular and pedestrian guidance to ensure the safety of general public. The summary of crashes by the presence and type of traffic control device is presented in Table 3.29 and graphically in Figure 3.42 for 2008. From the results, approximately 38% of crashes were reported to have occurred at or close to a signalized intersection, while only 22% of intersections in DC are signalized (1,700 out of 7,700).

Table 3.29 Summary of Collisions by Traffic Control

Traffic Control	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
Signal	5,871	4	3,112	5,693	12	2,899	6,173	10	3,104
None	7,557	11	2,659	6,846	12	2,414	7,249	15	2,481
Stop Sign	1,572	2	795	1,529	2	860	1,552	1	815
Other	649	1	297	444	1	174	532	3	204
Unknown	555	23	198	594	27	224	641	10	188
Total	16,204	41	7,061	15,106	54	6,571	16,147	39	6,792

* Yield, flashing, turn restricted and officer were included in the traffic control category of "Other".

* Mid-block crashes were included in the traffic control category of "None".

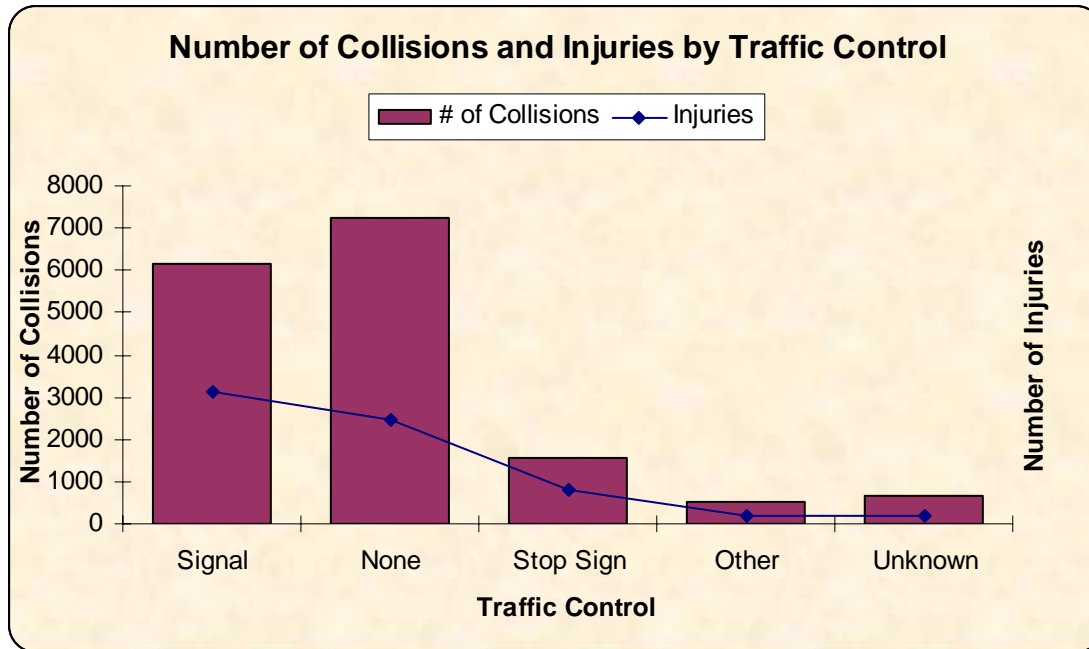


Figure 3.42 Number of Collisions and Injuries by Traffic Control

3.6 Contributing Circumstance

3.6.1 Collisions by Primary Crash Contributing Factors

Table 3.30 shows a summary of all reported contributing factors for crashes in DC from 2006 through 2008. As shown in the table, most of the crashes occurred when there were no violations or other contributing circumstances. The other prominent contributing factors to crashes reported in 2008 included driver inattention, automobile or pedestrian right of way and following too closely.

Table 3.30 Number of Collisions by Contributing Factors

Contributing Factor	Number of Collisions			Percentage		
	2006	2007	2008	2006	2007	2008
No Violation	12,917	12,144	12,718	45.07%	45.08%	45.83%
Other	4,353	4,063	4,509	15.19%	15.08%	16.25%
Driver Inattention	2,346	2,266	2,439	8.19%	8.41%	8.79%
Auto/Ped. Right of Way	2,022	1,743	1,505	7.06%	6.47%	5.42%
Following to Close	1,406	1,240	1,293	4.91%	4.60%	4.66%
Changing Lanes W/O Caution	1,010	1,027	1,115	3.52%	3.81%	4.02%
Speed	1,186	1,132	1,016	4.14%	4.20%	3.66%
Improper Backing	459	469	473	1.60%	1.74%	1.70%
Improper Passing	359	304	432	1.25%	1.13%	1.56%
Improper Turn	729	682	328	2.54%	2.53%	1.18%
Alcohol/Drug Influence	259	263	306	0.90%	0.98%	1.10%

Collision Characteristics

Red Light Violation*	0	0	301	0.00%	0.00%	1.08%
Stop Sign	216	260	238	0.75%	0.97%	0.86%
Pedestrian Violation	278	256	225	0.97%	0.95%	0.81%
stop/Go Light	444	473	181	1.55%	1.76%	0.65%
Open Door to Traffic	149	123	158	0.52%	0.46%	0.57%
Wrong Way/Side of the Street	198	178	155	0.69%	0.66%	0.56%
Driver Vision Obstructed	86	69	90	0.30%	0.26%	0.32%
Defective Brakes, Lights, etc.	89	88	76	0.31%	0.33%	0.27%
Flashing/Directional Light	42	41	58	0.15%	0.15%	0.21%
Yield Sign	23	23	29	0.08%	0.09%	0.10%
Cell Phone/Other Electronic Device*	0	0	26	0.00%	0.00%	0.09%
Right Turn on Red	8	13	22	0.03%	0.05%	0.08%
Fail to Set Parking Brake	18	18	21	0.06%	0.07%	0.08%
Road Defects	22	34	21	0.08%	0.13%	0.08%
Improper Starting	26	21	11	0.09%	0.08%	0.04%

* Newly included factors in the new PD-10 since May 2008

3.6.2 Collisions by Speed Violation

Speed is constantly being linked to the severity of a crash. In this report, the total motor vehicle crashes were divided into specific groups to identify the correlation between speed at the time of crash and collision type. The summary of crashes based on speeding is presented in Figure 3.34. From the results, approximately 26% of reported crash-fatalities in 2008 were speed-related. Additionally, the figure shows that approximately 16% of the total reported crashes that resulted in a disabling injury were attributed to speeding.

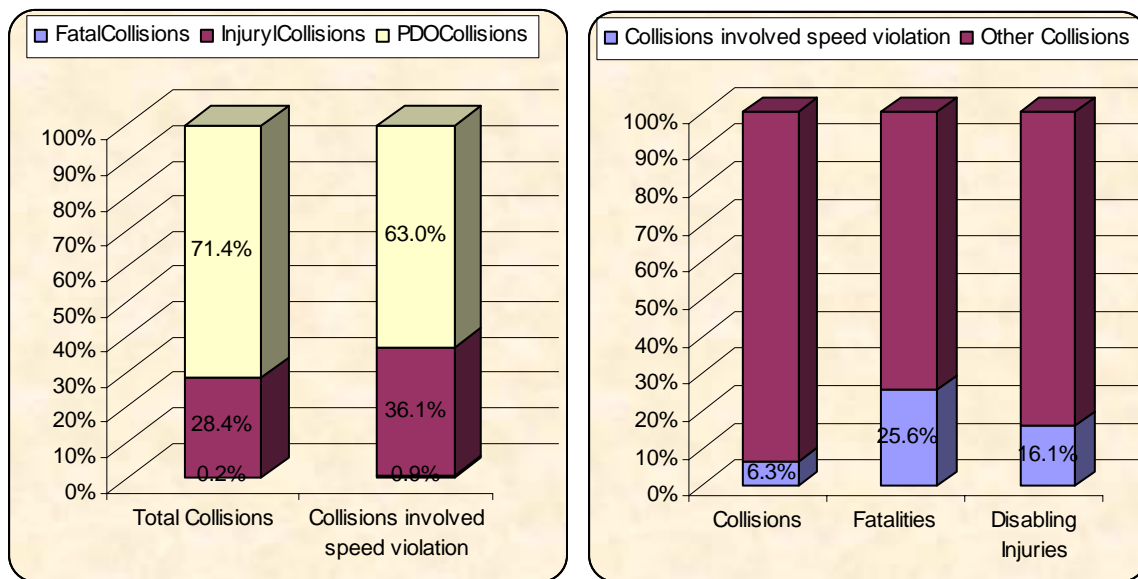


Figure 3.43 Collisions Severity involved Speed Violation in 2008

3.6.3 Collisions by Restraint Use (Seatbelts or Airbags)

As shown in many past research studies, restraint device usage has a significant influence on the injury severity of a crash. Overall, the result as presented in Table 3.31 shows that approximately 7% (1,673) of crashes in 2008 were reported as a result of air bag not installed or failed. Table 3.30 and Figure 3.44 show the summary of air bag usage by severity type.

Table 3.31 Number of Injures by Injury Code and Air Bag Restraint in 2008

Restraint	Fatal	Disabling	Non-Disabling	Complaint but not visible	None	Unknown	Total
Airbag Deployed	6	75	301	499	914	247	2,042
Airbag Installed	2	52	284	1,505	10,857	964	13,664
Belt/Bag Failed	0	4	41	116	639	82	882
Not Installed	0	5	31	80	648	27	791
Other	0	0	9	43	241	33	326
Side-Impact Airbags	0	1	4	10	20	3	38
Use Unknown	1	41	188	382	3,535	2,861	7,008
Total	9	178	858	2,635	16,854	4,217	24,751

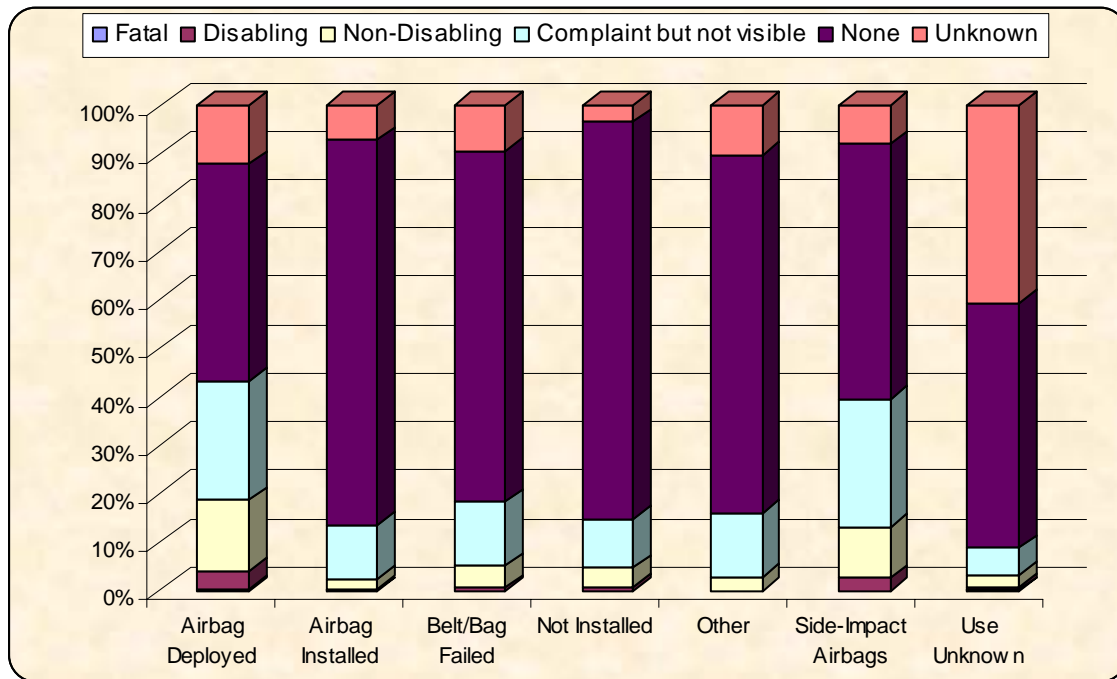


Figure 3.44 Collisions Severity by Air Bag Restraint in 2008

The use of seat belts is another important safety restraint device. The analysis focused on its usage to examine the correlation of severity of motor vehicle crashes and its usage. The results are presented on Table 3.32 and Figure 3.45. From the results presented,

approximately 54% (13,397) of drivers or passengers involved in crashes used their seat belts in 2008. Approximately 42% (10,375) of drivers or passengers involved in crashes were reported with unknown seat belt usage. Overall, only a small fraction (or approximately 2%) of drivers or passengers were reported with seat belt not installed or fastened.

Table 3.32 Number of Injuries by Injury Code and Seat Belt Restraint in 2008

Seat Belt	Fatal	Disabling	Non-Disabling	Complaint but not visible	None	Unknown	Total
Belt/Bag Failed	0	2	17	38	230	19	306
Child Restraint	0	1	0	0	5	1	7
Fastened	4	76	458	1,759	10,418	682	13,397
Helmet	1	9	17	6	11	1	45
Not Fastened	1	5	30	34	203	30	303
Not Installed	2	3	35	25	137	41	243
Other	0	1	3	8	47	16	75
Use Unknown	1	81	268	795	5,803	3,427	10,375
Total	9	178	828	2,665	16,854	4,217	24,751

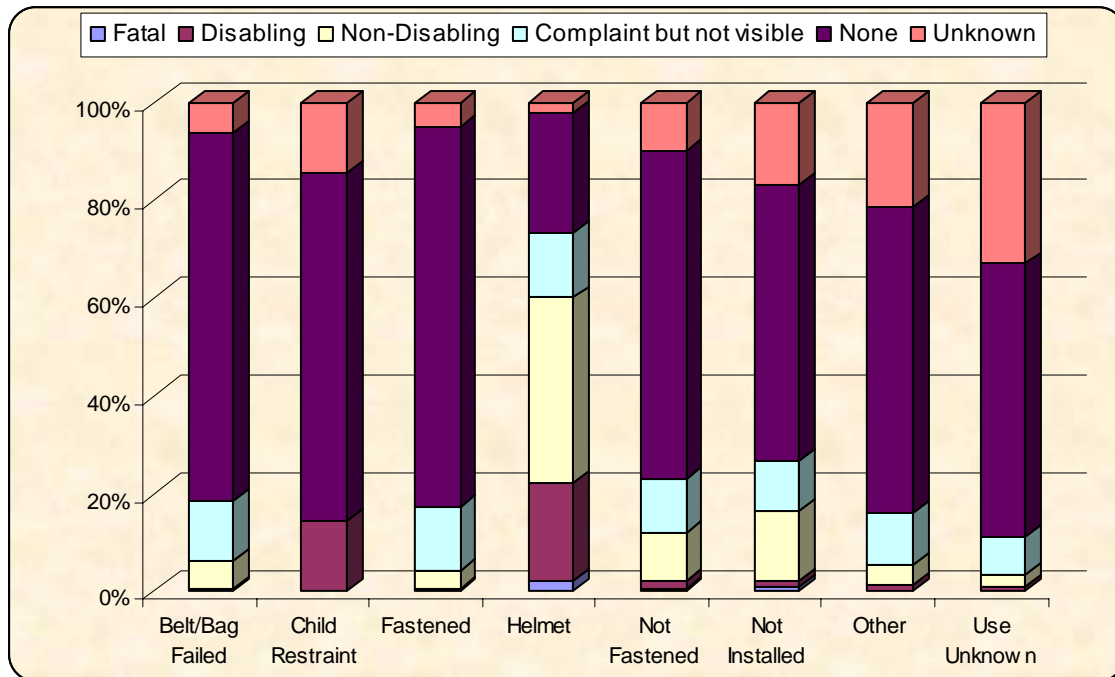


Figure 3.45 Collisions Severity by Seat Belt Restraint in 2008

3.6.4 Collisions by Alcohol/Drug Involvement

The use of alcohol and drugs has been noted to be one of the most significant contributory factors in the cause of crashes. The summary of alcohol/drug-related crashes is presented in Table 3.33 and Figure 3.46. It can be noted from the results that 11,591 (or approximately 47%) of the drivers or passengers involved in a crash in 2008 had not been drinking, whereas 4,144 (or approximately 17%) of drivers or passengers were determined to be impairment or unknown. Overall, only a small fraction of drivers or passengers were reported as “been drinking” and “obviously drunk” or “ability impaired”.

Table 3.33 Number of Collisions by Sobriety in 2008

Sobriety	Injury Collisions	PDO Collisions
Ability Impaired	55	112
Had Been Drinking and Obviously Drunk	77	207
Had Not Been Drinking	3,644	7,931
Impairment Unknown	738	3,390
Not Impaired	235	578
Other	435	1,806

Table 3.34 Fatalities by the Highest Blood Alcohol Concentration (BAC) in the Crash

Year	Total Fatalities	BAC* > 0.01		BAC* > 0.08	
		Number	Percentage	Number	Percentage
2006	41	19	46.3%	18	43.9%
2007	54	26	48.1%	24	44.4%
2008	39	15	38.5%	10	25.6%

* BAC information is from National Highway Traffic Safety Administration.

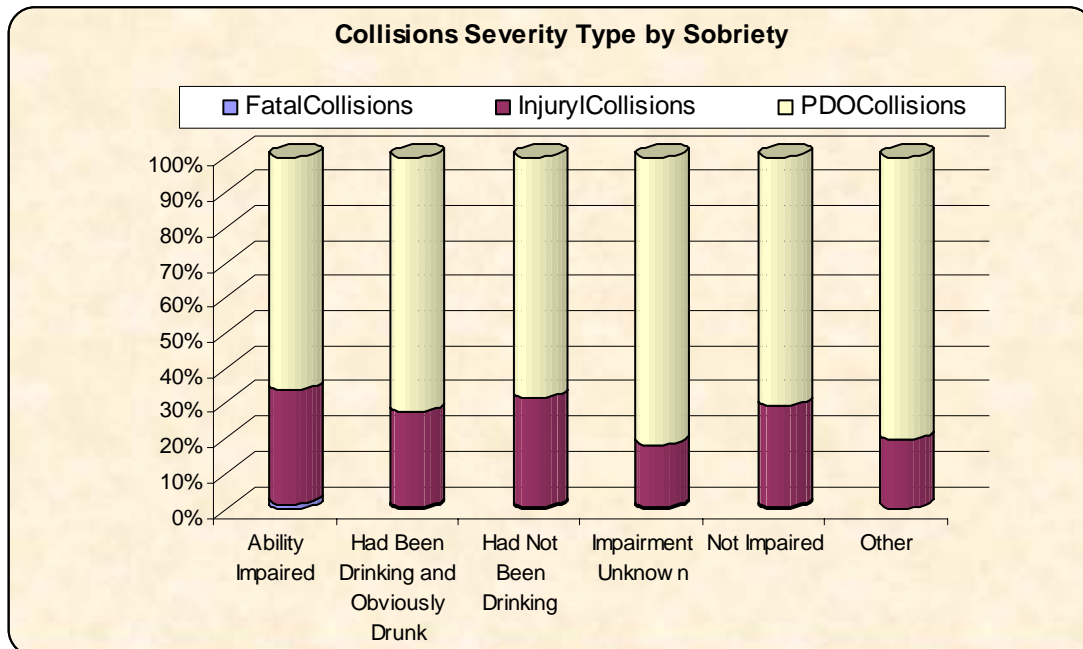


Figure 3.46 Collisions Severity by Sobriety in 2008

3.6.5 Collisions by Drivers or Pedestrians Distractions

Driver or pedestrian distractions are the leading cause of most motor vehicle crashes. For this report, it is of interest to examine the causes and severity of distraction-related collisions in the District. Table 3.35 and Figure 3.47 present a summary of recorded distraction-related crashes in 2008. The most prominent distraction was the use of cell phones, although the highest cause of distraction-related crash was listed as unknown.

Table 3.35 Number of Collisions by Driver or Pedestrian Distractions

Distraction	Fatal Collisions	Injury Collisions	PDO Collisions	Total
Cell phone (hand held)	0	30	80	110
Cell phone (hands-free)	0	12	11	23
Distracted by passenger(s)	0	6	19	25
Eating	0	0	4	4
Interacting w/ Pets	0	3	3	6
Interacting w/ unsecured cargo	0	11	9	20
Other	0	196	374	570
Personal Grooming	0	1	1	2
Reading	0	2	7	9
Using personal comm. technologies	0	2	5	7
Writing	0	1	3	4

Note: The information of driver or pedestrian distractions is only reported in the new PD-10 form since May 2008.

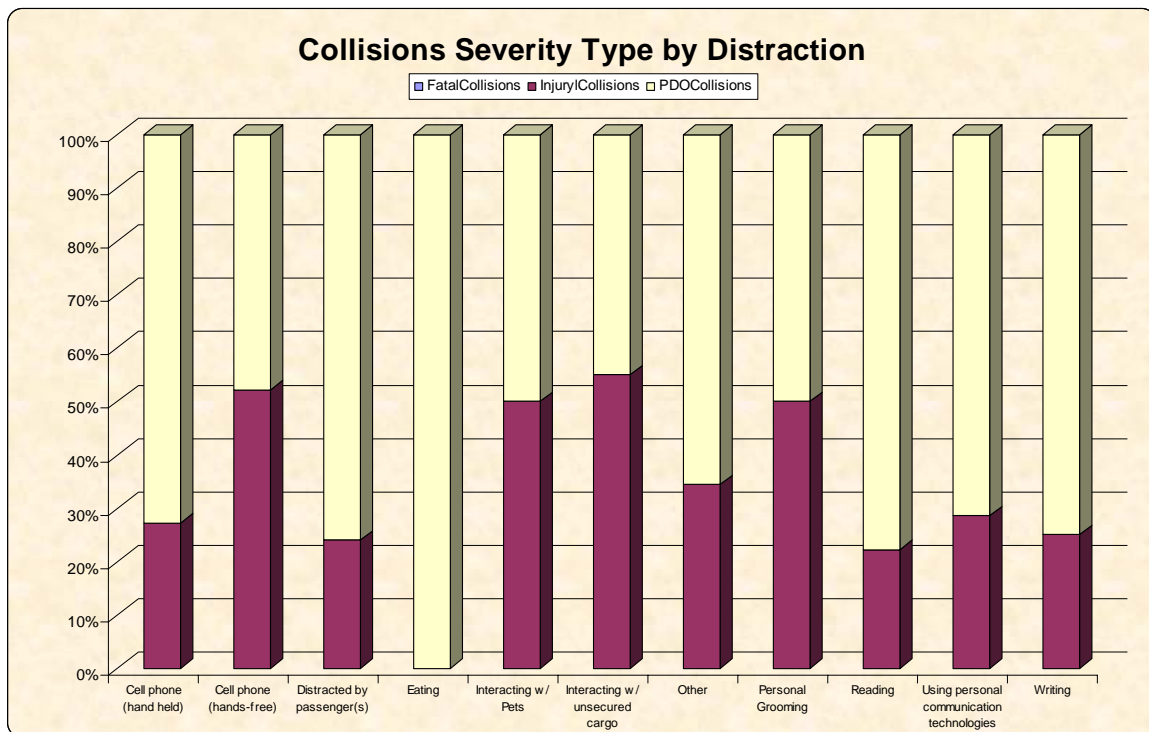


Figure 3.47 Collisions Severity by Distraction

CHAPTER 4 HIGH FREQUENCY CRASH LOCATIONS

4.1 Methodology

This report provides a comprehensive view of the city-wide traffic collisions data and to identify high occurrences of traffic accidents and patterns from 2006 through 2008. This report utilized several statistical methods to identify and rank the locations with the highest crashes, based on a number of assumptions.

In order to accurately identify the true characteristics of street intersections or corridors, this report utilized step-by-step computational procedures to examine the crash experience. As a first step of the crash analysis procedure, the crash occurrences, rates and severity were computed on the basis of the raw number of crashes, traffic volumes and crash severity classes. These statistics served as important basis, which were used to compare the results. The high frequency crash locations were analyzed using the delta change and composite index methods. These statistical procedures utilize the computed crash frequency, rates and severity to estimate the high frequency crash locations.

4.1.1 Crash Frequency

The crash frequency is calculated based on the number of crash occurrences at particular crash locations over a period of time. With the high frequency crash locations identified, the crash locations were ranked based on the number of crash occurrences. The higher the crash occurrence at a location, the higher its ranking.

Although the crash frequency computations provided initial overview of the crash experience at various crash locations, this methodology uses only the accident counts from the sites to estimate the high crash locations. In essence, the degree of precision in this method may not be as accurate, as the ranking of the crash locations was computed solely based on the number of crash occurrences.

4.1.2 Crash Rate

The crash rate is another method that frequently used for crash analyses. This technique utilizes the crash occurrences and traffic volume to determine the rate in crashes per million entering vehicles (C/MEV). The following is the equation of the crash rate described.

$$R = \frac{A * 1,000,000}{V * 365} \quad \text{(Equation 1)}$$

Where:

R = Crash Rate for an intersection (crashes per Million Entering Vehicles (MEV));

A = Average number of crashes at the study location per year; and

V = Volume at the study location, Average Daily Traffic (ADT).

On the basis of the technique used to compute and rank the high frequency crash locations, it can be observed that the crash rate method appears to be more accurate as compared to crash frequency, since it takes the traffic volume of the location into account. Nonetheless, this method has its limitations as the identification of irregular low traffic volume locations may result in many high crash locations. The observation also suggests that the combination of crash rates, crash frequency and crash costs may reduce the skew and variation of potential high frequency crash locations.

4.1.3 Crash Severity (Crash Cost)

The new and old Traffic Crash Reports (or PD-10 forms) consist of data fields that indicate the injury severity for each person involved in a crash. These codes provided police officers' observations regarding the injury conditions of the persons involved in the crash. Nevertheless, in order to properly assess the severity effect, the type of crash information such as fatality, injury and property damage only (PDO) were utilized as the primary information to determine the severity of a crash. This measure was intended to prevent inaccuracies in the crash severity information. For instance, the injury conditions information may be updated to more severe based on information received after the person involved in the crash was sent to hospital. The follow-up potential fatality information were verified and scrutinized based on the best available data maintained by DDOT.

For the purpose of this report, fatality occurrences were converted to injury in order to mitigate the random chance effect. Additionally, the traffic accident costs were computed for each intersection/location to identify the severity indices, with the higher value of severity indices indicate significant levels of incapacitation. Once the severity indices were identified, the crash locations were arranged in descending order based on the severity index with number one being the highest rank.

4.1.4 Crash Composite Index

The composite index is a useful statistical measure to identify the overall risks involved in traffic accidents for particular intersections. The composite index equation utilizes the combination of rankings for crash frequency, rate and severity to provide the overall risks of high frequency crash locations. The following is the equation of the composite index:

$$\text{Composite Index} = 0.25*RF + 0.25*RR + 0.50*RS \quad (\text{Equation 2})$$

Where:

RS = Rank of crash frequency;

RR = Rank of crash rate; and

RF = Rank of crash severity.

In order to accurately assess the high frequency crash locations, the composite index equation uses the weighted normalized ranks of crash frequency, rate and severity to determine the rankings. These factors were weighted based on the values of 0.25, 0.25 and 0.50, respectively. Once the composite indices were identified, the high crash locations were arranged in descending order based on the computed indices. As the final step of this composite index procedure, the locations were numerically ranked with number one being the highest rank.

4.1.5 Delta Change

The delta-change method is the change in the number of crashes over time using the slope of a linear regression line. This technique utilizes the computation of the slope to determine the increase or decrease of crashes for a study location. In essence, the delta-change represents the crash trend over a period of time with the positive and negative slope values signifying an increase and decrease in crashes, respectively. Additionally, the results are also an indication whether traffic crashes may increase over time, with the higher slope values indicating that the crashes are increasing at a higher rate. The following is the equation of the delta-change method:

$$\frac{n\sum xy - \sum x \sum y}{n\sum x^2 - (\sum x)^2} \quad (\text{Equation 3})$$

Where:

n = Number of years;

x = Year of study; and

y = Number of crashes at study location in year x.

4.2 Identification of High Frequency Crash Intersections

As the first step of determining the high frequency crash locations, the crash occurrences for various intersections from 2006 through 2008 were compiled and arranged to identify the high frequency crash location rankings. On the basis of the results, it can be determined that the intersection of New York Avenue and Bladensburg Road was consistently ranked the highest from 2006 through 2008. Furthermore, the intersection of Firth Sterling Avenue and Suitland parkway was found to be the second highest among all intersections presented. Overall, the intersection of New York Avenue and Bladensburg road was found to be the most hazardous intersection in the District from 2005 through 2008 on the basis of the number of crash occurrences.

Nevertheless, when traffic volume was taken into consideration, the crash rate computations revealed that 14th Street and C Street, and 14th Street and U Street were ranked the highest among all intersections in the District. These crash rates were calculated based on the Equation 1 in chapter 4.1.

Similarly, for the crash cost computations, the results revealed that the intersections of New York Avenue and Bladensburg Road, and Firth Sterling Avenue and Suitland Parkway were ranked the highest among all intersections presented. As shown in these figures and tables, the crash costs of these two intersections were observed to be relatively higher than the crash cost of other intersections presented.

As stated earlier, in order to examine the true effect of high frequency crash locations, this report utilized the composite index and delta change methods to identify the true characteristics of street intersections or corridors in the District. On the basis of the results, it can be determined that the intersections of Firth Sterling Avenue and Suitland Parkway, and Kenilworth Avenue and East Capitol Street were ranked the highest in the composite index and delta change methods, respectively.

The low composite index determined for the intersection of Firth Sterling Avenue and Suitland Parkway indicates that the overall risks involved for this intersection is relatively higher as compared with other intersections. For the delta change method, the computed

results revealed a positive delta change value for the intersection of Kenilworth Avenue and East Capitol Street, which indicates an increase in motor vehicle crashes for this location. Furthermore, the delta change value for this intersection, which was relatively higher than other intersections, indicates that the traffic crashes may increase over time at a higher rate.

For the purpose of this report, only the top 20 locations were presented for discussion purposes in each of the subsections. The complete list of the top 100 high frequency crash locations is presented in the Appendix.

4.2.1 Rank by Number of Crash for Each Year

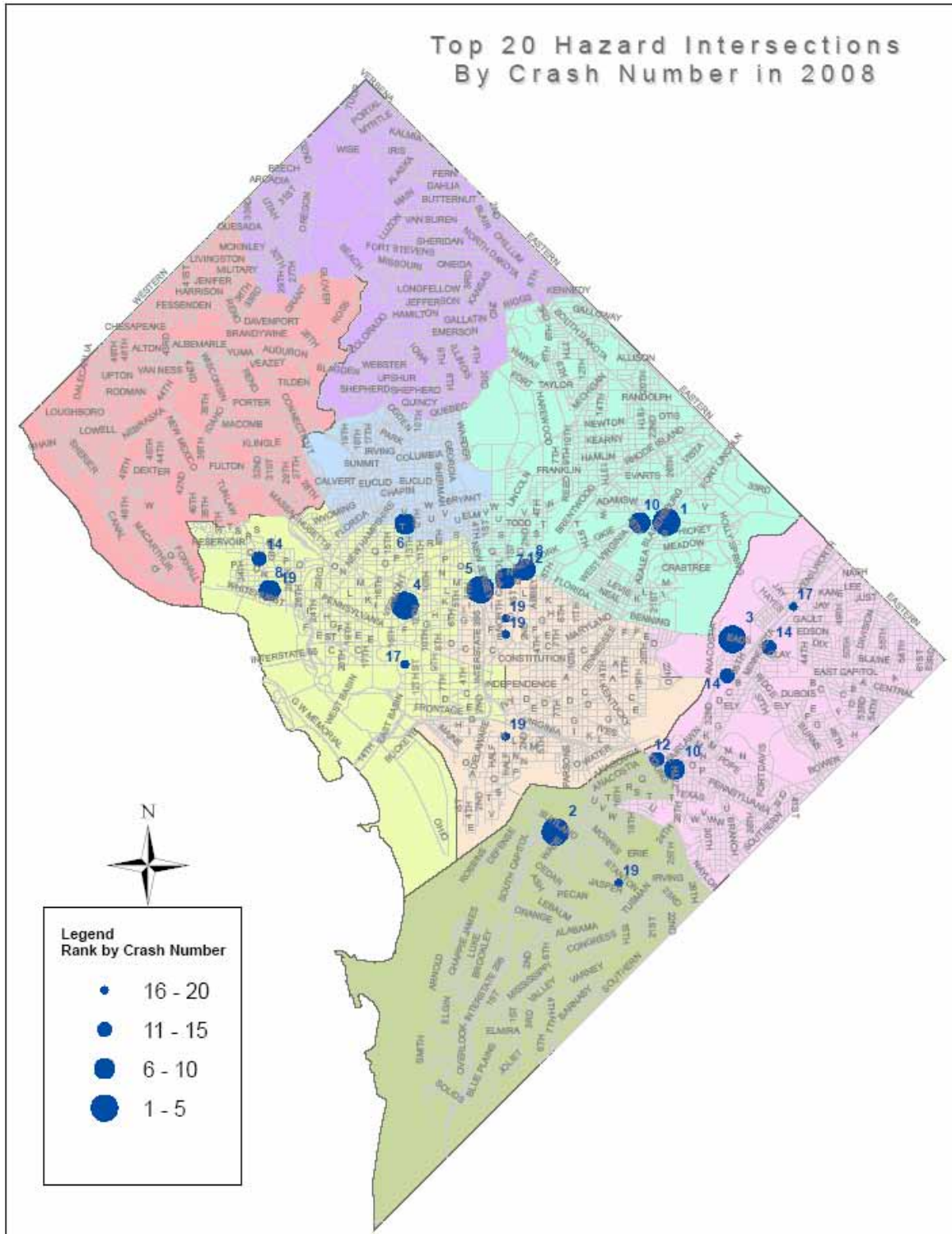


Figure 4.1 Top 20 Hazardous Intersections by Number of Crash Occurrences (for Each Year)

High Frequency Crash Locations

Table 4.1 Top 20 Hazardous Intersections by Number of Crash Occurrences (for Each Year)

INTERSECTION NAME	QUAD	2006		2007		2008	
		Num. Crash	Rank	Num. Crash	Rank	Num. Crash	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	84	1	84	1	90	1
FIRTH STERLING AVE AND SUITLAND PKWY	SE	54	3	45	8	54	2
KENILWORTH AVE AND BENNING RD	NE	64	2	27	31	49	3
14TH ST AND K ST	NW	37	19	28	29	48	4
NEW JERSEY AVE AND NEW YORK AVE	NW	52	5	39	11	44	5
14TH ST AND U ST	NW	44	9	30	24	43	6
NEW YORK AVE AND NORTH CAPITOL ST	OTH	54	3	56	2	42	7
WISCONSIN AVE AND M ST	NW	48	7	50	3	41	8
FLORIDA AVE AND NEW YORK AVE	NE	50	6	28	29	41	8
MONTANA AVE AND NEW YORK AVE	NE	41	11	44	9	36	10
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	25	42	48	4	36	10
1ST ST AND NEW YORK AVE	NE	35	22	37	13	35	12
PENNSYLVANIA AVE AND ANACOSTIA FRWY	SE	22	52	42	10	35	12
MINNESOTA AVE AND BENNING RD	NE	33	25	47	5	34	14
KENILWORTH AVE AND EAST CAPITOL ST	OTH	3	300	36	15	34	14
WISCONSIN AVE AND Q ST	NW	14	141	12	177	34	14
14TH ST AND CONSTITUTION AVE	NW	45	8	36	15	33	17
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	23	48	26	34	33	17
H ST AND NORTH CAPITOL ST	OTH	36	20	46	6	32	19
STANTON RD AND SUITLAND PKWY	SE	42	10	35	17	32	19

4.2.2 Rank by Number of Crash for Three Years

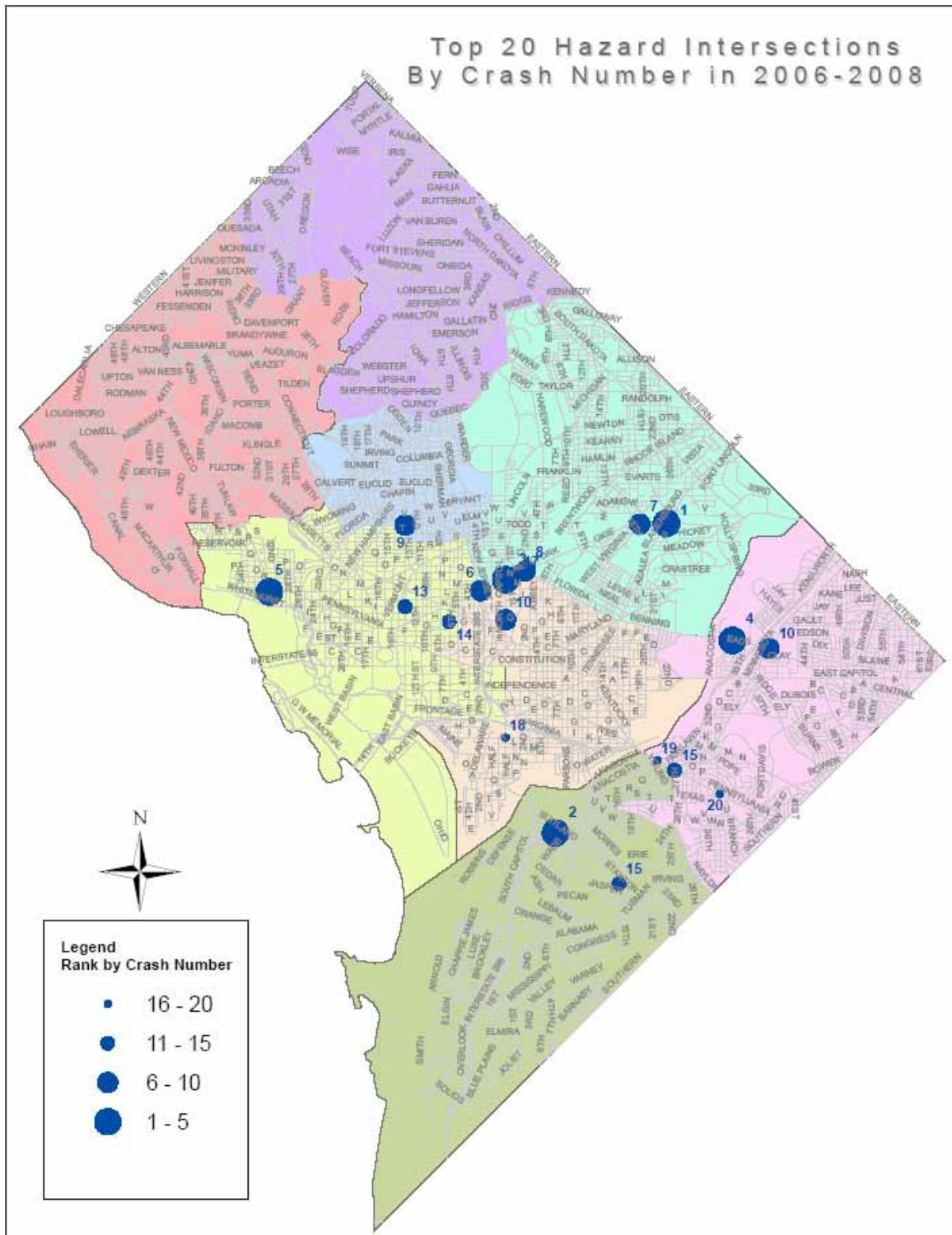


Figure 4.2 Top 20 Hazardous Intersections by Number of Crash Occurrences from 2006 through 2008

Table 4.2 Top 20 Hazardous Intersections by Number of Crash Occurrences for Three Years

INTERSECTION NAME	QUAD	2005-2007		2006-2008	
		Num. Crash	Rank	Num. Crash	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	281	1	258	1
FIRTH STERLING AVE AND SUITLAND PKWY	SE	147	5	153	2
NEW YORK AVE AND NORTH CAPITOL ST	OTH	172	2	152	3
KENILWORTH AVE AND BENNING RD	NE	153	3	140	4
WISCONSIN AVE AND M ST	NW	133	6	139	5
NEW JERSEY AVE AND NEW YORK AVE	NW	148	4	135	6
MONTANA AVE AND NEW YORK AVE	NE	132	8	121	7
FLORIDA AVE AND NEW YORK AVE	NE	128	10	119	8
14TH ST AND U ST	NW	109	16	117	9
MINNESOTA AVE AND BENNING RD	NE	129	9	114	10
H ST AND NORTH CAPITOL ST	OTH	124	11	114	10
14TH ST AND CONSTITUTION AVE	NW	120	12	114	10
14TH ST AND K ST	NW	96	23	113	13
7TH ST AND H ST	NW	114	15	110	14
STANTON RD AND SUITLAND PKWY	SE	117	13	109	15
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	115	14	109	15
1ST ST AND NEW YORK AVE	NE	108	17	107	17
I ST AND S CAPITOL ST	OTH	133	6	105	18
PENNSYLVANIA AVE AND ANACOSTIA FRWY	SE	89	27	99	19
BRANCH AVE AND PENNSYLVANIA AVE	SE	105	20	97	20

4.2.3 Rank by Crash Rate for Each Year

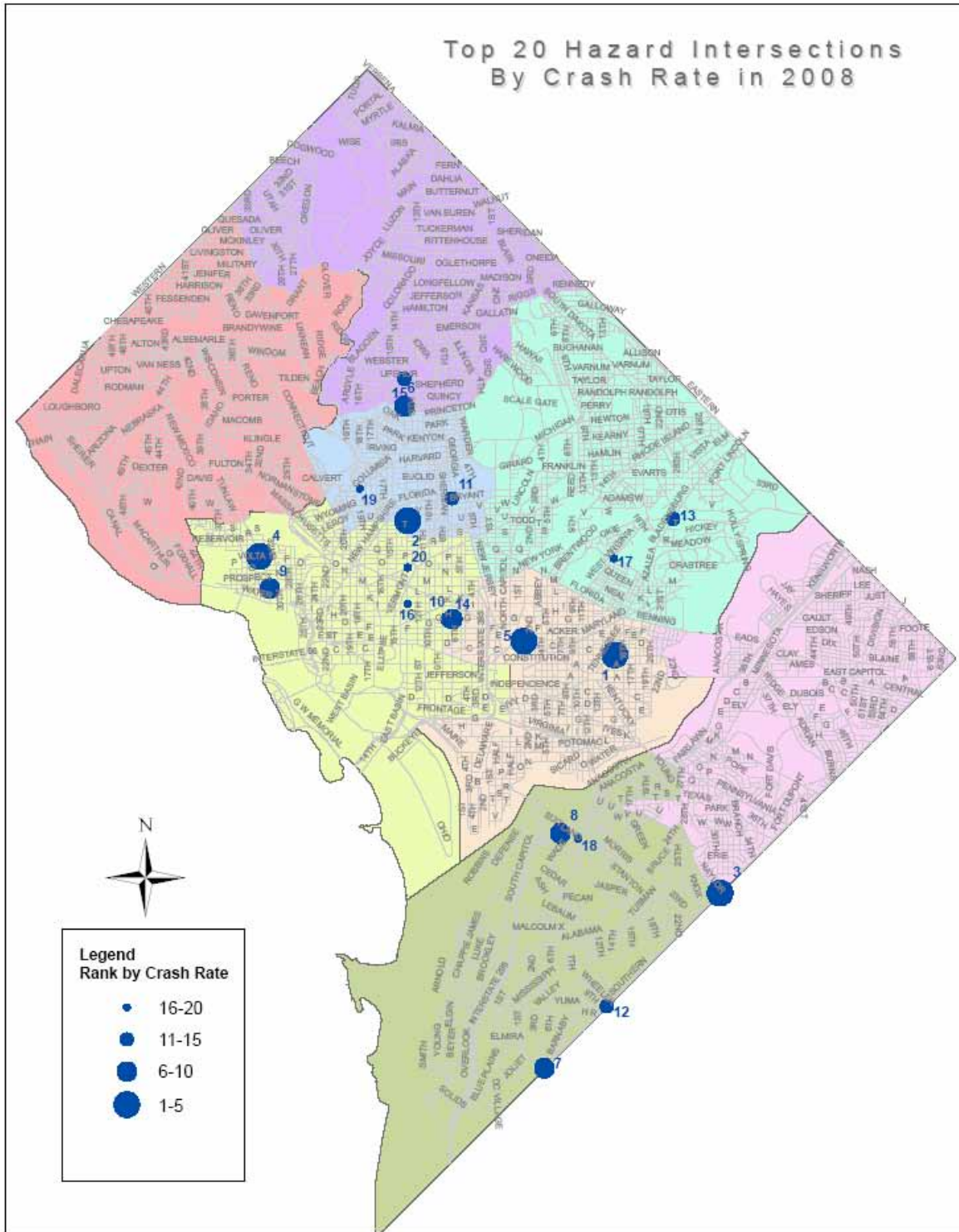


Figure 4.3 Top 20 Hazardous Intersections by Crash Rates for Each Year

High Frequency Crash Locations

Table 4.3 Top 20 Hazardous Intersections by Crash Rates for Each Year

INTERSECTION NAME	QUAD	2006		2007		2008	
		Crash Rate	Rank	Crash Rate	Rank	Crash Rate	Rank
14TH ST AND C ST	NE	3.87	2	4.76	1	4.47	1
14TH ST AND U ST	NW	4.14	1	2.82	12	4.05	2
SOUTHERN AVE AND NAYLOR RD	OTH	2.47	22	4.11	4	3.56	3
WISCONSIN AVE AND Q ST	NW	1.43	89	1.23	91	3.48	4
1ST ST AND MASSACHUSETTS AVE	NE	2.12	34	1.63	56	3.42	5
14TH ST AND SPRING RD	NW	3.48	8	1.84	41	3.27	6
SOUTHERN AVE AND S CAPITOL ST	OTH	3.45	9	3.45	8	3.12	7
FIRTH STERLING AVE AND SUITLAND PKWY	SE	3.07	14	2.56	15	3.07	8
WISCONSIN AVE AND M ST	NW	3.53	7	3.67	6	3.01	9
7TH ST AND H ST	NW	3.34	10	4.53	2	2.95	10
GEORGIA AVE AND BARRY PL	NW	3.23	12	1.35	79	2.83	11
SOUTHERN AVE AND WHEELER RD	OTH	3.76	5	2.71	13	2.71	12
NEW YORK AVE AND BLADENSBURG RD	NE	2.49	20	2.49	17	2.66	13
8TH ST AND H ST	NW	1.05	142	1.75	50	2.62	14
14TH ST AND UPSHUR ST	NW	1.99	38	1.39	73	2.59	15
14TH ST AND K ST	NW	1.98	41	1.50	66	2.57	16
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	2.27	26	3.35	9	2.49	17
MARTIN LUTHER KING AVE AND HOWARD RD	SE	1.82	51	2.21	27	2.47	18
18TH ST AND COLUMBIA RD	NW	3.80	3	1.65	54	2.43	19
14TH ST AND RHODE ISLAND AVE	NW	1.84	50	1.45	69	2.42	20

4.2.4 Rank by Crash Rate for Three Years

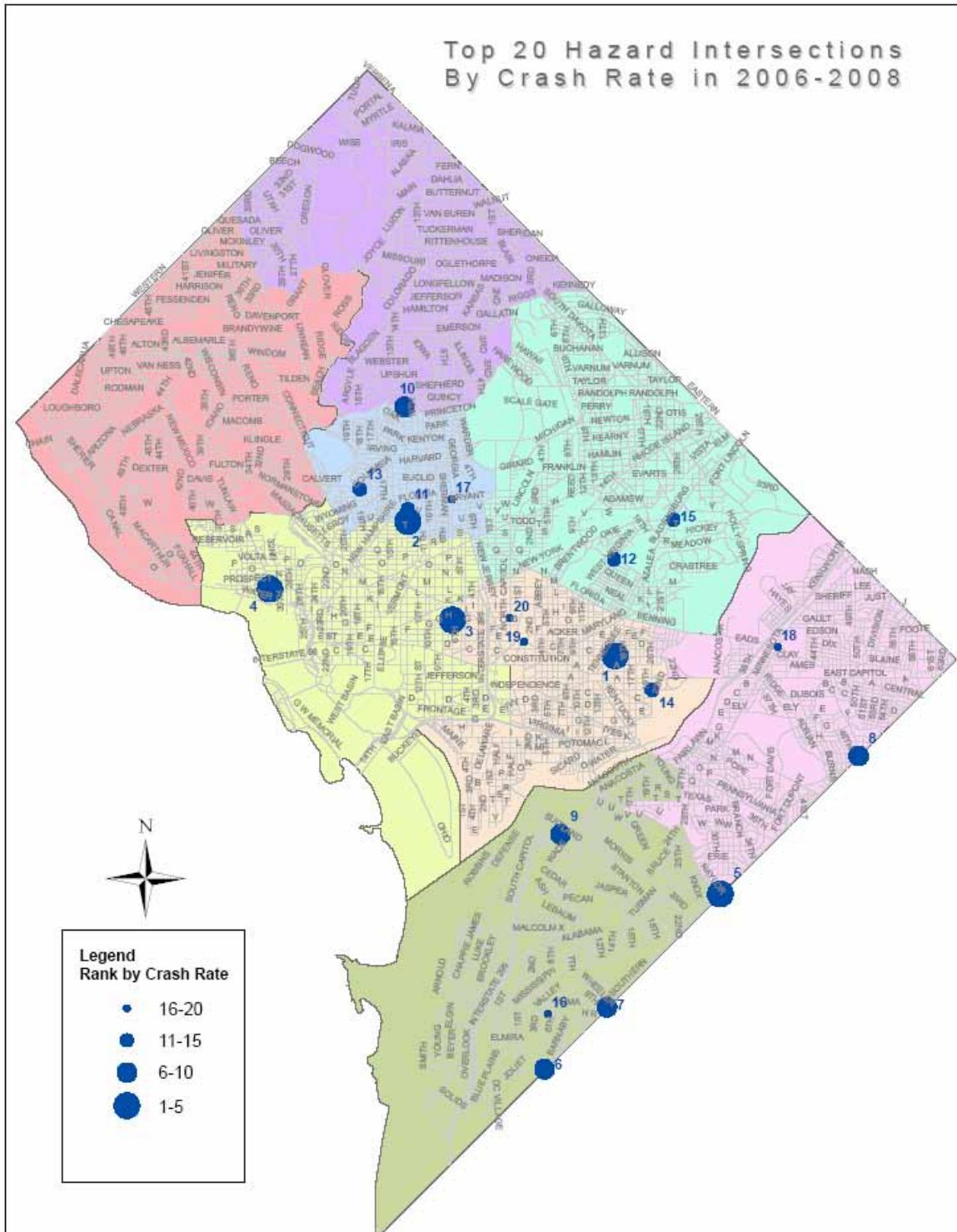


Figure 4.4 Top 20 Hazardous Intersections by Crash Rates from 2006 through 2008

Table 4.4 Top 20 Hazardous Intersections by Crash Rates for Three Years

INTERSECTION NAME	QUAD	2005-2007		2006-2008	
		Crash Rate	Rank	Crash Rate	Rank
14TH ST AND C ST	NE	4.86	1	4.37	1
14TH ST AND U ST	NW	3.42	7	3.67	2
7TH ST AND H ST	NW	3.74	4	3.61	3
WISCONSIN AVE AND M ST	NW	3.26	9	3.40	4
SOUTHERN AVE AND NAYLOR RD	OTH	4.02	2	3.38	5
SOUTHERN AVE AND S CAPITOL ST	OTH	3.83	3	3.34	6
SOUTHERN AVE AND WHEELER RD	OTH	3.46	6	3.06	7
SOUTHERN AVE AND BENNING RD	OTH	3.59	5	2.97	8
FIRTH STERLING AVE AND SUITLAND PKWY	SE	2.79	13	2.90	9
14TH ST AND SPRING RD	NW	2.93	11	2.86	10
14TH ST AND W ST	NW	3.21	10	2.70	11
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	2.74	16	2.70	12
18TH ST AND COLUMBIA RD	NW	2.79	12	2.63	13
19TH ST AND INDEPENDENCE AVE	SE	2.52	21	2.57	14
NEW YORK AVE AND BLADENSBURG RD	NE	2.77	15	2.54	15
4TH ST AND ATLANTIC ST	SE	2.14	30	2.51	16
GEORGIA AVE AND BARRY PL	NW	2.60	19	2.47	17
MINNESOTA AVE AND BENNING RD	NE	2.72	17	2.40	18
1ST ST AND MASSACHUSETTS AVE	NE	3.37	8	2.39	19
H ST AND NORTH CAPITOL ST	OTH	2.57	20	2.36	20

4.2.5 Rank by Crash Severity for Each Year

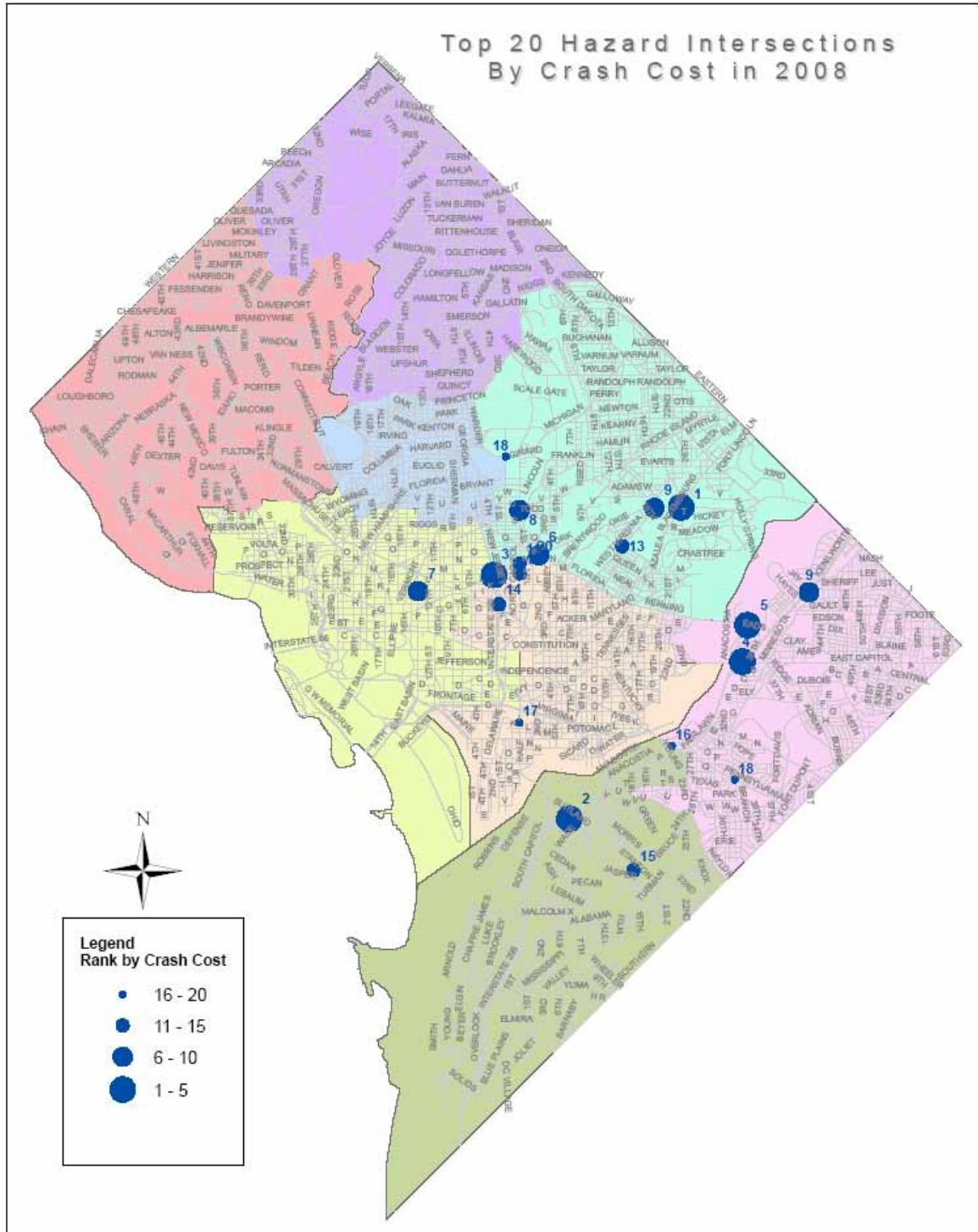


Figure 4.5 Top 20 Hazardous Intersections by Crash Severities for Each Year

High Frequency Crash Locations

Table 4.5 Top 20 Hazardous Intersections by Crash Severities for Each Year

INTERSECTION NAME	QUAD	2006		2007		2008	
		Crash Severity	Rank	Crash Severity	Rank	Crash Severity	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	1,624	1	993	1	1,197	1
FIRTH STERLING AVE AND SUITLAND PKWY	SE	1,013	2	662	3	936	2
NEW JERSEY AVE AND NEW YORK AVE	NW	653	4	503	12	686	3
KENILWORTH AVE AND EAST CAPITOL ST	OTH	45	299	605	5	681	4
KENILWORTH AVE AND BENNING RD	NE	833	3	423	23	660	5
FLORIDA AVE AND NEW YORK AVE	NE	648	5	330	41	618	6
14TH ST AND K ST	NW	377	31	324	43	557	7
RHODE ISLAND AVE AND N. CAPITOL ST	OTH	308	49	180	132	518	8
MONTANA AVE AND NEW YORK AVE	NE	536	8	551	9	497	9
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	300	50	492	14	497	9
NEW YORK AVE AND NORTH CAPITOL ST	OTH	615	6	738	2	474	11
M ST AND NORTH CAPITOL ST	OTH	270	63	240	75	446	12
WEST VIRGINIA AVE AND M. OLIVET RD	NE	225	86	422	24	440	13
2ND ST AND H ST	NW	360	34	527	11	435	14
STANTON RD AND SUITLAND PKWY	SE	533	9	422	24	429	15
PENN. AVE AND ANACOSTIA FRWY	SE	324	43	635	4	428	16
I ST AND S CAPITOL ST	OTH	345	37	542	10	422	17
BRANCH AVE AND PENNSYLVANIA AVE	SE	420	22	353	36	399	18
1ST ST AND MICHIGAN AVE	NW	203	110	227	84	399	18
1ST ST AND NEW YORK AVE	NE	458	17	398	28	398	20

4.2.6 Rank by Crash Severity for Three Years

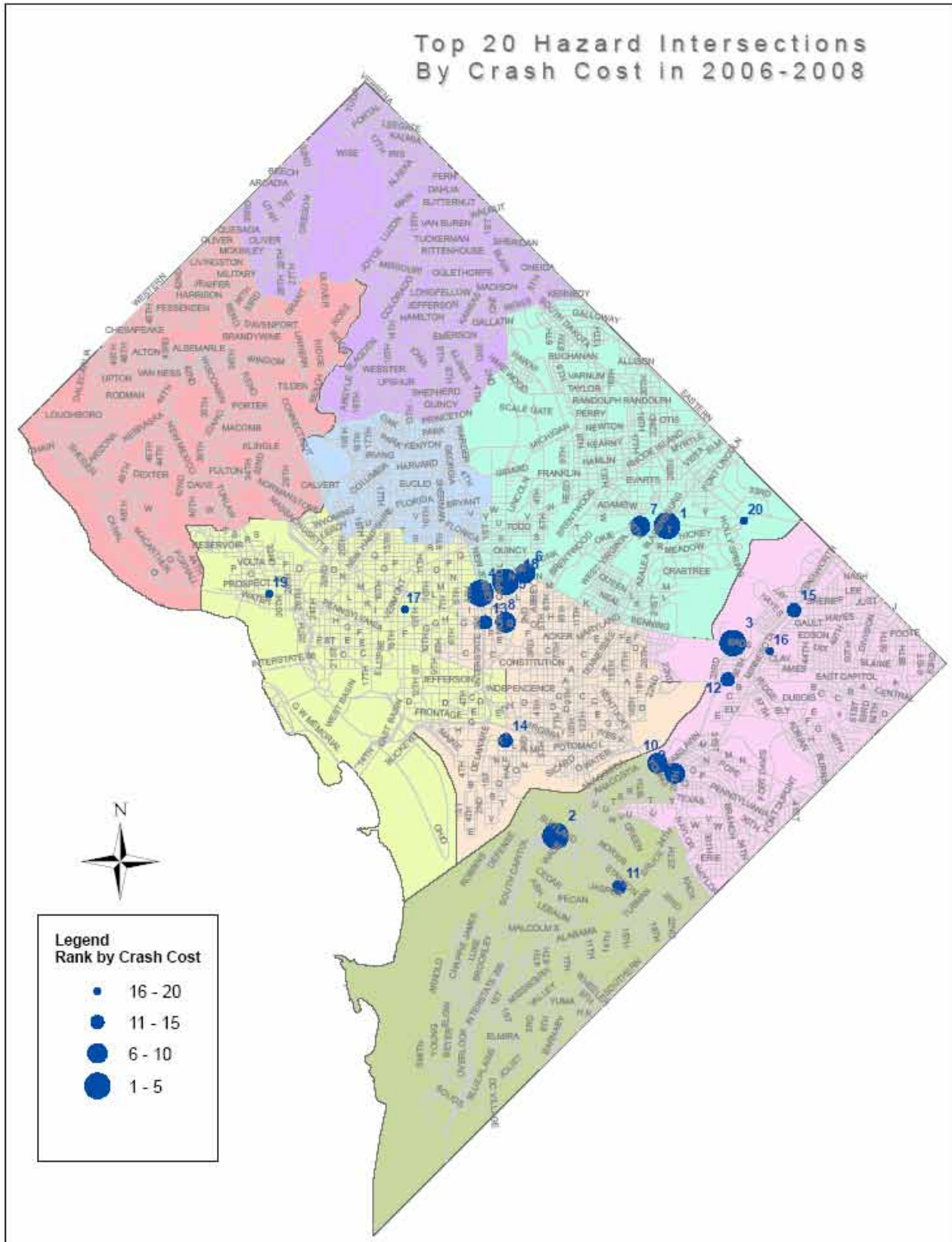


Figure 4.6 Top 20 Hazardous Intersections by Crash Severities from 2006 through 2008

High Frequency Crash Locations

Table 4.6 Top 20 Hazardous Intersections by Crash Severities for Three Years

INTERSECTION NAME	QUAD	2005-2007		2006-2008	
		Crash Severity	Rank	Crash Severity	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	4,038	1	3,815	1
FIRTH STERLING AVE AND SUITLAND PKWY	SE	2,434	2	2,611	2
KENILWORTH AVE AND BENNING RD	NE	1,923	5	1,916	3
NEW JERSEY AVE AND NEW YORK AVE	NW	2,132	3	1,841	4
NEW YORK AVE AND NORTH CAPITOL ST	OTH	2,111	4	1,827	5
FLORIDA AVE AND NEW YORK AVE	NE	1,541	12	1,596	6
MONTANA AVE AND NEW YORK AVE	NE	1,699	6	1,583	7
H ST AND NORTH CAPITOL ST	OTH	1,661	9	1,481	8
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	1,503	13	1,391	9
PENNSYLVANIA AVE AND ANACOSTIA FRWY	SE	1,315	18	1,386	10
STANTON RD AND SUITLAND PKWY	SE	1,580	10	1,383	11
KENILWORTH AVE AND EAST CAPITOL ST	OTH	1,055	34	1,331	12
2ND ST AND H ST	NW	1,292	21	1,322	13
I ST AND S CAPITOL ST	OTH	1,571	11	1,308	14
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	1,356	17	1,289	15
MINNESOTA AVE AND BENNING RD	NE	1,664	8	1,269	16
14TH ST AND K ST	NW	993	40	1,257	17
1ST ST AND NEW YORK AVE	NE	1,413	16	1,253	18
WISCONSIN AVE AND M ST	NW	1,293	20	1,239	19
NEW YORK AVE AND SOUTH DAKOTA AVE	NE	1,678	7	1,238	20

4.2.7 Rank by Crash Composite Index for Each Year

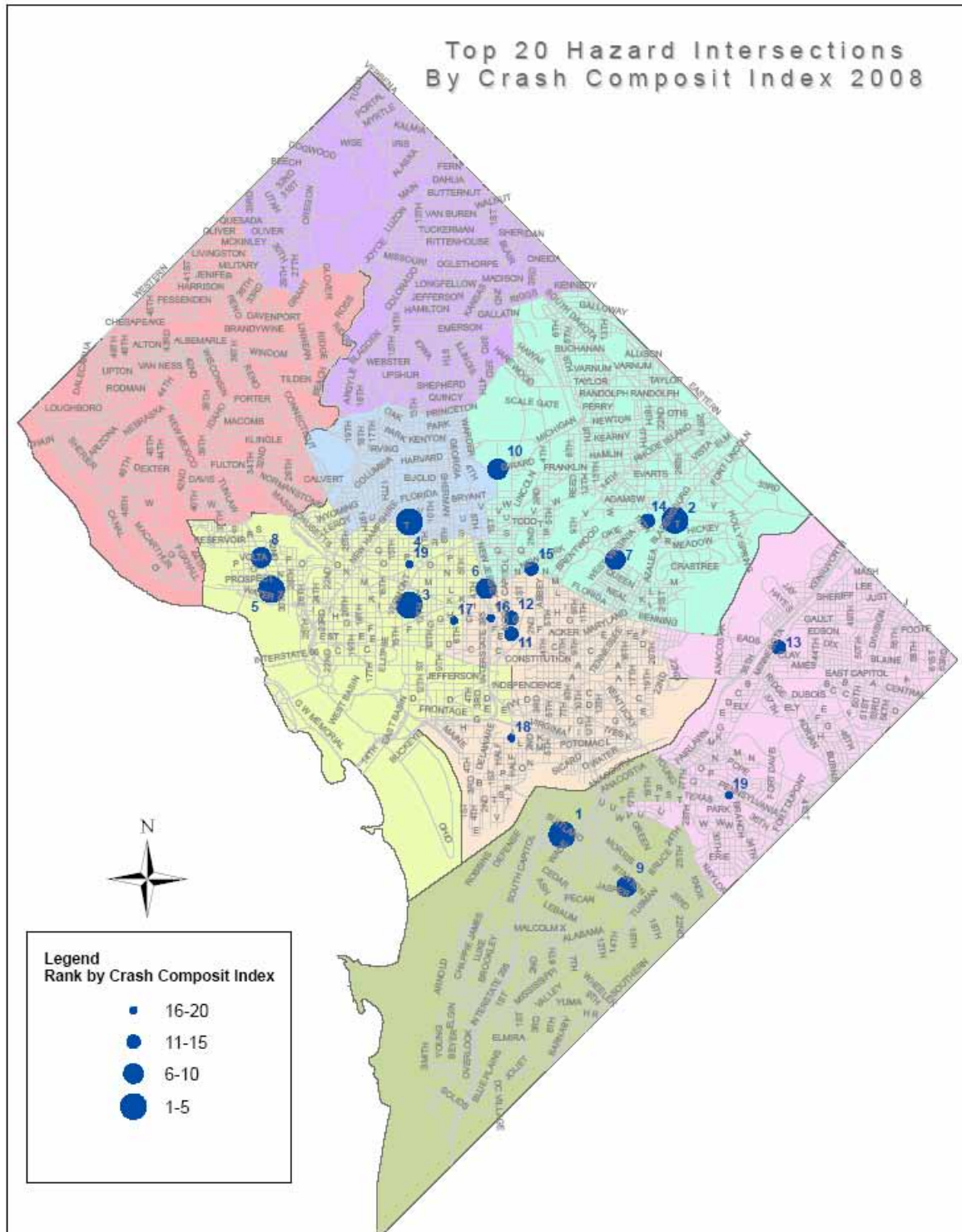


Figure 4.7 Top 20 Hazardous Intersections by Composite Indices for Each Year

High Frequency Crash Locations

Table 4.7 Top 20 Hazardous Intersections by Composite Indices for Each Year

INTERSECTION NAME	QUAD	2006		2007		2008	
		Comp. Index	Rank	Comp. Index	Rank	Comp. Index	Rank
FIRTH STERLING AVE AND SUITLAND PKWY	SE	5.25	1	7.25	2	3.5	1
NEW YORK AVE AND BLADENSBURG RD	NE	5.75	2	5	1	4	2
14TH ST AND K ST	NW	30.5	17	45.25	26	8.5	3
14TH ST AND U ST	NW	9.5	3	32.5	19	13	4
WISCONSIN AVE AND M ST	NW	16	6	11.25	5	14.75	5
NEW JERSEY AVE AND NEW YORK AVE	NW	12	5	23.5	14	17.25	6
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	64.5	46	19.5	11	20.5	7
WISCONSIN AVE AND Q ST	NW	182.5	197	166	178	23	8
STANTON RD AND SUITLAND PKWY	SE	11.75	4	23.75	15	24.25	9
1ST ST AND MICHIGAN AVE	NW	95	87	93.75	79	25.25	10
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	200.5	226	89.25	72	26	11
H ST AND NORTH CAPITOL ST	OTH	17.5	8	8.25	4	26.5	12
MINNESOTA AVE AND BENNING RD	NE	31.25	18	7.25	2	27.5	13
MONTANA AVE AND NEW YORK AVE	NE	24.5	14	19.5	11	28.75	14
FLORIDA AVE AND NEW YORK AVE	NE	23.25	13	65.25	46	29.5	15
2ND ST AND H ST	NW	41.25	29	18	9	30	16
7TH ST AND H ST	NW	19.75	10	11.5	6	30.5	17
I ST AND S CAPITOL ST	OTH	37.75	27	19	10	31.5	18
BRANCH AVE AND PENNSYLVANIA AVE	SE	20.75	12	29.75	17	31.75	19
14TH ST AND P ST	NW	93	80	78.5	59	31.75	19

4.2.8 Rank by Crash Composite Index for Three Years

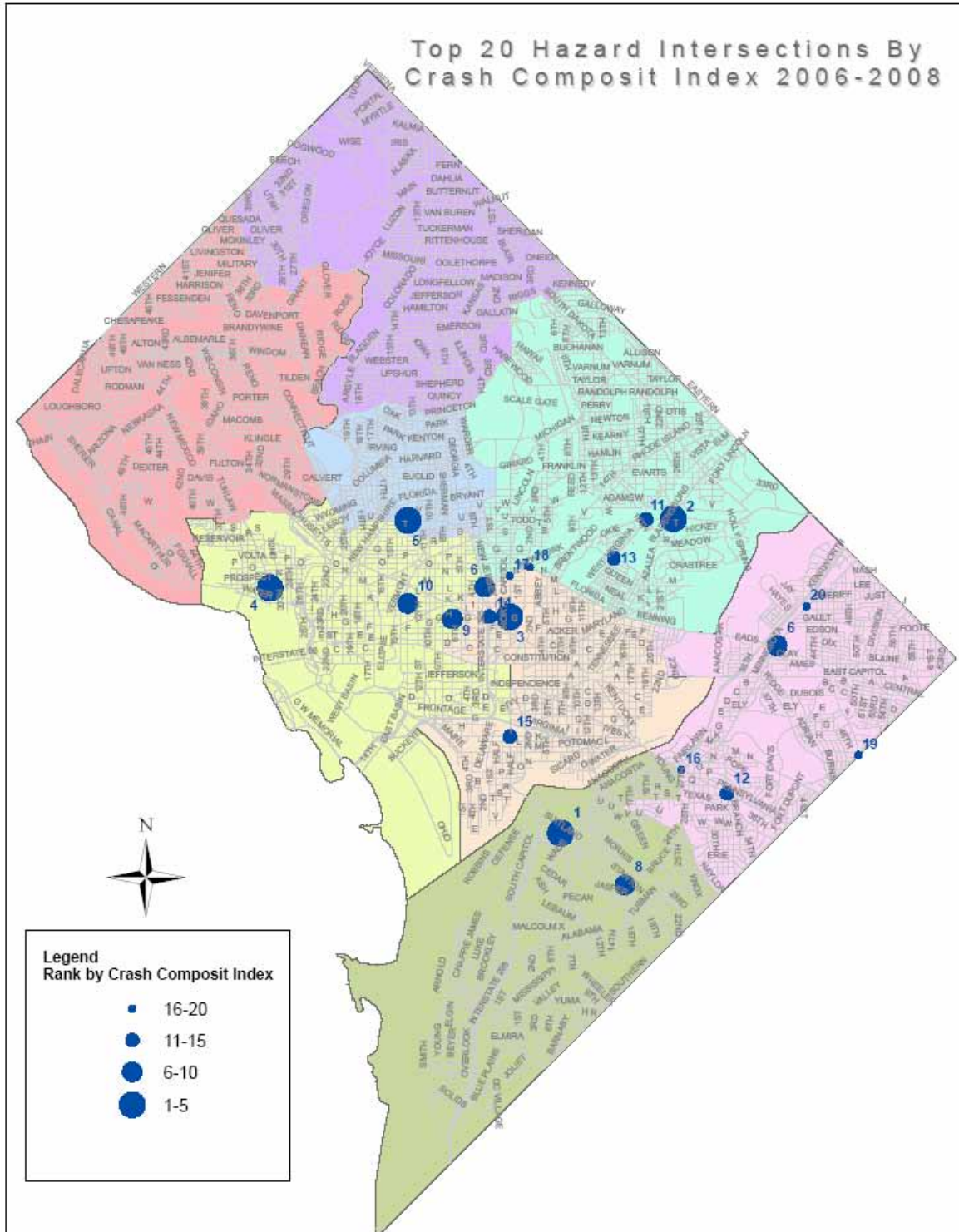


Figure 4.8 Top 20 Hazardous Intersections by Composite Indices from 2006 through 2008

Table 4.8 Top 20 Hazardous Intersections by Composite Indices for Three Years

INTERSECTION NAME	QUAD	2005-2007		2006-2008	
		Comp. Index	Rank	Comp. Index	Rank
FIRTH STERLING AVE AND SUITLAND PKWY	SE	5.5	2	3.75	1
NEW YORK AVE AND BLADENSBURG RD	NE	4.5	1	4.5	2
H ST AND NORTH CAPITOL ST	OTH	12.25	5	11.5	3
WISCONSIN AVE AND M ST	NW	13.75	6	11.75	4
14TH ST AND U ST	NW	16.75	9	13.75	5
NEW JERSEY AVE AND NEW YORK AVE	NW	11.5	4	15	6
MINNESOTA AVE AND BENNING RD	NE	10.5	3	15	6
STANTON RD AND SUITLAND PKWY	SE	14.75	7	15.5	8
7TH ST AND H ST	NW	17.75	10	16.75	9
14TH ST AND K ST	NW	38.75	26	20.5	10
MONTANA AVE AND NEW YORK AVE	NE	18.25	11	22	11
BRANCH AVE AND PENNSYLVANIA AVE	SE	25.75	15	24	12
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	35.75	22	25.5	13
2ND ST AND H ST	NW	28.25	17	25.75	14
I ST AND S CAPITOL ST	OTH	14.75	7	26.5	15
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	28	16	29.25	16
NEW YORK AVE AND NORTH CAPITOL ST	OTH	23.25	12	29.75	17
FLORIDA AVE AND NEW YORK AVE	NE	31.5	18	31.25	18
SOUTHERN AVE AND BENNING RD	OTH	24	13	32.5	19
MINNESOTA AVE AND N. H. BURROUGHS AVE	NE	32.75	20	35.25	20

4.2.9 Rank by Crash Trend with Delta Change

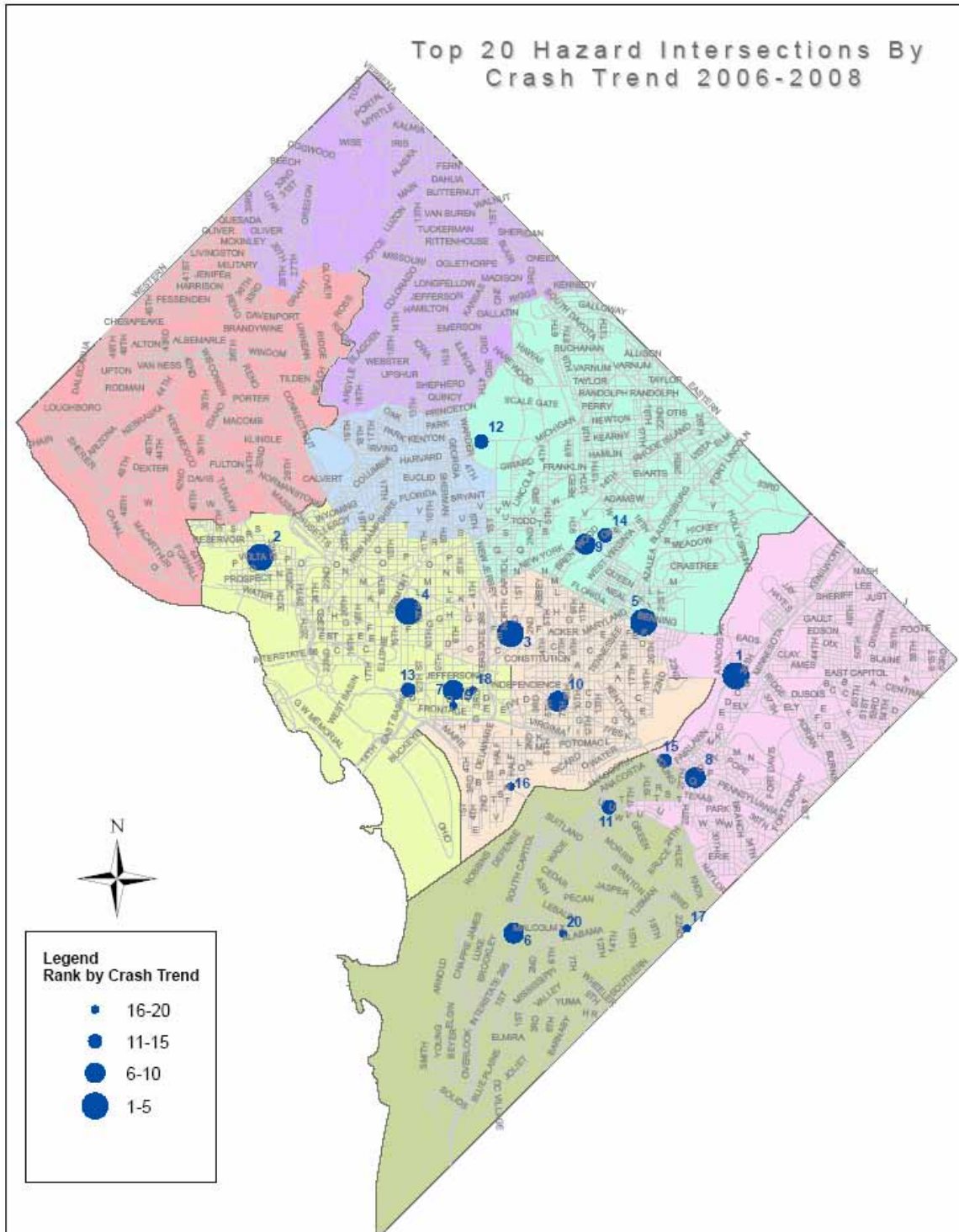


Figure 4.9 Top 20 Hazardous Intersections by Delta Change Values for Each Year

Table 4.9 Top 20 Hazardous Intersections by Delta Change Values for Each Year

INTERSECTION NAME	QUAD	2006 Crash	2007 Crash	2008 Crash	Delta	Rank
KENILWORTH AVE AND E. CAPITOL ST	OTH	3	36	34	15.5	1
WISCONSIN AVE AND Q ST	NW	14	12	34	10	2
MASS. AVE AND N. CAPITOL ST	OTH	12	18	32	10	2
14TH ST AND I ST	NW	7	16	26	9.5	4
17TH ST AND BENNING RD	NE	12	17	29	8.5	5
PORTLAND ST AND S CAPITOL ST	OTH	0	0	16	8	6
7TH ST AND INDEPENDENCE AVE	SW	4	1	20	8	6
28TH ST AND PENNSYLVANIA AVE	SE	0	0	15	7.5	8
9TH ST AND NEW YORK AVE	NE	1	8	15	7	9
6TH ST AND PENNSYLVANIA AVE	SE	0	0	14	7	9
13TH ST AND GOOD HOPE RD	SE	8	8	22	7	9
IRVING ST AND KENYON ST	NW	1	2	14	6.5	12
14TH ST AND INDEPENDENCE AVE	SW	1	0	14	6.5	12
NEW YORK AVE AND KENDALL ST	NE	10	20	23	6.5	12
PENN. AVE AND ANACOSTIA FRWY	SE	22	42	35	6.5	12
POTOMAC AVE AND S CAPITOL ST	OTH	1	14	13	6	16
25TH ST AND SOUTHERN AVE	OTH	9	11	21	6	16
4TH ST AND INDEPENDENCE AVE	SW	1	2	12	5.5	18
7TH ST AND D ST	SW	0	3	11	5.5	18
M.L.K. AVE AND PORTLAND ST	SE	5	0	16	5.5	18
9TH ST AND U ST	NW	10	6	21	5.5	18
MINNESOTA AVE AND PENN. AVE	SE	25	48	36	5.5	18
14TH ST AND K ST	NW	37	28	48	5.5	18
16TH ST AND FULLER ST	NW	4	7	15	5.5	18

4.3 High Frequency Crash Intersection by Collision Type

In order to determine the crash pattern for each of the identified top 20 high frequency crash locations, the collision locations were further divided into specific groups. For the purpose of this report, these high frequency crash locations were categorized by collision type. As shown in Table 4.10, rear end collision was the leading crash type for most of the high frequency crash locations, whereas side swiped and right-angle were the second and third most frequently reported motor vehicle crashes for the computed top 20 high frequency crash locations.

High Frequency Crash Locations

Table 4.10 Top 20 Hazardous Intersections by Collision Type

Type of Collision	Backing	Fixed Object	Head On	Left Turn	Non-Collision	Other	Parked Vehicle	Ran Off Roadway	Rear End	Right Angle	Right Turn	Side Swiped	straight	Unknown	Total
FIRTH STERLING AVE AND SUTLAND PKWY, SE	0	14	6	42	0	5	0	6	36	19	4	15	1	5	153
NEW YORK AVE AND BLADENSBURG RD, NE	6	12	3	14	2	9	1	4	93	27	12	69	0	6	258
H ST AND NORTH CAPITOL ST, OTH	2	2	1	16	0	3	1	0	35	14	5	31	2	2	114
WISCONSIN AVE AND M ST, NW	6	0	1	19	0	9	10	0	21	4	28	36	3	2	139
14TH ST AND U ST, NW	14	2	1	11	0	5	11	0	20	11	5	33	3	1	117
NEW JERSEY AVE AND NEW YORK AVE, NW	0	2	2	8	0	10	0	0	22	61	6	18	4	2	135
MINNESOTA AVE AND BENNING RD, NE	4	4	3	11	0	5	0	0	39	7	2	29	8	2	114
STANTON RD AND SUTLAND PKWY, SE	1	3	1	2	3	6	3	4	53	6	3	23	0	1	109
7TH ST AND H ST, NW	9	0	1	4	0	9	10	0	12	12	4	37	10	2	110
14TH ST AND K ST, NW	5	0	2	12	0	5	3	1	20	16	8	38	3	0	113
MONTANA AVE AND NEW YORK AVE, NE	1	4	1	6	0	11	0	0	43	15	4	32	0	4	121
BRANCH AVE AND PENN. AVE, SE	3	4	2	15	1	2	4	0	26	11	2	22	2	3	97
WEST VIRGINIA AVE AND MOUNT OLIVET RD, NE	6	2	1	7	0	3	5	0	15	15	5	11	2	3	75
2ND ST AND H ST, NW	2	1	1	8	0	6	0	0	3	41	3	18	1	3	87
I ST AND S CAPITOL ST, OTH	3	2	1	9	0	8	1	0	26	27	4	20	1	3	105
MINNESOTA AVE AND PENN. AVE, SE	1	4	1	13	0	10	1	0	23	20	6	26	2	2	109
NEW YORK AVE AND N. CAPITOL ST, OTH	4	4	3	25	1	4	1	1	31	21	9	41	5	2	152
FLORIDA AVE AND NEW YORK AVE, NE	3	1	0	8	0	5	2	1	56	11	3	23	3	3	119
SOUTHERN AVE AND BENNING RD, OTH	1	1	2	23	0	4	0	1	5	15	1	9	0	1	63
MINNESOTA AVE AND NANNIE HELEN BURROUGHS AVE, NE	2	1	0	6	1	0	0	0	22	13	2	16	1	1	65

4.4 Identification of High Frequency Crash Traffic Corridors

4.4.1 Summary of Collisions on Corridors

On the basis of the results presented in Table 4.11, it can be observed that Pennsylvania Avenue, New York Avenue and North Capitol Street were three frequently reported corridors for motor vehicle crashes in the District.

Table 4.11 High Frequency Crash Corridors for Each Year

Corridor	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
NEW YORK AVE	636	0	315	610	2	293	620	0	311
PENNSYLVANIA AVE	670	0	268	631	5	287	613	1	259
NORTH CAPITOL ST	518	0	295	491	1	250	495	1	230
GEORGIA AVE	553	0	272	513	0	253	494	0	216
CONNECTICUT AVE	495	0	176	423	1	140	461	2	150
SIXTEENTH ST, NW	425	0	220	390	0	156	461	0	174
RHODE ISLAND AVE	400	0	205	346	0	165	429	0	196
FLORIDA AVE	394	1	173	349	0	163	406	1	179
WISCONSIN AVE	447	1	131	405	1	135	387	0	109
BENNING RD	384	0	245	368	1	197	329	0	151
SOUTHERN AVE	354	2	232	349	1	235	320	3	218
BLADENSBURG RD	242	2	132	242	0	105	238	1	105
CONSTITUTION AVE	222	0	78	246	1	107	224	0	106
NEW JERSEY AVE	154	0	75	148	0	74	161	0	87

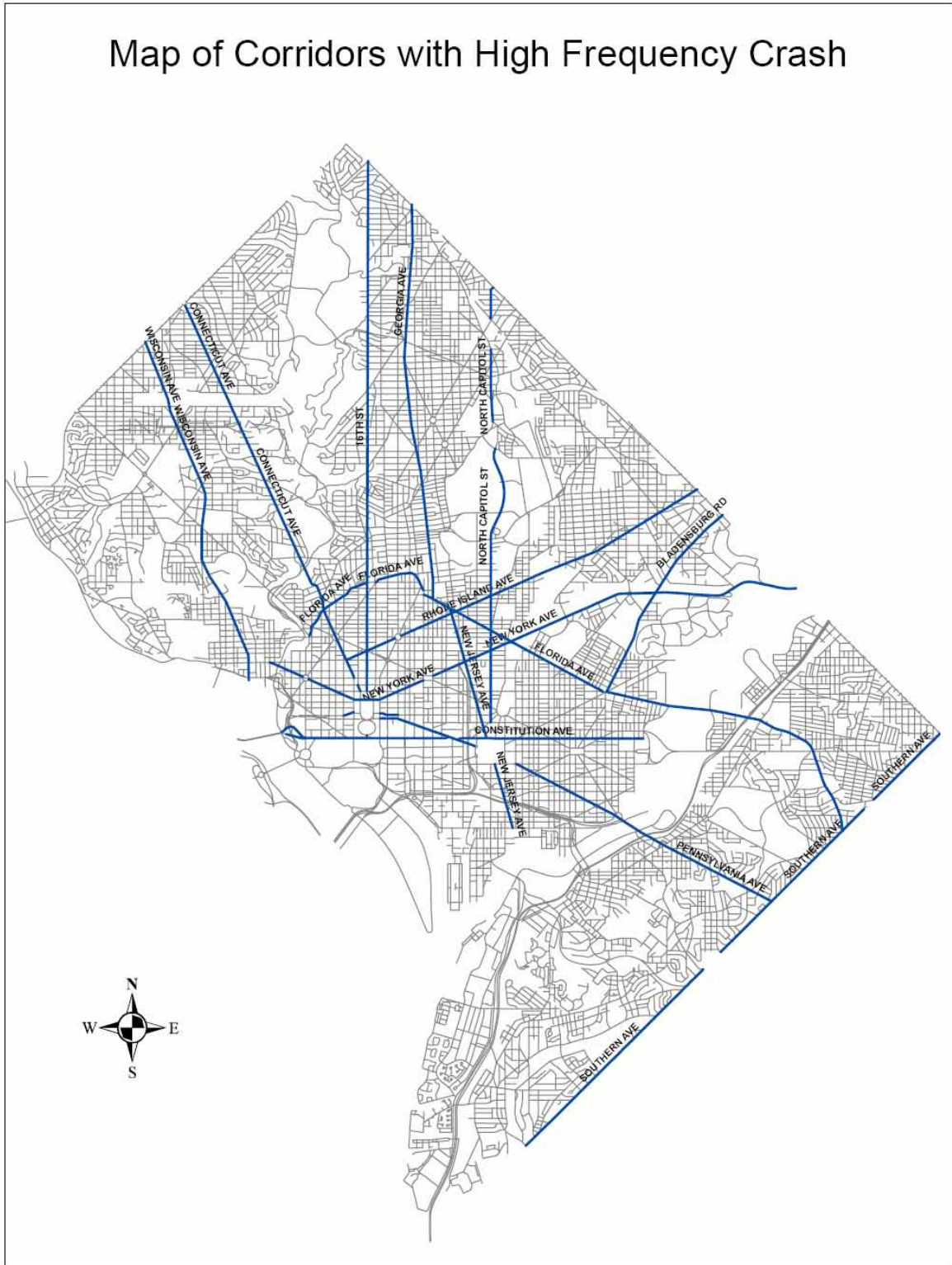


Figure 4.10 Map of Corridors with High Frequency Crash

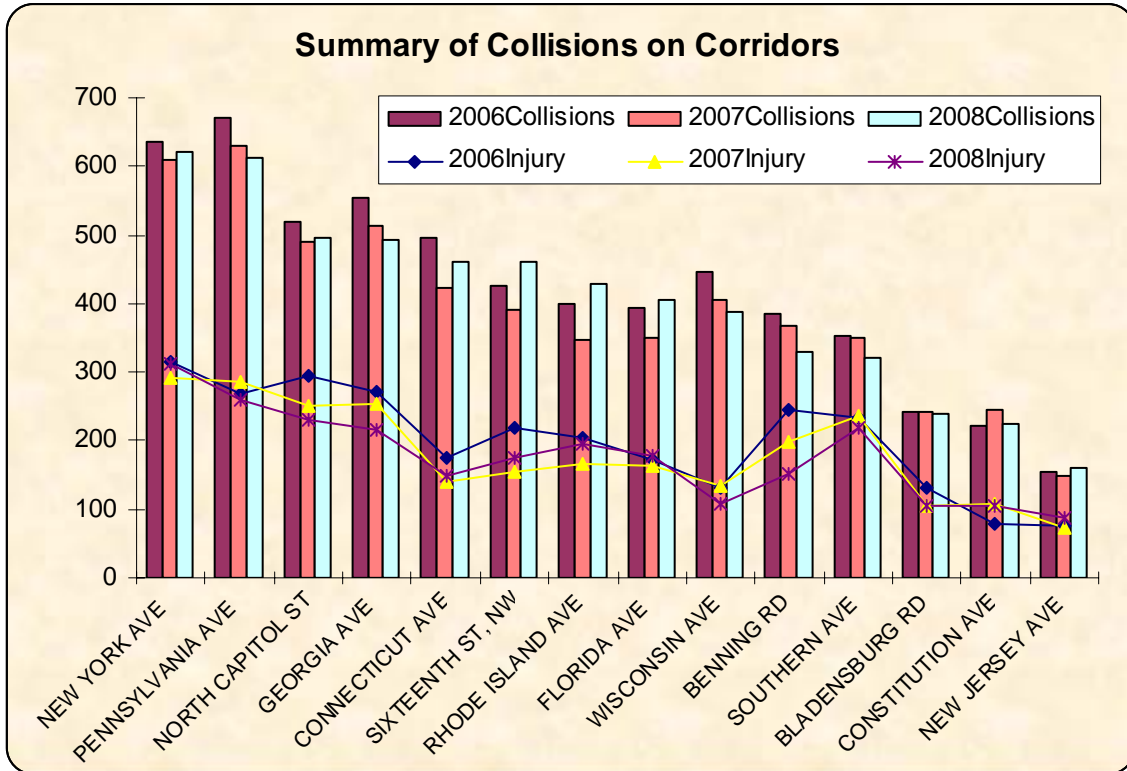


Figure 4.11 High Frequency Traffic Corridors for Each Year

Table 4.12 Summary of High Frequency Crash Corridors (2006~2008)

Corridor	Length (miles)	No. of Intersection	No. of Crash	Average Crashes per Mile	Average Crashes per Intersection
NEW YORK AVE	5.08	46	1866	367.32	40.57
PENNSYLVANIA AVE	5.48	89	1914	349.27	21.51
NORTH CAPITOL ST	3.85	73	1504	390.65	20.60
GEORGIA AVE	4.76	65	1560	327.73	24.00
CONNECTICUT AVE	5.01	73	1379	275.25	18.89
SIXTEENTH ST, NW	6.39	89	1276	199.69	14.34
RHODE ISLAND AVE	4.56	49	1175	257.68	23.98
FLORIDA AVE	5.46	80	1149	210.44	14.36
WISCONSIN AVE	4.87	65	1239	254.41	19.06
BENNING RD	3.39	45	1081	318.88	24.02
SOUTHERN AVE	5.4	122	1023	189.44	8.39
BLADENSBURG RD	2.65	45	722	272.45	16.04
CONSTITUTION AVE	3.9	52	692	177.44	13.31
NEW JERSEY AVE	2.79	38	463	165.95	12.18

4.4.2 Corridors Ranked based on Number of Crashes per Mile

In this report, it is of interest to determine the number of crashes per mile. Based on the results in Table 4.13, New York Avenue, North Capitol street, and Pennsylvania Avenue were the three highest ranked corridors from 2006 through 2008 on the basis of number of crashes per mile.

Table 4.13 High Frequency Crash Corridors by Number of Crash Occurrences per Mile

Corridor	2006	2007	2008
NEW YORK AVE	219.31	210.34	213.79
PENNSYLVANIA AVE	122.26	115.15	111.86
NORTH CAPITOL ST	134.55	127.53	128.57
GEORGIA AVE	116.18	107.77	103.78
CONNECTICUT AVE	98.80	84.43	92.02
SIXTEENTH ST, NW	66.51	61.03	72.14
RHODE ISLAND AVE	87.72	75.88	94.08
FLORIDA AVE	72.16	63.92	74.36
WISCONSIN AVE	91.79	83.16	79.47
BENNING RD	113.27	108.55	97.05
SOUTHERN AVE	65.56	64.63	59.26
BLADENSBURG RD	91.32	91.32	89.81
CONSTITUTION AVE	56.92	63.08	57.44
NEW JERSEY AVE	55.20	53.05	57.71

4.4.3 Number of Crashes per Intersecting Intersection on Corridors

As shown in Table 4.14 below, it can be observed that New York Avenue, Benning Road and Pennsylvania Avenue were three higher rank corridors on the basis of crashes per intersecting intersection on corridors.

Table 4.14 Number of Crashes per Intersecting Intersection on Corridors

Corridor	2006	2007	2008
NEW YORK AVE	13.83	13.26	13.48
PENNSYLVANIA AVE	7.53	7.09	6.89
NORTH CAPITOL ST	7.10	6.73	6.78
GEORGIA AVE	8.51	7.89	7.60
CONNECTICUT AVE	6.78	5.79	6.32
SIXTEENTH ST, NW	4.78	4.38	5.18
RHODE ISLAND AVE	8.16	7.06	8.76
FLORIDA AVE	4.93	4.36	5.08
WISCONSIN AVE	6.88	6.23	5.95
BENNING RD	8.53	8.18	7.31
SOUTHERN AVE	2.90	2.86	2.62
BLADENSBURG RD	5.38	5.38	5.29
CONSTITUTION AVE	4.27	4.73	4.31
NEW JERSEY AVE	4.05	3.89	4.24

CHAPTER 5 EXPOSURE

5.1 Fatality Rate per 100 Million Vehicle Miles Traveled (VMT)

For the exposure data, the fatality rate per 100 million vehicle miles traveled (VMT) information was extracted from the National Highway Traffic Safety Administration (NHTSA). This was used to examine and compare the motor vehicle crash fatality rate of Washington DC to that of the nation. On the basis of the results shown in Table 5.1 and Figure 5.1, it can be determined that the fatalities per 100 million VMT of the District from 2004 to 2008 were substantially lower than the national level except for the year 2007, where an increase was observed. Overall, the fatalities per 100 million VMT for the Washington DC is relatively lower than the national level.

Table 5.1 Fatality Rate from 2004 through 2008

Year		Fatalities	Total VMT (Millions)	Fatalities Per 100 Million VMT	Total Population	Fatalities Per 100,000 Population
2004	Dist of Columbia	45	3,742	1.20	579,621	7.76
	US	42,836	2,964,788	1.44	293,191,511	14.61
2005	Dist of Columbia	49	3,713	1.32	582,049	8.42
	US	43,510	2,989,430	1.46	295,895,897	14.70
2006	Dist of Columbia	41	3,623	1.13	585,459	7.00
	US	42,708	3,014,371	1.42	298,754,819	14.30
2007	Dist of Columbia	54	3,609	1.50	588,292	9.18
	US	41,059	3,029,822	1.36	301,621,157	13.61
2008	Dist of Columbia	39	3,600	1.08	591,833	6.59
	US	37,261	2,925,503	1.27	304,059,724	12.25

All data were obtained from the NHTSA except for the fatalities data of District of Columbia

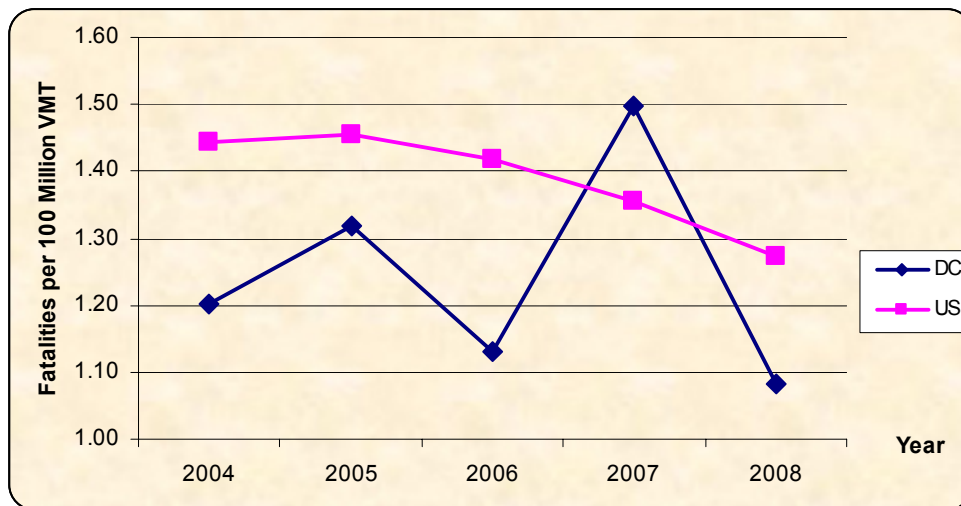


Figure 5.1 Fatality Rate per 100 Million VMT from 2004 through 2008

5.2 Injury Rate per 100 Million Vehicle Miles Traveled (VMT)

Similarly, the injury rate per 100 million vehicle miles traveled (VMT) information from 2004 through 2008 were extracted from the National Highway Traffic Safety Administration (NHTSA) to examine and compare the crash injury rate of motor vehicle in Washington DC to the national level. On the basis of the results presented in Table 5.2 and Figure 5.2, the injuries per 100 million VMT of the District from 2004 to 2007 were considerably higher than the national level rate. Research showed that the injury rate per 100 million VMT of major city is relatively higher as compared to suburban or rural areas. Another sample is Baltimore, Maryland, of which the injury rate per 100 million VMT was 226.7 in 2003 (*Maryland Traffic Safety Facts 2003, Maryland Department of Transportation State Highway and Safety*), while the national average showed a total of 100 in 2003 (*Traffic Safety Facts: 2008 Data, NHTSA*).

Table 5.2 Injury Rate from 2004 through 2008

Year		Injuries	Total VMT (Millions)	Injuries Per 100 Million VMT	Total Population	Injuries Per 100,000 Population
2004	Dist of Columbia	8,054	3,742	215.23	579,621	1,389.53
	US	2,788,000	2,964,788	94.04	293,191,511	950.91
2005	Dist of Columbia	7,524	3,713	202.64	582,049	1,292.67
	US	2,699,000	2,989,430	90.28	295,895,897	912.15
2006	Dist of Columbia	7,061	3,623	194.89	585,459	1,206.06
	US	2,575,000	3,014,371	85.42	298,754,819	861.91
2007	Dist of Columbia	6,571	3,609	182.07	588,292	1,116.96
	US	2,491,000	3,029,822	82.22	301,621,157	825.87
	Dist of Columbia	6,792	3,600	188.67	591,833	1,147.62
2008	US	2,346,000	2,925,503	80.19	304,059,724	771.56

All data were obtained from the NHTSA except for the injuries data of District of Columbia

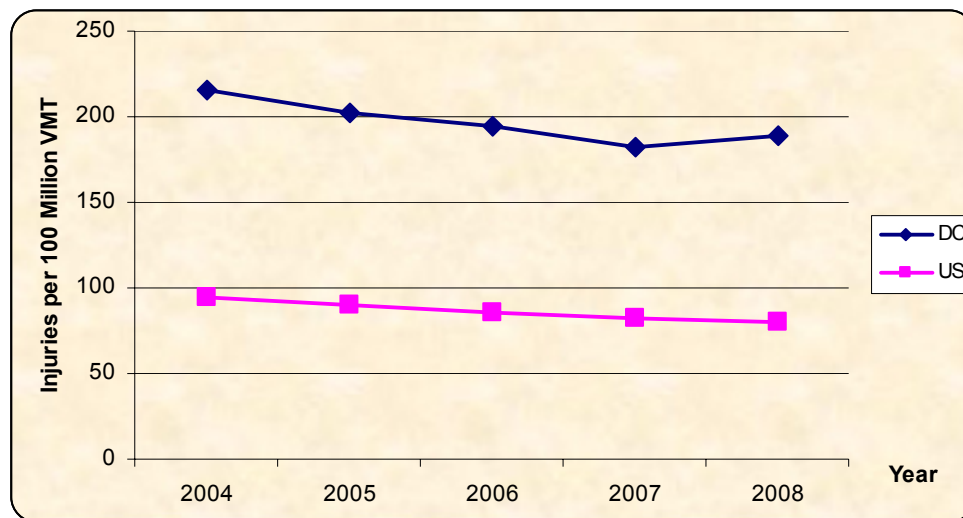


Figure 5.2 Injury Rate per 100 Million VMT from 2004 through 2008

CHAPTER 6 APPENDICES

6.1 Top 100 Hazard Intersections

6.1.1 Rank by Number of Crash

Table 6.1 Rank by Number of Crash for Each Year (Rank: 1~33)

INT_NAME	QUAD	2006		2007		2008	
		Num. Crash	Rank	Num. Crash	Rank	Num. Crash	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	84	1	84	1	90	1
F. STERLING AVE AND SUITLAND PKWY	SE	54	3	45	8	54	2
KENILWORTH AVE AND BENNING RD	NE	64	2	27	31	49	3
14TH ST AND K ST	NW	37	19	28	29	48	4
NEW JERSEY AVE AND NEW YORK AVE	NW	52	5	39	11	44	5
14TH ST AND U ST	NW	44	9	30	24	43	6
NEW YORK AVE AND NORTH CAPITOL ST	OTH	54	3	56	2	42	7
WISCONSIN AVE AND M ST	NW	48	7	50	3	41	8
FLORIDA AVE AND NEW YORK AVE	NE	50	6	28	29	41	8
MONTANA AVE AND NEW YORK AVE	NE	41	11	44	9	36	10
MINNESOTA AVE AND PENN. AVE	SE	25	42	48	4	36	10
1ST ST AND NEW YORK AVE	NE	35	22	37	13	35	12
PENN. AVE AND ANACOSTIA FRWY	SE	22	52	42	10	35	12
MINNESOTA AVE AND BENNING RD	NE	33	25	47	5	34	14
KENILWORTH AVE AND E. CAPITOL ST	OTH	3	300	36	15	34	14
WISCONSIN AVE AND Q ST	NW	14	141	12	177	34	14
14TH ST AND CONSTITUTION AVE	NW	45	8	36	15	33	17
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	23	48	26	34	33	17
H ST AND NORTH CAPITOL ST	OTH	36	20	46	6	32	19
STANTON RD AND SUITLAND PKWY	SE	42	10	35	17	32	19
I ST AND S CAPITOL ST	OTH	36	20	37	13	32	19
31ST ST AND M ST	NW	27	31	31	21	32	19
MASS. AVE AND N. CAPITOL ST	OTH	12	184	18	71	32	19
7TH ST AND H ST	NW	34	23	46	6	30	24
BENNING RD AND EAST CAPITOL ST	OTH	29	27	30	24	30	24
17TH ST AND BENNING RD	NE	12	184	17	80	29	26
2ND ST AND H ST	NW	27	31	33	18	27	27
BRANCH AVE AND PENNSYLVANIA AVE	SE	38	15	33	18	26	28
1ST ST AND NEW YORK AVE	NW	27	31	31	21	26	28
NEW HAMPSHIRE AVE AND NORTH CAPITOL ST	OTH	28	28	26	34	26	28
14TH ST AND I ST	NW	7	286	16	90	26	28
M ST AND S CAPITOL ST	OTH	38	15	24	39	25	32
18TH ST AND COLUMBIA RD	NW	39	12	17	80	25	32

Table 6.1 Rank by Number of Crash for Each Year (Rank: 34~66)

INT_NAME	QUAD	2006		2007		2008	
		Num. Crash	Rank	Num. Crash	Rank	Num. Crash	Rank
M ST AND NORTH CAPITOL ST	NE	24	44	23	41	25	32
14TH ST AND RHODE ISLAND AVE	SE	19	77	15	108	25	32
3RD ST AND NEW YORK AVE	NE	16	109	38	12	24	36
13TH ST AND U ST	NW	26	34	24	39	24	36
14TH ST AND PENNSYLVANIA AVE	NW	28	28	20	56	24	36
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NW	21	60	31	21	23	39
K ST AND NORTH CAPITOL ST	OTH	28	28	19	63	23	39
12TH ST AND CONSTITUTION AVE	NW	16	109	19	63	23	39
4TH ST AND RHODE ISLAND AVE	NE	18	85	16	90	23	39
1ST ST AND MICHIGAN AVE	NE	17	97	14	130	23	39
NEW YORK AVE AND KENDALL ST	NW	10	235	20	56	23	39
14TH ST AND L ST	NE	17	97	13	151	23	39
NORTH CAPITOL ST AND RIGGS RD	SE	14	141	11	194	23	39
RHODE ISLAND AVE AND SOUTH DAKOTA AVE	NE	21	60	21	44	22	47
14TH ST AND P ST	NE	19	77	19	63	22	47
NEW YORK AVE AND FENWICK ST	OTH	19	77	17	80	22	47
FLORIDA AVE AND RHODE ISLAND AVE	OTH	13	160	18	71	22	47
15TH ST AND I ST	OTH	16	109	13	151	22	47
NORTH CAPITOL ST AND P ST	SE	12	184	8	261	22	47
13TH ST AND GOOD HOPE RD	SE	8	279	8	261	22	47
FLORIDA AVE AND NORTH CAPITOL ST	NW	39	12	25	37	21	54
SOUTH DAKOTA AVE AND BLADENSBURG RD	OTH	22	52	27	31	21	54
RHODE ISLAND AVE AND NORTH CAPITOL ST	OTH	26	34	16	90	21	54
SOUTHERN AVE AND EAST CAPITOL ST	NE	22	52	16	90	21	54
GEORGIA AVE AND BARRY PL	NW	24	44	10	217	21	54
17TH ST AND K ST	OTH	21	60	12	177	21	54
1ST ST AND MASSACHUSETTS AVE	NW	13	160	10	217	21	54
25TH ST AND SOUTHERN AVE	NW	9	261	11	194	21	54
14TH ST AND PARK RD	NW	11	211	9	243	21	54
9TH ST AND U ST	NW	10	235	6	283	21	54
CONNECTICUT AVE AND PORTER ST	OTH	18	85	27	31	20	64
MASSACHUSETTS AVE AND DUPONT CIR	NW	19	77	25	37	20	64
FAIRLAWN AVE AND PENNSYLVANIA AVE	OTH	26	34	14	130	20	64

Table 6.1 Rank by Number of Crash for Each Year (Rank: 67~100)

INT_NAME	QUAD	2006		2007		2008	
		Num. Crash	Rank	Num. Crash	Rank	Num. Crash	Rank
4TH ST AND NEW YORK AVE	NW	20	70	16	90	20	64
15TH ST AND CONSTITUTION AVE	NW	12	184	15	108	20	64
16TH ST AND L ST	NW	15	124	10	217	20	64
14TH ST AND COLUMBIA RD	NW	16	109	6	283	20	64
9TH ST AND MASSACHUSETTS AVE	NW	10	235	11	194	20	64
21ST ST AND BENNING RD	NE	11	211	4	298	20	64
GEORGIA AVE AND MISSOURI AVE	NW	38	15	30	24	19	73
NEW YORK AVE AND SOUTH DAKOTA AVE	NE	34	23	30	24	19	73
13TH ST AND SOUTHERN AVE	OTH	24	44	19	63	19	73
SOUTHERN AVE AND S CAPITOL ST	OTH	21	60	21	44	19	73
16TH ST AND U ST	NW	22	52	13	151	19	73
MARTIN LUTHER KING AVE AND HOWARD RD	SE	14	141	17	80	19	73
16TH ST AND K ST	NW	16	109	14	130	19	73
FAIRVIEW AVE AND NEW YORK AVE	NE	16	109	13	151	19	73
5TH ST AND H ST	NW	17	97	10	217	19	73
SOUTHERN AVE AND CHESAPEAKE ST	OTH	14	141	12	177	19	73
MARTIN LUTHER KING AVE AND W ST	SE	12	184	10	217	19	73
16TH ST AND BENNING RD	NE	12	184	8	261	19	73
COLUMBIA RD AND ONTARIO RD	NW	10	235	6	283	19	73
MICHIGAN AVE AND NORTH CAPITOL ST	OTH	24	44	21	44	18	86
SOUTHERN AVE AND WHEELER RD	OTH	25	42	18	71	18	86
16TH ST AND NEW YORK AVE	NE	19	77	21	44	18	86
RHODE ISLAND AVE AND REED ST	NE	20	70	15	108	18	86
17TH ST AND PENNSYLVANIA AVE	NW	14	141	21	44	18	86
ALABAMA AVE AND PENNSYLVANIA AVE	SE	21	60	14	130	18	86
19TH ST AND M ST	NW	13	160	21	44	18	86
23RD ST AND WASHINGTON CIR	NW	17	97	13	151	18	86
2ND ST AND MASSACHUSETTS AVE	NW	22	52	8	261	18	86
17TH ST AND I ST	NW	18	85	10	217	18	86
13TH ST AND K ST	NW	12	184	15	108	18	86
WISCONSIN AVE AND N ST	NW	14	141	10	217	18	86
13TH ST AND H ST	NW	10	235	13	151	18	86
NEBRASKA AVE AND WARD CIR	NW	16	109	23	41	17	99
9TH ST AND PENNSYLVANIA AVE	NW	16	109	21	44	17	99

Table 6.2 Rank by Number of Crash for Three Years (Rank: 1~33)

INT_NAME	QUAD	2005~2007		2006~2008	
		Num. Crash	Rank	Num. Crash	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	281	1	258	1
FIRTH STERLING AVE AND SUITLAND PKWY	SE	147	5	153	2
NEW YORK AVE AND NORTH CAPITOL ST	OTH	172	2	152	3
KENILWORTH AVE AND BENNING RD	NE	153	3	140	4
WISCONSIN AVE AND M ST	NW	133	6	139	5
NEW JERSEY AVE AND NEW YORK AVE	NW	148	4	135	6
MONTANA AVE AND NEW YORK AVE	NE	132	8	121	7
FLORIDA AVE AND NEW YORK AVE	NE	128	10	119	8
14TH ST AND U ST	NW	109	16	117	9
MINNESOTA AVE AND BENNING RD	NE	129	9	114	10
H ST AND NORTH CAPITOL ST	OTH	124	11	114	10
14TH ST AND CONSTITUTION AVE	NW	120	12	114	10
14TH ST AND K ST	NW	96	23	113	13
7TH ST AND H ST	NW	114	15	110	14
STANTON RD AND SUITLAND PKWY	SE	117	13	109	15
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	115	14	109	15
1ST ST AND NEW YORK AVE	NE	108	17	107	17
I ST AND S CAPITOL ST	OTH	133	6	105	18
PENNSYLVANIA AVE AND ANACOSTIA FRWY	SE	89	27	99	19
BRANCH AVE AND PENNSYLVANIA AVE	SE	105	20	97	20
31ST ST AND M ST	NW	75	43	90	21
BENNING RD AND EAST CAPITOL ST	OTH	82	33	89	22
M ST AND S CAPITOL ST	OTH	108	17	87	23
GEORGIA AVE AND MISSOURI AVE	NW	105	20	87	23
2ND ST AND H ST	NW	89	27	87	23
FLORIDA AVE AND NORTH CAPITOL ST	OTH	105	20	85	26
EASTERN AVE AND KENILWORTH AVE	OTH	93	24	84	27
1ST ST AND NEW YORK AVE	NW	89	27	84	27
NEW YORK AVE AND SOUTH DAKOTA AVE	NE	106	19	83	29
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	92	25	82	30
18TH ST AND COLUMBIA RD	NW	86	30	81	31
NEW HAMPSHIRE AVE AND NORTH CAPITOL ST	OTH	80	36	80	32
3RD ST AND NEW YORK AVE	NW	81	35	78	33

Table 6.2 Rank by Number of Crash for Three Years (Rank: 34~66)

INT_NAME	QUAD	2005~2007		2006~2008	
		Num. Crash	Rank	Num. Crash	Rank
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	76	41	75	34
13TH ST AND U ST	NW	71	45	74	35
KENILWORTH AVE AND EAST CAPITOL ST	OTH	74	44	73	36
14TH ST AND PENNSYLVANIA AVE	NW	84	31	72	37
M ST AND NORTH CAPITOL ST	OTH	78	38	72	37
K ST AND NORTH CAPITOL ST	OTH	80	36	70	39
SOUTH DAKOTA AVE AND BLADENSBURG RD	NE	78	38	70	39
MARTIN LUTHER KING AVE AND S CAPITOL ST	OTH	71	45	70	39
MINNESOTA AVE AND NANNIE HELEN BURROUGHS AVE	NE	84	31	65	42
CONNECTICUT AVE AND PORTER ST	NW	61	59	65	42
MASSACHUSETTS AVE AND DUPONT CIR	NW	62	55	64	44
RHODE ISLAND AVE AND SOUTH DAKOTA AVE	NE	54	77	64	44
MICHIGAN AVE AND NORTH CAPITOL ST	OTH	92	25	63	46
SOUTHERN AVE AND BENNING RD	OTH	76	41	63	46
RHODE ISLAND AVE AND NORTH CAPITOL ST	OTH	68	50	63	46
PENNSYLVANIA AVE AND LENFANT SQ	SE	82	33	62	49
13TH ST AND SOUTHERN AVE	OTH	64	51	62	49
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	58	67	62	49
CONNECTICUT AVE AND NEBRASKA AVE	NW	78	38	61	52
SOUTHERN AVE AND S CAPITOL ST	OTH	70	47	61	52
SOUTHERN AVE AND WHEELER RD	OTH	69	48	61	52
6TH ST AND NEW YORK AVE	NW	64	51	60	55
FAIRLAWN AVE AND PENNSYLVANIA AVE	SE	63	54	60	55
14TH ST AND P ST	NW	56	71	60	55
WISCONSIN AVE AND Q ST	NW	32	237	60	55
SOUTHERN AVE AND EAST CAPITOL ST	OTH	53	80	59	59
14TH ST AND RHODE ISLAND AVE	NW	45	123	59	59
12TH ST AND CONSTITUTION AVE	NW	64	51	58	61
16TH ST AND NEW YORK AVE	NE	59	63	58	61
NEW YORK AVE AND FENWICK ST	NE	50	94	58	61
17TH ST AND BENNING RD	NE	42	146	58	61
4TH ST AND RHODE ISLAND AVE	NE	49	100	57	65
GOOD HOPE RD AND NAYLOR RD	SE	60	61	56	66

Table 6.2 Rank by Number of Crash for Three Years (Rank: 67~100)

INT_NAME	QUAD	2005~2007		2006~2008	
		Num. Crash	Rank	Num. Crash	Rank
NEBRASKA AVE AND WARD CIR	NW	57	70	56	66
4TH ST AND NEW YORK AVE	NW	50	94	56	66
15TH ST AND PENNSYLVANIA AVE	NW	69	48	55	69
GEORGIA AVE AND BARRY PL	NW	58	67	55	69
9TH ST AND PENNSYLVANIA AVE	NW	62	55	54	71
16TH ST AND U ST	NW	56	71	54	71
1ST ST AND MICHIGAN AVE	NW	53	80	54	71
19TH ST AND INDEPENDENCE AVE	SE	53	80	54	71
15TH ST AND K ST	NW	51	90	54	71
17TH ST AND K ST	NW	43	140	54	71
RHODE ISLAND AVE AND REED ST	NE	54	77	53	77
17TH ST AND PENNSYLVANIA AVE	NW	51	90	53	77
FLORIDA AVE AND RHODE ISLAND AVE	NW	49	100	53	77
NEW YORK AVE AND KENDALL ST	NE	47	108	53	77
ALABAMA AVE AND PENNSYLVANIA AVE	SE	47	108	53	77
14TH ST AND L ST	NW	45	123	53	77
19TH ST AND M ST	NW	59	63	52	83
LIVINGSTON RD AND S CAPITOL ST	OTH	55	73	51	84
15TH ST AND I ST	NW	40	162	51	84
34TH ST AND BENNING RD	NE	55	73	50	86
OKLAHOMA AVE AND BENNING RD	NE	51	90	50	86
MARTIN LUTHER KING AVE AND HOWARD RD	SE	51	90	50	86
9TH ST AND CONSTITUTION AVE	NW	59	63	49	89
GEORGIA AVE AND PARK RD	NW	47	108	49	89
16TH ST AND K ST	NW	45	123	49	89
14TH ST AND I ST	NW	36	197	49	89
FAIRVIEW AVE AND NEW YORK AVE	NE	60	61	48	93
CONNECTICUT AVE AND CALVERT ST	NW	52	86	48	93
23RD ST AND WASHINGTON CIR	NW	50	94	48	93
NORTH CAPITOL ST AND RIGGS RD	OTH	44	132	48	93
2ND ST AND MASSACHUSETTS AVE	NW	42	146	48	93
7TH ST AND INDEPENDENCE AVE	SE	62	55	47	98
ALABAMA AVE AND STANTON RD	SE	49	100	47	98
14TH ST AND IRVING ST	NW	48	105	47	98

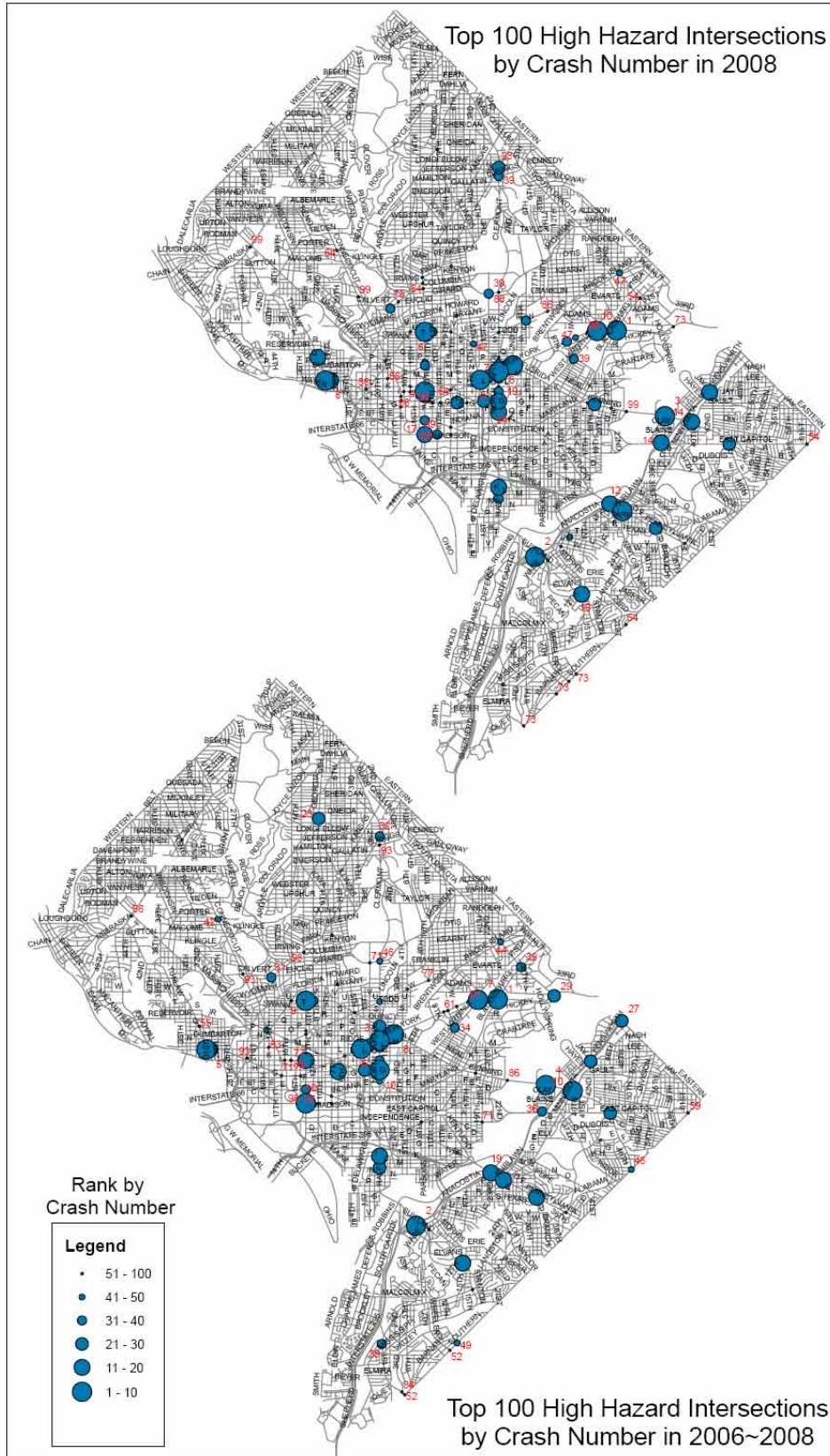


Figure 6.1 Top 100 High Hazard Intersections by Crash Number

6.1.2 Rank by Crash Rate

Table 6.3 Rank by Crash Rate for Each Year (Rank: 1~33)

INT_NAME	QUAD	2006		2007		2008	
		Crash Rate	Rank	Crash Rate	Rank	Crash Rate	Rank
14TH ST AND C ST	NE	3.87	2	4.76	1	4.47	1
14TH ST AND U ST	NW	4.14	1	2.82	12	4.05	2
SOUTHERN AVE AND NAYLOR RD	OTH	2.47	22	4.11	4	3.56	3
WISCONSIN AVE AND Q ST	NW	1.43	89	1.23	91	3.48	4
1ST ST AND MASSACHUSETTS AVE	NE	2.12	34	1.63	56	3.42	5
14TH ST AND SPRING RD	NW	3.48	8	1.84	41	3.27	6
SOUTHERN AVE AND S CAPITOL ST	OTH	3.45	9	3.45	8	3.12	7
FIRTH STERLING AVE AND SUITLAND PKWY	SE	3.07	14	2.56	15	3.07	8
WISCONSIN AVE AND M ST	NW	3.53	7	3.67	6	3.01	9
7TH ST AND H ST	NW	3.34	10	4.53	2	2.95	10
GEORGIA AVE AND BARRY PL	NW	3.23	12	1.35	79	2.83	11
SOUTHERN AVE AND WHEELER RD	OTH	3.76	5	2.71	13	2.71	12
NEW YORK AVE AND BLADENSBURG RD	NE	2.49	20	2.49	17	2.66	13
8TH ST AND H ST	NW	1.05	142	1.75	50	2.62	14
14TH ST AND UPSHUR ST	NW	1.99	38	1.39	73	2.59	15
14TH ST AND K ST	NW	1.98	41	1.50	66	2.57	16
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	2.27	26	3.35	9	2.49	17
MARTIN LUTHER KING AVE AND HOWARD RD	SE	1.82	51	2.21	27	2.47	18
18TH ST AND COLUMBIA RD	NW	3.80	3	1.65	54	2.43	19
14TH ST AND RHODE ISLAND AVE	NW	1.84	50	1.45	69	2.42	20
14TH ST AND W ST	NW	3.29	11	2.41	21	2.41	21
14TH ST AND FLORIDA AVE	NW	1.73	60	2.05	31	2.36	22
WISCONSIN AVE AND N ST	NW	1.81	54	1.29	85	2.33	23
14TH ST AND P ST	NW	1.99	39	1.99	33	2.30	24
19TH ST AND INDEPENDENCE AVE	SE	2.85	15	2.57	14	2.28	25
1ST ST AND MICHIGAN AVE	NW	1.68	63	1.38	77	2.27	26
14TH ST AND MONROE ST	NW	2.37	25	0.85	162	2.21	27
GEORGIA AVE AND PARK RD	NW	1.68	62	2.46	19	2.20	28
5TH ST AND H ST	NW	1.94	44	1.14	103	2.17	29
MINNESOTA AVE AND BENNING RD	NE	2.09	36	2.97	10	2.15	30
17TH ST AND I ST	NW	2.15	33	1.19	97	2.15	31
7TH ST AND I ST	NW	1.47	83	1.64	55	2.13	32
SOUTHERN AVE AND BENNING RD	OTH	2.55	18	4.25	3	2.12	33

Table 6.3 Rank by Crash Rate for Each Year (Rank: 34-66)

INT_NAME	QUAD	2006		2007		2008	
		Crash Rate	Rank	Crash Rate	Rank	Crash Rate	Rank
7TH ST AND G ST	NW	1.59	75	2.29	24	2.11	34
14TH ST AND PARK RD	NW	1.11	131	0.90	146	2.11	35
14TH ST AND COLUMBIA RD	NW	1.67	64	0.63	196	2.09	36
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	0.76	196	1.15	102	2.04	37
12TH ST AND FRANKLIN ST	NE	1.74	57	0.87	157	2.03	38
MARTIN LUTHER KING AVE AND GOOD HOPE RD	SE	1.34	103	3.56	7	2.00	39
4TH ST AND ATLANTIC ST	SE	3.77	4	1.77	44	2.00	40
H ST AND NORTH CAPITOL ST	OTH	2.24	28	2.86	11	1.99	41
23RD ST AND SOUTHERN AVE	OTH	1.62	67	2.16	28	1.98	42
15TH ST AND I ST	NW	1.44	87	1.17	98	1.98	42
18TH ST AND KALORAMA RD	NW	3.59	6	1.08	115	1.98	44
BRENTWOOD RD AND W ST	NE	1.36	98	1.23	90	1.97	45
MISSISSIPPI AVE AND WHEELER RD	SE	2.46	23	0.66	192	1.97	46
NEW JERSEY AVE AND E ST	NW	1.57	78	2.27	25	1.92	47
STANTON RD AND SUITLAND PKWY	SE	2.52	19	2.10	30	1.92	48
SOUTHERN AVE AND SUITLAND RD	OTH	1.59	72	1.91	36	1.91	49
EASTERN AVE AND MINNESOTA AVE	OTH	2.06	37	2.38	23	1.91	50
14TH ST AND EUCLID ST	NW	0.95	160	1.22	94	1.90	51
11TH ST AND K ST	NW	2.19	30	1.31	82	1.89	52
14TH ST AND PENNSYLVANIA AVE	NW	2.21	29	1.58	60	1.89	53
4TH ST AND RHODE ISLAND AVE	NE	1.45	84	1.29	84	1.86	54
14TH ST AND I ST	NW	0.49	225	1.13	105	1.84	55
GEORGIA AVE AND BRYANT ST	NW	1.96	42	1.96	34	1.82	56
11TH ST AND H ST	NW	0.95	159	1.59	58	1.80	57
NEW JERSEY AVE AND NEW YORK AVE	NW	2.11	35	1.58	59	1.78	58
9TH ST AND U ST	NW	0.84	174	0.51	219	1.77	59
13TH ST AND U ST	NW	1.91	46	1.77	46	1.77	60
SOUTHERN AVE AND EAST CAPITOL ST	OTH	1.82	52	1.32	81	1.74	61
ALABAMA AVE AND STANTON RD	SE	1.45	85	2.54	16	1.69	62
BRANCH AVE AND PENNSYLVANIA AVE	SE	2.45	24	2.13	29	1.68	63
GOOD HOPE RD AND NAYLOR RD	SE	3.09	13	1.90	37	1.66	64
2ND ST AND H ST	NW	1.65	66	2.02	32	1.65	65
3RD ST AND D ST	NW	1.49	81	2.23	26	1.64	66

Table 6.3 Rank by Crash Rate for Each Year (Rank: 67~100)

INT_NAME	QUAD	2006		2007		2008	
		Crash Rate	Rank	Crash Rate	Rank	Crash Rate	Rank
14TH ST AND IRVING ST	NW	1.70	61	1.13	104	1.61	67
17TH ST AND PENNSYLVANIA AVE	NW	1.24	119	1.86	40	1.60	68
EASTERN AVE AND BLADENSBURG RD	OTH	0.99	149	1.39	74	1.59	69
WISCONSIN AVE AND P ST	NW	1.58	76	0.45	227	1.58	70
10TH ST AND MASSACHUSETTS AVE	NW	1.88	48	1.10	113	1.57	71
14TH ST AND L ST	NW	1.14	128	0.88	153	1.55	72
I ST AND S CAPITOL ST	OTH	1.74	57	1.79	43	1.55	73
WISCONSIN AVE AND CALVERT ST	NW	1.93	45	0.87	158	1.54	74
BENNING RD AND EAST CAPITOL ST	OTH	1.48	82	1.53	64	1.53	75
16TH ST AND L ST	NW	1.14	129	0.76	177	1.52	76
19TH ST AND M ST	NW	1.09	136	1.76	47	1.51	77
13TH ST AND H ST	NW	0.83	177	1.08	116	1.49	78
CONNECTICUT AVE AND WOODLEY RD	NW	1.03	145	0.78	171	1.46	79
9TH ST AND MASSACHUSETTS AVE	NW	0.73	198	0.80	168	1.46	80
13TH ST AND K ST	NW	0.97	153	1.22	95	1.46	81
15TH ST AND PENNSYLVANIA AVE	NW	2.78	16	2.42	20	1.45	82
1ST ST AND K ST	NW	1.45	86	1.57	61	1.45	83
12TH ST AND MONROE ST	NE	1.31	105	1.07	117	1.43	84
FLORIDA AVE AND R ST	NW	1.10	135	0.88	152	1.43	85
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	0.99	150	1.90	38	1.42	86
MONTANA AVE AND NEW YORK AVE	NE	1.59	71	1.71	51	1.40	87
ATLANTIC ST AND S CAPITOL ST	OTH	1.62	68	0.57	208	1.38	88
ALABAMA AVE AND PENNSYLVANIA AVE	SE	1.59	74	1.06	120	1.36	89
FIRTH STERLING AVE AND HOWARD RD	SE	1.95	43	2.40	22	1.35	90
9TH ST AND H ST	NW	1.34	102	1.43	70	1.34	91
RHODE ISLAND AVE AND SOUTH DAKOTA AVE	NE	1.27	115	1.27	86	1.33	92
8TH ST AND H ST	NE	1.59	73	0.97	135	1.33	93
30TH ST AND M ST	NW	1.15	126	0.53	214	1.33	93
16TH ST AND EUCLID ST	NW	0.98	152	0.82	165	1.30	95
MINNESOTA AVE AND RANDLE CIR	SE	1.03	147	0.47	225	1.30	95
17TH ST AND BENNING RD	NE	0.54	222	0.76	176	1.30	97
FLORIDA AVE AND NEW YORK AVE	NE	1.58	77	0.88	150	1.29	98
33RD ST AND M ST	NW	0.73	199	1.05	122	1.29	99
16TH ST AND BENNING RD	NE	0.81	183	0.54	213	1.29	100

Table 6.4 Rank by Crash Rate for Three Years (Rank: 1~33)

INT_NAME	QUAD	2005~2007		2006~2008	
		Crash Rate	Rank	Crash Rate	Rank
14TH ST AND C ST	NE	4.86	1	4.37	1
14TH ST AND U ST	NW	3.42	7	3.67	2
7TH ST AND H ST	NW	3.74	4	3.61	3
WISCONSIN AVE AND M ST	NW	3.26	9	3.40	4
SOUTHERN AVE AND NAYLOR RD	OTH	4.02	2	3.38	5
SOUTHERN AVE AND S CAPITOL ST	OTH	3.83	3	3.34	6
SOUTHERN AVE AND WHEELER RD	OTH	3.46	6	3.06	7
SOUTHERN AVE AND BENNING RD	OTH	3.59	5	2.97	8
FIRTH STERLING AVE AND SUITLAND PKWY	SE	2.79	13	2.90	9
14TH ST AND SPRING RD	NW	2.93	11	2.86	10
14TH ST AND W ST	NW	3.21	10	2.70	11
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	2.74	16	2.70	12
18TH ST AND COLUMBIA RD	NW	2.79	12	2.63	13
19TH ST AND INDEPENDENCE AVE	SE	2.52	21	2.57	14
NEW YORK AVE AND BLADENSBURG RD	NE	2.77	15	2.54	15
4TH ST AND ATLANTIC ST	SE	2.14	30	2.51	16
GEORGIA AVE AND BARRY PL	NW	2.60	19	2.47	17
MINNESOTA AVE AND BENNING RD	NE	2.72	17	2.40	18
1ST ST AND MASSACHUSETTS AVE	NE	3.37	8	2.39	19
H ST AND NORTH CAPITOL ST	OTH	2.57	20	2.36	20
MARTIN LUTHER KING AVE AND GOOD HOPE RD	SE	1.93	39	2.30	21
GOOD HOPE RD AND NAYLOR RD	SE	2.38	25	2.22	22
15TH ST AND PENNSYLVANIA AVE	NW	2.78	14	2.22	23
18TH ST AND KALORAMA RD	NW	2.46	23	2.22	24
STANTON RD AND SUITLAND PKWY	SE	2.34	26	2.18	25
MARTIN LUTHER KING AVE AND HOWARD RD	SE	2.21	28	2.17	26
EASTERN AVE AND MINNESOTA AVE	OTH	2.44	24	2.12	27
GEORGIA AVE AND PARK RD	NW	2.03	35	2.12	28
14TH ST AND P ST	NW	1.95	38	2.09	29
BRANCH AVE AND PENNSYLVANIA AVE	SE	2.26	27	2.08	30
MINNESOTA AVE AND NANNIE HELEN BURROUGHS AVE	NE	2.67	18	2.07	31
11TH ST AND M ST	NW	2.47	22	2.06	32
WISCONSIN AVE AND Q ST	NW	1.09	131	2.05	33

Table 6.4. Rank by Crash Rate for Three Years (Rank: 34~66)

INT_NAME	QUAD	2005~2007		2006~2008	
		Crash Rate	Rank	Crash Rate	Rank
14TH ST AND FLORIDA AVE	NW	1.84	43	2.05	34
14TH ST AND K ST	NW	1.71	52	2.02	35
7TH ST AND G ST	NW	1.59	66	2.00	36
14TH ST AND UPSHUR ST	NW	1.59	64	1.99	37
23RD ST AND SOUTHERN AVE	OTH	2.10	33	1.92	38
NEW JERSEY AVE AND E ST	NW	1.80	45	1.92	39
GEORGIA AVE AND BRYANT ST	NW	1.73	51	1.92	40
14TH ST AND RHODE ISLAND AVE	NW	1.45	80	1.90	41
FIRTH STERLING AVE AND HOWARD RD	SE	1.90	40	1.90	42
ALABAMA AVE AND STANTON RD	SE	1.98	37	1.90	43
14TH ST AND PENNSYLVANIA AVE	NW	2.21	29	1.89	44
17TH ST AND I ST	NW	1.87	41	1.83	45
NEW JERSEY AVE AND NEW YORK AVE	NW	2.00	36	1.82	46
13TH ST AND U ST	NW	1.74	48	1.82	47
14TH ST AND MONROE ST	NW	1.70	55	1.81	48
WISCONSIN AVE AND N ST	NW	1.68	56	1.81	49
SOUTHERN AVE AND SUITLAND RD	OTH	1.59	65	1.81	50
8TH ST AND H ST	NW	1.28	99	1.80	51
11TH ST AND K ST	NW	1.55	68	1.80	52
3RD ST AND D ST	NW	1.74	50	1.79	53
2ND ST AND H ST	NW	1.82	44	1.78	54
1ST ST AND MICHIGAN AVE	NW	1.74	49	1.77	55
5TH ST AND H ST	NW	1.41	84	1.75	56
7TH ST AND I ST	NW	1.64	62	1.74	57
GEORGIA AVE AND MISSOURI AVE	NW	2.07	34	1.71	58
MISSISSIPPI AVE AND WHEELER RD	SE	1.75	47	1.70	59
I ST AND S CAPITOL ST	OTH	2.14	31	1.69	60
9TH ST AND E ST	NW	1.75	46	1.64	61
MARTIN LUTHER KING AVE AND S CAPITOL ST	OTH	1.65	59	1.63	62
SOUTHERN AVE AND EAST CAPITOL ST	OTH	1.46	78	1.63	63
BENNING RD AND G ST	SE	2.13	32	1.62	64
9TH ST AND F ST	NW	1.55	68	1.60	65
17TH ST AND PENNSYLVANIA AVE	NW	1.51	74	1.57	66

Table 6.4 Rank by Crash Rate for Three Years (Rank: 67~100)

INT_NAME	QUAD	2005~2007		2006~2008	
		Crash Rate	Rank	Crash Rate	Rank
MONTANA AVE AND NEW YORK AVE	NE	1.71	53	1.57	67
12TH ST AND FRANKLIN ST	NE	1.26	103	1.55	68
ALABAMA AVE AND GOOD HOPE RD	SE	1.70	54	1.54	69
4TH ST AND RHODE ISLAND AVE	NE	1.32	94	1.54	70
15TH ST AND I ST	NW	1.20	111	1.53	71
BRENTWOOD RD AND W ST	NE	1.19	113	1.52	72
10TH ST AND MASSACHUSETTS AVE	NW	1.67	57	1.51	73
BENNING RD AND EAST CAPITOL ST	OTH	1.39	88	1.51	74
PENNSYLVANIA AVE AND SOUTHERN AVE	OTH	1.84	42	1.49	75
1ST ST AND K ST	NW	1.40	86	1.49	76
14TH ST AND IRVING ST	NW	1.51	73	1.48	77
14TH ST AND COLUMBIA RD	NW	1.22	107	1.46	78
19TH ST AND M ST	NW	1.65	60	1.45	79
6TH ST AND H ST	NW	1.56	67	1.45	80
GEORGIA AVE AND MORTON ST	NW	1.32	93	1.45	81
11TH ST AND H ST	NW	1.30	95	1.45	82
WISCONSIN AVE AND CALVERT ST	NW	1.67	58	1.44	83
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	1.52	72	1.44	84
24TH ST AND M ST	NW	1.62	63	1.41	85
14TH ST AND PARK RD	NW	0.97	159	1.37	86
9TH ST AND H ST	NW	1.50	75	1.37	87
14TH ST AND EUCLID ST	NW	0.95	166	1.36	88
6TH ST AND NEW YORK AVE	NW	1.43	82	1.34	89
ALABAMA AVE AND PENNSYLVANIA AVE	SE	1.19	116	1.34	90
SOUTH DAKOTA AVE AND BLADENSBURG RD	NE	1.48	77	1.33	91
EASTERN AVE AND BLADENSBURG RD	OTH	1.16	122	1.33	92
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	1.23	106	1.32	93
14TH ST AND CONSTITUTION AVE	NW	1.38	91	1.31	94
16TH ST AND V ST	NW	1.54	70	1.31	95
ALABAMA AVE AND NAYLOR RD	SE	1.64	61	1.30	96
8TH ST AND H ST	NE	1.15	125	1.30	97
K ST AND NORTH CAPITOL ST	OTH	1.48	76	1.30	98
RHODE ISLAND AVE AND SOUTH DAKOTA AVE	NE	1.09	133	1.29	99
CONNECTICUT AVE AND PORTER ST	NW	1.21	108	1.29	100

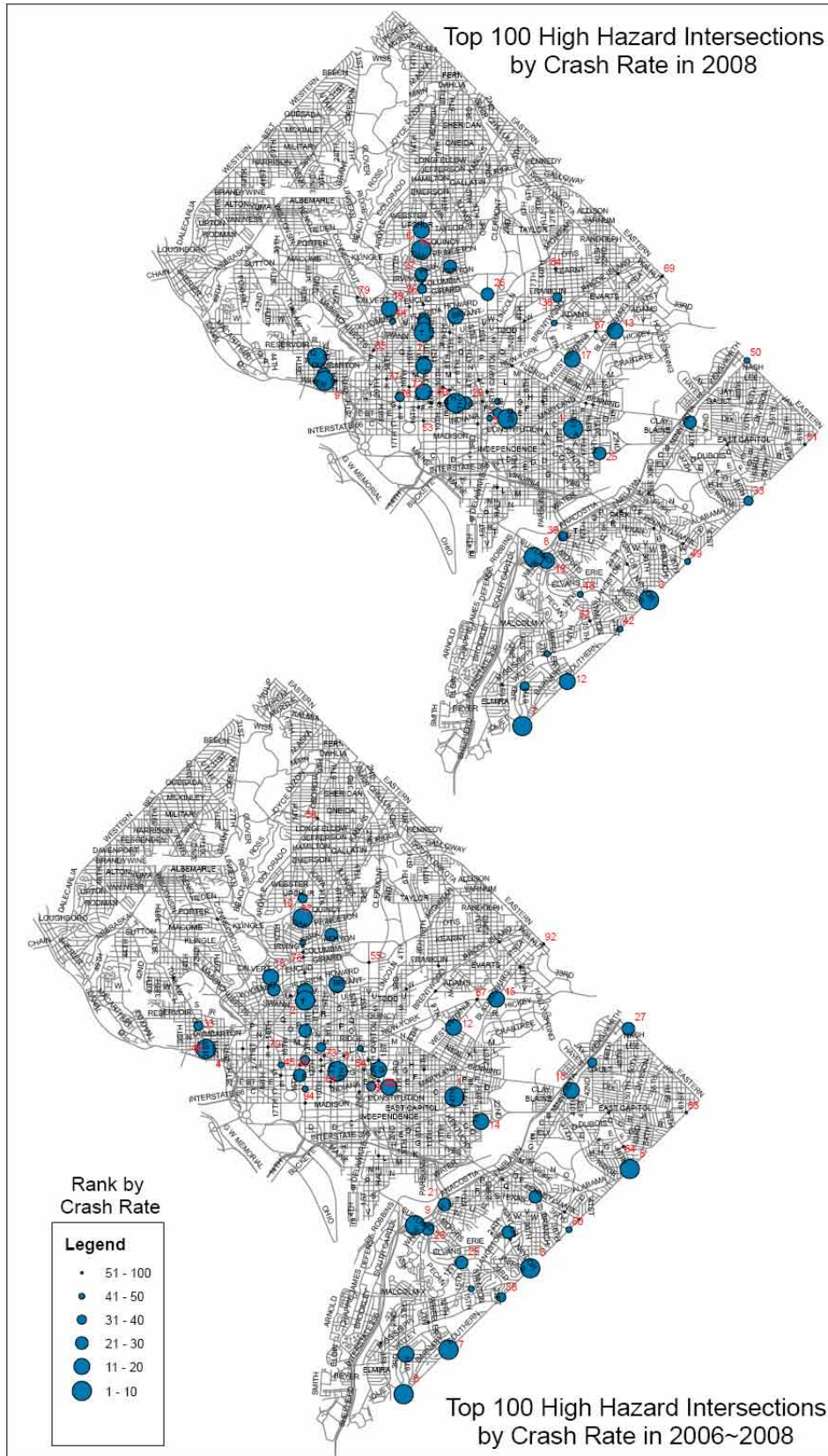


Figure 6.2 Top 100 High Hazard Intersections by Crash Rate

6.1.3 Rank by Crash Cost

Table 6.5 Rank by Crash Cost for Each Year (Rank: 1~33)

INT_NAME	QUAD	2006		2007		2008	
		Crash Cost	Rank	Crash Cost	Rank	Crash Cost	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	1,624	1	993	1	1,197	1
FIRTH STERLING AVE AND SUITLAND PKWY	SE	1,013	2	662	3	936	2
NEW JERSEY AVE AND NEW YORK AVE	NW	653	4	503	12	686	3
KENILWORTH AVE AND EAST CAPITOL ST	OTH	45	299	605	5	681	4
KENILWORTH AVE AND BENNING RD	NE	833	3	423	23	660	5
FLORIDA AVE AND NEW YORK AVE	NE	648	5	330	41	618	6
14TH ST AND K ST	NW	377	31	324	43	557	7
RHODE ISLAND AVE AND N. CAPITOL ST	OTH	308	49	180	132	518	8
MONTANA AVE AND NEW YORK AVE	NE	536	8	551	9	497	9
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	300	50	492	14	497	9
NEW YORK AVE AND NORTH CAPITOL ST	OTH	615	6	738	2	474	11
M ST AND NORTH CAPITOL ST	OTH	270	63	240	75	446	12
WEST VIRGINIA AVE AND M. OLIVET RD	NE	225	86	422	24	440	13
2ND ST AND H ST	NW	360	34	527	11	435	14
STANTON RD AND SUITLAND PKWY	SE	533	9	422	24	429	15
PENN. AVE AND ANACOSTIA FRWY	SE	324	43	635	4	428	16
I ST AND S CAPITOL ST	OTH	345	37	542	10	422	17
BRANCH AVE AND PENNSYLVANIA AVE	SE	420	22	353	36	399	18
1ST ST AND MICHIGAN AVE	NW	203	110	227	84	399	18
1ST ST AND NEW YORK AVE	NE	458	17	398	28	398	20
WISCONSIN AVE AND M ST	NW	398	25	450	18	392	21
14TH ST AND U ST	NW	497	14	300	47	390	22
H ST AND NORTH CAPITOL ST	OTH	527	11	570	8	384	23
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	128	211	219	92	375	24
14TH ST AND CONSTITUTION AVE	NW	473	15	315	45	368	25
MICHIGAN AVE AND SOUTH DAKOTA AVE	NE	281	57	218	95	366	26
4TH ST AND RHODE ISLAND AVE	NE	219	91	173	140	363	27
14TH ST AND P ST	NW	188	128	203	109	356	28
MINNESOTA AVE AND PENN. AVE	SE	452	18	594	6	345	29
16TH ST AND K ST	NW	150	171	120	198	333	30
NEW YORK AVE AND FENWICK ST	NE	311	47	248	70	332	31
RHODE ISLAND AVE AND S. DAKOTA AVE	NE	225	86	225	88	324	32
MINNESOTA AVE AND BENNING RD	NE	375	32	572	7	323	33

Table 6.5 Rank by Crash Cost for Each Year (Rank: 34-66)

INT_NAME	QUAD	2006		2007		2008	
		Crash Cost	Rank	Crash Cost	Rank	Crash Cost	Rank
SOUTHERN AVE AND EAST CAPITOL ST	OTH	393	27	417	26	317	34
1ST ST AND NEW YORK AVE	NW	293	54	467	16	315	35
25TH ST AND SOUTHERN AVE	OTH	174	140	411	27	315	35
WISCONSIN AVE AND Q ST	NW	105	250	120	198	308	37
MINNESOTA AVE AND NANNIE HELEN BURROUGHS AVE	NE	315	46	360	34	303	38
MARTIN LUTHER KING AVE AND MILWAUKEE PL	SE	197	115	350	37	303	38
31ST ST AND M ST	NW	210	100	255	66	300	40
BENNING RD AND EAST CAPITOL ST	OTH	360	34	315	45	300	40
13TH ST AND U ST	NW	369	33	333	38	294	42
GEORGIA AVE AND BARRY PL	NW	225	86	213	98	294	42
7TH ST AND H ST	NW	408	23	435	19	293	44
SOUTHERN AVE AND WHEELER RD	OTH	248	70	249	68	293	44
21ST ST AND BENNING RD	NE	165	151	53	289	293	44
ANACOSTIA AVE AND BENNING RD	NE	120	232	105	226	290	47
FLORIDA AVE AND NORTH CAPITOL ST	OTH	521	12	384	31	287	48
14TH ST AND PARK RD	NW	90	272	83	258	287	48
3RD ST AND NEW YORK AVE	NW	150	171	429	21	279	50
16TH ST AND BENNING RD	NE	218	95	129	185	279	50
NEW HAMPSHIRE AVE AND NORTH CAPITOL ST	OTH	332	40	323	44	278	52
12TH ST AND CONSTITUTION AVE	NW	173	143	294	48	278	52
13TH ST AND SOUTHERN AVE	OTH	347	36	272	55	272	54
17TH ST AND BENNING RD	NE	180	135	264	58	270	55
BRENTWOOD RD AND W ST	NE	197	115	128	186	266	56
9TH ST AND CONSTITUTION AVE	NW	128	211	387	29	264	57
MARTIN LUTHER KING AVE AND HOWARD RD	SE	219	91	264	58	263	58
16TH ST AND IRVING ST	NW	309	48	90	251	257	59
M ST AND S CAPITOL ST	OTH	573	7	263	61	255	60
NEW YORK AVE AND KENDALL ST	NE	75	285	203	109	255	60
20TH ST AND K ST	NW	120	232	98	238	251	62
FAIRLAWN AVE AND PENNSYLVANIA AVE	SE	401	24	204	107	249	63
CANAL RD AND FOXHALL RD	NW	105	250	83	258	249	63
FLORIDA AVE AND RHODE ISLAND AVE	NW	165	151	188	123	248	65
15TH ST AND K ST	NW	318	45	204	107	242	66

Table 6.5 Rank by Crash Cost for Each Year (Rank: 67~100)

INT_NAME	QUAD	2006		2007		2008	
		Crash Cost	Rank	Crash Cost	Rank	Crash Cost	Rank
13TH ST AND GOOD HOPE RD	SE	75	285	98	238	240	67
RHODE ISLAND AVE AND REED ST	NE	242	74	210	103	233	68
MASSACHUSETTS AVE AND DUPONT CIR	NW	165	151	225	88	227	69
6TH ST AND NEW YORK AVE	NW	248	70	332	40	227	69
18TH ST AND COLUMBIA RD	NW	384	30	143	174	225	71
CONNECTICUT AVE AND PORTER ST	NW	195	120	270	57	225	71
SOUTHERN AVE AND S CAPITOL ST	OTH	294	53	363	33	225	71
ALABAMA AVE AND PENNSYLVANIA AVE	SE	210	100	225	88	225	71
NORTH CAPITOL ST AND RIGGS RD	OTH	234	79	105	226	225	71
9TH ST AND MASSACHUSETTS AVE	NW	105	250	83	258	225	71
14TH ST AND IRVING ST	NW	180	135	120	198	219	77
4TH ST AND NEW YORK AVE	NW	203	110	195	117	218	78
17TH ST AND K ST	NW	210	100	120	198	218	78
14TH ST AND I ST	NW	90	272	257	63	218	78
BLADENSBURG RD AND MOUNT OLIVET RD	NE	173	143	165	151	212	81
21ST ST AND K ST	NW	173	143	75	271	212	81
FLORIDA AVE AND R ST	NW	98	264	83	258	212	81
PENNSYLVANIA AVE AND PROUT ST	SE	83	280	113	212	212	81
NEW YORK AVE AND SOUTH DAKOTA AVE	NE	530	10	498	13	210	85
14TH ST AND PENNSYLVANIA AVE	NW	339	39	287	49	210	85
K ST AND NORTH CAPITOL ST	OTH	300	50	195	117	210	85
MARTIN LUTHER KING AVE AND S CAPITOL ST	OTH	398	25	212	100	210	85
14TH ST AND RHODE ISLAND AVE	NW	195	120	150	166	210	85
5TH ST AND H ST	NW	150	171	120	198	210	85
FIRTH STERLING AVE AND S CAPITOL ST	OTH	143	183	257	63	210	85
12TH ST AND RHODE ISLAND AVE	NE	135	195	143	174	210	85
MARTIN LUTHER KING AVE AND W ST	SE	249	69	113	212	210	85
9TH ST AND U ST	NW	120	232	230	82	210	85
SOUTH DAKOTA AVE AND BLADENSBURG RD	NE	255	67	429	21	203	95
MICHIGAN AVE AND NORTH CAPITOL ST	OTH	278	59	240	75	203	95
15TH ST AND CONSTITUTION AVE	NW	135	195	173	140	203	95
NORTH CAPITOL ST AND P ST	OTH	150	171	75	271	203	95
30TH ST AND PENNSYLVANIA AVE	SE	150	171	113	212	203	95
MINNESOTA AVE AND RANDLE CIR	SE	228	83	114	211	203	95

Table 6.6 Rank by Crash Cost for Three Years (Rank: 1~33)

INT_NAME	QUAD	2005~2007		2006~2008	
		Crash Cost	Rank	Crash Cost	Rank
NEW YORK AVE AND BLADENSBURG RD	NE	4,038	1	3,815	1
FIRTH STERLING AVE AND SUITLAND PKWY	SE	2,434	2	2,611	2
KENILWORTH AVE AND BENNING RD	NE	1,923	5	1,916	3
NEW JERSEY AVE AND NEW YORK AVE	NW	2,132	3	1,841	4
NEW YORK AVE AND NORTH CAPITOL ST	OTH	2,111	4	1,827	5
FLORIDA AVE AND NEW YORK AVE	NE	1,541	12	1,596	6
MONTANA AVE AND NEW YORK AVE	NE	1,699	6	1,583	7
H ST AND NORTH CAPITOL ST	OTH	1,661	9	1,481	8
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	1,503	13	1,391	9
PENNSYLVANIA AVE AND ANACOSTIA FRWY	SE	1,315	18	1,386	10
STANTON RD AND SUITLAND PKWY	SE	1,580	10	1,383	11
KENILWORTH AVE AND EAST CAPITOL ST	OTH	1,055	34	1,331	12
2ND ST AND H ST	NW	1,292	21	1,322	13
I ST AND S CAPITOL ST	OTH	1,571	11	1,308	14
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	1,356	17	1,289	15
MINNESOTA AVE AND BENNING RD	NE	1,664	8	1,269	16
14TH ST AND K ST	NW	993	40	1,257	17
1ST ST AND NEW YORK AVE	NE	1,413	16	1,253	18
WISCONSIN AVE AND M ST	NW	1,293	20	1,239	19
NEW YORK AVE AND SOUTH DAKOTA AVE	NE	1,678	7	1,238	20
FLORIDA AVE AND NORTH CAPITOL ST	OTH	1,452	14	1,191	21
14TH ST AND U ST	NW	1,265	22	1,187	22
BRANCH AVE AND PENNSYLVANIA AVE	SE	1,103	28	1,172	23
14TH ST AND CONSTITUTION AVE	NW	1,301	19	1,155	24
7TH ST AND H ST	NW	1,181	26	1,136	25
SOUTHERN AVE AND EAST CAPITOL ST	OTH	1,006	39	1,127	26
M ST AND S CAPITOL ST	OTH	1,421	15	1,091	27
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	954	43	1,086	28
EASTERN AVE AND KENILWORTH AVE	OTH	1,214	24	1,076	29
1ST ST AND NEW YORK AVE	NW	1,089	29	1,074	30
GEORGIA AVE AND MISSOURI AVE	NW	1,250	23	1,070	31
RHODE ISLAND AVE AND NORTH CAPITOL ST	OTH	789	65	1,006	32
13TH ST AND U ST	NW	912	46	996	33

Table 6.6 Rank by Crash Cost for Three Years (Rank: 34~66)

INT_NAME	QUAD	2005~2007		2006~2008	
		Crash Cost	Rank	Crash Cost	Rank
MINNESOTA AVE AND NANNIE HELEN BURROUGHS AVE	NE	968	41	978	34
BENNING RD AND EAST CAPITOL ST	OTH	960	42	975	35
M ST AND NORTH CAPITOL ST	OTH	1,025	37	956	36
NEW HAMPSHIRE AVE AND NORTH CAPITOL ST	OTH	1,085	30	932	37
SOUTHERN AVE AND BENNING RD	OTH	1,191	25	911	38
25TH ST AND SOUTHERN AVE	OTH	820	59	901	39
NEW YORK AVE AND FENWICK ST	NE	839	54	890	40
13TH ST AND SOUTHERN AVE	OTH	903	47	890	40
SOUTH DAKOTA AVE AND BLADENSBURG RD	NE	1,151	27	887	42
SOUTHERN AVE AND S CAPITOL ST	OTH	1,010	38	882	43
MICHIGAN AVE AND SOUTH DAKOTA AVE	NE	686	84	865	44
SOUTHERN AVE AND CHESAPEAKE ST	OTH	886	50	863	45
3RD ST AND NEW YORK AVE	NW	933	45	858	46
FAIRLAWN AVE AND PENNSYLVANIA AVE	SE	852	52	854	47
MARTIN LUTHER KING AVE AND MILWAUKEE PL	SE	561	131	850	48
14TH ST AND PENNSYLVANIA AVE	NW	948	44	836	49
1ST ST AND MICHIGAN AVE	NW	737	72	828	50
MARTIN LUTHER KING AVE AND S CAPITOL ST	OTH	812	60	819	51
PENNSYLVANIA AVE AND POTOMAC AVE	SE	732	74	807	52
6TH ST AND NEW YORK AVE	NW	1,055	33	806	53
SOUTHERN AVE AND WHEELER RD	OTH	851	53	789	54
9TH ST AND CONSTITUTION AVE	NW	785	66	779	55
RHODE ISLAND AVE AND SOUTH DAKOTA AVE	NE	593	116	774	56
PENNSYLVANIA AVE AND LENFANT SQ	SE	1,082	31	767	57
31ST ST AND M ST	NW	600	111	765	58
15TH ST AND K ST	NW	665	92	764	59
SOUTHERN AVE AND SUITLAND RD	OTH	782	67	758	60
4TH ST AND RHODE ISLAND AVE	NE	504	159	755	61
18TH ST AND COLUMBIA RD	NW	804	61	752	62
14TH ST AND P ST	NW	624	103	746	63
MARTIN LUTHER KING AVE AND HOWARD RD	SE	732	74	746	63
12TH ST AND CONSTITUTION AVE	NW	797	63	744	65
CONNECTICUT AVE AND NEBRASKA AVE	NW	1,046	35	737	66

Table 6.6 Rank by Crash Cost for Three Years (Rank: 67~100)

INT_NAME	QUAD	2005~2007		2006~2008	
		Crash Cost	Rank	Crash Cost	Rank
GEORGIA AVE AND BARRY PL	NW	701	82	732	67
16TH ST AND U ST	NW	831	55	725	68
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	740	71	722	69
MICHIGAN AVE AND NORTH CAPITOL ST	OTH	1,028	36	720	70
17TH ST AND BENNING RD	NE	594	115	714	71
K ST AND NORTH CAPITOL ST	OTH	887	49	705	72
CONNECTICUT AVE AND CALVERT ST	NW	747	70	693	73
16TH ST AND NEW YORK AVE	NE	707	80	692	74
CONNECTICUT AVE AND PORTER ST	NW	608	108	690	75
9TH ST AND PENNSYLVANIA AVE	NW	791	64	686	76
RHODE ISLAND AVE AND REED ST	NE	677	87	684	77
34TH ST AND BENNING RD	NE	858	51	668	78
ALABAMA AVE AND PENNSYLVANIA AVE	SE	570	128	660	79
16TH ST AND IRVING ST	NW	671	89	656	80
EASTERN AVE AND NEW HAMPSHIRE AVE	OTH	665	92	651	81
7TH ST AND FLORIDA AVE	NW	554	137	638	82
ALABAMA AVE AND SUITLAND PKWY	SE	696	83	629	83
8TH ST AND H ST	NE	651	96	627	84
16TH ST AND BENNING RD	NE	527	144	626	85
14TH ST AND L ST	NW	603	109	618	86
PENNSYLVANIA AVE AND SOUTHERN AVE	OTH	716	78	618	86
MASSACHUSETTS AVE AND DUPONT CIR	NW	540	141	617	88
7TH ST AND INDEPENDENCE AVE	SE	737	72	617	88
4TH ST AND NEW YORK AVE	NW	548	139	615	90
ALABAMA AVE AND BRANCH AVE	SE	828	58	615	90
PENNSYLVANIA AVE AND BARNEY CIR	SE	621	104	612	92
FIRTH STERLING AVE AND S CAPITOL ST	OTH	617	105	609	93
GEORGIA AVE AND KALMIA RD	NW	798	62	609	93
16TH ST AND K ST	NW	558	133	603	95
14TH ST AND SPRING RD	NW	895	48	603	95
FLORIDA AVE AND RHODE ISLAND AVE	NW	525	147	600	97
GOOD HOPE RD AND NAYLOR RD	SE	638	99	600	97
7TH ST AND PENNSYLVANIA AVE	NW	749	69	597	99
NORTH CAPITOL ST AND R ST	OTH	680	85	596	100

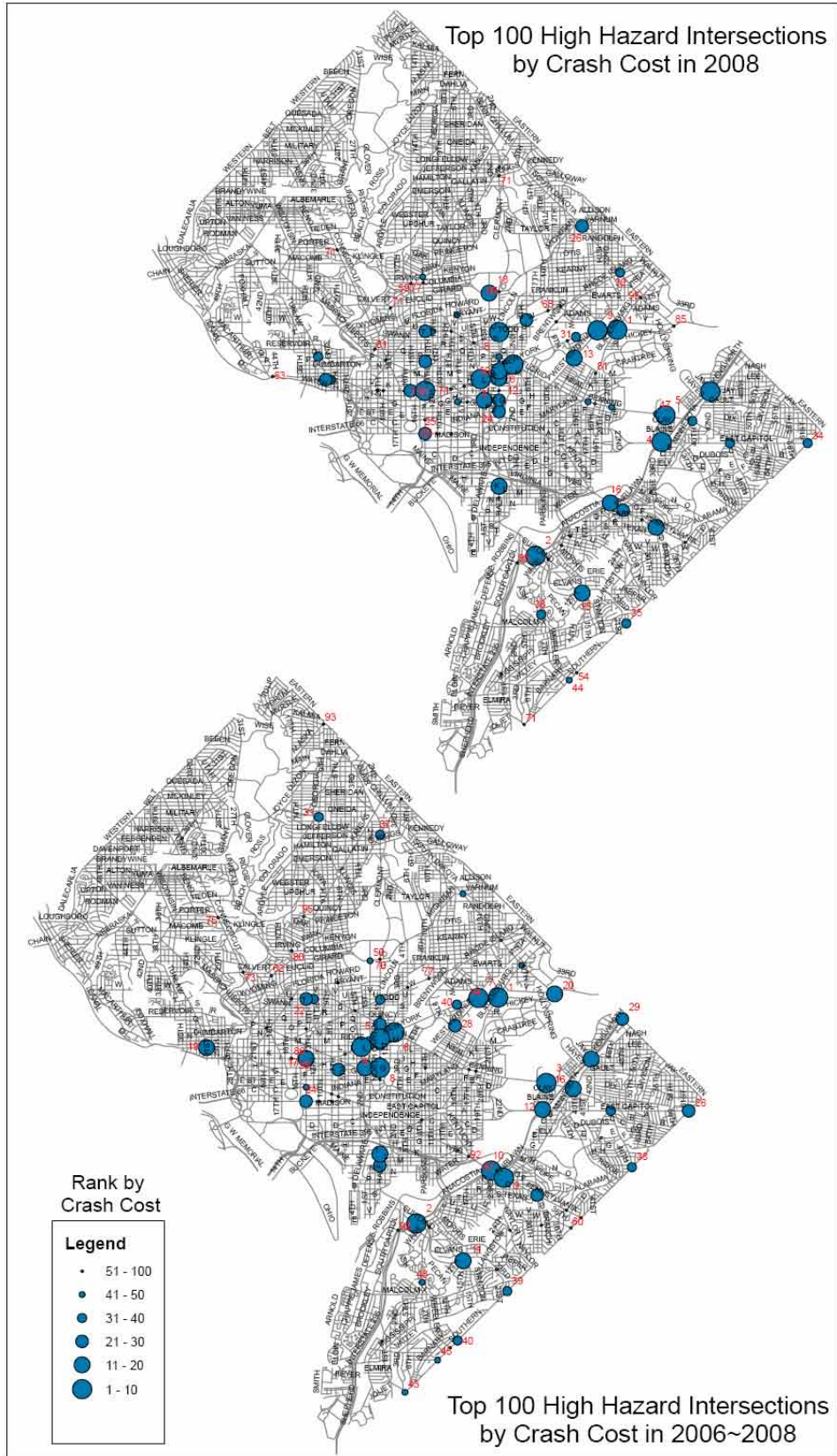


Figure 6.3 Top 100 High Hazard Intersections by Crash Cost

6.1.4 Rank by Crash Composite Index

Table 6.7 Rank by Composite Index for Each Year (Rank: 1~33)

INT_NAME	QUAD	2006		2007		2008	
		Comp. Index	Rank	Comp. Index	Rank	Comp. Index	Rank
FIRTH STERLING AVE AND SUITLAND PKWY	SE	5.25	1	7.25	2	3.5	1
NEW YORK AVE AND BLADENSBURG RD	NE	5.75	2	5	1	4	2
14TH ST AND K ST	NW	30.5	17	45.25	26	8.5	3
14TH ST AND U ST	NW	9.5	3	32.5	19	13	4
WISCONSIN AVE AND M ST	NW	16	6	11.25	5	14.75	5
NEW JERSEY AVE AND NEW YORK AVE	NW	12	5	23.5	14	17.25	6
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	64.5	46	19.5	11	20.5	7
WISCONSIN AVE AND Q ST	NW	182.5	197	166	178	23	8
STANTON RD AND SUITLAND PKWY	SE	11.75	4	23.75	15	24.25	9
1ST ST AND MICHIGAN AVE	NW	95	87	93.75	79	25.25	10
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	200.5	226	89.25	72	26	11
H ST AND NORTH CAPITOL ST	OTH	17.5	8	8.25	4	26.5	12
MINNESOTA AVE AND BENNING RD	NE	31.25	18	7.25	2	27.5	13
MONTANA AVE AND NEW YORK AVE	NE	24.5	14	19.5	11	28.75	14
FLORIDA AVE AND NEW YORK AVE	NE	23.25	13	65.25	46	29.5	15
2ND ST AND H ST	NW	41.25	29	18	9	30	16
7TH ST AND H ST	NW	19.75	10	11.5	6	30.5	17
I ST AND S CAPITOL ST	OTH	37.75	27	19	10	31.5	18
BRANCH AVE AND PENNSYLVANIA AVE	SE	20.75	12	29.75	17	31.75	19
14TH ST AND P ST	NW	93	80	78.5	59	31.75	19
4TH ST AND RHODE ISLAND AVE	NE	87.75	71	113.5	103	36.75	21
GEORGIA AVE AND BARRY PL	NW	57	36	123	123	37.25	22
MINNESOTA AVE AND PENN. AVE	SE	57	36	13.5	7	38.5	23
NEW YORK AVE AND NORTH CAPITOL ST	OTH	29.75	16	20.5	13	43	24
BENNING RD AND EAST CAPITOL ST	OTH	44.25	31	44.5	25	44.75	25
13TH ST AND U ST	NW	36.5	24	40.25	24	45	26
SOUTHERN AVE AND EAST CAPITOL ST	OTH	39.5	28	55.75	36	45.75	27
KENILWORTH AVE AND BENNING RD	NE	33.75	21	74.5	52	46.25	28
14TH ST AND PARK RD	NW	221.5	247	226.25	247	46.25	28
SOUTHERN AVE AND WHEELER RD	OTH	46.75	32	55	35	46.5	30
14TH ST AND CONSTITUTION AVE	NW	29.25	15	48.25	28	48	31
18TH ST AND COLUMBIA RD	NW	18.75	9	120.5	118	48.25	32
M ST AND NORTH CAPITOL ST	OTH	80.25	64	82.5	65	50.5	33

Table 6.7 Rank by Composite Index for Each Year (Rank: 34~66)

INT_NAME	QUAD	2006		2007		2008	
		Comp. Index	Rank	Comp. Index	Rank	Comp. Index	Rank
RHODE ISLAND AVE AND SOUTH DAKOTA AVE	NE	86.75	70	76.5	56	50.75	34
MARTIN LUTHER KING AVE AND HOWARD RD	SE	93.5	82	55.75	36	51.75	35
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	92	77	63.25	43	53.25	36
SOUTHERN AVE AND S CAPITOL ST	OTH	43.75	30	29.5	16	55.5	37
14TH ST AND RHODE ISLAND AVE	NW	91.75	76	127.25	128	55.5	37
17TH ST AND BENNING RD	NE	169	173	93	78	58.25	39
14TH ST AND I ST	NW	263.75	285	80.25	61	59.75	40
1ST ST AND NEW YORK AVE	NW	70	49	36.25	22	60.75	41
KENILWORTH AVE AND EAST CAPITOL ST	OTH	299.5	299	65.25	46	64.25	42
14TH ST AND PENNSYLVANIA AVE	NW	33.75	21	53.5	33	64.75	43
RHODE ISLAND AVE AND NORTH CAPITOL ST	OTH	74.25	56	140	145	65.25	44
PENNSYLVANIA AVE AND ANACOSTIA FRWY	SE	92.25	79	52.75	32	65.5	45
NEW HAMPSHIRE AVE AND NORTH CAPITOL ST	OTH	57.5	39	58.25	38	65.75	46
BRENTWOOD RD AND W ST	NE	134.75	132	169.75	185	67.25	47
16TH ST AND K ST	NW	154.75	159	174	188	67.75	48
5TH ST AND H ST	NW	120.75	115	179	191	68	49
12TH ST AND CONSTITUTION AVE	NW	147.5	150	75.5	54	68.25	50
16TH ST AND BENNING RD	NE	139.25	137	211	227	68.25	50
21ST ST AND BENNING RD	NE	180.5	191	277.25	295	68.25	50
9TH ST AND U ST	NW	218.25	246	166.5	180	70.75	53
1ST ST AND NEW YORK AVE	NE	72.5	53	76	55	71.5	54
9TH ST AND MASSACHUSETTS AVE	NW	233.25	261	219.5	236	71.5	54
FLORIDA AVE AND RHODE ISLAND AVE	NW	167.25	172	116.25	109	77.5	56
K ST AND NORTH CAPITOL ST	OTH	52	34	104.5	90	78	57
ALABAMA AVE AND PENNSYLVANIA AVE	SE	83.5	66	106.5	92	79.25	58
14TH ST AND IRVING ST	NW	104	98	169.25	183	80	59
M ST AND S CAPITOL ST	OTH	32.5	19	80.25	61	80.5	60
CONNECTICUT AVE AND PORTER ST	NW	116	112	50.5	29	80.75	61
4TH ST AND NEW YORK AVE	NW	101	92	112.25	100	81.25	62
15TH ST AND I ST	NW	94.5	84	131.25	137	81.25	62
1ST ST AND MASSACHUSETTS AVE	NE	154	158	167.25	181	82.75	64
31ST ST AND M ST	NW	116.75	114	97.5	81	83.75	65
14TH ST AND COLUMBIA RD	NW	134.75	132	258.75	282	84	66

Table 6.7 Rank by Composite Index for Each Year (Rank: 67~100)

INT_NAME	QUAD	2006		2007		2008	
		Comp. Index	Rank	Comp. Index	Rank	Comp. Index	Rank
FLORIDA AVE AND NORTH CAPITOL ST	OTH	32.5	19	62.25	41	85.5	67
14TH ST AND L ST	NW	127.75	125	107	93	86.75	68
MINNESOTA AVE AND NANNIE HELEN BURROUGHS AVE	NE	36.75	25	30	18	87	69
NEW YORK AVE AND FENWICK ST	NE	103.5	97	117.5	112	87.25	70
SOUTH DAKOTA AVE AND BLADENSBURG RD	NE	75.5	58	34	21	89.75	71
25TH ST AND SOUTHERN AVE	OTH	206.5	232	131	135	91.5	72
11TH ST AND H ST	NW	245	273	128.5	130	92.5	73
3RD ST AND NEW YORK AVE	NW	176	185	72	51	93.25	74
17TH ST AND K ST	NW	106.5	100	197.25	216	93.75	75
SOUTHERN AVE AND BENNING RD	OTH	64.25	45	14.25	8	94	76
16TH ST AND L ST	NW	154.75	159	224	245	94	76
16TH ST AND IRVING ST	NW	94.25	83	237.25	262	94.25	78
9TH ST AND CONSTITUTION AVE	NW	213	236	52	30	94.75	79
15TH ST AND K ST	NW	63.5	44	119.25	116	95.25	80
MICHIGAN AVE AND SOUTH DAKOTA AVE	NE	103.25	95	98	83	96	81
NORTH CAPITOL ST AND P ST	OTH	187.5	203	258.5	280	98.75	82
NEW YORK AVE AND KENDALL ST	NE	271.75	288	129	131	99.25	83
12TH ST AND FRANKLIN ST	NE	165.75	169	258.5	280	99.25	83
ATLANTIC ST AND S CAPITOL ST	OTH	77.5	59	260	286	100.25	85
SOUTHERN AVE AND NAYLOR RD	OTH	176.25	186	70	49	100.5	86
15TH ST AND CONSTITUTION AVE	NW	197.5	218	140.5	146	100.5	86
14TH ST AND SPRING RD	NW	101.75	94	97	80	102	88
MARTIN LUTHER KING AVE AND S CAPITOL ST	OTH	19.75	10	107.75	94	102.5	89
FLORIDA AVE AND R ST	NW	224.5	251	232.25	257	102.5	89
17TH ST AND PENNSYLVANIA AVE	NW	170.5	176	63	42	103.5	91
CANAL RD AND FOXHALL RD	NW	253.5	278	232.75	258	104	92
NORTH CAPITOL ST AND RIGGS RD	OTH	140.25	138	230.5	252	104.75	93
13TH ST AND GOOD HOPE RD	SE	284.75	293	257.75	279	105.25	94
17TH ST AND I ST	NW	111.5	108	191.5	205	106.25	95
13TH ST AND SOUTHERN AVE	OTH	88.75	72	104.75	91	106.5	96
16TH ST AND U ST	NW	65.25	47	113	102	107.25	97
ALABAMA AVE AND BRANCH AVE	SE	92	77	127.25	128	107.5	98
MINNESOTA AVE AND RANDLE CIR	SE	131	128	235.5	260	107.5	98
FAIRLAWN AVE AND PENNSYLVANIA AVE	SE	79.75	62	150.75	163	108.25	100

Table 6.8 Rank by Composite Index for Three Years (Rank: 1~33)

INT_NAME	QUAD	2005~2007		2006~2008	
		Comp. Index	Rank	Comp. Index	Rank
FIRTH STERLING AVE AND SUITLAND PKWY	SE	5.5	2	3.75	1
NEW YORK AVE AND BLADENSBURG RD	NE	4.5	1	4.5	2
H ST AND NORTH CAPITOL ST	OTH	12.25	5	11.5	3
WISCONSIN AVE AND M ST	NW	13.75	6	11.75	4
14TH ST AND U ST	NW	16.75	9	13.75	5
NEW JERSEY AVE AND NEW YORK AVE	NW	11.5	4	15	6
MINNESOTA AVE AND BENNING RD	NE	10.5	3	15	6
STANTON RD AND SUITLAND PKWY	SE	14.75	7	15.5	8
7TH ST AND H ST	NW	17.75	10	16.75	9
14TH ST AND K ST	NW	38.75	26	20.5	10
MONTANA AVE AND NEW YORK AVE	NE	18.25	11	22	11
BRANCH AVE AND PENNSYLVANIA AVE	SE	25.75	15	24	12
WEST VIRGINIA AVE AND MOUNT OLIVET RD	NE	35.75	22	25.5	13
2ND ST AND H ST	NW	28.25	17	25.75	14
I ST AND S CAPITOL ST	OTH	14.75	7	26.5	15
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	28	16	29.25	16
NEW YORK AVE AND NORTH CAPITOL ST	OTH	23.25	12	29.75	17
FLORIDA AVE AND NEW YORK AVE	NE	31.5	18	31.25	18
SOUTHERN AVE AND BENNING RD	OTH	24	13	32.5	19
MINNESOTA AVE AND NANNIE HELEN BURROUGHS AVE	NE	32.75	20	35.25	20
GEORGIA AVE AND MISSOURI AVE	NW	25	14	35.75	21
SOUTHERN AVE AND S CAPITOL ST	OTH	31.5	18	36	22
13TH ST AND U ST	NW	46.25	30	37	23
14TH ST AND CONSTITUTION AVE	NW	35.25	21	38	24
BENNING RD AND EAST CAPITOL ST	OTH	51.25	37	41.5	25
SOUTHERN AVE AND WHEELER RD	OTH	40	27	41.75	26
18TH ST AND COLUMBIA RD	NW	41	28	42	27
SOUTHERN AVE AND EAST CAPITOL ST	OTH	59	42	43.5	28
14TH ST AND PENNSYLVANIA AVE	NW	37	23	44.75	29
KENILWORTH AVE AND BENNING RD	NE	46.5	31	48.25	30
MARTIN LUTHER KING AVE AND S CAPITOL ST	OTH	56	40	50.75	31
14TH ST AND P ST	NW	78.75	61	52.5	32
1ST ST AND NEW YORK AVE	NW	51	36	53.25	33

Table 6.8 Rank by Composite Index for Three Years (Rank: 34~66)

INT_NAME	QUAD	2005~2007		2006~2008	
		Comp. Index	Rank	Comp. Index	Rank
SOUTH DAKOTA AVE AND BLADENSBURG RD	NE	42.25	29	53.5	34
FLORIDA AVE AND NORTH CAPITOL ST	OTH	38.25	25	53.75	35
EASTERN AVE AND KENILWORTH AVE	OTH	48	33	54.5	36
GEORGIA AVE AND BARRY PL	NW	62.5	47	55	37
M ST AND S CAPITOL ST	OTH	37	23	55	37
1ST ST AND MICHIGAN AVE	NW	68.25	51	56.5	39
NEW HAMPSHIRE AVE AND NORTH CAPITOL ST	OTH	55.5	39	56.75	40
MARTIN LUTHER KING AVE AND HOWARD RD	SE	66.5	50	59.5	41
6TH ST AND NEW YORK AVE	NW	49.75	35	62.5	42
RHODE ISLAND AVE AND SOUTH DAKOTA AVE	NE	110.5	98	63.75	43
4TH ST AND RHODE ISLAND AVE	NE	128	120	64.25	44
M ST AND NORTH CAPITOL ST	OTH	62	46	65.75	45
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	65	48	67	46
PENNSYLVANIA AVE AND ANACOSTIA FRWY	SE	73	57	67	46
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	78.75	61	70	48
K ST AND NORTH CAPITOL ST	OTH	52.5	38	70.25	49
GOOD HOPE RD AND NAYLOR RD	SE	71	56	70.5	50
1ST ST AND NEW YORK AVE	NE	70.75	55	71.75	51
CONNECTICUT AVE AND PORTER ST	NW	95.75	80	73	52
19TH ST AND INDEPENDENCE AVE	SE	80.75	64	73.75	53
KENILWORTH AVE AND EAST CAPITOL ST	OTH	87.5	72	74.25	54
NEW YORK AVE AND SOUTH DAKOTA AVE	NE	60.75	43	74.25	54
RHODE ISLAND AVE AND NORTH CAPITOL ST	OTH	93.75	77	77.25	56
CONNECTICUT AVE AND NEBRASKA AVE	NW	49.25	34	78	57
15TH ST AND K ST	NW	107.75	92	81	58
ALABAMA AVE AND PENNSYLVANIA AVE	SE	120	109	81.25	59
14TH ST AND RHODE ISLAND AVE	NW	139.25	133	81.5	60
9TH ST AND PENNSYLVANIA AVE	NW	65.5	49	81.5	60
14TH ST AND SPRING RD	NW	61.75	45	82.75	62
16TH ST AND U ST	NW	76	59	82.75	62
WISCONSIN AVE AND Q ST	NW	232.5	256	84.5	64
ALABAMA AVE AND STANTON RD	SE	81.75	67	85.75	65
GEORGIA AVE AND PARK RD	NW	88.75	73	86.75	66

Table 6.8 Rank by Composite Index for Three Years (Rank: 67~100)

INT_NAME	QUAD	2005~2007		2006~2008	
		Comp. Index	Rank	Comp. Index	Rank
MICHIGAN AVE AND NORTH CAPITOL ST	OTH	46.75	32	87	67
15TH ST AND PENNSYLVANIA AVE	NW	61	44	87	67
14TH ST AND C ST	NE	76.25	60	88.5	69
12TH ST AND CONSTITUTION AVE	NW	81.25	65	89	70
4TH ST AND NEW YORK AVE	NW	127.5	119	89.5	71
14TH ST AND L ST	NW	123.5	114	89.75	72
3RD ST AND NEW YORK AVE	NW	90.25	74	90.25	73
15TH ST AND I ST	NW	152.25	152	90.75	74
MICHIGAN AVE AND SOUTH DAKOTA AVE	NE	109.25	93	91.25	75
13TH ST AND SOUTHERN AVE	OTH	96	82	92	76
PENNSYLVANIA AVE AND SOUTHERN AVE	OTH	69.5	52	92.25	77
31ST ST AND M ST	NW	125.5	117	93	78
9TH ST AND CONSTITUTION AVE	NW	83.75	70	93.25	79
8TH ST AND H ST	NE	121.25	111	94.5	80
17TH ST AND BENNING RD	NE	147.5	142	94.75	81
NEW YORK AVE AND FENWICK ST	NE	113	101	95.75	82
SOUTHERN AVE AND SUITLAND RD	OTH	112.75	100	96.5	83
ALABAMA AVE AND BRANCH AVE	SE	70.25	54	97.5	84
FAIRLAWN AVE AND PENNSYLVANIA AVE	SE	99.5	85	97.5	84
17TH ST AND PENNSYLVANIA AVE	NW	81.5	66	97.75	86
CONNECTICUT AVE AND CALVERT ST	NW	91.25	76	99.25	87
PENNSYLVANIA AVE AND LENFANT SQ	SE	82.5	68	100.5	88
GEORGIA AVE AND KALMIA RD	NW	75.5	58	103	89
14TH ST AND I ST	NW	188.25	196	105	90
SOUTHERN AVE AND NAYLOR RD	OTH	96.5	83	108	91
14TH ST AND IRVING ST	NW	121.5	112	108.75	92
FLORIDA AVE AND RHODE ISLAND AVE	NW	147	140	111	93
16TH ST AND K ST	NW	143.5	137	111.5	94
SOUTHERN AVE AND CHESAPEAKE ST	OTH	119.5	107	112.25	95
16TH ST AND NEW YORK AVE	NE	116.75	104	112.75	96
PENNSYLVANIA AVE AND POTOMAC AVE	SE	143	136	113	97
5TH ST AND H ST	NW	183	190	113.25	98
MASSACHUSETTS AVE AND DUPONT CIR	NW	144.5	138	114.5	99
BRENTWOOD RD AND W ST	NE	194.25	207	114.75	100

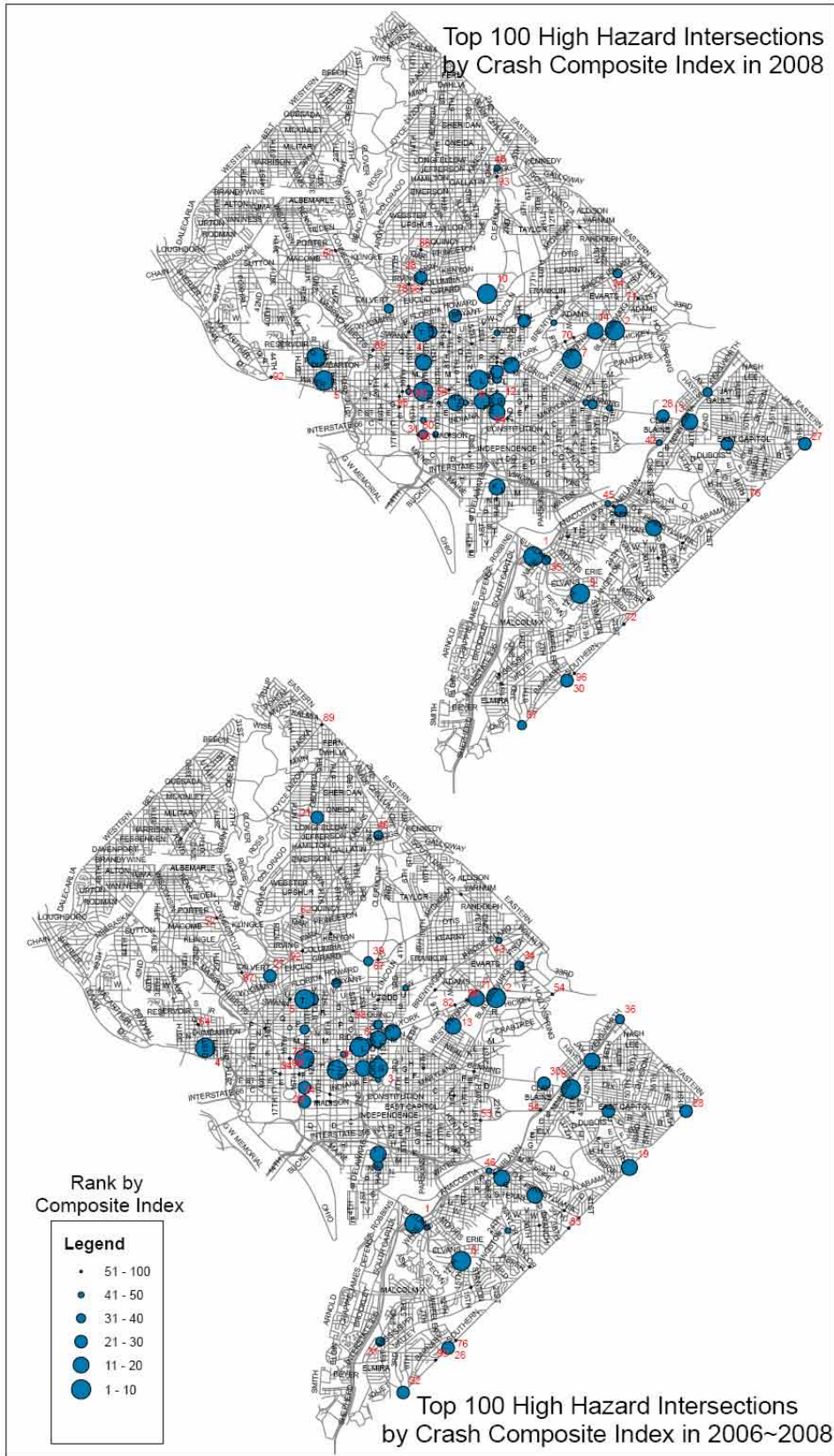


Figure 6.4 Top 100 High Hazard Intersections by Crash Composite Index

6.1.5 Rank by Crash Trend with Delta Change

Table 6.9 Rank by Crash Trend with Delta Change (Rank: 1~33)

INT_NAME	QUAD	2006 Crash	2007 Crash	2008 Crash	Delta	Rank
KENILWORTH AVE AND EAST CAPITOL ST	OTH	3	36	34	15.5	1
WISCONSIN AVE AND Q ST	NW	14	12	34	10	2
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	12	18	32	10	2
14TH ST AND I ST	NW	7	16	26	9.5	4
17TH ST AND BENNING RD	NE	12	17	29	8.5	5
PORTLAND ST AND S CAPITOL ST	OTH	0	0	16	8	6
7TH ST AND INDEPENDENCE AVE	SW	4	1	20	8	6
28TH ST AND PENNSYLVANIA AVE	SE	0	0	15	7.5	8
9TH ST AND NEW YORK AVE	NE	1	8	15	7	9
6TH ST AND PENNSYLVANIA AVE	SE	0	0	14	7	9
13TH ST AND GOOD HOPE RD	SE	8	8	22	7	9
IRVING ST AND KENYON ST	NW	1	2	14	6.5	12
14TH ST AND INDEPENDENCE AVE	SW	1	0	14	6.5	12
NEW YORK AVE AND KENDALL ST	NE	10	20	23	6.5	12
PENN. AVE AND ANACOSTIA FRWY	SE	22	42	35	6.5	12
POTOMAC AVE AND S CAPITOL ST	OTH	1	14	13	6	16
25TH ST AND SOUTHERN AVE	OTH	9	11	21	6	16
4TH ST AND INDEPENDENCE AVE	SW	1	2	12	5.5	18
7TH ST AND D ST	SW	0	3	11	5.5	18
MARTIN LUTHER KING AVE AND PORTLAND ST	SE	5	0	16	5.5	18
9TH ST AND U ST	NW	10	6	21	5.5	18
MINNESOTA AVE AND PENN. AVE	SE	25	48	36	5.5	18
14TH ST AND K ST	NW	37	28	48	5.5	18
16TH ST AND FULLER ST	NW	4	7	15	5.5	18
GEORGIA AVE AND UPSHUR ST	NW	3	3	13	5	25
1ST ST AND PATTERSON ST	NE	1	4	11	5	25
16TH ST AND COLUMBIA RD	NW	5	8	15	5	25
14TH ST AND PARK RD	NW	11	9	21	5	25
9TH ST AND MASSACHUSETTS AVE	NW	10	11	20	5	25
NORTH CAPITOL ST AND P ST	OTH	12	8	22	5	25
KENILWORTH AVE AND NANNIE HELEN BURROUGHS AVE	NE	23	26	33	5	25
11TH ST AND PENNSYLVANIA AVE	SE	0	0	9	4.5	32
19TH ST AND VIRGINIA AVE	NW	1	2	10	4.5	32

Table 6.9 Rank by Crash Trend with Delta Change (Rank: 34~66)

INT_NAME	QUAD	2006 Crash	2007 Crash	2008 Crash	Delta	Rank
11TH ST AND M ST	SE	0	0	9	4.5	32
3RD ST AND INDEPENDENCE AVE	SW	1	1	10	4.5	32
41ST ST AND ALABAMA AVE	SE	0	2	9	4.5	32
16TH ST AND SPRING PL	NW	4	13	13	4.5	32
8TH ST AND H ST	NW	6	10	15	4.5	32
CONNECTICUT AVE AND VEAZEY TERR	NW	7	8	16	4.5	32
L ST AND NORTH CAPITOL ST	OTH	8	9	17	4.5	32
4TH ST AND H ST	NW	6	13	15	4.5	32
21ST ST AND BENNING RD	NE	11	4	20	4.5	32
COLUMBIA RD AND ONTARIO RD	NW	10	6	19	4.5	32
NORTH CAPITOL ST AND RIGGS RD	OTH	14	11	23	4.5	32
FLORIDA AVE AND RHODE ISLAND AVE	NW	13	18	22	4.5	32
CONNECTICUT AVE AND M ST	NW	7	5	15	4	46
INDEPENDENCE AVE AND CANAL ST	SW	0	0	8	4	46
9TH ST AND V ST	NE	3	5	11	4	46
9TH ST AND D ST	SW	0	1	8	4	46
4TH ST AND M ST	SW	2	0	10	4	46
8TH ST AND E ST	SE	0	0	8	4	46
CANAL RD AND FOXHALL RD	NW	7	10	15	4	46
13TH ST AND H ST	NW	10	13	18	4	46
11TH ST AND H ST	NW	9	15	17	4	46
1ST ST AND MASSACHUSETTS AVE	NE	13	10	21	4	46
15TH ST AND CONSTITUTION AVE	NW	12	15	20	4	46
3RD ST AND NEW YORK AVE	NW	16	38	24	4	46
12TH ST AND K ST	NW	5	12	12	3.5	58
13TH ST AND M ST	NW	4	13	11	3.5	58
2ND ST AND PORTLAND ST	SE	0	0	7	3.5	58
1ST ST AND N ST	NE	2	4	9	3.5	58
9TH ST AND WATER ST	SW	4	8	11	3.5	58
4TH ST AND PENNSYLVANIA AVE	SE	0	0	7	3.5	58
15TH ST AND PENNSYLVANIA AVE	SE	0	0	7	3.5	58
7TH ST AND VIRGINIA AVE	SE	0	1	7	3.5	58
27TH ST AND K ST	NW	2	0	9	3.5	58

Table 6.9 Rank by Crash Trend with Delta Change (Rank: 67~100)

INT_NAME	QUAD	2006 Crash	2007 Crash	2008 Crash	Delta	Rank
WISCONSIN AVE AND RIVER RD	NW	1	3	8	3.5	58
MARTIN LUTHER KING AVE AND STANTON RD	SE	1	6	8	3.5	58
4TH ST AND FOURTH ST	SE	0	0	7	3.5	58
14TH ST AND MAINE AV	SW	4	8	11	3.5	58
8TH ST AND I ST	SE	0	0	7	3.5	58
ALABAMA AVE AND STANTON TERR	SE	1	5	8	3.5	58
VERMONT AVE AND U ST	NW	3	3	10	3.5	58
MASSACHUSETTS AVE AND THOMAS CIR	NW	2	8	9	3.5	58
11TH ST AND COLUMBIA RD	NW	4	6	11	3.5	58
BENNING RD AND F ST	SE	3	6	10	3.5	58
6TH ST AND FLORIDA AVE	NW	5	3	12	3.5	58
14TH ST AND EUCLID ST	NW	7	9	14	3.5	58
N ST AND S CAPITOL ST	OTH	5	13	12	3.5	58
WESTERN AVE AND WISCONSIN AVE	OTH	8	9	15	3.5	58
29TH ST AND M ST	NW	7	11	14	3.5	58
33RD ST AND M ST	NW	9	13	16	3.5	58
16TH ST AND BENNING RD	NE	12	8	19	3.5	58
MARTIN LUTHER KING AVE AND W ST	SE	12	10	19	3.5	58
12TH ST AND CONSTITUTION AVE	NW	16	19	23	3.5	58
14TH ST AND CLIFTON ST	NW	3	0	10	3.5	58
MASSACHUSETTS AVE AND WATERSIDE DR	NW	0	7	6	3	87
1ST ST AND M ST	NE	4	3	10	3	87
1ST ST AND ATLANTIC ST	SE	1	0	7	3	87
19TH ST AND I ST	NW	3	2	9	3	87
BLADENSBURG RD AND MORSE ST	NE	5	5	11	3	87
7TH ST AND PENNSYLVANIA AVE	SE	0	0	6	3	87
2ND ST AND D ST	SE	1	2	7	3	87
CATHEDRAL AVE AND NEW MEXICO AVE	NW	1	5	7	3	87
NEW JERSEY AVE AND I ST	SE	0	0	6	3	87
CONNECTICUT AVE AND CHESAPEAKE ST	NW	1	2	7	3	87
14TH ST AND MARYLAND AVE	NE	1	5	7	3	87
12TH ST AND C ST	NE	2	3	8	3	87
ALABAMA AVE AND AINGER PL	SE	3	13	9	3	87
3RD ST AND A ST	NE	1	0	7	3	87

Top 100 High Hazard Intersections
by Crash Delta Change in 2006~2008

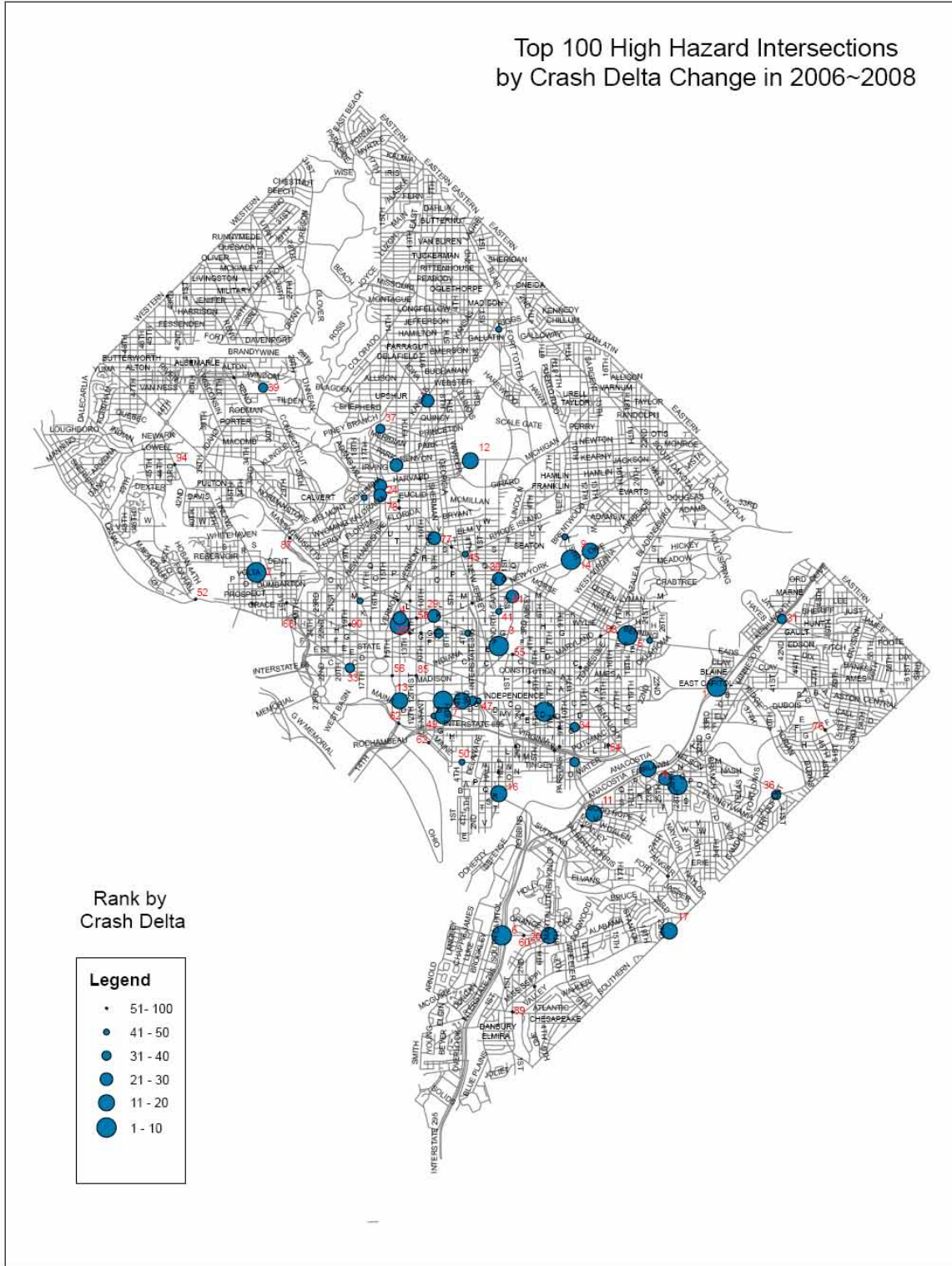


Figure 6.5 Top 100 High Hazard Intersections by Crash Delta Change

6.2 New PD10 Form and Coding Sheet

PD 10 Rev. December 2008 **TRAFFIC CRASH REPORT** Metropolitan Police Department, Washington, DC

189 (Type of Crash) Record N/A in any field that does not apply to this event. For yes/no questions, circle one. All dates should be formatted as mm/dd/yyyy. Explain any "other" responses in narrative.

190 (Road Surface) 1 Date of Crash 2 Time of Crash (Use military) 3 Day of Week 4 Date of Report 5 Complaint Number (CCN) 6 UCC Number

191 (Road Type) 7 Type of Crash (Check all that apply) 8 Location (Street/bridge/tunnel name & quadrant) 9 District 10 PSA

192 (Road Condition) 11 Location Type and Name Feet N S E W from Intersection/Block: Freeway Mile Post: PEPCO Pole No: Exit Ramp: Bridge: Tunnel: Other: Circle Quadrant: NW SW NE SE

193 (Street Lighting) 12 Construction Zone? 13 On-Street Location 14 Off-Street Location 15 Report taken on scene?

194 (Light Condition) 16 Photos taken? 16a If yes, # photos 17 # Vehicles Involved 18 # Injured Persons 19a-d # Occupants (Incl. driver) 20 # Fatalities

195 (Weather) 21 OBJECT TYPE (Describe fixed object and damage in narrative) 50 OBJECT TYPE (Describe fixed object and damage in narrative)

196 (Traffic Condition) 22 Last Name First Middle 23 Sex 24 DOB 51 Last Name First Middle 52 Sex 53 DOB

197 (Roadway Type) 25 Street Address 26 City, State, Zip 54 Street Address 55 City, State, Zip

198 (Traffic Controls) 27 Home/Cell Number 28 Work Number 56 Home/Cell Number 57 Work Number

199 (Pedestrian Action) 29 License Number 30 State 31 Class 32 Ins Exp Date 58 License Number 59 State 60 Class 61 Ins Exp Date

200a-h (Sequence) 33 Driver's Insurance Co. Name 34 Policy # 62 Insurance Co. Name 63 Policy #

35 Make 36 Model 37 Year 38 Body 39 Color 64 Make 65 Model 66 Year 67 Body 68 Color

40 Vehicle ID Number (VIN) 69 Vehicle ID Number (VIN)

41 Tag Number 42 State 43 Year 70 Tag Number 71 State 72 Year

44 Owner's Last Name First Middle 45 Owner Notified? 73 Owner's Last Name First Middle 74 Owner Notified?

46 Owner's Street Address 47 City, State, Zip 75 Owner's Street Address 76 City, State, Zip

48 Owner's Telephone # 49 Veh. Insurance Co. (if different from #33) 77 Owner's Telephone # 78 Veh. Insurance Co. (if different from #62)

Appendices

PD 10 Rev. December 2008

TRAFFIC CRASH REPORT



Metropolitan Police Department, Washington, DC

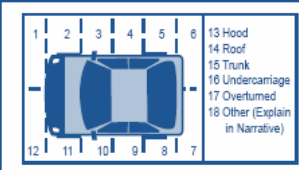
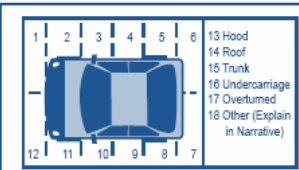
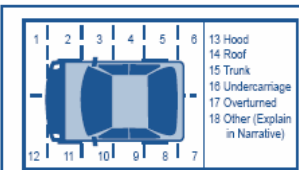
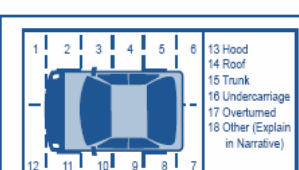
<p>200h-p (Sequence)</p> <p>201a-c (Seat Location Code)</p> <p>202a-c (Seat Belt Code)</p> <p>203a-c (Air Bag Code)</p> <p>204a-c (Ejection Code)</p> <p>205a-c (Injury Code)</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p> <p>27</p> <p>28</p> <p>29</p> <p>30</p> <p>31</p> <p>32</p> <p>33</p> <p>34</p> <p>35</p> <p>36</p> <p>37</p> <p>38</p> <p>39</p> <p>40</p> <p>41</p> <p>42</p> <p>43</p> <p>44</p> <p>45</p> <p>46</p> <p>47</p> <p>48</p> <p>49</p> <p>50</p>	<p>VEHICLE #3 [TYPE, CONTACT INFO, INSURANCE, ETC.]</p> <p>79 OBJECT TYPE <i>(Describe fixed object and damage in narrative)</i></p> <p><input type="checkbox"/> 01 Driver <input type="checkbox"/> 02 Pedestrian <input type="checkbox"/> 03 Bicyclist <input type="checkbox"/> 04 Parked Car <input type="checkbox"/> 05 Animal <input type="checkbox"/> 06 Other Fixed Object <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other: _____</p> <p>80 Last Name First Middle 81 Sex 82 DOB</p> <p>83 Street Address 84 City, State, Zip</p> <p>85 Home/Cell Number 86 Work Number</p> <p>87 License Number 88 State 89 Class 90 Ins Exp Date</p> <p>91 Driver's Insurance Co. Name 92 Policy #</p> <p>93 Make 94 Model 95 Year 96 Body 97 Color</p> <p>98 Vehicle ID Number (VIN)</p> <p>99 Tag Number 100 State 101 Year</p> <p>102 Owner's Last Name First Middle 103 Owner Notified? <input type="checkbox"/> Same as Operator Info <i>(skip to next section)</i> <input type="checkbox"/> Y <input type="checkbox"/> N</p> <p>104 Owner's Street Address 105 City, State, Zip</p> <p>106 Owner's Telephone # 107 Veh. Insurance Co. (if different from #33)</p>	<p>VEHICLE #4 [TYPE, CONTACT INFO, INSURANCE, ETC.]</p> <p>108 OBJECT TYPE <i>(Describe fixed object and damage in narrative)</i></p> <p><input type="checkbox"/> 01 Driver <input type="checkbox"/> 02 Pedestrian <input type="checkbox"/> 03 Bicyclist <input type="checkbox"/> 04 Parked Car <input type="checkbox"/> 05 Animal <input type="checkbox"/> 06 Other Fixed Object <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other: _____</p> <p>109 Last Name First Middle 110 Sex 111 DOB</p> <p>112 Street Address 113 City, State, Zip</p> <p>114 Home/Cell Number 115 Work Number</p> <p>116 License Number 117 State 118 Class 119 Ins Exp Date</p> <p>120 Insurance Co. Name 121 Policy #</p> <p>122 Make 123 Model 124 Year 125 Body 126 Color</p> <p>127 Vehicle ID Number (VIN)</p> <p>128 Tag Number 129 State 130 Year</p> <p>131 Owner's Last Name First Middle 132 Owner Notified? <input type="checkbox"/> Same as Operator Info <i>(skip to next section)</i> <input type="checkbox"/> Y <input type="checkbox"/> N</p> <p>133 Owner's Street Address 134 City, State, Zip</p> <p>135 Owner's Telephone # 136 Veh. Insurance Co. (if different from #62)</p>																																
		<p>INVOLVED PERSONS: In the next section, include all operators, passengers and pedestrians involved even if not injured.</p>																																	
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">137a-c Assoc. w/vehicle #</th> <th style="width: 30%;">138a-c Last Name, First Name</th> <th style="width: 30%;">139a-c Street Address, City, State, Zip</th> <th style="width: 10%;">140a-c Home/Cell/Work #</th> <th style="width: 5%;">141a-c Sex</th> <th style="width: 5%;">142a-e Age</th> <th style="width: 10%;">143a-c Empl. by DC Govt?</th> <th style="width: 10%;">144a-c Taken to Hosp?</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> </tr> </tbody> </table>		137a-c Assoc. w/vehicle #	138a-c Last Name, First Name	139a-c Street Address, City, State, Zip	140a-c Home/Cell/Work #	141a-c Sex	142a-e Age	143a-c Empl. by DC Govt?	144a-c Taken to Hosp?	1						<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	2						<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	3						<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
137a-c Assoc. w/vehicle #	138a-c Last Name, First Name	139a-c Street Address, City, State, Zip	140a-c Home/Cell/Work #	141a-c Sex	142a-e Age	143a-c Empl. by DC Govt?	144a-c Taken to Hosp?																												
1						<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N																												
2						<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N																												
3						<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N																												
		<p>INJURED PERSONS</p>																																	
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">145a-c Last Name, First Name</th> <th style="width: 15%;">146a-c Where Taken (Hospital)</th> <th style="width: 15%;">147a-c By Whom (Last Name, First Name)</th> <th style="width: 10%;">148a-c Major Crash Notified?</th> <th style="width: 10%;">149a-c Teletype Notified?</th> <th style="width: 20%;">150a-c Relative Notified? (If Yes, Last & First Name & Relationship)</th> <th style="width: 15%;">151a-c Status (Admitted, Released, Unknown)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td style="text-align: center;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> <td></td> </tr> </tbody> </table>		145a-c Last Name, First Name	146a-c Where Taken (Hospital)	147a-c By Whom (Last Name, First Name)	148a-c Major Crash Notified?	149a-c Teletype Notified?	150a-c Relative Notified? (If Yes, Last & First Name & Relationship)	151a-c Status (Admitted, Released, Unknown)	1			<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N			2			<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N			3			<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N						
145a-c Last Name, First Name	146a-c Where Taken (Hospital)	147a-c By Whom (Last Name, First Name)	148a-c Major Crash Notified?	149a-c Teletype Notified?	150a-c Relative Notified? (If Yes, Last & First Name & Relationship)	151a-c Status (Admitted, Released, Unknown)																													
1			<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N																															
2			<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N																															
3			<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N																															
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%; text-align: center;">Non-Involved Witnesses</th> <th style="width: 40%;">152a-c Last Name First Middle</th> <th style="width: 30%;">153a-c Street Address, City, State, Zip</th> <th style="width: 20%;">154a-c Telephone #</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">2</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">3</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Non-Involved Witnesses	152a-c Last Name First Middle	153a-c Street Address, City, State, Zip	154a-c Telephone #	1				2				3																			
Non-Involved Witnesses	152a-c Last Name First Middle	153a-c Street Address, City, State, Zip	154a-c Telephone #																																
1																																			
2																																			
3																																			

Appendices

TRAFFIC CRASH REPORT



POLICE ACTION RELATING TO DRIVERS & PEDESTRIANS			
155a-c Arrest/NOI#	156a-c Primary and Secondary Charges (Report must support charges)	157a-c What Traffic Signs Were Present?	
1			
2			
3			

VEHICLE CONDITION	158 STRIKING OBJECT/VEHICLE #1: Direction of Travel and Street Before Crash (must match narrative and diagram) <input type="checkbox"/> 01 N/B <input type="checkbox"/> 02 E/B <input type="checkbox"/> 03 S/B <input type="checkbox"/> 04 W/B <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other _____	160 Skid Marks To Impact: _____ After Impact: _____ <input type="checkbox"/> N/A	161 Circle All Areas With Damage:  13 Hood 14 Roof 15 Trunk 16 Undercarriage 17 Overturned 18 Other (Explain in Narrative)	162 Vehicle Was . . . <input type="checkbox"/> 01 Left on Scene <input type="checkbox"/> 02 Towed By: _____ Towed to: _____ Towing Control #: _____ <input type="checkbox"/> 03 Driven Away By: _____ <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other
	159 Vehicle Disabled? <input type="checkbox"/> Y <input type="checkbox"/> N			
	163 VEHICLE #2: Direction of Travel and Street Before Crash (must match narrative and diagram) <input type="checkbox"/> 01 N/B <input type="checkbox"/> 02 E/B <input type="checkbox"/> 03 S/B <input type="checkbox"/> 04 W/B <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other _____	165 Skid Marks To Impact: _____ After Impact: _____ <input type="checkbox"/> N/A	166 Circle All Areas With Damage:  13 Hood 14 Roof 15 Trunk 16 Undercarriage 17 Overturned 18 Other (Explain in Narrative)	167 Vehicle Was . . . <input type="checkbox"/> 01 Left on Scene <input type="checkbox"/> 02 Towed By: _____ Towed to: _____ Towing Control #: _____ <input type="checkbox"/> 03 Driven Away By: _____ <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other
	164 Vehicle Disabled? <input type="checkbox"/> Y <input type="checkbox"/> N			
	168 VEHICLE #3: Direction of Travel and Street Before Crash (must match narrative and diagram) <input type="checkbox"/> 01 N/B <input type="checkbox"/> 02 E/B <input type="checkbox"/> 03 S/B <input type="checkbox"/> 04 W/B <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other _____	170 Skid Marks To Impact: _____ After Impact: _____ <input type="checkbox"/> N/A	171 Circle All Areas With Damage:  13 Hood 14 Roof 15 Trunk 16 Undercarriage 17 Overturned 18 Other (Explain in Narrative)	172 Vehicle Was . . . <input type="checkbox"/> 01 Left on Scene <input type="checkbox"/> 02 Towed By: _____ Towed to: _____ Towing Control #: _____ <input type="checkbox"/> 03 Driven Away By: _____ <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other
	169 Vehicle Disabled? <input type="checkbox"/> Y <input type="checkbox"/> N			
	173 VEHICLE #4: Direction of Travel and Street Before Crash (must match narrative and diagram) <input type="checkbox"/> 01 N/B <input type="checkbox"/> 02 E/B <input type="checkbox"/> 03 S/B <input type="checkbox"/> 04 W/B <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other _____	175 Skid Marks To Impact: _____ After Impact: _____ <input type="checkbox"/> N/A	176 Circle All Areas With Damage:  13 Hood 14 Roof 15 Trunk 16 Undercarriage 17 Overturned 18 Other (Explain in Narrative)	177 Vehicle Was . . . <input type="checkbox"/> 01 Left on Scene <input type="checkbox"/> 02 Towed By: _____ Towed to: _____ Towing Control #: _____ <input type="checkbox"/> 03 Driven Away By: _____ <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other
	174 Vehicle Disabled? <input type="checkbox"/> Y <input type="checkbox"/> N			

	206a-c Driver/Pedestrian Condition	207a-c Impairment	208a-c Type of Test Conducted	209a-c Blood/Alcohol Content	210a-d Cell Phone/Other Electronic Device Present (Y/N)?	211a-d Driver/Pedestrian Distraction	212a-d Primary Contributing Circumstances	213a-d Driver Action	214a-d Vehicle Type: Private	215a-d Vehicle Type: Govt	216a-d Vehicle Type: Comm
Involved Person #1					Vehicle #1						
Involved Person #1					Vehicle #2						
Involved Person #1					Vehicle #3						
Involved Person #3					Vehicle #4						

Appendices

PD 10 Rev. December 2008

TRAFFIC CRASH REPORT



Metropolitan Police Department, Washington, DC

178 Crash Diagram (Not to Scale) (The diagram must correspond to the narrative. If the report is being taken by an officer after the fact, the diagram shall be completed to show the general area in which the crash occurred. Please indicate freeway access ramps, exit ramps and bridges. Indicate type of fixed object(s), direction, posted speed and vehicles by number indicated in spaces above.)

Large empty box for the crash diagram.



179 Detailed Narrative (Give a concise statement, in your own words, of the facts that are not covered in this report, or to clarify any items that are not satisfactorily explained ("other" answers). If statements are taken, use PD 118 (Defendant/Suspect Statement) or PD 119 (Complainant/Witness Statement). If accident occurred in a construction zone, describe type of construction zone. Wherever possible, list the item number of the corresponding section.)

Multiple horizontal lines for writing the detailed narrative.

Narrative Continued on PD 10B Supplemental

This report is used for statistical analysis of vehicular crashes and the prevention thereof. The data given represents the opinion and conclusions of the reporting officer, based on his/her judgement after considering all the facts disclosed through his/her investigation of this crash.

180 Reporting Member's Name/CAD/Badge #	181 Unit	182 Signature	183 Official's Name/CAD/Badge #	184 Official's Unit
185 Official's Signature	186 Reviewer	187 Distribution	188 Date	Complaint Number (CCN) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Use PD 10B Supplemental for Motor Carrier Vehicle Information and additional space.

METROPOLITAN POLICE DEPARTMENT OF THE DISTRICT OF COLUMBIA PD 10 Coding Sheet (December 2008)

189 Type of Crash

00 Unknown	05 Side Swiped	10 Left Turn Hit Pedestrian	15 Backing Hit Pedestrian
01 Right Angle	06 Head On	11 Right Turn Hit Pedestrian	16 Non-Collision Accident
02 Left Turn Hit Vehicle	07 Parked Vehicle	12 Straight Hit Pedestrian	17 Underride
03 Right Turn Hit Vehicle	08 Fixed Object	13 Backing Hit Moving Vehicle	18 Override
04 Rear End	09 Ran Off Roadway	14 Backing Hit Parked Vehicle	99 Other

190 Road Surface

00 Unknown	02 Asphalt	04 Gravel	99 Other
01 Concrete	03 Brick	05 Dirt	

191 Road Type (Select all that apply)

01 Straight	04 Grade	07 Ramp
02 Curve	05 Crest	08 Bridge
03 Level	06 Underpass	99 Other

192 Road Condition

00 Unknown	03 Wet	06 Snow	99 Other
01 Repairing	04 Standing Water	07 Ice	
02 Dry	05 Slush	08 Sand, Mud, Dirt, Oil or Gravel	

193 Street Lighting

00 Unknown	02 Street Lights On	98 None
01 Defective	03 Street Lights Off	99 Other

194 Light Condition

00 Unknown	03 Dark (Lighted)	05 Dawn
01 Daylight	04 Dark (Unknown Roadway Lighting)	06 Dusk
02 Dark (Not Lighted)		99 Other

195 Weather

00 Unknown	03 Snow	05 Blowing Sand, Soil, Dirt or Snow	98 Clear/No adverse conditions
01 Fog/Mist	04 Sleet/Hail	06 Severe Crosswind	99 Other
02 Rain			

196 Traffic Condition

00 Unknown	02 Medium	99 Other
01 Heavy	03 Light	

197 Roadway Type

00 Unknown	02 Two-Way, Divided Unprotected Median	03 Two way, Divided Positive Median Barrier	99 Other
01 Two-Way, Not Divided		04 One-Way, Not Divided	

198 Traffic Controls

00 Unknown	03 Yield	06 Officer
01 None	04 Stop Sign	07 Restricted Turn
02 Flashing	05 Signal	99 Other

199 Pedestrian Action

00 Unknown	03 In Crosswalk: No Signal	06 In Unmarked Crosswalk
01 With Signal in Crosswalk	04 From Between Parked Cars	97 N/A
02 Against Signal in Crosswalk	05 Not in Crosswalk	99 Other

200a-p Sequence of Vehicle Events (Record no more than 4 per vehicle and describe each in narrative)

00 Unknown	07 Non-Collision: Separation of Units	14 Collision Involving Parked Motor Vehicle	21 Collision Involving Unknown Movable Object
01 Non-Collision: Ran Off Road	08 Non-Collision: Cross Median/Centerline	15 Collision Involving Train	22 Collision: Hit & Run
02 Non-Collision: Jackknife	09 Non-Collision: Equipment Failure (tire, etc.)	16 Collision Involving Pedacycle	23 Collision Involving Moving Motor Vehicle
03 Non-Collision: Overturn (Rollover)	10 Non-Collision: Other	17 Collision Involving Animal	97 Not applicable, no more vehicles or event sequences for this vehicle
04 Non-Collision: Downhill Runaway	11 Non-Collision: Unknown	18 Collision Involving Fixed Object	
05 Non-Collision: Cargo Loss or Shift	12 Collision Involving Pedestrian	19 Collision Involving Work Zone Maintenance Equip.	
06 Non-Collision: Explosion or Fire	13 Collision Involving Motor Vehicle in Transport	20 Collision Involving Other Movable Object	99 Other

201a-c Seat Location Code (Record 1 per person and describe in narrative)

01 Driver	06 Rear Right Seat	11 Bicycle Rider
02 Front Center Seat	07 SUV/Caravan	97 N/A
03 Front Passenger Seat	08 Motorcycle/Moped Passenger	99 Other: Skateboard, Tricycle, etc.
04 Rear Left Seat (behind driver)	09 Bus occupant	
05 Rear Center Seat	10 Pedestrian	



202a-c Seat Belt/Safety Code (Record 1 per person and describe in narrative)

00 Use Unknown	03 Belt Failed	06 Improperly Worn	99 Other
01 Not Installed	04 Fastened	07 Helmet	
02 Not Fastened	05 Child Restraint	97 N/A	

203a-c Air Bag Code (Record 1 per person and describe in narrative)

00 Unknown	02 Air Bag Deployed	04 Side-Impact Airbags	99 Other
01 Air Bag Installed	03 Air Bag Failed	97 N/A	

204a-c Ejection Code (Record 1 per person and describe in narrative)

00 Unknown	02 Total	97 N/A
01 Partial	03 None	99 Other

205a-c Injury Code (Record 1 per person and describe in narrative)

00 Unknown	03 Disabling Injury	05 Complaint of Pain, But No Visible Injury	99 Other
01 No Injury	04 Non-Disabling Injury	97 N/A	
02 Fatal			

206a-c Driver/Pedestrian Condition (Record 1 per person and describe in narrative)

00 Unknown	02 Ill	04 Asleep	99 Other
01 Fatigued	03 Physical Defect	05 Normal	

207a-c Impairment (Record 1 per person and describe in narrative)

00 Impairment Unknown	Had been drinking and...	03...Ability impaired	99... Other
01 Had not been drinking	02... Obviously drunk	04...Ability not impaired	

208a-c Type of Test Conducted (Record 1 per person and describe in narrative)

00 No test Conducted	02 Blood	97 N/A
01 Urine	03 Breath	99 Other

211a-d Driver/Pedestrian Distraction (Record 1 per vehicle and describe in narrative)

00 Unknown	04 Writing	08 Using personal communication technologies	97 N/A
01 Cell phone (hand held)	05 Personal Grooming	09 Eating	99 Other
02 Cell phone (hands-free)	06 Interacting w/Pets	10 Distracted by passenger(s)	
03 Reading	07 Interacting w/unsecured cargo		

212a-d Primary Contributing Circumstance (Record 1 per vehicle and describe in narrative)

00 Unknown	07 Right Turn on Red	14 Defective Brakes, Lights, etc.	21 Cell Phone/Other Electronic Device
01 No Violation	08 Stop Sign	15 Fail to Set Parking Brake	22 Other Distraction
02 Speed	09 Yield Sign	16 Open Door to Traffic	22 Road Defects
03 Driver Inattention	10 Red Light Violation	17 Improper Backing	99 Other
04 Following Too Close	11 Flashing/Directional Light	18 Drug/Alcohol Influence	
05 Improper Passing	12 Automobile/Pedestrian Right of Way	19 Pedestrian Violation	
06 Changing Lanes Without Cautioning	13 Wrong Way/Side of Street	20 Driver Vision Obstructed	

213a-d Driver Action (Record 1 per vehicle and describe in narrative)

00 Unknown	05 Parked	09 Ran Off Road	14 Avoiding
01 Backing	06 Entering/Leaving Parked Position	10 Changing Lanes	97 N/A
02 Turning Right	07 Making "U" Turn	11 Going Straight	99 Other
03 Turning Left	08 Merging	12 Overtaking	
04 Stopped/Standing: Traffic Lane		13 Slowing/Stopping	

214a-d Vehicle Type: Private (Record 1 per vehicle and describe in narrative)

00 Unknown	04 Bicycle	08 Pick-up Truck	99 Other
01 Passenger Auto	05 Segway	09 Recreational Vehicle	
02 Motorcycle	06 SUV	11 Scooter	
03 Moped	07 Minivan	97 N/A	

215a-d Vehicle Type: Government (Record 1 per vehicle and describe in narrative)

00 Unknown	06 SUV	11 Bus (Seats 9-15 people, incl. driver)	15 Unmarked Police Car
01 Passenger Auto	07 Minivan	12 (Bus (seats more than 15 people, incl. driver)	16 Fire Truck
02 Motorcycle	08 Pick-up Truck	13 Truck	17 Other Emergency Vehicle
03 Moped	09 Recreational Vehicle	14 Marked Police Car	97 N/A
04 Bicycle	10 Scooter		99 Other
05 Segway			

216a-d Vehicle Type: Commercial (Record 1 per vehicle and describe in narrative)

00 Unknown Heavy Truck, Unclassified, > 10,000 lb.	03 Bus (Seats 9-15 people, including driver)	06 Single-Unit Truck (3 or more axles)	11 Taxi Cab
01 Passenger Auto (only if vehicle has HM Placard)	04 Bus (seats more than 15 people, incl. driver)	07 Truck/Trailer	15 people, including driver
02 Light Truck (only if vehicle has HM Placard)	05 Single-Unit Truck (2 axles, 6 tires)	08 Truck/Tractor (Bobtail)	97 N/A
		09 Tractor/Semitrailer	99 Other
		10 Tractor/Double	