

COMMERCIAL MOTOR VEHICLE TRAFFIC COLLISION FACT BOOK (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-2009-002		2. Report Date September 16, 2009	
3. Title and Subtitle Commercial Motor Vehicle Traffic Collision Fact Book		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 objective of this report is to disseminate crash information involving Commercial Motor Vehicles (CMV) and to provide related agencies with important CMV collisions data. The statistics of CMV-involved traffic crashes focuses on driver, location, severity type, vehicle type, collision type, time of the crashes and various external conditions in DC from 2006 through 2008. The high hazard intersections and corridors with high CMV-involved crash frequencies were also identified. In addition, the data can be used to identify potential traffic accident risks associated with CMVs in DC.			
11. Key Words Commercial Motor Vehicle, Truck, Bus, 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 64	16. Price N/A

Table of Contents

CMV Traffic Collisions Quick Facts.....1

CHAPTER 1 INTRODUCTION.....3

CHAPTER 2 GENERAL INFORMATION.....5

2.1 CMV Traffic Collision Trend5

2.2 Top Primary Contributing Factors7

CHAPTER 3 CMV COLLISION CHARACTERISTICS9

3.1 The driver.....9

3.1.1 Age and Sex of CMV Drivers Involved in CMV Traffic Collisions9

3.1.2 Age and Sex of Non-CMV Drivers in CMV Traffic Collisions11

3.1.3 Registration of CMVs and Drivers involved in CMV Traffic Collisions.....14

3.2 Time14

3.2.1 CMV Collisions by Time of Day14

3.2.2 CMV Collisions by Day of Week17

3.2.3 CMV Collisions by Month of Year18

3.3 Location19

3.3.1 CMV Collisions by Quadrant19

3.3.2 CMV Collisions by Ward19

3.3.3 CMV Collisions by Advisory Neighborhood Commission21

3.3.4 CMV Collisions by Police District24

3.3.5 CMV Collisions by Construction Zone24

3.3.6 CMV Collisions on Freeways and Bridges.....26

3.3.7 CMV Collisions by On-Street Location27

3.4 Crash Classification28

3.4.1 Crash Severity Type.....28

3.4.2 Type of Crash.....29

3.4.3 Hit and Run Crashes31

3.4.4 Crashes Involving Pedestrian.....32

3.4.5 Crash by CMV Classifications.....34

3.5 Environment.....35

3.5.1 CMV Collisions by Roadway Type.....35

3.5.2 CMV Collisions by Roadway Conditions36

3.5.3 CMV Collisions by Road Surface37

3.5.4 CMV Collisions by Weather Conditions38

3.5.5 CMV Collisions by Illumination Conditions.....39

3.5.6 CMV Collisions by Traffic Conditions40

3.6 Contributing Circumstance41

3.6.1 CMV Collisions by Crash Contributing Factors.....41

3.6.2 CMV Collisions by Restraint Use (Seatbelts or Airbags)42

3.6.3 Consequence of Speeding.....44

3.6.4 CMV Collisions by Sobriety.....44

3.6.5 Distractions	45
CHAPTER 4 IDENTIFICATION OF HIGH FREQUENCY CMV CRASH LOCATION.....	47
4.1 Top 20 Intersections by Number of CMV Crashes in 2008	47
4.2 Top 20 intersections by Number of CMV Crashes from 2006 through 2008	49
4.3 High Frequency Crash Intersection by Collision Type.....	51
4.4 High Frequency CMV Crash Corridors	52
CHAPTER 5 APPENDICES.....	55
5.1 New PD10 Form - Traffic Crash Report.....	55
5.2 New PD10B – Traffic Crash Report Supplemental	59
5.3 Coding Sheet.....	61

List of Figures

Figure 2.1 CMV Traffic Collision Trend from 2005 through 2008	5
Figure 2.2 Trend of CMV Collisions from 2005 through 2008	6
Figure 2.3 Top Ten Primary Contributing Factors for all CMV Collisions	7
Figure 2.4 Top Ten Primary Contributing Factors for Injury CMV Collisions	8
Figure 3.1 Age and Sex of CMV Drivers in CMV Traffic Collisions	10
Figure 3.2 Summary of Injury Severity by Age Group of CMV Drivers.....	10
Figure 3.3 Summary of Injury Severity by Gender of CMV Drivers.....	11
Figure 3.4 Age and Sex of Non-CMV Drivers in CMV Traffic Collisions	12
Figure 3.5 Injury Severity for Non-CMV Drivers in CMV Collisions by Age Group.....	13
Figure 3.6 Injury Severity for Non-CMV Drivers in CMV Collisions by Gender.....	13
Figure 3.7 CMV Collisions by Vehicle Registration State and Driver Permit State.....	14
Figure 3.8 Weekday CMV Collisions by Hour of Day	15
Figure 3.9 Weekend CMV Collisions by Hour of Day	16
Figure 3.10 Weekday CMV Collisions by Hour of Day	16
Figure 3.11 Weekend CMV Collisions by Hour of Day	17
Figure 3.12 CMV Collisions by Day of Week	18
Figure 3.13 CMV Collisions by Month.....	19
Figure 3.14 CMV Collisions, Fatalities and Injuries by Ward	20
Figure 3.15 CMV Collisions, Fatalities and Injuries by ANC	23
Figure 3.16 CMV Collisions, Fatalities and Injuries by Police District.....	25
Figure 3.17 CMV Collisions by Construction Zone.....	26
Figure 3.18 CMV Collisions by On-Street Location.....	27
Figure 3.19 Total Motor Vehicle Crashes in 2008 by Severity Type.....	28
Figure 3.20 Overall CMV Collisions in 2008 by Severity Type	29
Figure 3.21 Overall CMV Collisions by Injury Severity	29
Figure 3.22 Distribution of CMV Crashes by Collision Type	31
Figure 3.23 Number and Percentage of Hit and Run CMV Collisions 2005~2008	32
Figure 3.24 Pedestrian Involved CMV Collisions in 2008	33
Figure 3.25 Number and Percentage of Pedestrian Involved CMV Collisions 2005~2008.....	34
Figure 3.26 CMV Collisions by Vehicle Type.....	35
Figure 3.27 Number of CMV Collisions by Road Type	36
Figure 3.28 Number of CMV Collisions by Road Condition.....	37
Figure 3.29 Number of CMV Collisions and Injuries per lane-mile by Road Surface	38
Figure 3.30 Number of CMV Collisions by Weather	39
Figure 3.31 Number of CMV Collisions by Light Condition	40
Figure 3.32 Number of CMV Collisions by Traffic Condition.....	41
Figure 3.33 Percentage of CMV Collisions by Seat Belt Usage	42
Figure 3.34 Percentage of CMV Collisions by Airbag Usage	43
Figure 3.35 Percentage of Total and Speed Involved CMV Collisions	44
Figure 3.36 Percentage of Total and Speed Involved CMV Collisions by Injury Severity	44
Figure 3.37 Percentage of DUI Involved CMV Collisions	45
Figure 3.38 Percentage of Distraction Involved CMV Collisions by Injury Severity.....	46
Figure 4.1 Top 50 High Hazard Intersections in 2008	48
Figure 4.2 Top 50 High Hazard Intersections (2006 ~ 2008).....	50
Figure 4.3 Summary of High Frequency Crash Corridors for CMV.....	52
Figure 4.4 Map of Corridors with High Frequency Crash	53

List of Tables

Table 3.1 Overall and Fatal CMV Drivers by Age Group and Gender 9

Table 3.2 Injury and Non-Injury CMV Drivers by Age Group and Gender 9

Table 3.3 Overall and Fatal Non-CMV Drivers by Age Group and Gender 11

Table 3.4 Injury and Non-Injury Non-CMV Drivers by Age Group and Gender 12

Table 3.5 Overall CMV Collisions by Hour and Injury Severity 14

Table 3.6 CMV Collisions by Day of Week 17

Table 3.7 CMV Collisions by Month of Year 18

Table 3.8 CMV Collisions by Quadrant 19

Table 3.9 CMV Collisions by Ward 21

Table 3.10 Overall CMV Collisions by ANC, Fatality and Injury 21

Table 3.11 CMV Collisions by Police District 24

Table 3.12 CMV Collisions by Construction Zone 24

Table 3.13 CMV Collisions by Route Category 26

Table 3.14 CMV Collisions by Location Type 27

Table 3.15 Overall CMV Collisions by Injury Severity (2006 ~ 2008) 28

Table 3.16 CMV Collision Type by Injury Severity 30

Table 3.17 CMV Classification by Injury Severity 34

Table 3.18 CMV Collisions by Roadway Type 35

Table 3.19 CMV Collisions by Roadway Conditions 36

Table 3.20 CMV Collisions by Road Surface 37

Table 3.21 CMV Collisions by Weather Conditions 38

Table 3.22 CMV Collisions by Light Conditions 39

Table 3.23 CMV Collisions by Traffic Conditions 40

Table 3.24 CMV Collisions by Crash Contributing Factors 41

Table 3.25 CMV Collisions by Seat Belt Use 43

Table 3.26 CMV Collisions by Motor Vehicle Airbag Use 43

Table 3.27 CMV Collisions by Driver Distractions 45

Table 4.1 Top 20 Intersections by Number of CMV Crash in 2008 47

Table 4.2 Top 20 Intersections by Number of CMV Crashes (2006 ~ 2008) 49

Table 4.3 Top 20 Hazardous Intersections by Collision Type (2006~2008) 51

Table 4.4 Top 10 High Frequency CMV Crash Locations (2006 ~ 2008) 52

Table 4.5 Summary of High Frequency Crash Corridors (2006~2008) 54

CMV Traffic Collisions Quick Facts

Quick Facts	2006			2007			2008		
	Truck	Bus	CMV	Truck	Bus	CMV	Truck	Bus	CMV
Total collisions	1,904	1,213	2,998	1,749	1,196	2,802	1,030	1,373	2,336
Fatal Collisions	3	2	5	1	3	4	2	2	4
Injury Collisions	391	182	561	360	166	513	183	194	366
PDO Collisions	1,508	1,027	2,429	1,387	1,027	2,284	845	1,177	1,966
Fatalities	3	2	5	1	3	4	2	3	5
Non-Fatal Injuries	660	401	1,017	575	332	870	276	370	628
Total Vehicles Involved	3,896	2,415	6,068	3,554	2,383	5,643	2,055	2,705	4,629
Total Persons Involved	4,500	3,723	7,860	3,893	3,325	6,845	2,064	3,425	5,336
Total Pedestrians Involved	43	26	68	39	24	61	12	15	27

The table above summarized the quick facts of CMV traffic collisions from 2006 through 2008 in Washington DC.

Definitions:

- Truck-involved collision: Traffic collision involving commercial truck(s).
- Bus-involved collision: Traffic collision involving bus(es) with 9 or above seats.
- CMV-involved collision: Traffic collision involving commercial truck(s) and/or bus(es). CMV-collision may involved in both truck(s) and bus(es), and thus the number of CMV-involved collisions might be less than the total number of truck-involved collisions and bus-involved collision.

Summaries:

- The total number of CMV collisions, injuries, vehicles involved, persons involved and pedestrians involved show a general downward trend.
- The number of CMV collisions is approximately 15% of the overall number of traffic collisions.

- Since May 2008, commercial vehicles option was included as a special field in the new traffic crash reports (PD10 form). Prior to May 2008, both government and private trucks were not classified separately in the old PD10 form. This new classification has caused a decrease in the number of truck-involved collisions in 2008.

CHAPTER 1 INTRODUCTION

Commercial Motor Vehicles (CMV) are identified by the Federal Motor Carrier Safety Administration (FMCSA) as:

- Any truck that has a gross vehicle weight rating (GVWR) of more than 10,000 pounds or a gross combination weight rating (GCWR) of more than 10,000 pounds used on public highways
- Any motor vehicle with seating to transport nine (9) or more people, including the driver's seat
- Any motor vehicle displaying a hazardous materials placard (regardless of weight)

Additionally, motor vehicle collisions involving CMV such as truck and bus which resulted in a fatality, an injury or a tow-away are classified as reportable crashes to FMCSA. This report focuses on crashes involving trucks and buses in Washington DC.

On average, trucks comprise of approximately 5% traffic in DC, based on a prior study (*District of Columbia, Motor Carrier Management and Threat assessment Study, 2003*). In a pedestrian friendly metropolitan such as the District where over 50% of workers either commute by public transportation or walk to work (*2006 American Community Survey*), the prominent existence of CMVs on roadways becomes an important concern.

While the identification of motor vehicle crashes is important, understanding of CMV crashes such as trucks and buses is also critical. The most significant effect of CMV collisions is the resultant injury severity. In order to mitigate CMV crashes, it is important to understand the underlying reasons for these CMV crash occurrences. The focus of this report is to disseminate CMV-involved crash information and to provide related agencies with important CMV collisions data.

In addition, the results of the analysis can be used to identify potential traffic accident risks associated with CMVs in DC. For instance, prevention strategies such as the dedicated truck or bus routes and truck restrictions can be implemented to further improve the existing traffic circulation conditions. Furthermore, truck congestion issues can be alleviated by enhancing the level of safety and mobility utilizing the results of this report.

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

This report begins by compiling all CMV crash data from 2006 to 2008 through the assessment of crash database. Chapter 2 presents the frequency of all CMV crash data information entered in the TARAS database. Chapter three 3 provides a list of collision characteristics associated with CMVs. The final section of this report (Chapter 4) consists of a list of ranking of selected high frequency crash intersections and corridors associated with CMVs.

CHAPTER 2 GENERAL INFORMATION

2.1 CMV Traffic Collision Trend

Figure 2.1 presents a summary of crash statistics for CMVs and non-CMVs. As shown in the figure, the overall crash frequency for all vehicle types fluctuates from year to year, however, the total number of collisions showed a general downward trend. Similarly, the total number of non-CMV, truck and bus, and truck collisions showed a descending trend. In contrast, the total number of bus collisions from 2005 to 2008 showed an increase.

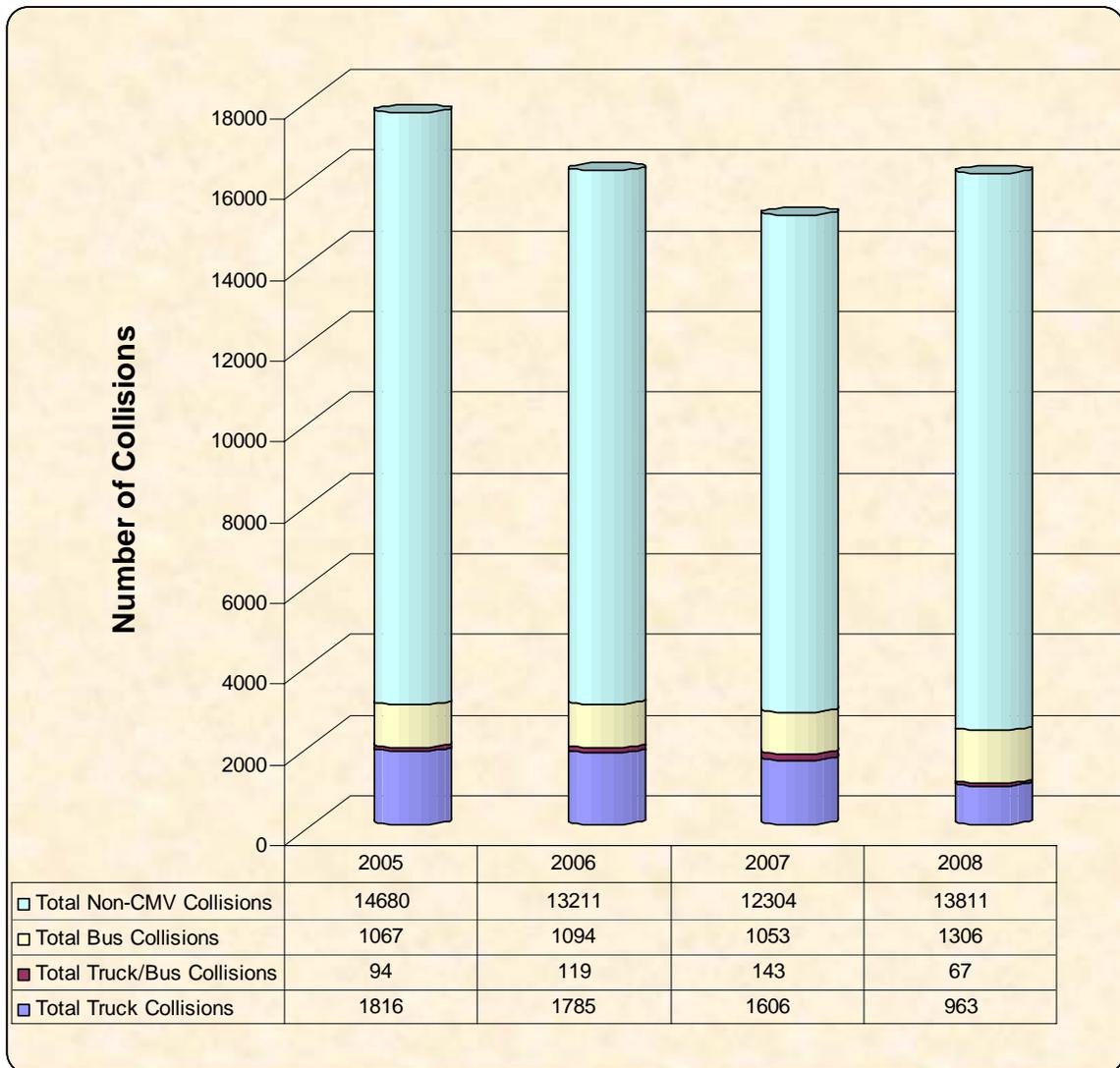


Figure 2.1 CMV Traffic Collision Trend from 2005 through 2008

General Information

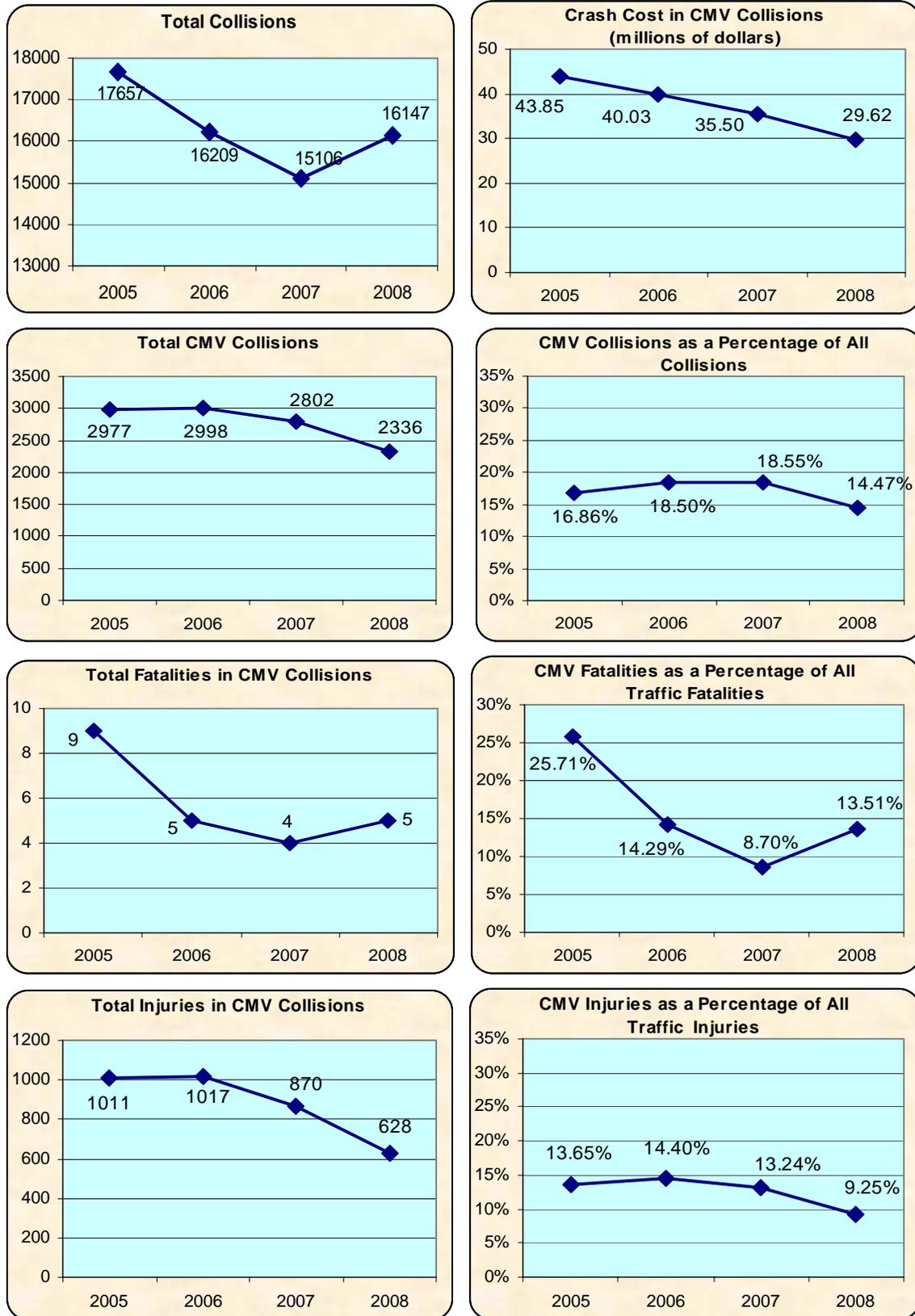


Figure 2.2 Trend of CMV Collisions from 2005 through 2008

2.2 Top Primary Contributing Factors

Commercial motor vehicle crashes are generally more severe than other motor vehicle crashes. It is therefore important to understand the underlying reasons and factors that contributed to this collision type. In this report, ten primary contributing factors for all CMV crashes in 2008 were analyzed to provide an overview of the most significant causes of CMV crashes, which is presented in Figure 2.3. As observed from the figure below, driver inattention, changing lane(s) without caution and improper passing emerged to be top three primary contributing factors for CMV crashes in DC in 2008.

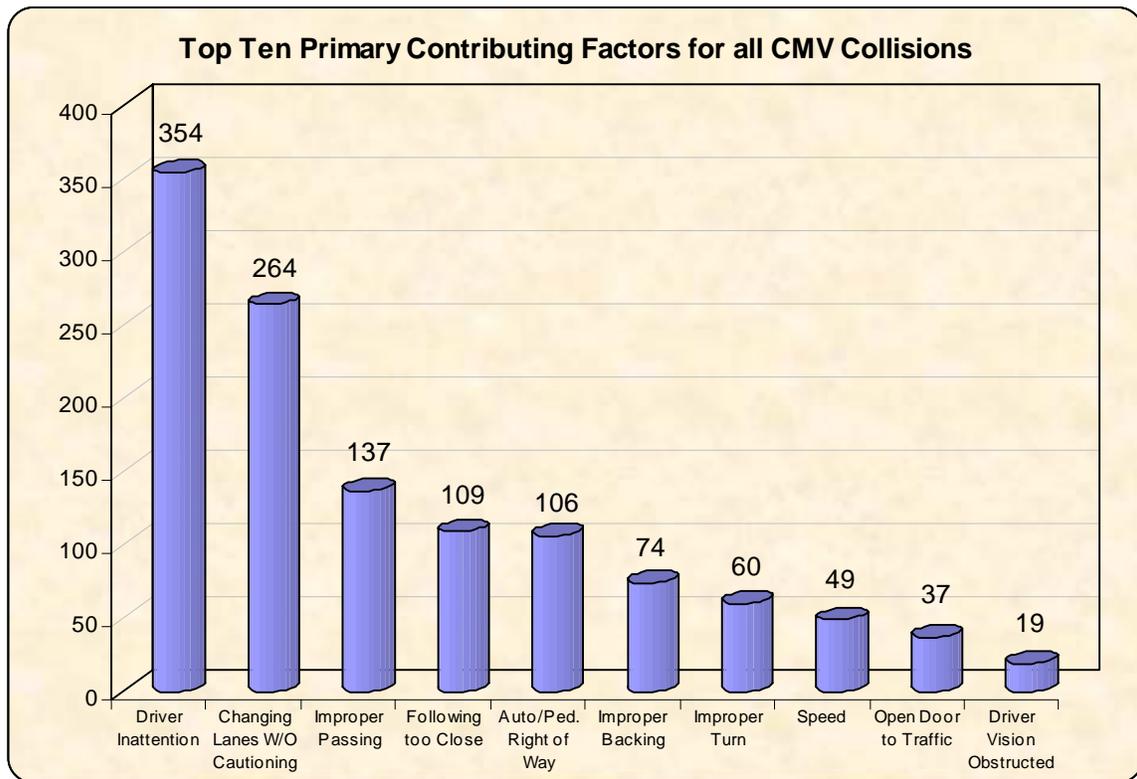


Figure 2.3 Top Ten Primary Contributing Factors for all CMV Collisions

The summary of CMV collisions which resulted injuries is presented in Figure 2.4. “Driver inattention” and “changing lane without caution” emerged as the top two primary contributing factors, while “following too closely” was found to be third highest contributing factor to CMV crashes which resulted in injuries in 2008.

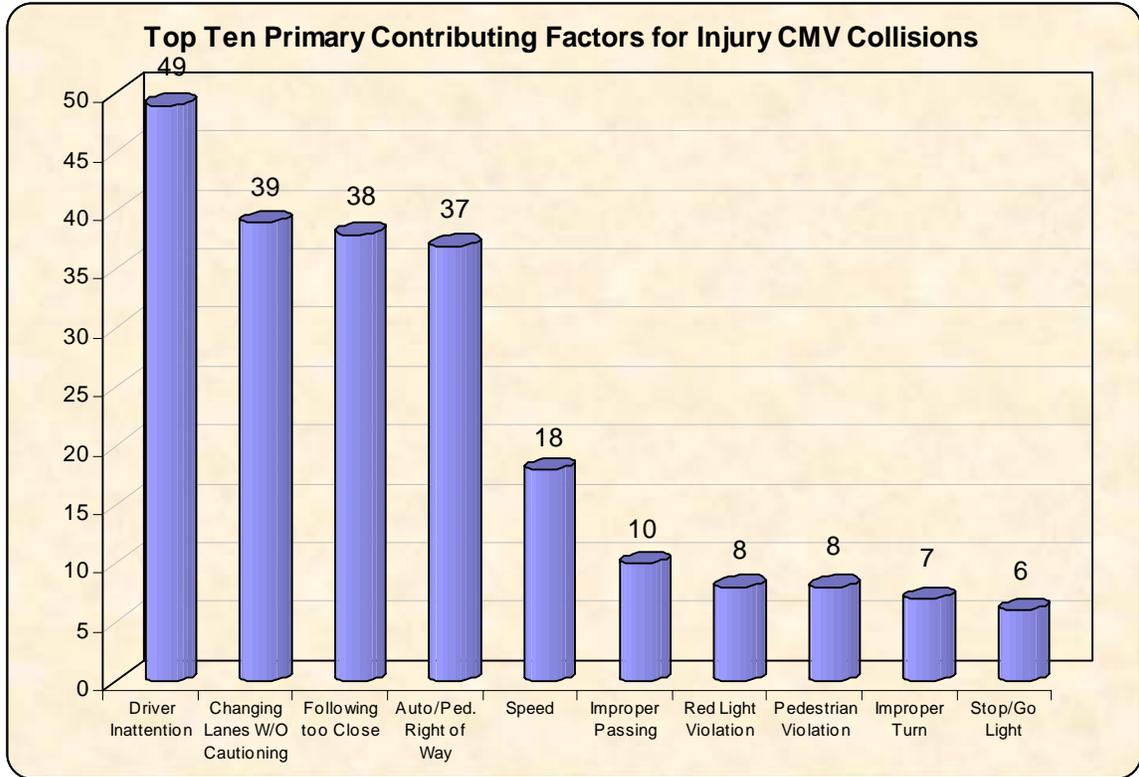


Figure 2.4 Top Ten Primary Contributing Factors for Injury CMV Collisions

CHAPTER 3 CMV COLLISION CHARACTERISTICS

3.1 The driver

3.1.1 Age and Sex of CMV Drivers Involved in CMV Traffic Collisions

As shown in Table 3.1 below, the age group of CMV drivers between 36 through 45 was recorded as the highest age group for both male and female drivers in all CMV collision categories. In this report, drivers whose gender was not recorded or unknown were included in total. The summaries are also presented in Table 3.2, and Figures 3.1, 3.2 and 3.3.

Table 3.1 Overall and Fatal CMV Drivers by Age Group and Gender

Total CMV Drivers					Fatal CMV Drivers				
Age	Female	Male	Unknown	Total	Age	Female	Male	Unknown	Total
16 to 25	44	78	0	122	16 to 25	0	0	0	0
26 to 35	117	298	2	417	26 to 35	0	0	0	0
36 to 45	149	402	2	553	36 to 45	0	0	0	0
46 to 55	78	343	1	422	46 to 55	0	0	0	0
56 to 65	35	163	1	199	56 to 65	0	0	0	0
66 to 75	9	59	0	68	66 to 75	0	0	0	0
76 to 85	1	3	0	4	76 to 85	0	0	0	0
86 Older	0	0	0	0	86 Older	0	0	0	0
Unknown	45	126	561	732	Unknown	0	0	0	0
Total	478	1,472	586	2,536	Total	0	0	0	0

Table 3.2 Injury and Non-Injury CMV Drivers by Age Group and Gender

Injury CMV Drivers					Non-Injury CMV Drivers				
Age	Female	Male	Unknown	Total	Age	Female	Male	Unknown	Total
16 to 25	2	1	0	3	16 to 25	42	77	0	119
26 to 35	12	11	0	23	26 to 35	105	287	2	394
36 to 45	13	23	0	36	36 to 45	136	379	2	517
46 to 55	8	13	0	21	46 to 55	70	330	1	401
56 to 65	5	7	0	12	56 to 65	30	156	1	187
66 to 75	1	2	0	3	66 to 75	8	57	0	65
76 to 85	0	1	0	1	76 to 85	1	2	0	3
86 Older	0	0	0	0	86 Older	0	0	0	0
Unknown	2	1	3	6	Unknown	43	125	253	421
Total	43	59	3	105	Total	435	1,413	259	2,107

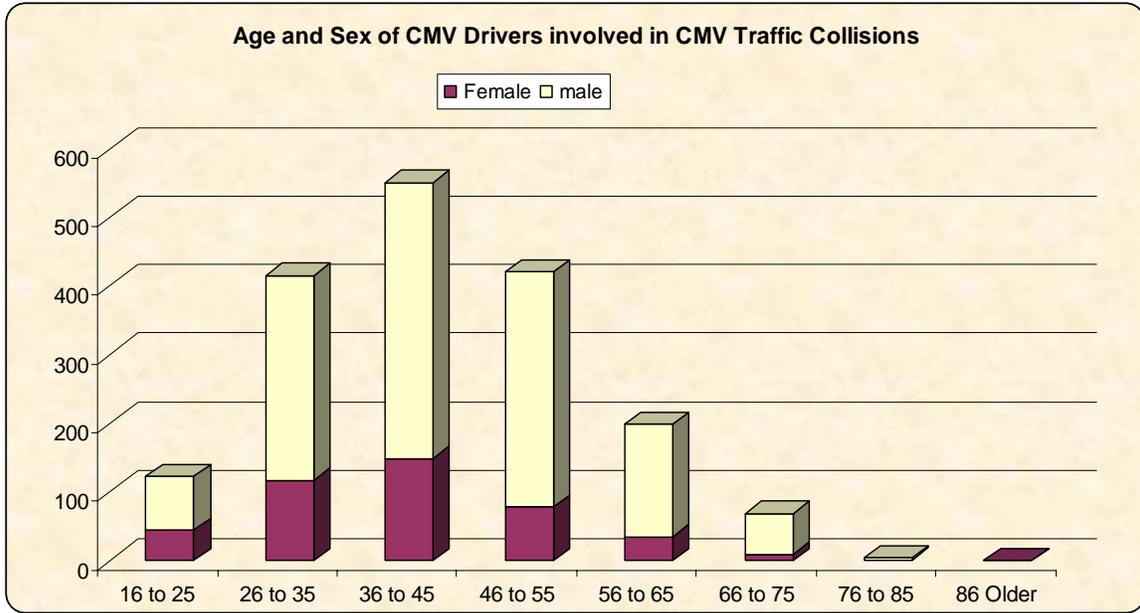


Figure 3.1 Age and Sex of CMV Drivers in CMV Traffic Collisions

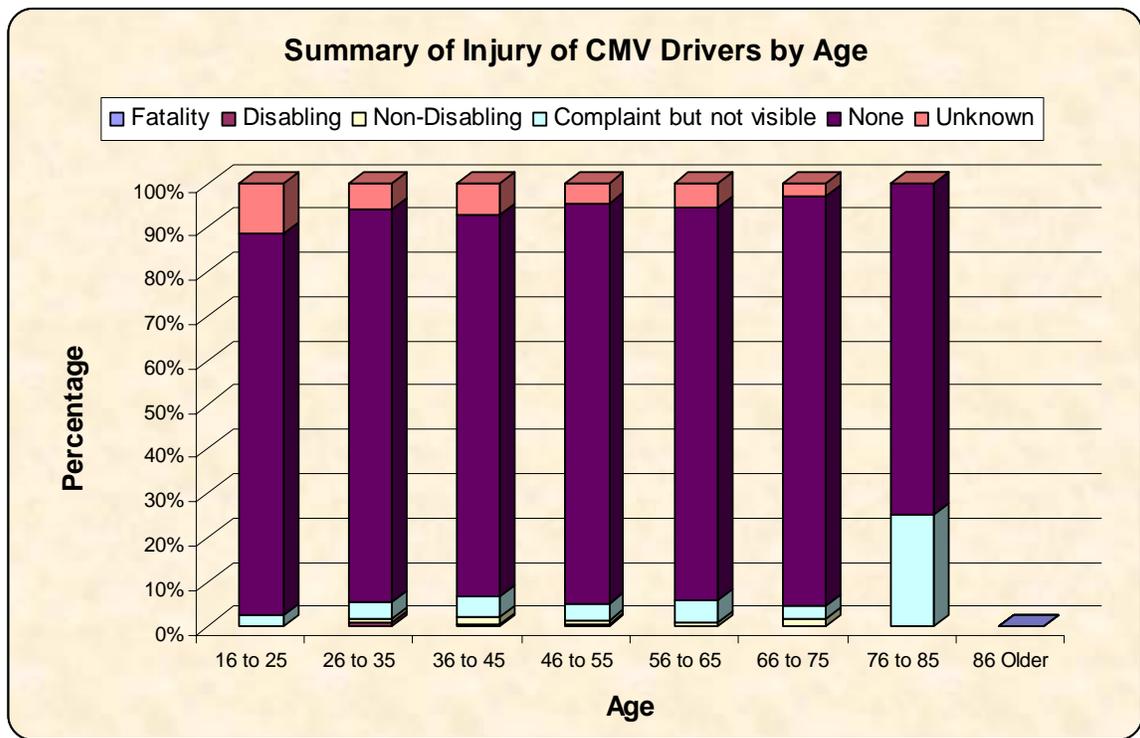


Figure 3.2 Summary of Injury Severity by Age Group of CMV Drivers

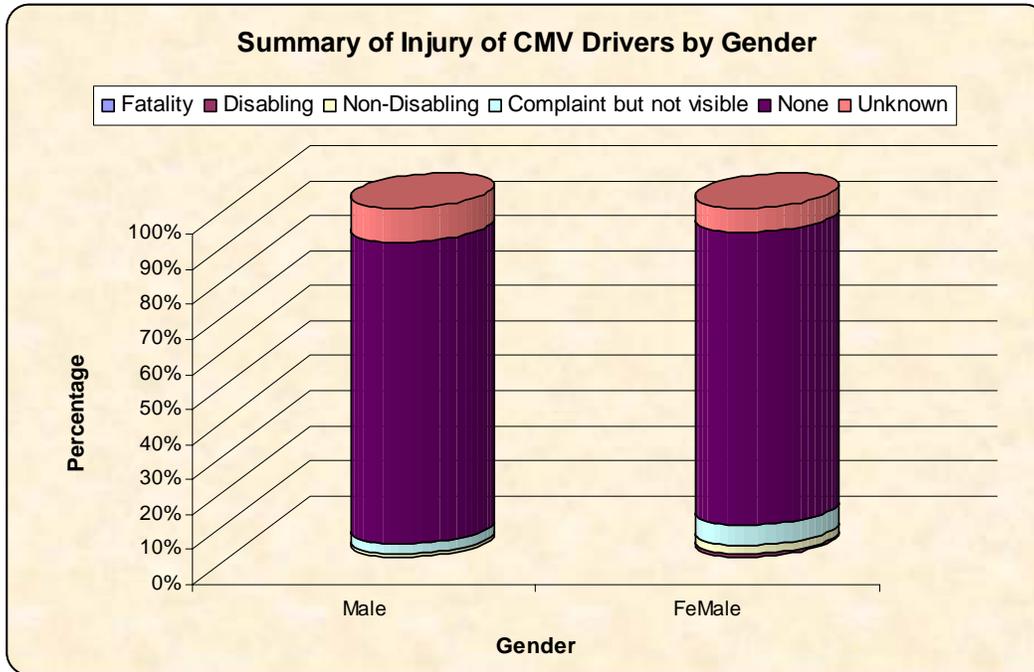


Figure 3.3 Summary of Injury Severity by Gender of CMV Drivers

3.1.2 Age and Sex of Non-CMV Drivers in CMV Traffic Collisions

For the non-CMV drivers involved in CMV collisions, a similar trend was observed in the categories of PDO and total collisions i.e. age groups of 26 to 35 female drivers and 36 to 45 male drivers were the highest (See Tables 3.3 and 3.4; Figures 3.4 through 3.6). For the fatal CMV collisions, however, only one crash was observed in the age group of 56 to 65 in 2008.

Table 3.3 Overall and Fatal Non-CMV Drivers by Age Group and Gender

Total Non-CMV Drivers					Fatal Non-CMV Drivers				
Age	Female	Male	Unknown	Total	Age	Female	Male	Unknown	Total
16 to 25	100	84	2	186	16 to 25	0	0	0	0
26 to 35	140	145	1	286	26 to 35	0	0	0	0
36 to 45	118	189	2	309	36 to 45	0	0	0	0
46 to 55	76	151	0	227	46 to 55	0	0	0	0
56 to 65	58	103	1	162	56 to 65	0	1	0	1
66 to 75	22	39	0	61	66 to 75	0	0	0	0
76 to 85	6	16	0	22	76 to 85	0	0	0	0
86 Older	3	2	0	5	86 Older	0	0	0	0
Unknown	43	64	707	814	Unknown	0	0	0	0
Total	566	793	734	2,093	Total	0	1	0	1

Table 3.4 Injury and Non-Injury Non-CMV Drivers by Age Group and Gender

Injury Non-CMV Drivers					Non-Injury Non-CMV Drivers				
Age	Female	Male	Unknown	Total	Age	Female	Male	Unknown	Total
16 to 25	19	12	1	32	16 to 25	81	72	1	154
26 to 35	17	21	0	38	26 to 35	123	124	1	248
36 to 45	15	26	0	41	36 to 45	103	163	2	268
46 to 55	12	16	0	28	46 to 55	64	135	0	199
56 to 65	10	9	0	19	56 to 65	48	93	1	142
66 to 75	1	2	0	3	66 to 75	21	37	0	58
76 to 85	1	1	0	2	76 to 85	5	15	0	20
86 Older	0	0	0	0	86 Older	3	2	0	5
Unknown	2	3	5	10	Unknown	41	61	71	173
Total	77	90	6	173	Total	489	702	76	1,267

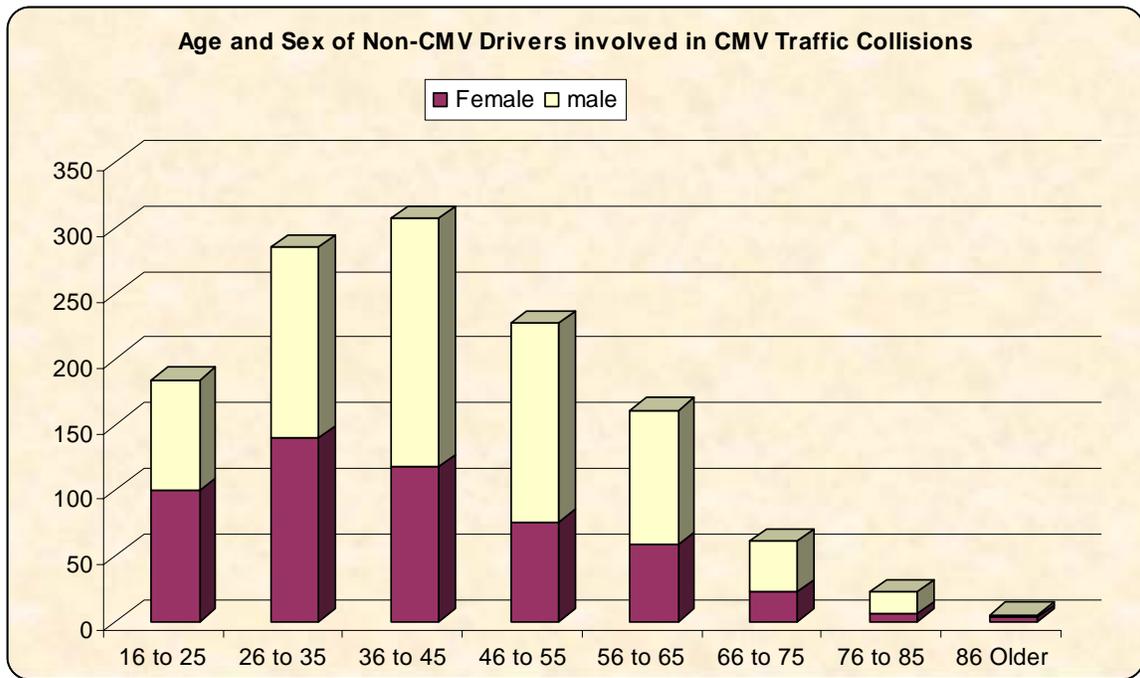


Figure 3.4 Age and Sex of Non-CMV Drivers in CMV Traffic Collisions

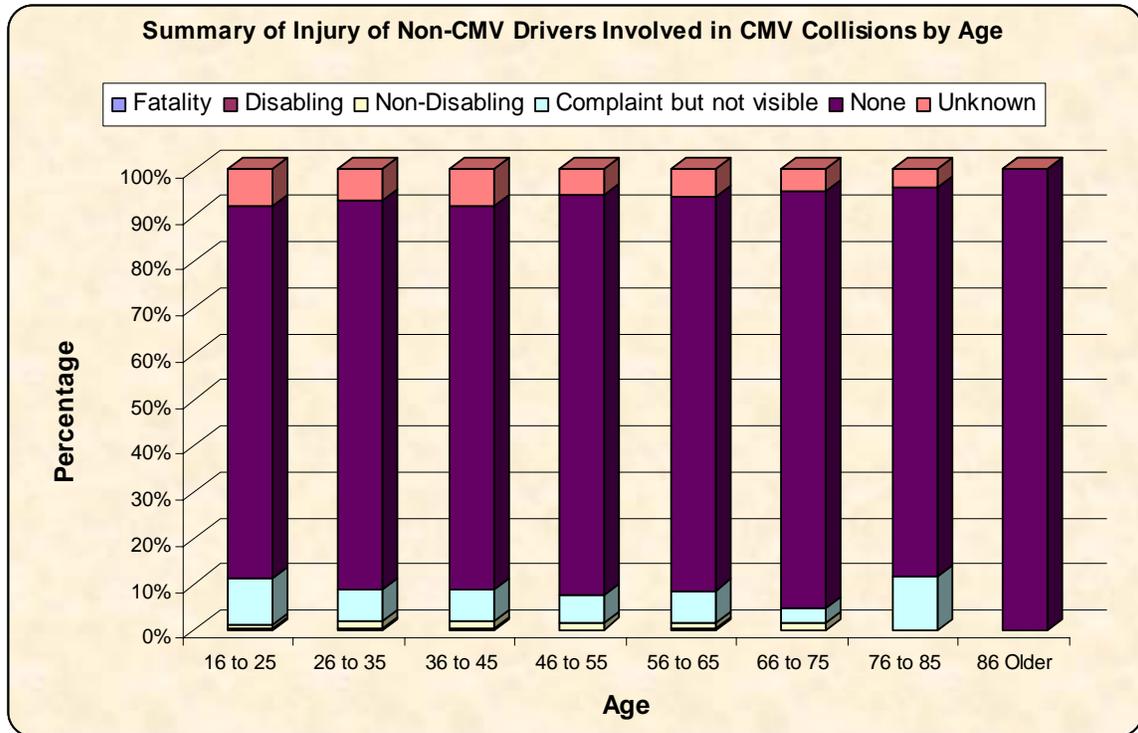


Figure 3.5 Injury Severity for Non-CMV Drivers in CMV Collisions by Age Group

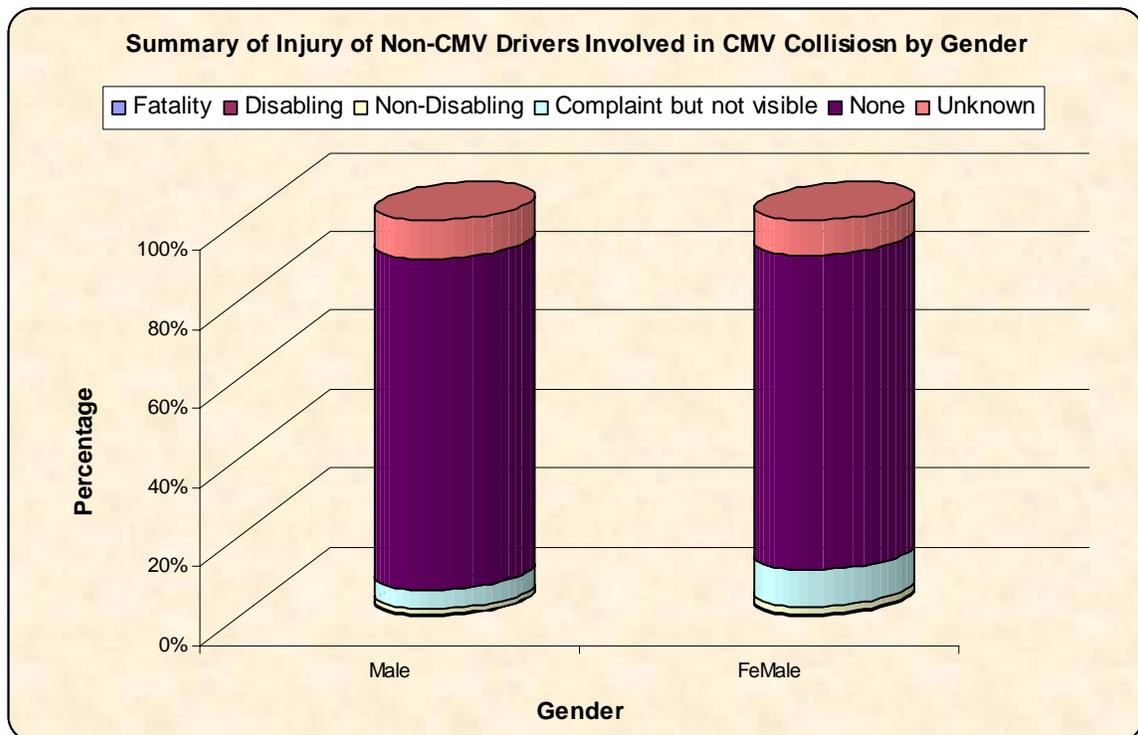


Figure 3.6 Injury Severity for Non-CMV Drivers in CMV Collisions by Gender

3.1.3 Registration of CMVs and Drivers involved in CMV Traffic Collisions

Figure 3.7 presents the summary of commercial vehicle registration and driver permits of drivers involved in CMV collisions. The results show that the majority of the CMV crashes in the District were related to registrants from Washington DC and Maryland which represents approximately 70% of the collisions observed in both of these categories.

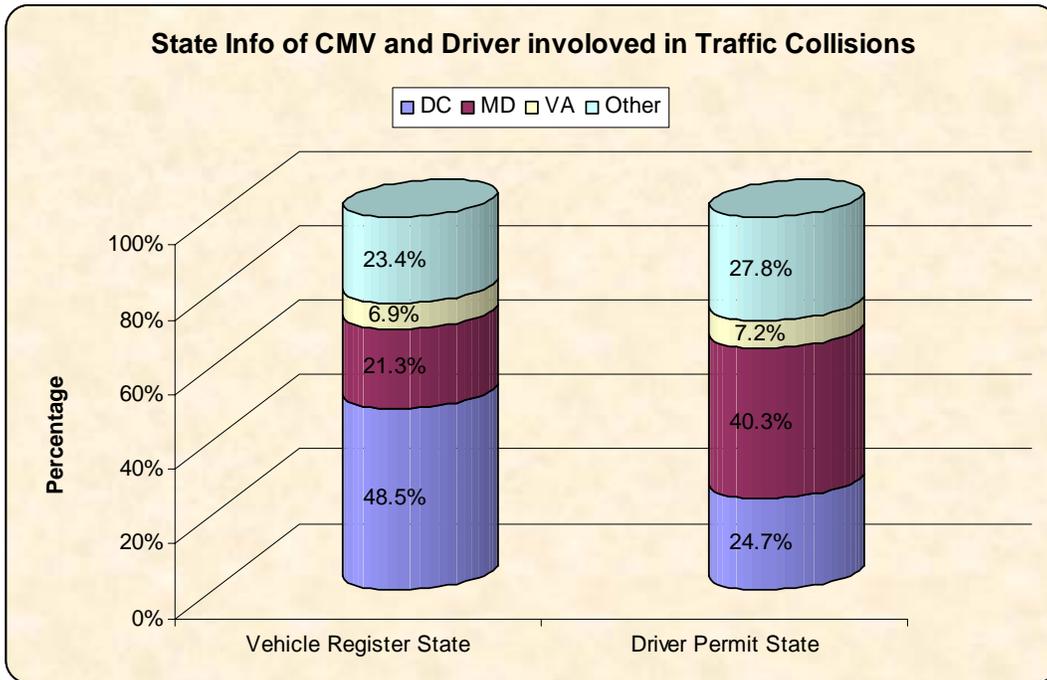


Figure 3.7 CMV Collisions by Vehicle Registration State and Driver Permit State

3.2 Time

3.2.1 CMV Collisions by Time of Day

As shown in Table 3.5, a greater number of CMV crashes were reported between the hours of 12PM and 6PM, and approximately 45% (or 287) of the CMV crashes resulting in injuries occurred during this 7-hour period. The results are also presented in Figures 3.8 and 3.9.

Table 3.5 Overall CMV Collisions by Hour and Injury Severity

Hour	Crashes	Fatalities	Injuries
0	44	0	8
1	25	0	9
2	20	0	2
3	14	1	7
4	8	0	3
5	14	0	5

CMV Collision Characteristics

6	44	0	11
7	137	1	29
8	213	0	72
9	171	0	31
10	148	0	57
11	132	0	35
12	184	0	49
13	147	0	68
14	152	0	29
15	200	0	36
16	175	0	57
17	155	0	34
18	117	0	14
19	77	0	21
20	54	3	19
21	40	0	12
22	25	0	11
23	40	0	9
Total	2,336	5	628

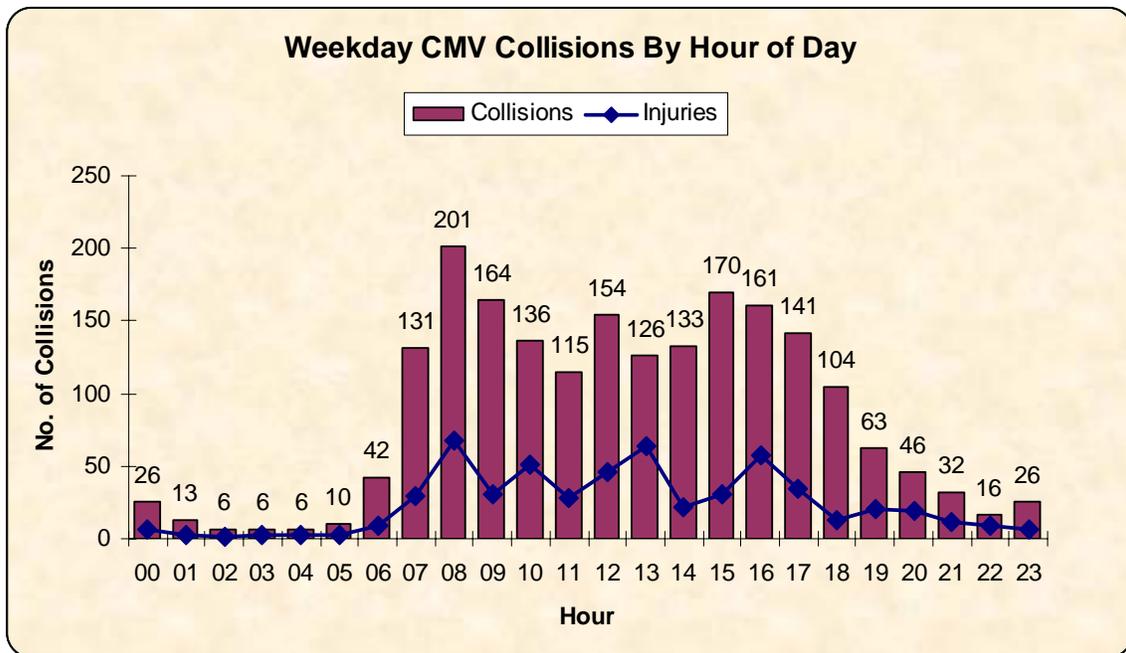


Figure 3.8 Weekday CMV Collisions by Hour of Day

As shown in Figure 3.10, the frequency of truck collisions showed a slightly uneven distribution. For the buses, the crash frequency was observed to be randomly distributed, with the higher frequency of collisions being observed during the peak hours at around 7AM to 9AM and 3PM to 6PM.

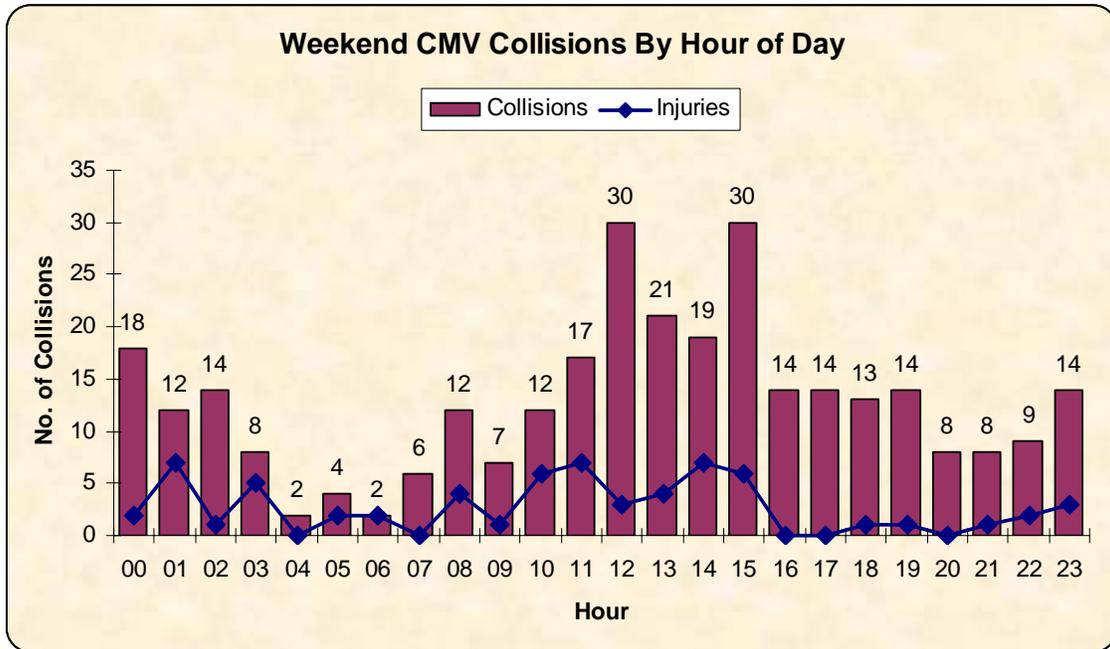


Figure 3.9 Weekend CMV Collisions by Hour of Day

For CMV collisions that occurred over weekends, the frequencies for both the trucks and busses were observed to be randomly distributed, as presented in Figure 3.11. The highest number of collisions was observed for trucks and buses during the period between 11AM and 3PM.

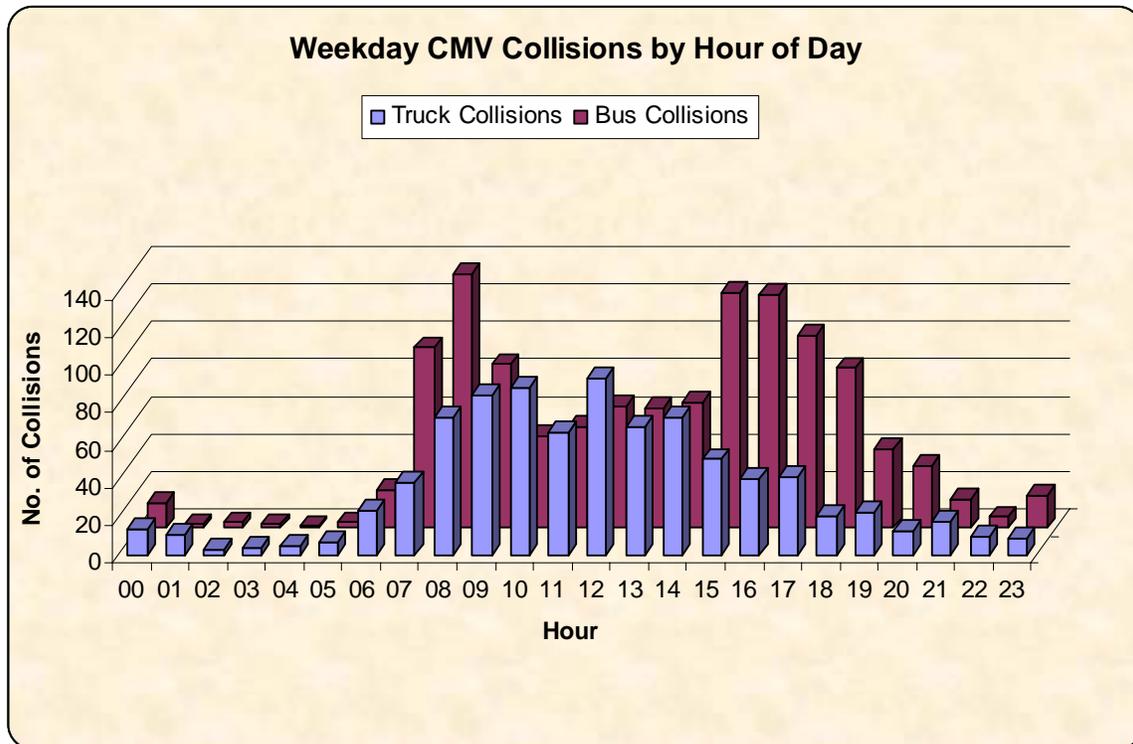


Figure 3.10 Weekday CMV Collisions by Hour of Day

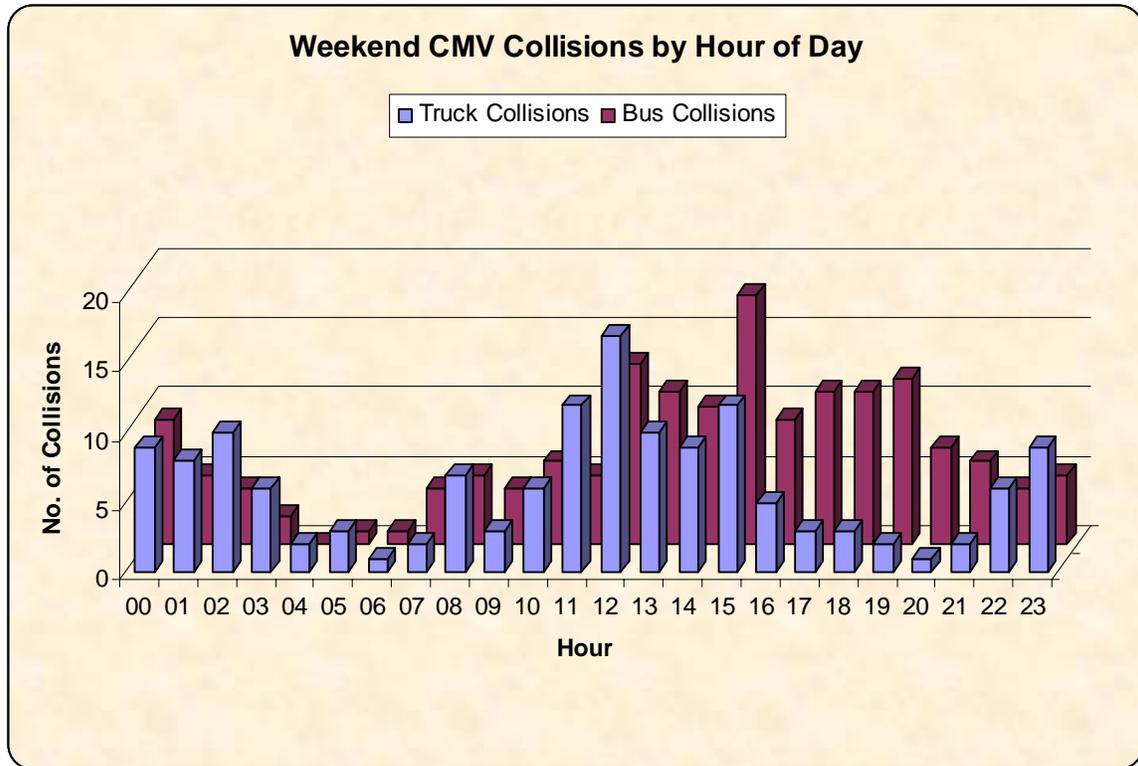


Figure 3.11 Weekend CMV Collisions by Hour of Day

3.2.2 CMV Collisions by Day of Week

As shown in Table 3.6 and Figure 3.12 below, the frequency of collisions which occurred over weekends were found to be considerably lower than those occurring on weekdays.

Table 3.6 CMV Collisions by Day of Week

Weekday	Collisions	Fatalities	Injuries
Sunday	117	0	21
Monday	396	1	111
Tuesday	406	1	110
Wednesday	389	0	128
Thursday	414	0	114
Friday	423	3	100
Saturday	191	0	44

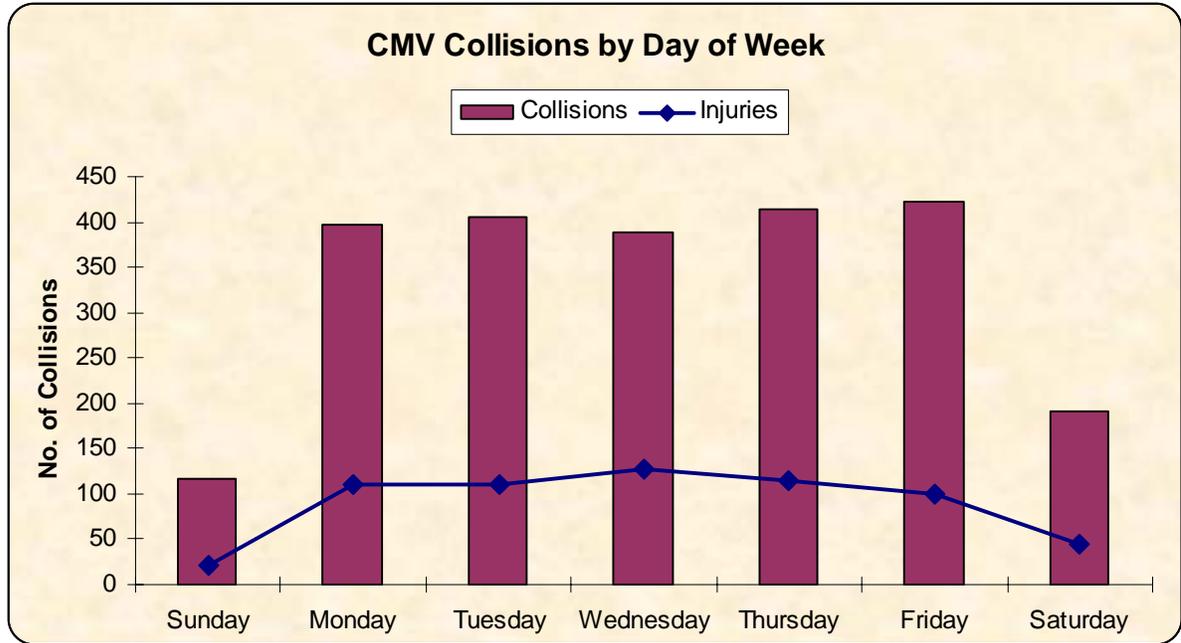


Figure 3.12 CMV Collisions by Day of Week

3.2.3 CMV Collisions by Month of Year

Table 3.7 and Figure 3.13 show the frequency of CMV crashes by the month of year. As depicted in the table and illustration, the number of collisions that occurred in the first half (January through May) of the year was substantially higher than the remainder of the year, which may be caused by new PD-10 format.

Table 3.7 CMV Collisions by Month of Year

Month	Collisions	Fatalities	Injuries
1	201	0	58
2	193	1	57
3	210	0	58
4	217	0	48
5	239	0	54
6	156	0	36
7	181	3	69
8	163	0	41
9	200	1	92
10	222	0	31
11	180	0	47
12	174	0	37

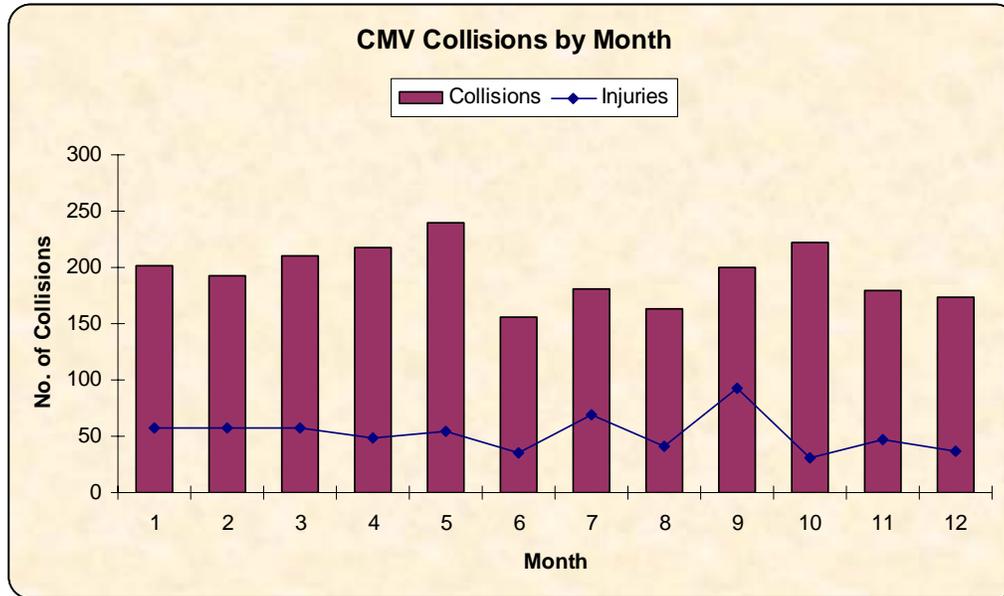


Figure 3.13 CMV Collisions by Month

3.3 Location

3.3.1 CMV Collisions by Quadrant

Based on the results presented in Table 3.8, it can be observed that Northwest (NW) quadrant recorded the highest number of reported CMV collisions and associated injuries. This is due to the fact that NW quadrant occupies 42.65% of DC area and the Central Business District is located in this quadrant with a considerable volume of CMV traffic. Also, a substantial percentage of the on-going construction is occurring in the NW quadrant which contributes to heavy CMV truck volume.

Table 3.8 CMV Collisions by Quadrant

Quadrant	Collisions	Fatalities	Injuries
NW	1,193	2	216
NE	494	0	141
SE	346	2	152
SW	103	0	53
Border	193	1	66
Unknown	7	0	0
Total	2,336	5	628

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

3.3.2 CMV Collisions by Ward

Washington DC is divided into eight (8) wards and each ward consists of various designated neighborhoods. The results of the CMV collisions by Ward presented in Figure

3.14 shows that Ward 2 recorded the highest number of collisions in 2008 among all the Wards presented.

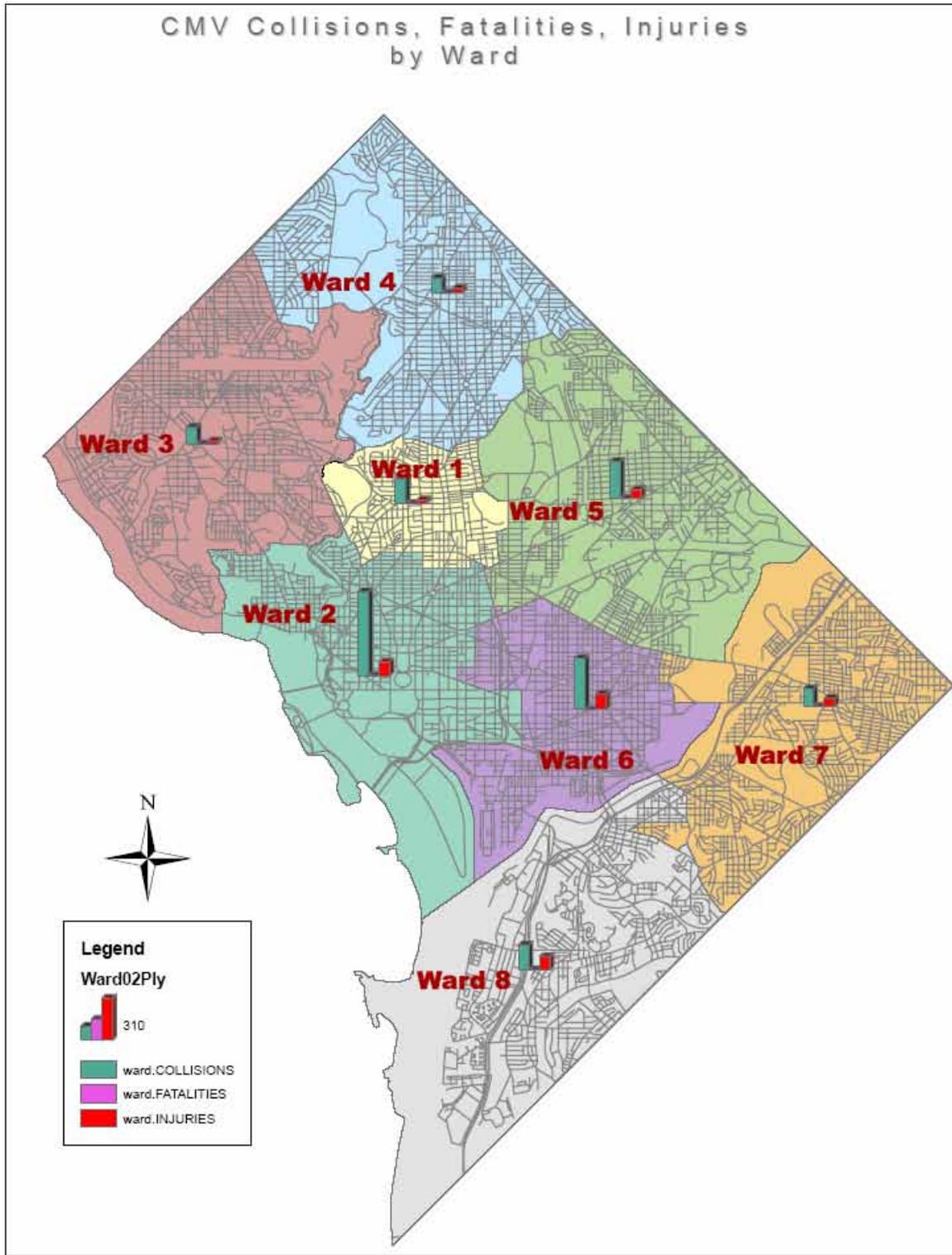


Figure 3.14 CMV Collisions, Fatalities and Injuries by Ward

Table 3.9 CMV Collisions by Ward

Ward	Collisions	Fatalities	Injuries
1	184	0	26
2	625	4	105
3	123	0	19
4	110	0	33
5	274	0	65
6	381	0	116
7	134	1	64
8	186	0	98
Border	237	0	78
Unknown	82	0	24
Total	2,336	5	628

3.3.3 CMV Collisions by Advisory Neighborhood Commission

Washington DC consists of 37 Advisory Neighborhood Commissions (ANC). The summary of the data presented in Table 3.10 shows that the ANC borders, 5B (Arboretum, Brentwood, Brookland, Carver, Langdon, Langston, Ivy City, Trinidad) and 6C (Near Northeast, Penn Quarter, Union Station) were the areas with highest reported CMV crashes in 2008. This is also illustrated in Figure 3.15.

Table 3.10 Overall CMV Collisions by ANC, Fatality and Injury

ANC	Description	Total Collision	Fatality	Injury
1A	Columbia Heights, Pleasant Plains	43	0	2
1B	Cardozo, Howard University, LeDroit Park, Shaw	108	0	18
1C	Adams Morgan, Kalorama Heights, Lanier Heights, Western U Street	21	0	4
1D	Mount Pleasant	4	0	0
2A	Foggy Bottom, West End	77	1	11
2B	Dupont Circle	116	1	11
2C	Blagden Alley, Chinatown, Logan Circle, Mount Vernon Square, Shaw	62	0	8
2D	Kalorama, Sheridan	6	0	1
2E	Burleith, Georgetown, Hilandale	118	0	6
2F	Logan Circle	118	0	20
3B	Cathedral Heights, Glover Park	6	0	0
3C	Cathedral Heights, Cleveland Park, Massachusetts Heights, McLean Gardens, Woodley Park	29	0	3
3D	American University, Foxhall, Kent, The Palisades, Spring Valley, Wesley Heights	22	0	1

CMV Collision Characteristics

3E	American University Park, Friendship Heights, Tenleytown	16	0	2
3F	Forest Hills, North Cleveland Park, Tenleytown	28	0	3
3G	Chevy Chase	13	0	2
4A	Brightwood, Colonial Village, Crestwood, Shepherd Park, Sixteenth Street Heights	15	0	5
4B	Brightwood, Lamond-Riggs, Manor Park, Riggs Park, South Manor Park, Takoma	26	0	10
4C	Columbia Heights, Crestwood, Petworth, Sixteenth Street Heights	33	0	12
4D	Petworth	6	0	2
5A	Brookland, Fort Lincoln, Michigan Park, North Michigan Park, University Heights, Woodridge	46	0	12
5B	Arboretum, Brentwood, Brookland, Carver, Langdon, Langston, Ivy City, Trinidad	147	0	29
5C	Bloomingdale, Eckington, Edgewood	59	0	19
6A	North Lincoln Park, Rosedale, Stanton Park	44	0	14
6B	Barney Circle, Capitol Hill, Eastern Market	82	0	13
6C	Near Northeast, Penn Quarter, Union Station	174	0	47
6D	Carrollsborg, Fort McNair, Navy Yard, Near Southwest/Southeast, Waterfront	97	2	45
7A	Fort Dupont, Greenway, River Terrace	17	0	7
7B	Fairfax Village, Hillcrest, Penn Branch, Randle Highlands	21	0	7
7C	Burrville, Deanwood, Grant Park, Lincoln Heights	13	0	4
7D	Eastland Gardens, Kenilworth, Kingman Park, Mayfair	44	1	23
7E	Benning Heights, Capitol View, Fort Davis, Marshall Heights	12	0	10
8A	Anacostia, Fairlawn, Fort Stanton, Hillside	62	0	42
8B	Garfield Heights, Knox Hill, Shipley Terrace	27	0	8
8C	Barry Farms, Bolling Air Force Base, Congress Heights, St. Elizabeths Hospital	52	0	39
8D	Bellevue, Far Southwest	28	0	2
8E	Congress Heights, Valley Green, Washington Highlands	15	0	6
Brd.	Border between ANCs	447	0	156
Unk.	Unknown	82	0	24
	Total	2,336	5	628

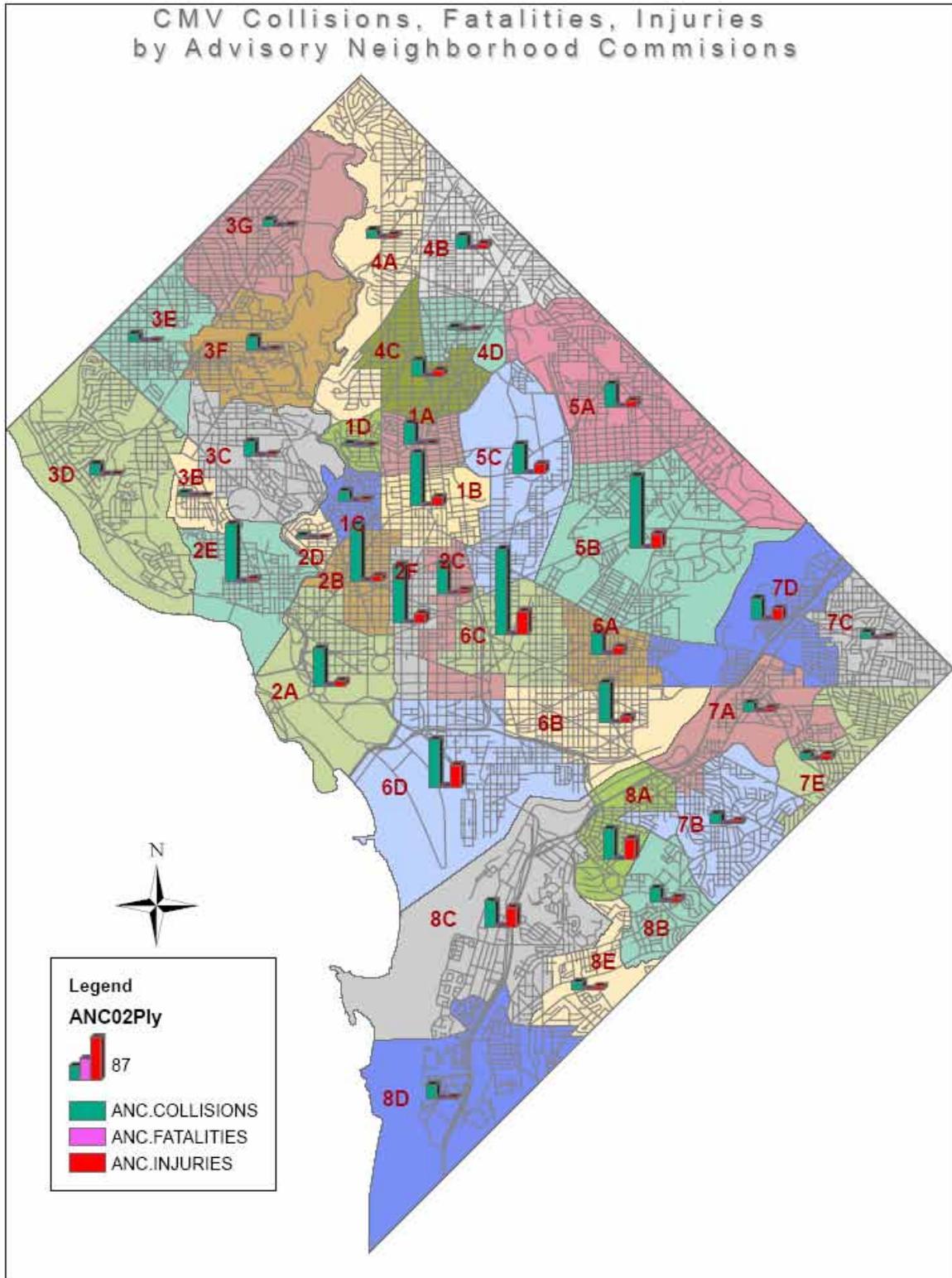


Figure 3.15 CMV Collisions, Fatalities and Injuries by ANC

3.3.4 CMV Collisions by Police District

The traffic crash reports (PD-10 forms) were provided by the DC Metropolitan Police Departments which comprises of 7 Districts. Each crash that occurred within the Police District (PD) was managed and distributed by that district, the summary of which is presented in Table 3.11. From the table and illustration in Figure 3.16, Districts 1 recorded the highest (728) CMV crashes in 2008 followed by District 2 (492).

Table 3.11 CMV Collisions by Police District

PD	Collisions	Fatalities	Injuries
1	728	2	204
2	492	2	60
3	289	0	41
4	145	0	50
5	297	0	83
6	191	1	89
7	181	0	95
Unknown	13	0	6
Total	2,336	5	628

3.3.5 CMV Collisions by Construction Zone

Crashes in construction zones have been noted to be on the rise in recent years. Table 3.12 and Figure 3.17 show the frequency and proportions of construction versus non-construction zone crashes described. As observed in the illustration, a total of 92 construction zone crashes were observed in 2008, that is, approximately 4% of the total CMV crashes.

Table 3.12 CMV Collisions by Construction Zone

Construction Zone	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Construction Zone	0	13	79	0	23
Not construction Zone	4	353	1,887	5	605
Total	4	366	1,966	5	628

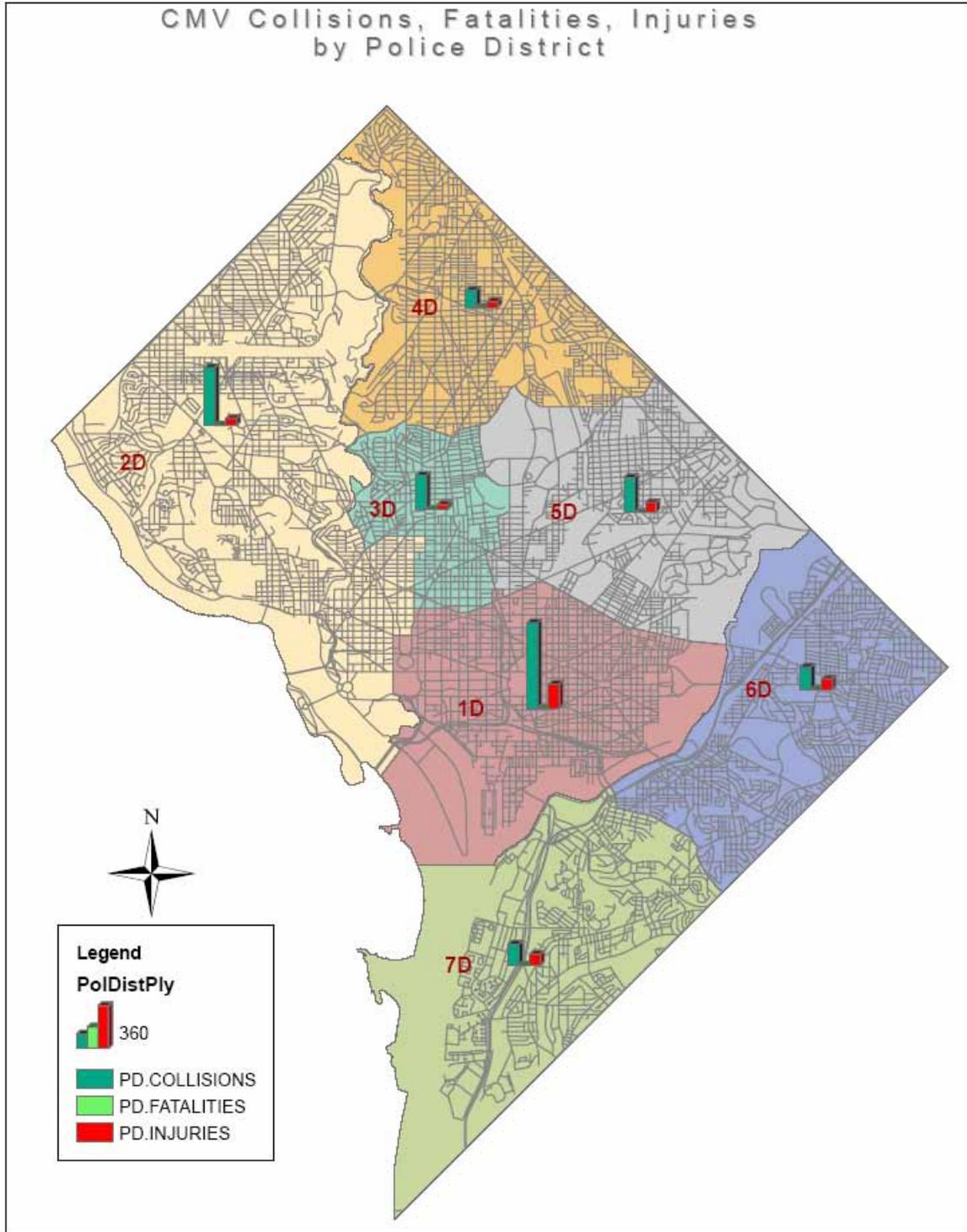


Figure 3.16 CMV Collisions, Fatalities and Injuries by Police District

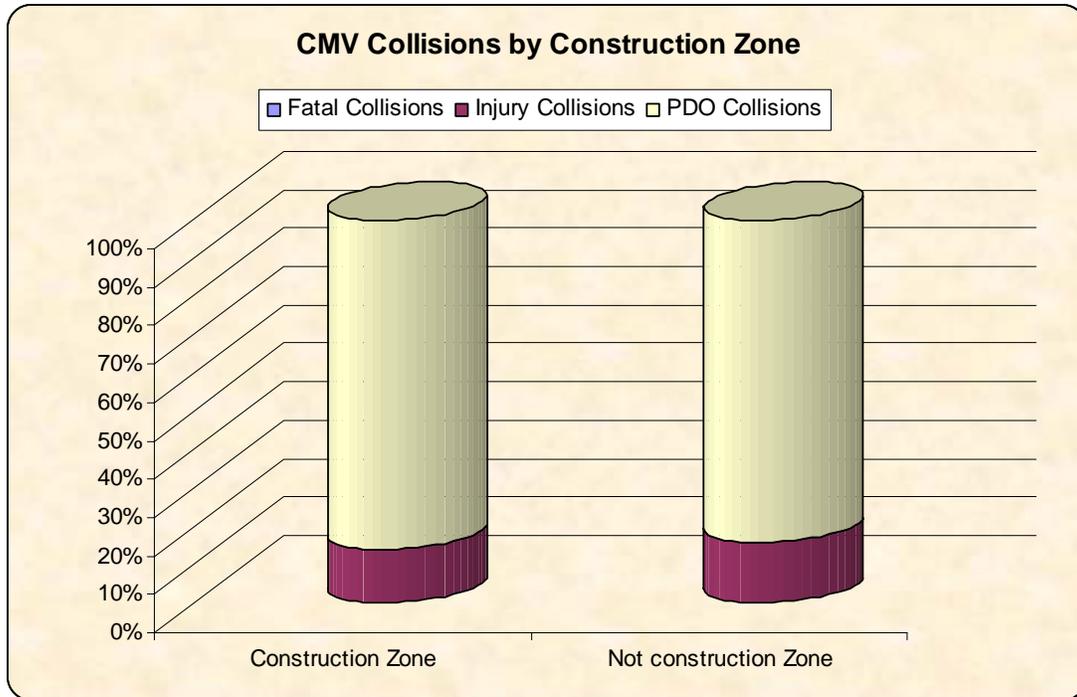


Figure 3.17 CMV Collisions by Construction Zone

3.3.6 CMV Collisions on Freeways and Bridges

Table 3.13 presents the summary of the frequency of CMV crashes on freeways, where vehicular speeds are typically 50 mph or above. From the results, it can be determined that Southwest Freeway, Kenilworth Avenue and Interstate 295 were the top three freeways with the most CMV crashes in 2008.

Table 3.13 CMV Collisions by Route Category

Freeway/Bridge	Collisions	Fatalities	Injuries
SW Freeway	23	0	15
SE Freeway	7	2	7
I-295	12	0	17
Anacostia Freeway	5	0	5
Kenilworth Ave	17	1	10
I-66 Bridge	1	0	0
14th St Bridge	4	0	3
Douglass Bridge	1	0	0
11th St Bridge	4	0	7
Sousa Bridge	1	0	0
E Capitol Bridge	1	0	0
I-395 Tunnel	10	0	3
Whitehurst and E	2	0	0
Suitland Pkwy	1	0	0
Total	89	3	67

3.3.7 CMV Collisions by On-Street Location

In order to mitigate the severity of a crash, it is crucial to identify and compare the intersection related and non-intersection related crashes. Based on the results presented in Table 3.14 and Figure 3.18, it was found that approximately 74% CMV collisions typically occurred at or within 100 feet of intersections.

Table 3.14 CMV Collisions by Location Type

On Street	Fatal Collisions	Injury Collisions	PDO Collisions	Total
At Intersection	0	141	579	720
Within 100' of Intersection	0	120	881	1,001
Not at Intersection	1	60	445	506
Private Property	0	0	14	14
Other	0	2	7	9
Unknown	3	8	46	57
Total	4	331	1,972	2,307

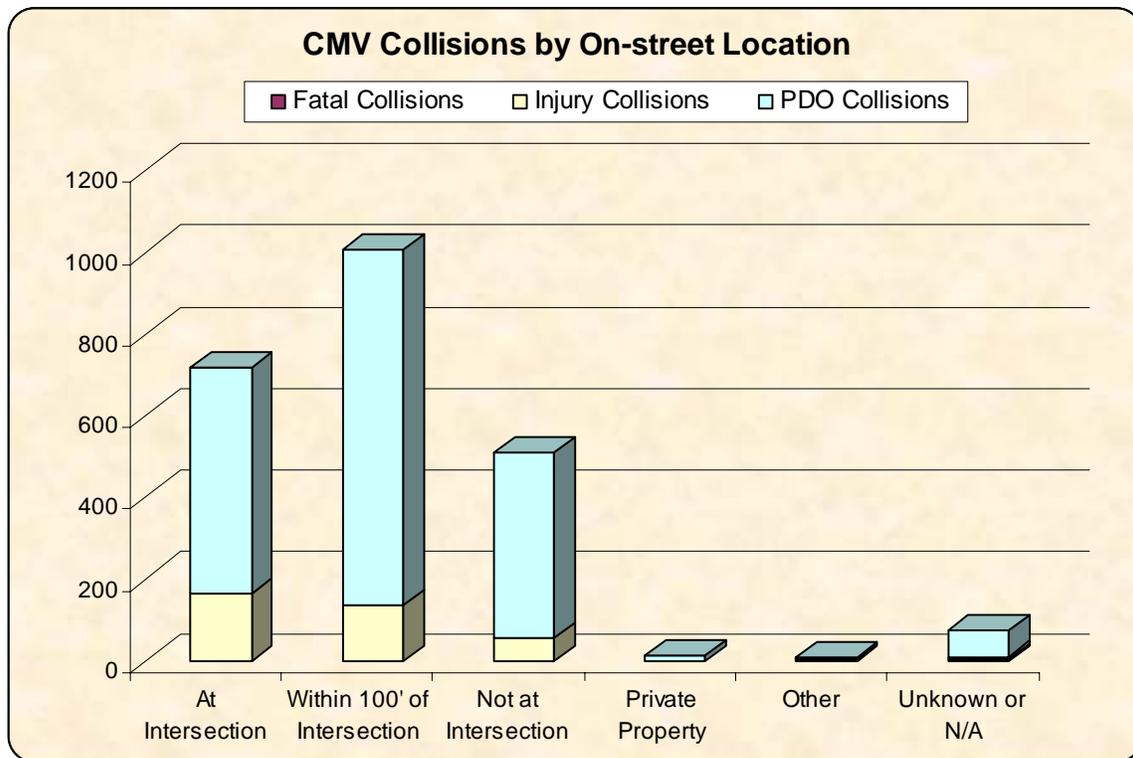


Figure 3.18 CMV Collisions by On-Street Location

3.4 Crash Classification

3.4.1 Crash Severity Type

Crash classification continues to be an important severity indicator that helps government agencies and local authorities to examine the traffic safety issues at particular intersections or corridors. The summary of CMV crash severity by type from 2006 through 2008 is presented in Table 3.15 and Figure 3.19. From the results, fatal, injury and PDO CMV collisions comprise of approximately 0.17%, 15.67% and 84.16%, respectively, in 2008. The overall collision of CMVs in year 2008 is presented in Figure 3.20.

Table 3.15 Overall CMV Collisions by Injury Severity (2006 ~ 2008)

Year	2006	2007	2008
Fatal Collisions	8	5	4
Injury Collisions	561	513	366
PDO Collisions	2,429	2,284	1,966
Total	2,998	2,802	2,336

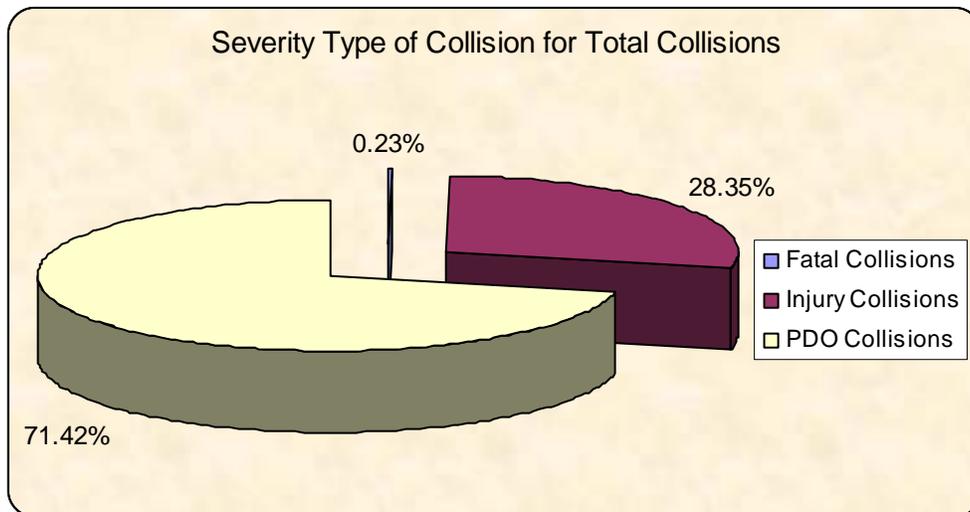


Figure 3.19 Total Motor Vehicle Crashes in 2008 by Severity Type

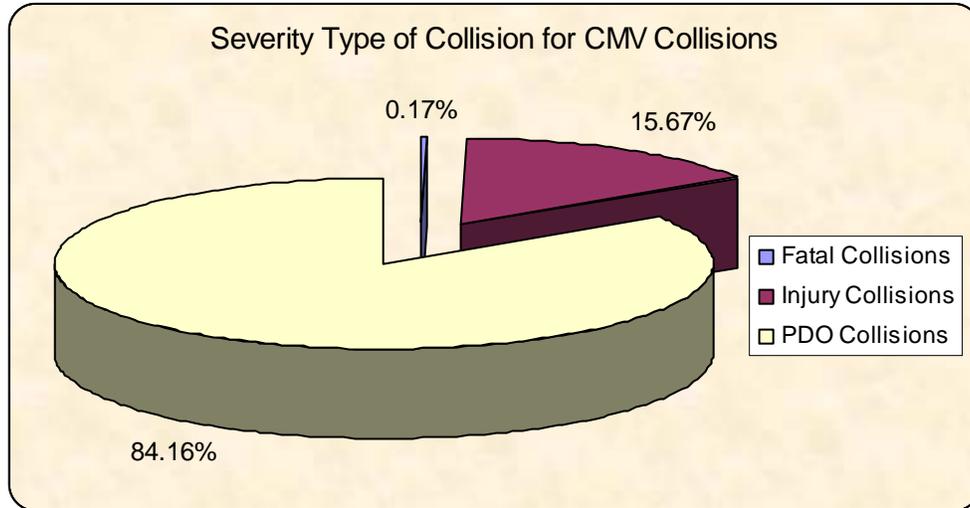


Figure 3.20 Overall CMV Collisions in 2008 by Severity Type

As shown in Figure 3.21 below, the total number of CMV collisions for fatal, injury and PDO crashes fluctuates from year to year.

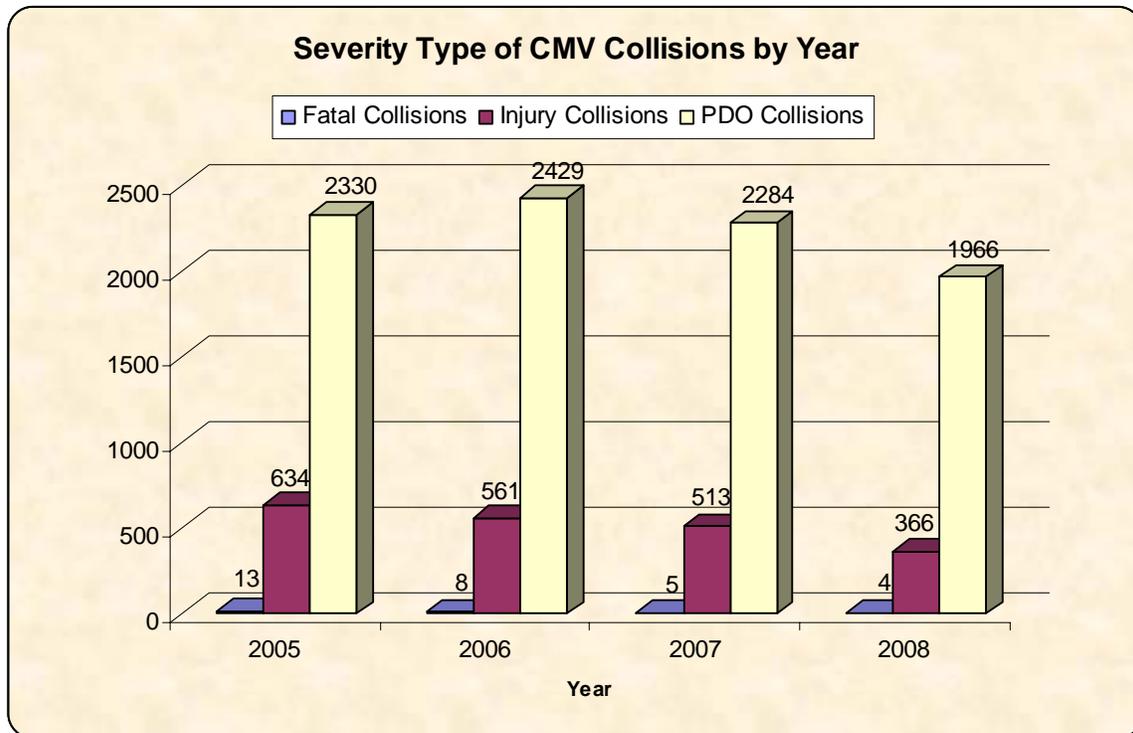


Figure 3.21 Overall CMV Collisions by Injury Severity

3.4.2 Type of Crash

In Table 3.16 and Figure 3.22, the summary of CMV crashes in 2008 shows that side swiped (977), parked vehicle (307) and rear end collisions (294) were three most frequently reported collision types.

Table 3.16 CMV Collision Type by Injury Severity

2008	Total collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Side Swiped	977	0	99	878	0	159
Parked Vehicle	307	0	14	293	0	19
Rear End	294	0	98	196	0	182
Right Turn Hit Vehicle	178	0	31	147	0	44
Left Turn Hit Vehicle	158	0	34	124	0	45
Right Angle	95	1	38	56	1	75
Backing Hit Parked Vehicle	72	0	3	69	0	10
Fixed Object	66	0	3	63	0	3
Other	61	2	13	46	3	34
Backing Hit Moving Vehicle	40	0	3	37	0	3
Head On	18	0	3	15	0	4
Backing Hit Stopped Vehicle	17	0	3	14	0	13
Straight Hit Pedestrian	12	0	11	1	0	12
Left Turn Hit Pedestrian	9	0	7	2	0	8
Non-Collision Accident	7	0	1	6	0	7
Unknown	17	0	2	15	0	4
Ran Off Roadway	4	1	1	2	1	2
Right Turn Hit Pedestrian	3	0	1	2	0	3
Backing Hit Pedestrian	1	0	1	0	0	1
Total	2,336	4	366	1,966	5	628

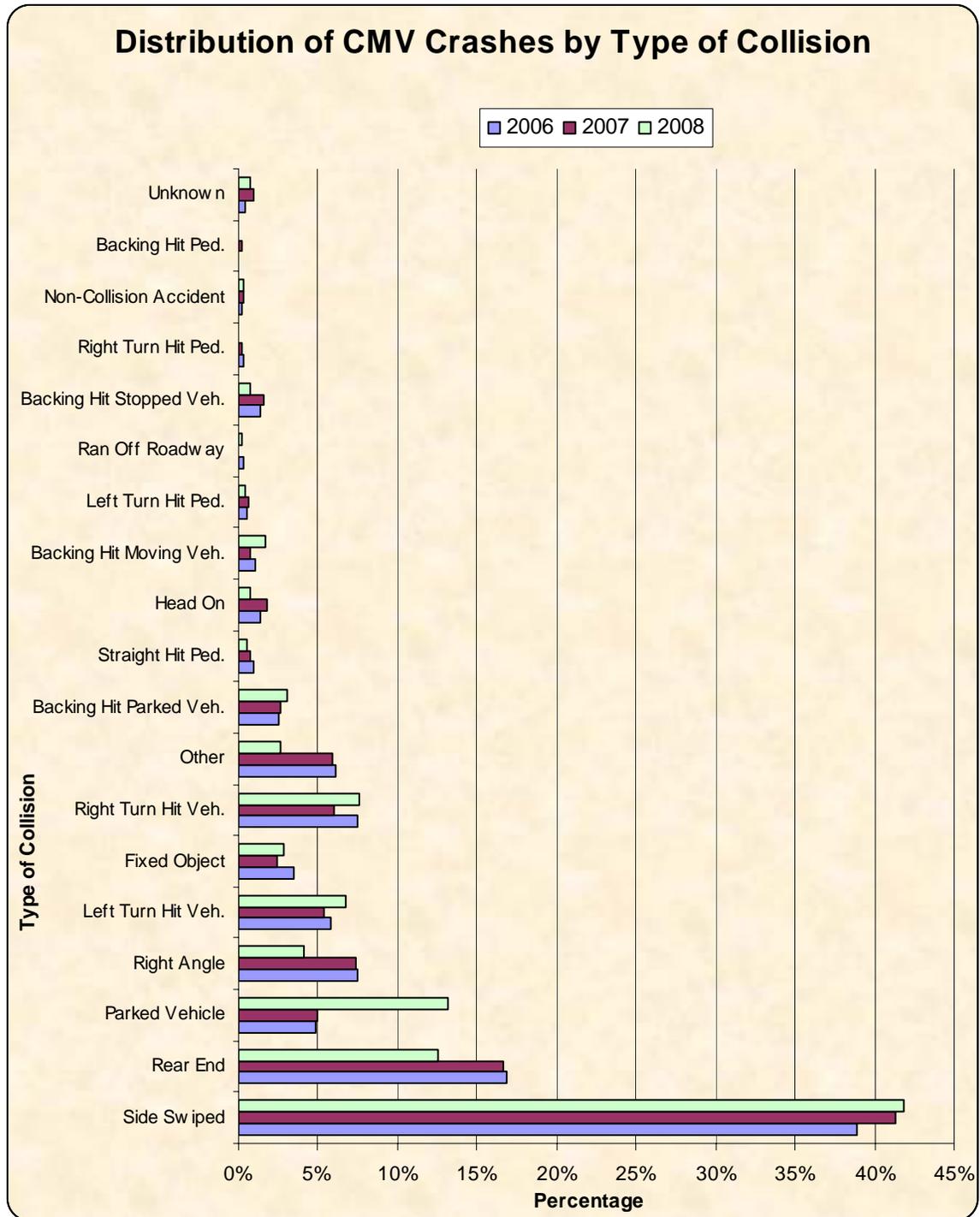


Figure 3.22 Distribution of CMV Crashes by Collision Type

3.4.3 Hit and Run Crashes

As shown in Figure 3.23, the frequency and percentage of hit and run collisions for CMV from 2005 to 2008 showed a descending trend, with the lowest frequency observed in 2008.

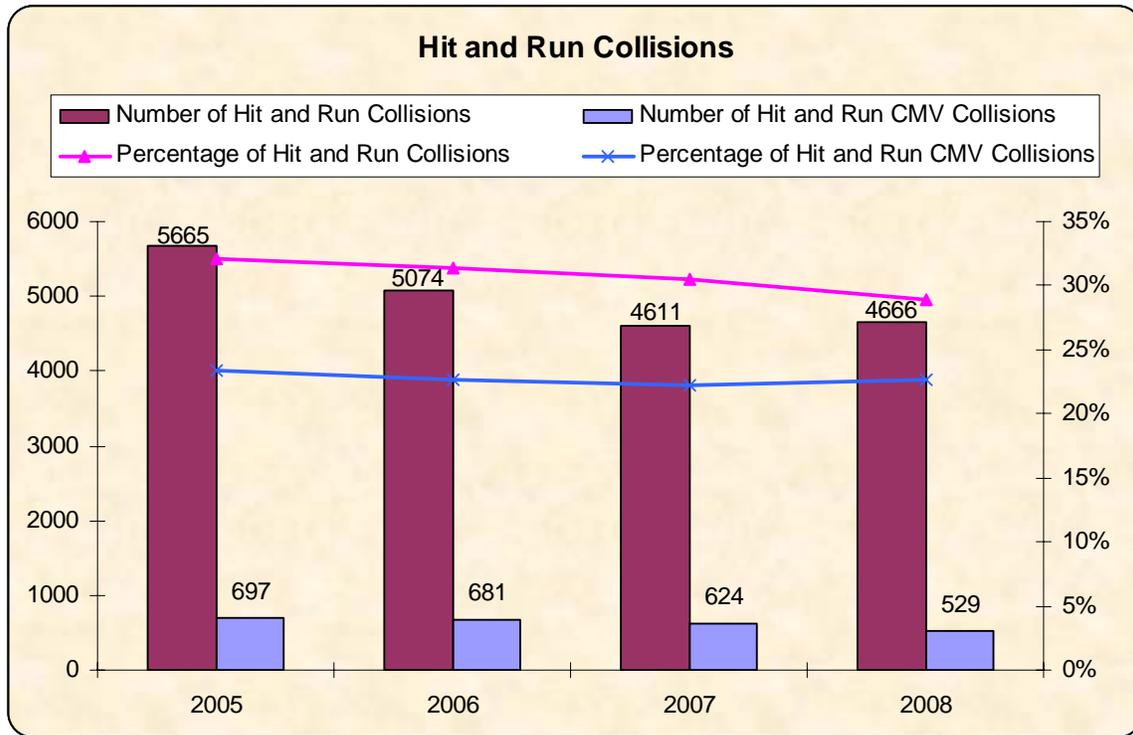


Figure 3.23 Number and Percentage of Hit and Run CMV Collisions 2005~2008

3.4.4 Crashes Involving Pedestrian

The District of Columbia is a pedestrian friendly city and such, crashes involving pedestrians are critical to safety engineers and law makers. With over 50% of the workers in the District either commute by public transportation or walk to work (2006 American Community Survey), it is crucial to understand the causes and severity of pedestrian involved crashes in DC. The summary of CMV collisions involving pedestrians are presented graphically in Figure 3.25. Based on the results presented in the figure, a general downward trend was observed, with the total CMV collisions in 2008 being the lowest as compared to the prior years. In addition, while the total number of collisions involving pedestrians showed an increase in 2008, the number of pedestrian involved in CMV-related crashes continued to decrease to an all time low number, which is less than half of the reported pedestrian-related CMV collisions in 2007.

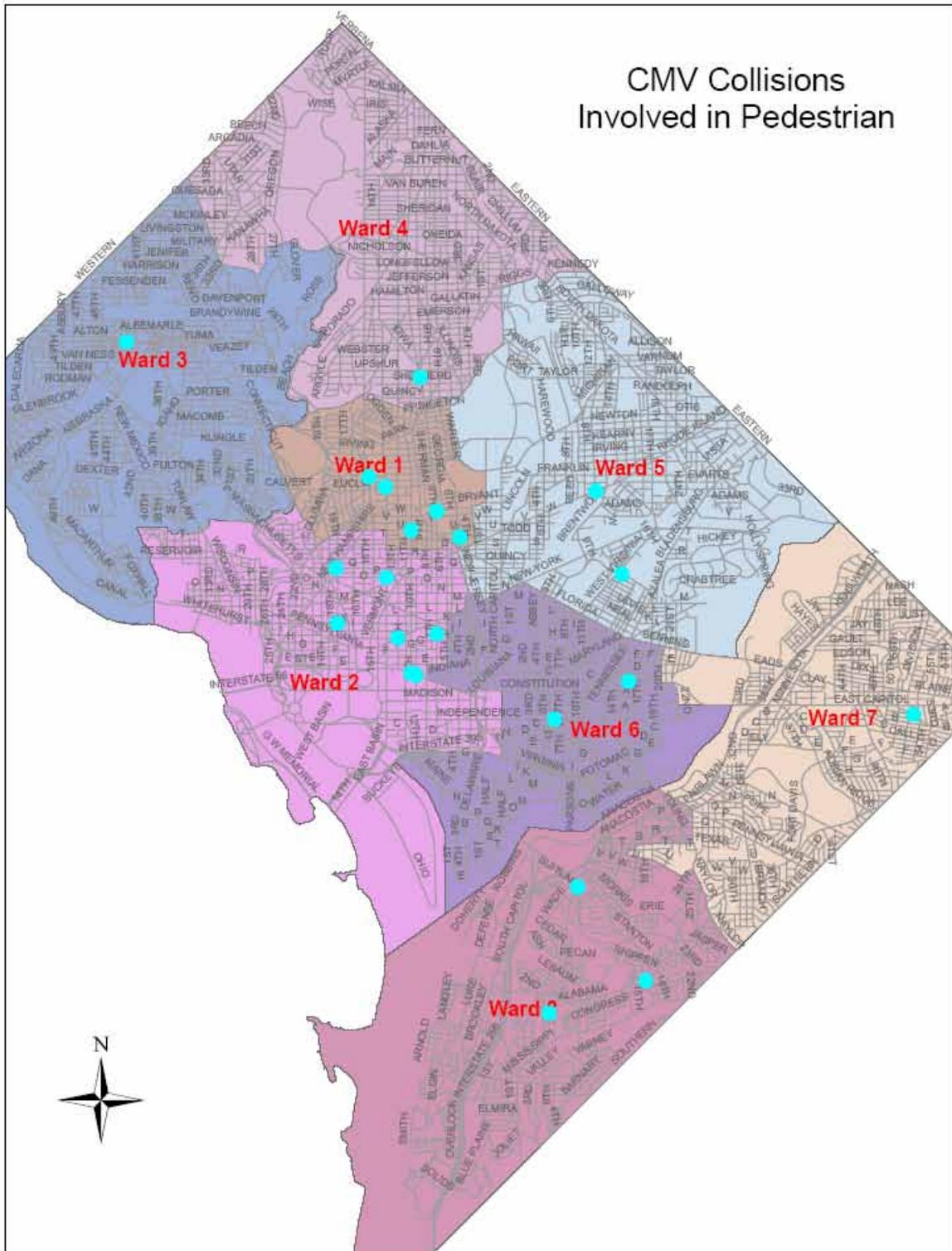


Figure 3.24 Pedestrian Involved CMV Collisions in 2008

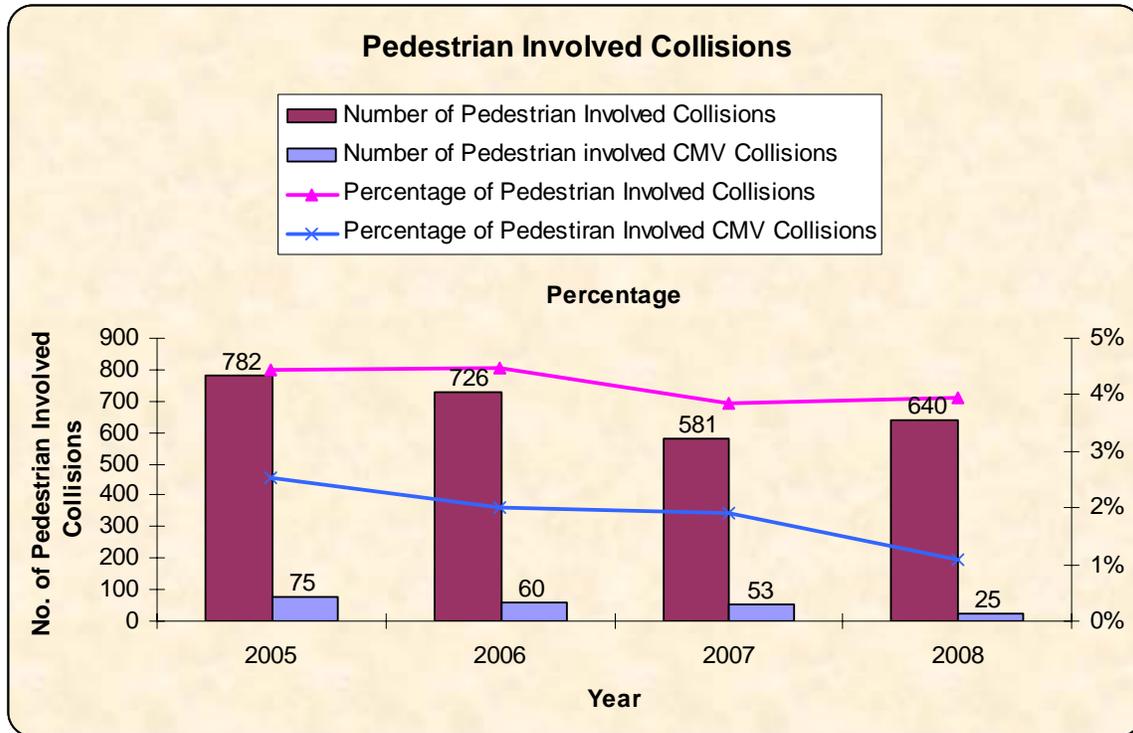


Figure 3.25 Number and Percentage of Pedestrian Involved CMV Collisions 2005~2008

3.4.5 Crash by CMV Classifications

With the introduction of the new PD-10 form, CMV crashes were further classified into specific groups to separate major CMVs by severity of collision. As shown in Table 3.17 and Figure 3.26, buses with 15 seats or more (457), unknown heavy trucks (291) and buses with 9-15 seats (137) were the top three CMV classifications which were reported to be involved in crashes.

Table 3.17 CMV Classification by Injury Severity

	Fatality Collisions	Injury Collisions	PDO Collisions	Total
Unknown Heavy Truck	1	37	253	291
Light Truck	0	11	44	55
Bus (Seats 9-15)	0	26	111	137
Bus (seats >15)	2	58	397	457
Single-Unit Truck (2 axles)	0	23	113	136
Single-Unit Truck (>2 axles)	0	9	30	39
Truck/Trailer	0	25	83	108
Truck/Tractor (Bobtail)	0	0	17	17
Tractor/Semitrailer	0	8	25	33
Tractor/Double	0	1	3	4
Total	3	198	1,076	1,277

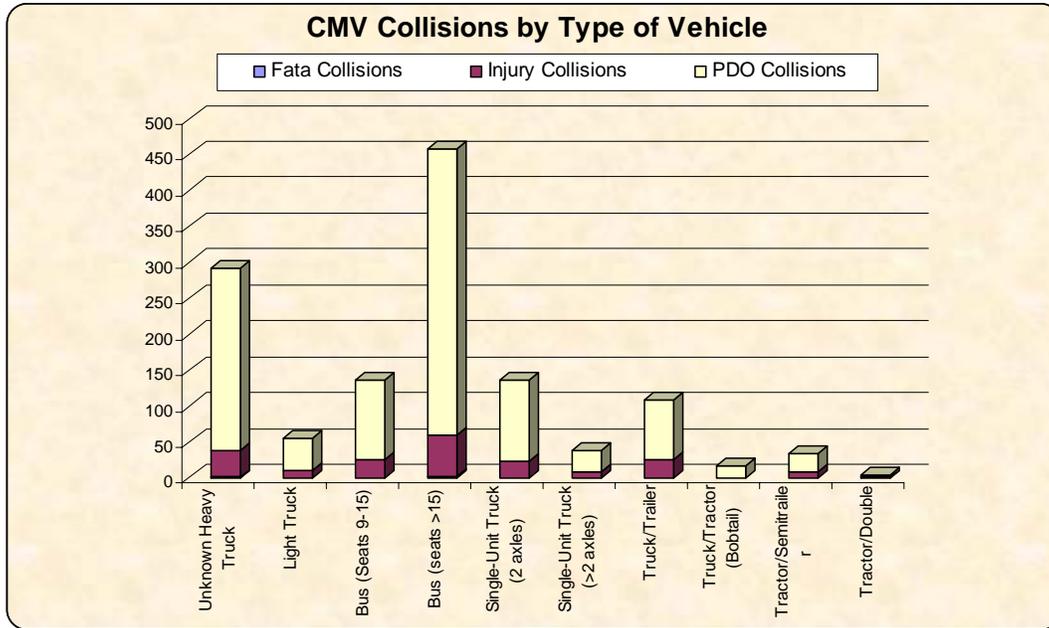


Figure 3.26 CMV Collisions by Vehicle Type

3.5 Environment

3.5.1 CMV Collisions by Roadway Type

Crashes may be influenced by the roadway type which may dictate the extent and severity of CMV crashes. The summary of CMV collisions by type of roadway is presented in Table 3.18 and graphically in Figure 3.27. From the results, it can be determined that majority of the total reported CMV collisions (1,916 or approximately 82%) occurred on straight sections of roadways.

Table 3.18 CMV Collisions by Roadway Type

Road Type	CMV Collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Bridge	6	0	2	4	0	3
Crest	5	0	2	3	0	4
Curve	158	1	21	136	1	32
Grade	78	0	13	65	0	28
Level	86	1	18	67	1	32
Other	37	0	5	32	0	10
Ramp	14	0	4	10	0	11
Straight	1,916	1	296	1,619	1	500
Underpass	8	0	1	7	0	2
Unknown	28	1	4	23	2	6
Total	2,336	4	366	1,966	5	628

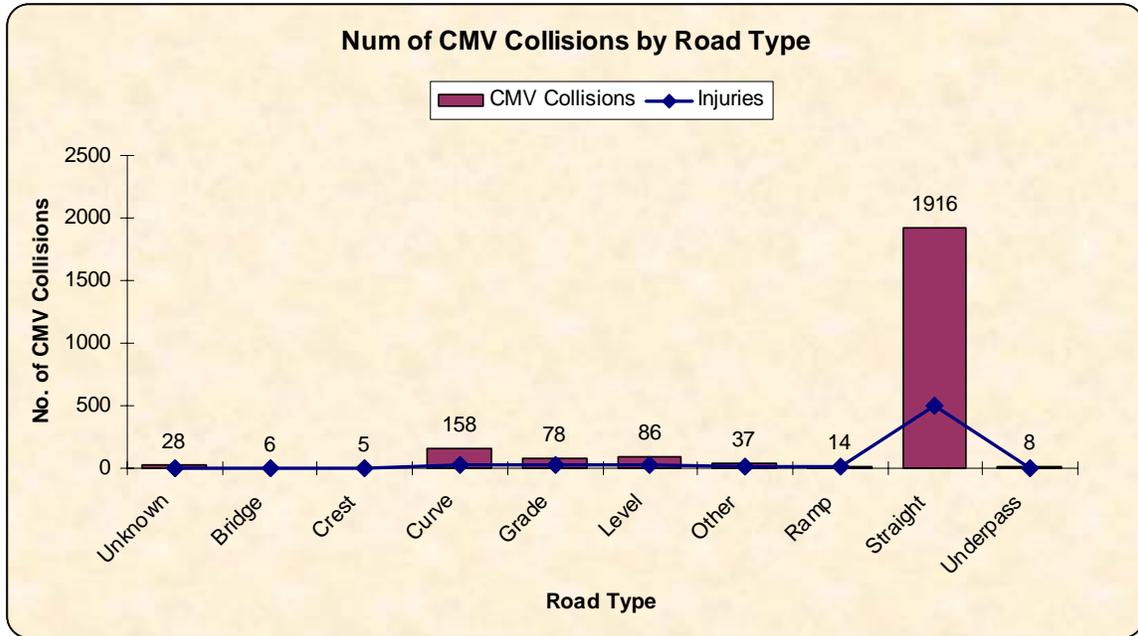


Figure 3.27 Number of CMV Collisions by Road Type

3.5.2 CMV Collisions by Roadway Conditions

Table 3.19 and Figure 3.28 show the distribution of road conditions related to CMV crashes by severity type. From the results, it can be observed that majority of the CMV crashes occurred on roadways where the road conditions were observed to be dry. The CMV collisions on dry roadways comprise of about 84% (or 1,964) of the total CMV crashes in 2008. CMV collisions under wet pavement conditions were observed to be second highest; with 278 (or approximately 12%) of the total reported CMV crashes.

Table 3.19 CMV Collisions by Roadway Conditions

Road Condition	CMV Collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Dry	1,964	2	307	1,655	2	519
Ice/Snow	9	0	3	6	0	8
Repairing	10	0	0	10	0	0
Sand	1	0	0	1	0	0
Standing Water	1	0	0	1	0	0
Wet	278	1	51	226	1	92
Unknown	73	1	5	67	2	9
Total	2,336	4	366	1,966	5	628

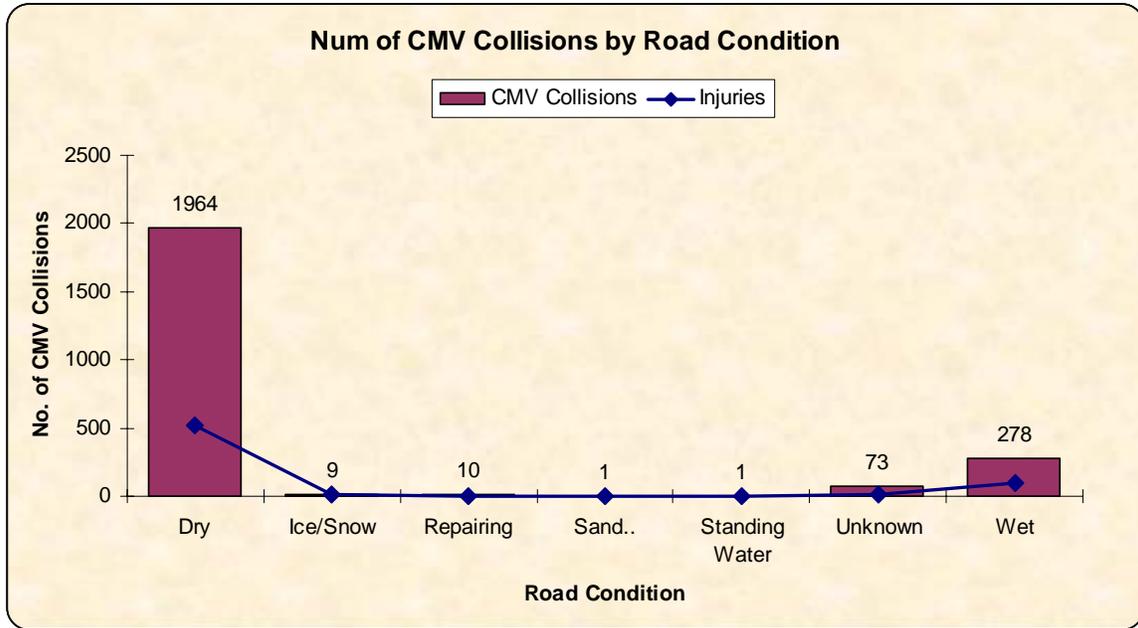


Figure 3.28 Number of CMV Collisions by Road Condition

3.5.3 CMV Collisions by Road Surface

Road surface is another variable which is reported on the traffic crash report form (PD-10). A summary of the CMV collisions in 2008 by road surface type is presented in Table 3.20. The results show that 2,113 (or approximately 90%) of the total CMV crashes occurred on asphalt roadways. This is followed by crashes on concrete surfaces which constitutes approximately 8% (or 188) of the total reported CMV collisions. As shown in Figure 3.29, concrete surface comprised of the highest number of reported collisions and injuries per lane-mile in 2008.

Table 3.20 CMV Collisions by Road Surface

Road Surface	CMV Collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Asphalt	2,113	3	338	1,772	3	583
Brick	5	0	1	4	0	2
Concrete	188	0	26	162	0	40
Gravel	7	0	0	7	0	0
Other	3	0	0	3	0	0
Unknown	20	1	1	18	2	3
Total	2,336	4	366	1,966	5	628

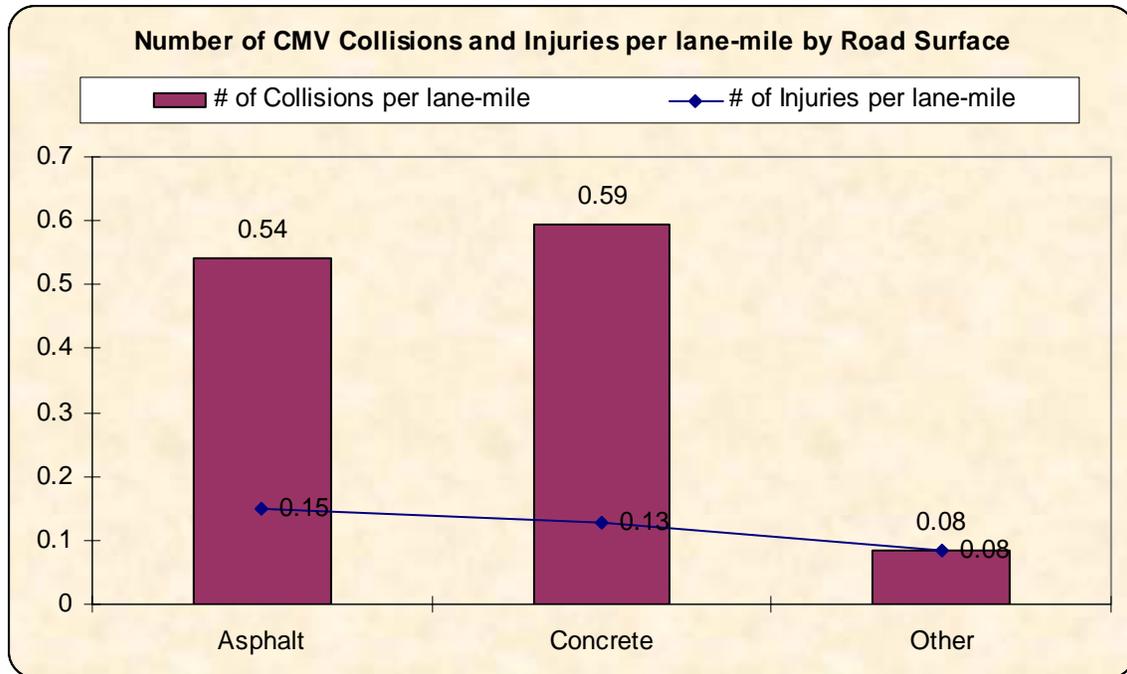


Figure 3.29 Number of CMV Collisions and Injuries per lane-mile by Road Surface

3.5.4 CMV Collisions by Weather Conditions

Adverse weather conditions are among the causes for crashes including those involved with CMVs. Table 3.21 and Figure 3.30 show the distribution of weather conditions that were attributed to CMV crashes and by crash severity. From the results, it can be observed that majority of the CMV crashes occurred under clear weather conditions. These CMV collisions comprise of approximately 84% (or 1,950) of the total CMV crashes in 2008. This is followed by CMV crashes which occurred under rainy conditions, which represents approximately 10% (or 230) of the total CMV crashes.

Table 3.21 CMV Collisions by Weather Conditions

Weather	CMV Collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Clear	1,950	2	305	1,643	2	514
Fog/Mist	26	0	3	23	0	3
Other	22	0	2	20	0	2
Rain	230	1	42	187	1	84
Sleet	8	0	2	6	0	7
Snow	8	0	1	7	0	1
Unknown	92	1	11	80	2	17
Total	2,336	4	366	1,966	5	628

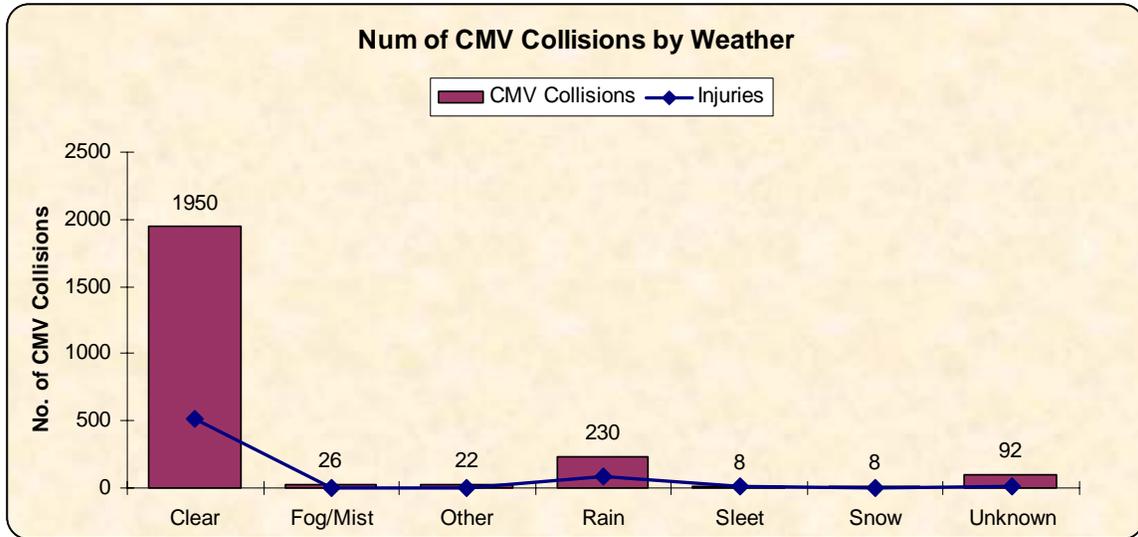


Figure 3.30 Number of CMV Collisions by Weather

3.5.5 CMV Collisions by Illumination Conditions

Light condition at a crash location is another important factor that may be used to determine the causes and severity of CMV crashes. A summary of crashes by street illumination is presented in Table 3.22 and graphically in Figure 3.31. The results show that the majority of the CMV crashes were occurred during daylight conditions. These CMV collisions consist of approximately 78% (or 1,823) of the total reported CMV crashes in 2008. The second most frequently reported CMV collisions in this category was under dark conditions, which represents 375 (or approximately 16%) of the total reported CMV crashes at intersections or corridors.

Table 3.22 CMV Collisions by Light Conditions

Light Condition	CMV Collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Dark	375	2	58	315	2	102
Dawn/Dusk	62	0	9	53	0	15
Daylight	1,823	1	292	1,530	1	503
Other	3	0	0	3	0	0
Unknown	73	1	7	65	2	8
Total	2,336	4	366	1,966	5	628

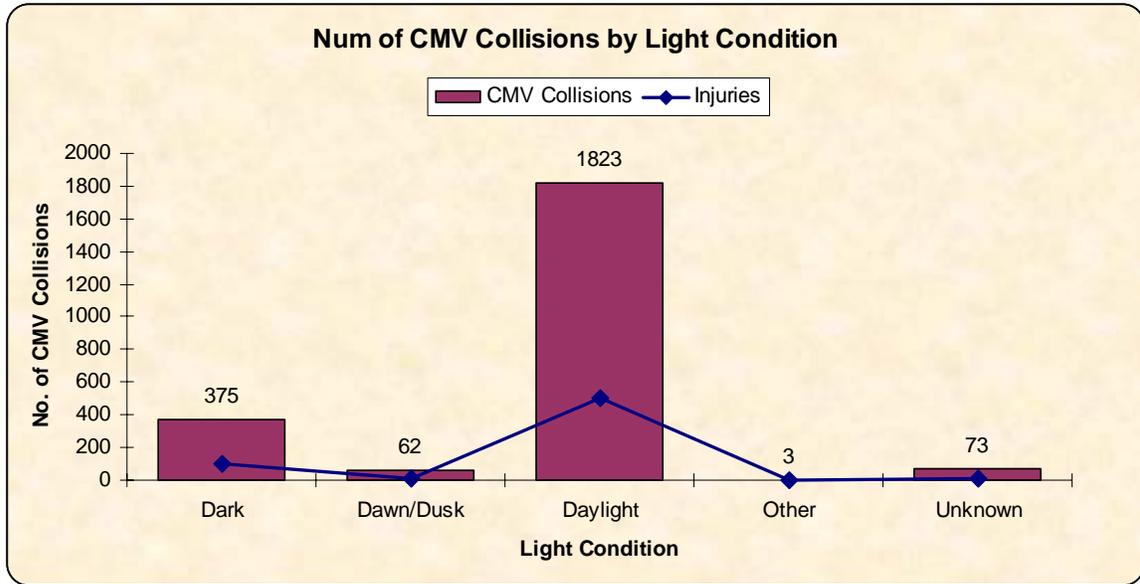


Figure 3.31 Number of CMV Collisions by Light Condition

3.5.6 CMV Collisions by Traffic Conditions

Traffic condition is recorded in traffic crash report based on police officer’s observation and discretion. This is summarized in Table 3.23 and Figure 3.31. From the results, 874 (or approximately 37%) of the total CMV crashes occurred during medium traffic conditions. About 24% of the CMV crashes (570) were recorded during heavy traffic conditions in 2008.

Table 3.23 CMV Collisions by Traffic Conditions

Traffic Condition	CMV Collisions	Fatal Collisions	Injury Collisions	PDO Collisions	Fatalities	Injuries
Heavy	570	1	81	488	1	127
Light	538	2	81	455	2	149
Medium	874	0	167	707	0	279
Other	46	0	0	46	0	8
Unknown	308	1	37	270	2	65
Total	2,336	4	366	1,966	5	628

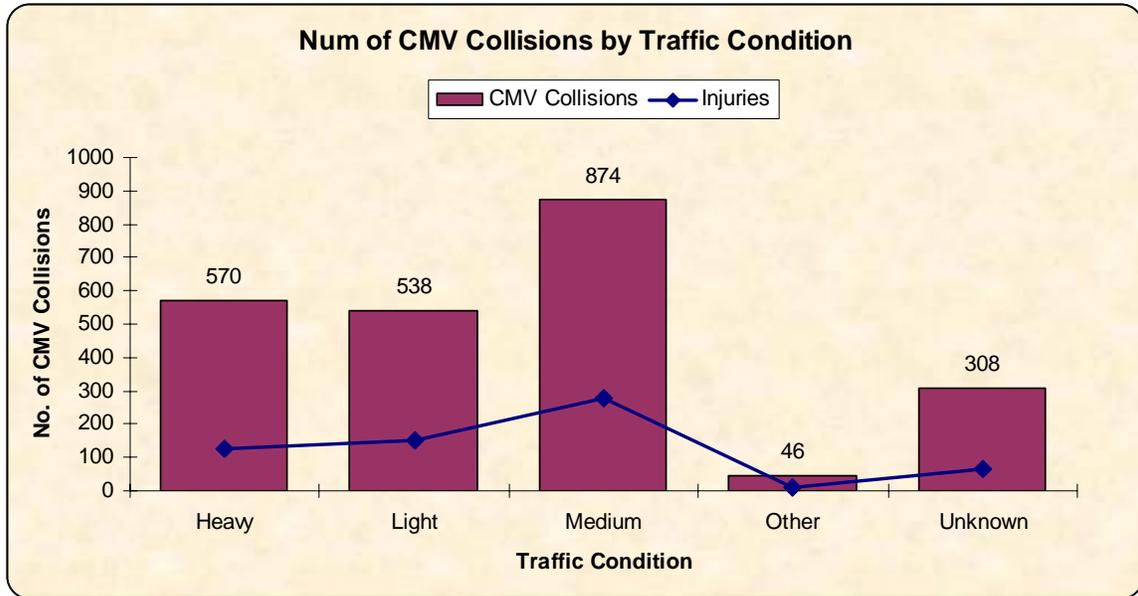


Figure 3.32 Number of CMV Collisions by Traffic Condition

3.6 Contributing Circumstance

3.6.1 CMV Collisions by Crash Contributing Factors

Table 3.24 shows all reported contributing factors for CMV collisions in DC in 2008. As shown in this table, “no violation” and “other” contributing circumstances were found to be the top two most frequently reported factors related to the crash. These contributing factors, however, did not provide helpful information regarding the causes of CMV crashes in DC. Other contributing factors including “driver inattention”, “changing lane(s) without caution” and “following too closely” were some of the contributing circumstances for CMV collisions in 2008.

Table 3.24 CMV Collisions by Crash Contributing Factors

Contributing Circumstances	Collisions	Fatal Collisions	Injury Collisions
No Violation	2,087	2	372
Other	1,022	2	144
Driver Inattention	354	0	49
Changing Lanes W/O Cautioning	264	0	39
Following too Close	109	0	38
Auto/Pedestrian Right of Way	106	1	37
Speed	49	0	18
Improper Passing	137	0	10
Red Light Violation	17	1	8
Pedestrian Violation	11	0	8
Improper Turn	60	0	7

Stop/Go Light	13	0	6
Improper Backing	74	0	5
Stop Sign	14	0	5
Alcohol/Drug Influence	8	0	3
Road Defects	7	0	2
Defective Brakes, Lights, etc.	6	0	2
Yield Sign	3	0	2
Open Door to Traffic	37	0	1
Driver Vision Obstructed	19	0	1
Other Defects	25	0	1
Fail to Set Parking Brake	5	0	1
Flashing/Directional Light	4	0	1
Wrong Side of the Street	0	0	0
Right Turn on Red	4	0	0
Cell Phone/Other Electronic Device	3	0	0
Improper Starting	2	0	0

3.6.2 CMV 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. From the summary results presented in Table 3.25, it was found that 2,498 (or approximately 87.3%) of drivers or passengers involved in a CMV crash used their seat belts. Overall, only a small fraction (or approximately 10%) of drivers or passengers had seat belt “not installed” or “fastened”. The results are also presented graphically in Figure 3.33.

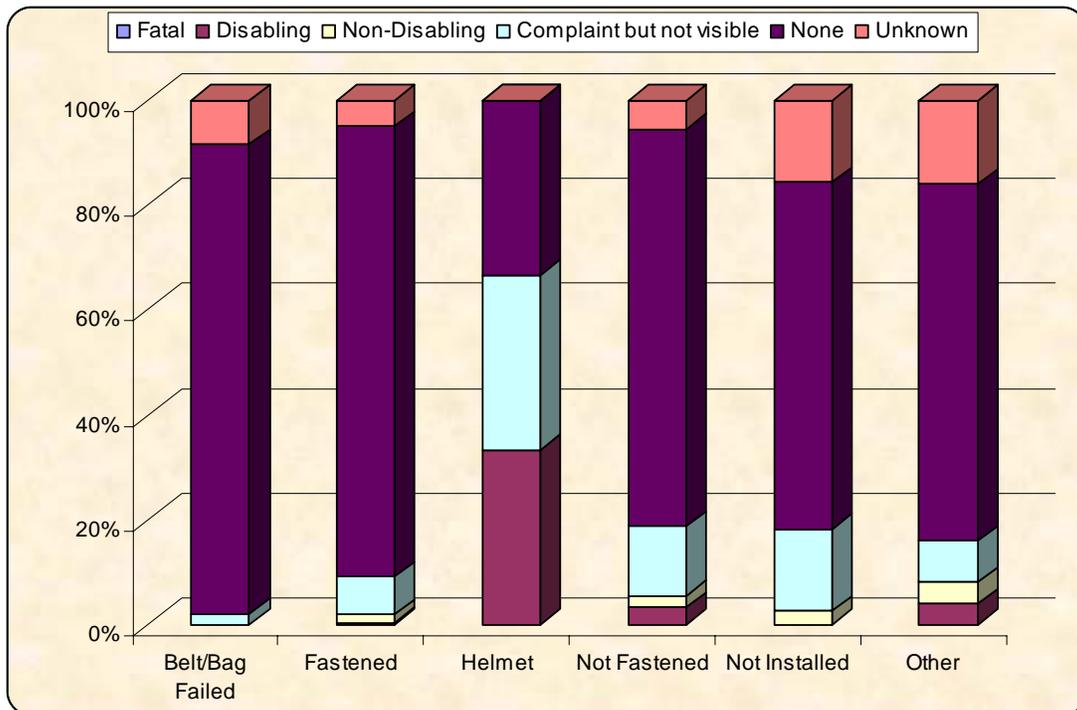


Figure 3.33 Percentage of CMV Collisions by Seat Belt Usage

Table 3.25 CMV Collisions by Seat Belt Use

Seat Belt	Fatal	Disabling	Non-Disabling	Complaint but not visible	None	Unknown
Belt/Bag Failed	0	0	0	1	43	4
Fastened	1	9	39	180	2,144	125
Helmet	0	1	0	1	1	0
Not Fastened	0	3	2	12	69	5
Not Installed	0	0	5	31	131	31
Other	0	1	1	2	17	4

Motor vehicle air bag is another important safety restraint device that can be used to examine the cause of CMV crash severity. On the basis of the results shown in Table 3.26 and Figure 3.34, it can be observed that 1,949 (or approximately 76%) of drivers or front passengers involved in CMV crashes was reported as having the airbags installed. Overall, the results also shows that 452 (or approximately 17.6%) of crashes were reported as air bag not installed or failed.

Table 3.26 CMV Collisions by Motor Vehicle Airbag Use

Driver/Passenger Front Air Bag	Fatal	Disabling	Non-Disabling	Complaint but not visible	None	Unknown
Airbag Deployed	2	3	14	24	29	8
Airbag Installed	0	2	21	127	1,689	110
Belt/Bag Failed	0	0	0	6	73	14
Not Installed	0	1	2	20	331	5
Other	0	0	1	12	65	7

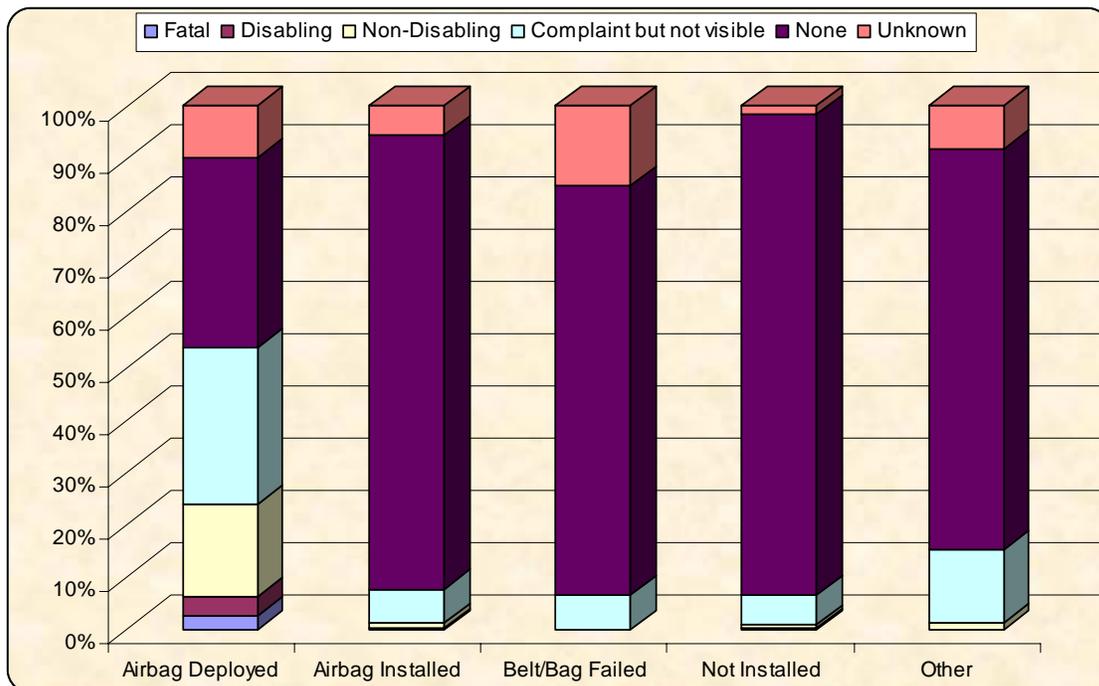


Figure 3.34 Percentage of CMV Collisions by Airbag Usage

3.6.3 Consequence of Speeding

Speeding has been noted to be highly correlated to the severity of a crash. In this report, the total CMV collisions were distributed into specific groups to identify the correlation between speed and collision type. The summary of such data is presented in Figures 3.35 and 3.36. From the figures, it can be observed that the percentage of speed-related collisions were considerably higher when compared with the overall number of collisions in 2008. In addition, the figure reveals that the injury severity of the CMV crashes, that is, fatality, injury or property damage only, were noticeably higher when compared with the overall number of collisions.

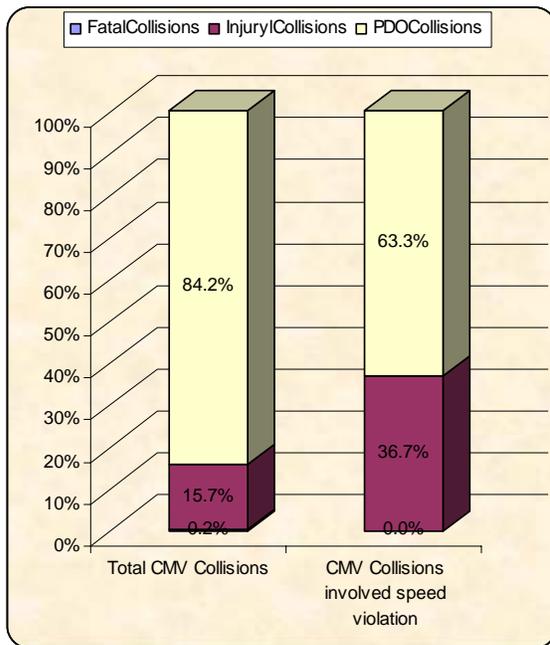


Figure 3.35 Percentage of Total and Speed Involved CMV Collisions

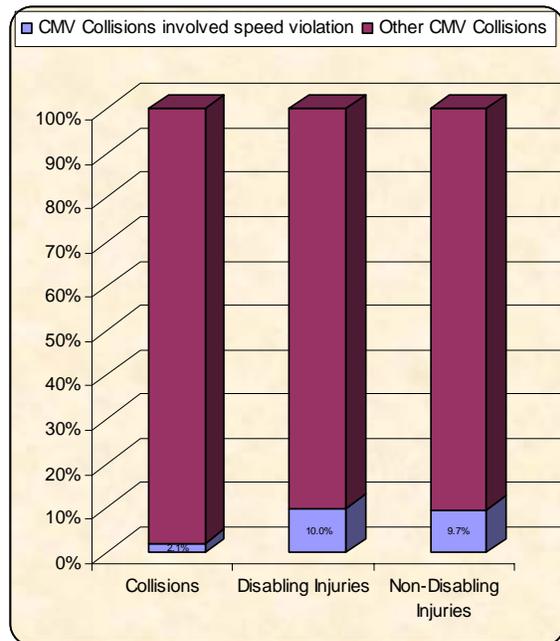


Figure 3.36 Percentage of Total and Speed Involved CMV Collisions by Injury Severity

3.6.4 CMV Collisions by Sobriety

Alcohol and drug use have been identified as one of the contributory factors leading to collisions in which result in injuries. The summary of CMV collisions by sobriety is presented in Figure 3.37. From the results, it can be observed that about 25% of the injuries reported for CMV collisions were attributed to the fact that the drivers' ability was impaired or had been drinking.

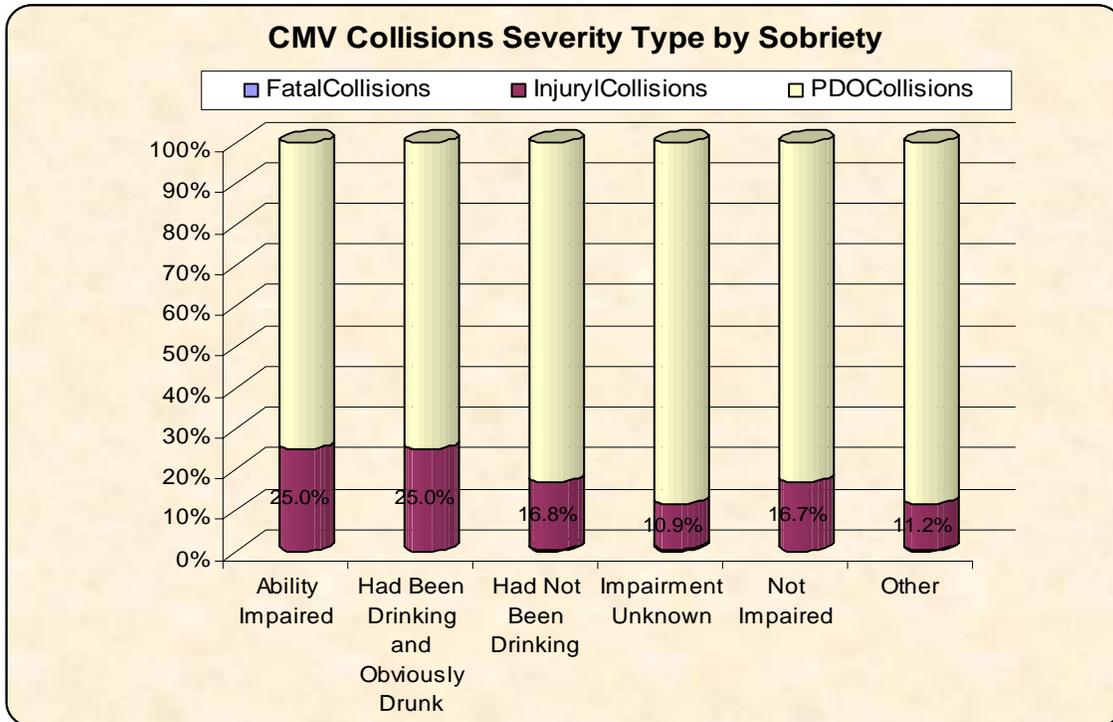


Figure 3.37 Percentage of DUI Involved CMV Collisions

3.6.5 Distractions

Driver distraction is one of the causes of most motor vehicle crashes. This section provides a summary of CMV crashes attributed to driver distraction. The summary of driver distraction related CMV crashes is presented in Table 3.27 and Figure 3.38. The majority of the distraction-related of CMV crashes were listed as unknown or “other”. No fatalities were attributed to driver distractions in 2008 for all CMV crashes.

Table 3.27 CMV Collisions by Driver Distractions

Distraction	Fatal Collisions	Injury Collisions	PDO Collisions
Cell phone (hand held)	0	4	14
Cell phone (hands-free)	0	0	0
Distracted by passenger(s)	0	1	3
Interacting w/ Pets	0	1	0
Interacting w/ unsecured cargo	0	1	1
Other	0	9	48
Reading	0	1	2
Writing	0	0	1

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

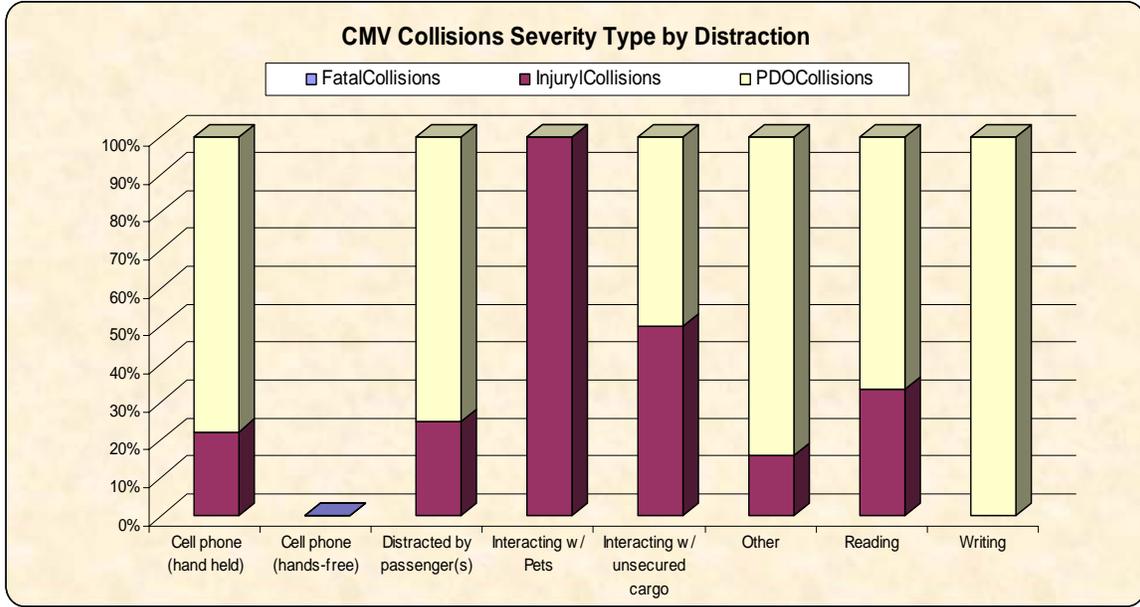


Figure 3.38 Percentage of Distraction Involved CMV Collisions by Injury Severity

CHAPTER 4 IDENTIFICATION OF HIGH FREQUENCY CMV CRASH LOCATION

4.1 Top 20 Intersections by Number of CMV Crashes in 2008

Table 4.1 Top 20 Intersections by Number of CMV Crash in 2008

Intersection Name	Quad	Truck Collisions	Bus Collisions	CMV Collisions	Rank by CMV Collisions
WISCONSIN AVE AND M ST	NW	6	16	21	1
14TH ST AND U ST	NW	7	14	20	2
NEW YORK AVE AND BLADENSBURG RD	NE	8	6	14	3
WISCONSIN AVE AND Q ST	NW	5	9	13	4
7TH ST AND H ST	NW	3	8	10	5
31ST ST AND M ST	NW	3	7	10	5
15TH ST AND I ST	NW	2	8	10	5
1ST ST AND MASSACHUSETTS AVE	NE	1	9	10	5
NEW YORK AVE AND NORTH CAPITOL ST	OTH	6	3	9	9
14TH ST AND K ST	NW	3	6	9	9
MASSACHUSETTS AVE AND NORTH CAPITOL ST	OTH	3	7	9	9
NEW JERSEY AVE AND NEW YORK AVE	NW	6	3	9	9
H ST AND NORTH CAPITOL ST	OTH	1	7	8	13
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	2	6	8	13
K ST AND NORTH CAPITOL ST	OTH	2	6	8	13
BENNING RD AND EAST CAPITOL ST	OTH	4	5	8	13
13TH ST AND GOOD HOPE RD	SE	1	7	8	13
MASSACHUSETTS AVE AND DUPONT CIR	NW	1	6	7	18
MARTIN LUTHER KING AVE AND HOWARD RD	SE	0	7	7	18
FAIRLAWN AVE AND PENNSYLVANIA AVE	SE	5	2	7	18

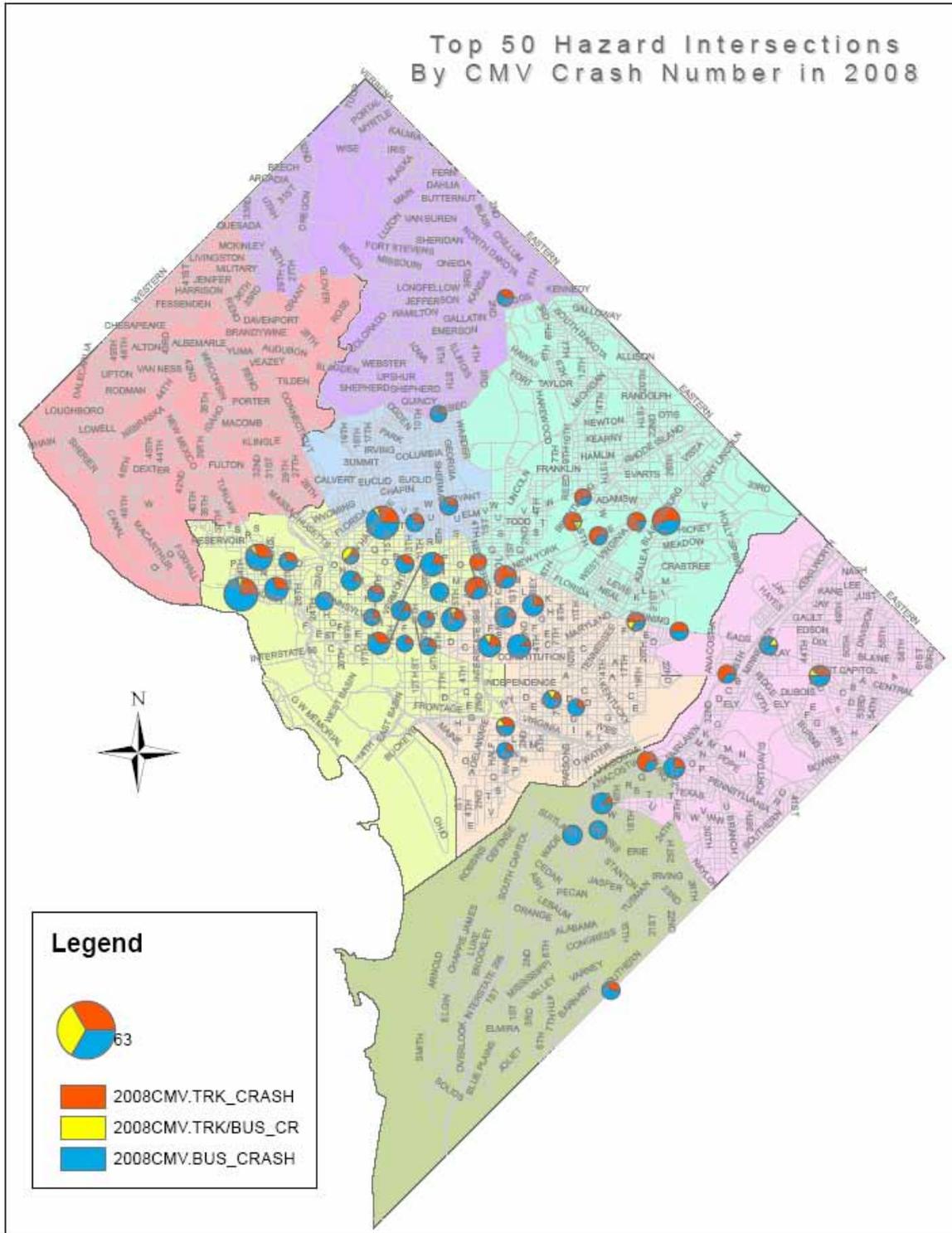


Figure 4.1 Top 50 High Hazard Intersections in 2008

4.2 Top 20 intersections by Number of CMV Crashes from 2006 through 2008

Table 4.2 Top 20 Intersections by Number of CMV Crashes (2006 ~ 2008)

Intersection Name	Quad	Truck Collisions	Bus Collisions	CMV Collisions	Rank by CMV Collisions
WISCONSIN AVE AND M ST	NW	18	51	63	1
NEW YORK AVE AND BLADENSBURG RD	NE	38	14	51	2
7TH ST AND H ST	NW	9	33	41	3
14TH ST AND U ST	NW	16	19	32	4
NEW YORK AVE AND NORTH CAPITOL ST	OTH	24	10	31	5
H ST AND NORTH CAPITOL ST	OTH	11	23	29	6
MONTANA AVE AND NEW YORK AVE	NE	23	7	29	6
M ST AND S CAPITOL ST	OTH	16	11	27	8
14TH ST AND CONSTITUTION AVE	NW	9	17	26	9
WISCONSIN AVE AND Q ST	NW	10	18	25	10
31ST ST AND M ST	NW	12	14	25	10
MINNESOTA AVE AND PENNSYLVANIA AVE	SE	14	12	25	10
MASSACHUSETTS AVE AND DUPONT CIR	NW	8	18	25	10
MINNESOTA AVE AND BENNING RD	NE	7	21	25	10
I ST AND S CAPITOL ST	OTH	16	9	24	15
MARTIN LUTHER KING AVE AND HOWARD RD	SE	1	21	22	16
15TH ST AND I ST	NW	5	17	21	17
MARTIN LUTHER KING AVE AND W ST	SE	4	18	21	17
GEORGIA AVE AND MISSOURI AVE	NW	15	6	21	17
1ST ST AND MASSACHUSETTS AVE	NE	4	17	20	20

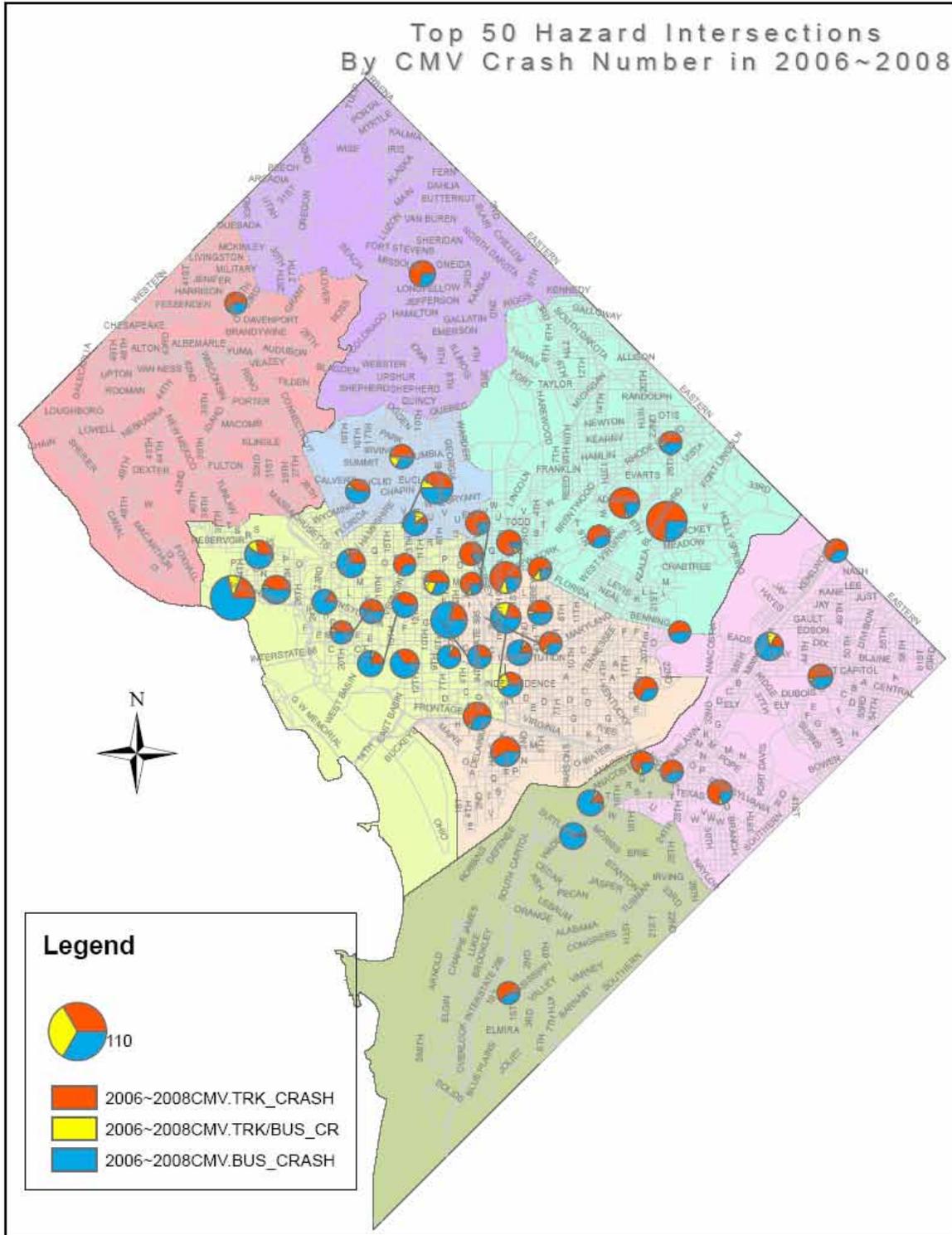


Figure 4.2 Top 50 High Hazard Intersections (2006 ~ 2008)

4.3 High Frequency Crash Intersection by Collision Type

Table 4.3 Top 20 Hazardous Intersections by Collision Type (2006~2008)

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
WISCONSIN AVE AND M ST, NW	1	0	0	11	0	3	4	0	8	0	18	18	0	0	63
NEW YORK AVE AND BLADENSBURG RD, NE	0	0	1	3	0	2	0	0	14	3	4	21	0	3	51
7TH ST AND H ST, NW	1	0	0	1	0	2	2	0	3	5	2	25	0	0	41
14TH ST AND U ST, NW	5	1	0	0	0	0	5	0	4	1	2	14	0	0	32
NEW YORK AVE AND N CAPITOL ST, OTH	0	1	1	3	0	2	1	0	5	1	3	14	0	0	31
H ST AND NORTH CAPITOL ST, OTH	0	0	0	3	0	0	0	0	4	2	3	16	0	1	29
MONTANA AVE AND NEW YORK AVE, NE	0	1	0	1	0	1	0	0	9	1	1	13	0	2	29
M ST AND S CAPITOL ST, OTH	0	0	1	4	0	2	0	0	3	6	0	11	0	0	27
14TH ST AND CONSTITUTION AVE, NW	0	0	0	0	0	2	1	0	4	3	2	14	0	0	26
WISCONSIN AVE AND Q ST, NW	0	1	0	0	0	2	1	0	1	0	0	20	0	0	25
31ST ST AND M ST, NW	0	0	0	0	0	4	3	0	1	0	3	14	0	0	25
MINNESOTA AVE AND PENNSYLVANIA AVE, SE	0	1	0	3	0	0	0	0	7	0	0	14	0	0	25
MASSACHUSETTS AVE AND DUPONT CIR, NW	0	0	0	1	0	0	0	0	2	0	7	15	0	0	25
MINNESOTA AVE AND BENNING RD, NE	0	0	1	1	0	0	0	0	7	0	0	15	1	0	25
I ST AND S CAPITOL ST, OTH	0	1	0	2	0	1	0	0	4	4	3	8	0	1	24
M.L.K. AVE AND HOWARD RD, SE	0	0	0	8	0	1	1	0	1	0	1	8	1	1	22
15TH ST AND I ST, NW	1	0	0	5	0	1	1	0	2	1	1	9	0	0	21
M.L.K. AVE AND W ST, SE	0	0	0	0	0	0	0	0	2	0	4	15	0	0	21
GEORGIA AVE AND MISSOURI AVE, NW	0	0	0	0	0	3	1	0	2	2	4	9	0	0	21
1ST ST AND MASSACHUSETTS AVE, NE	0	0	0	1	0	2	3	0	1	0	0	12	0	1	20

4.4 High Frequency CMV Crash Corridors

Table 4.4 Top 10 High Frequency CMV Crash Locations (2006 ~ 2008)

Corridor	2006			2007			2008		
	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries	No. of Collisions	Fatalities	Injuries
PENNSYLVANIA AVE	161	0	49	152	2	51	136	0	35
NEW YORK AVE	130	0	64	119	1	42	98	0	27
WISCONSIN AVE	106	1	27	101	0	22	91	0	10
GEORGIA AVE	108	0	56	96	0	28	82	0	27
CONNECTICUT AVE	92	0	14	68	0	11	81	0	8
NORTH CAPITOL ST	86	0	46	83	0	28	78	0	22
BENNING RD	58	0	33	66	0	31	53	0	19
FLORIDA AVE	87	1	49	65	0	24	51	0	17
SIXTEENTH ST	77	0	13	71	0	15	51	0	6
RHODE ISLAND AVE	69	0	17	66	0	25	46	0	8
BLADENSBURG RD	60	0	29	46	0	10	32	0	6
CONSTITUTION AVE	47	0	6	50	0	17	32	0	2
NEW JERSEY AVE	27	0	11	24	0	11	27	0	9
SOUTHERN AVE	36	0	24	32	0	10	27	0	15
PENNSYLVANIA AVE	161	0	49	152	2	51	136	0	35

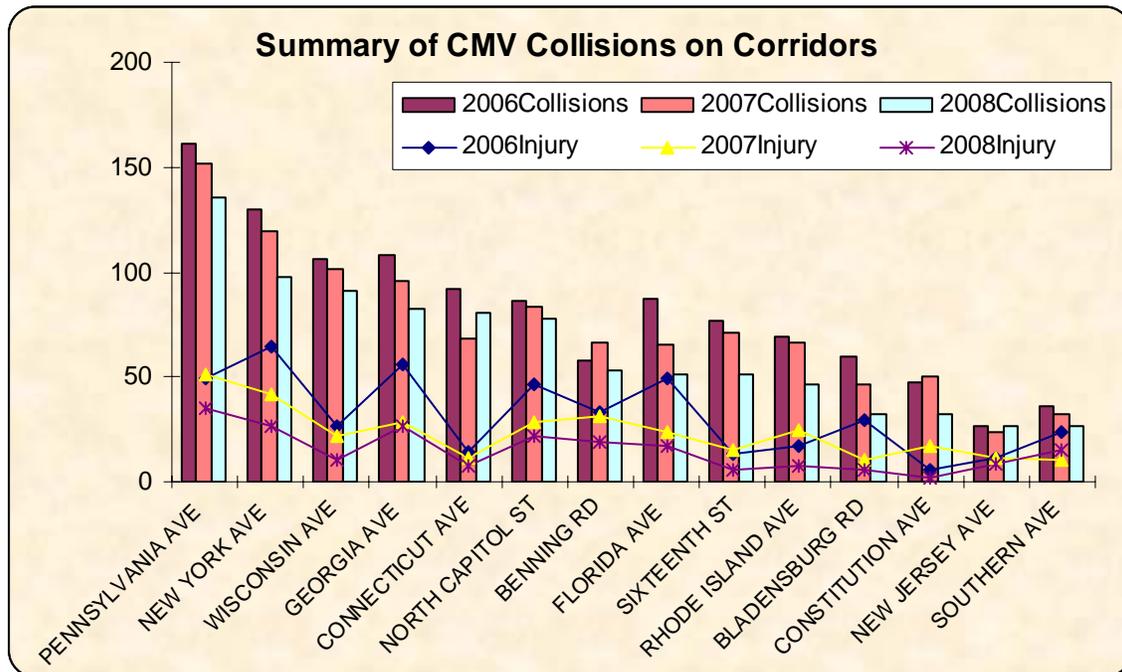


Figure 4.3 Summary of High Frequency Crash Corridors for CMV

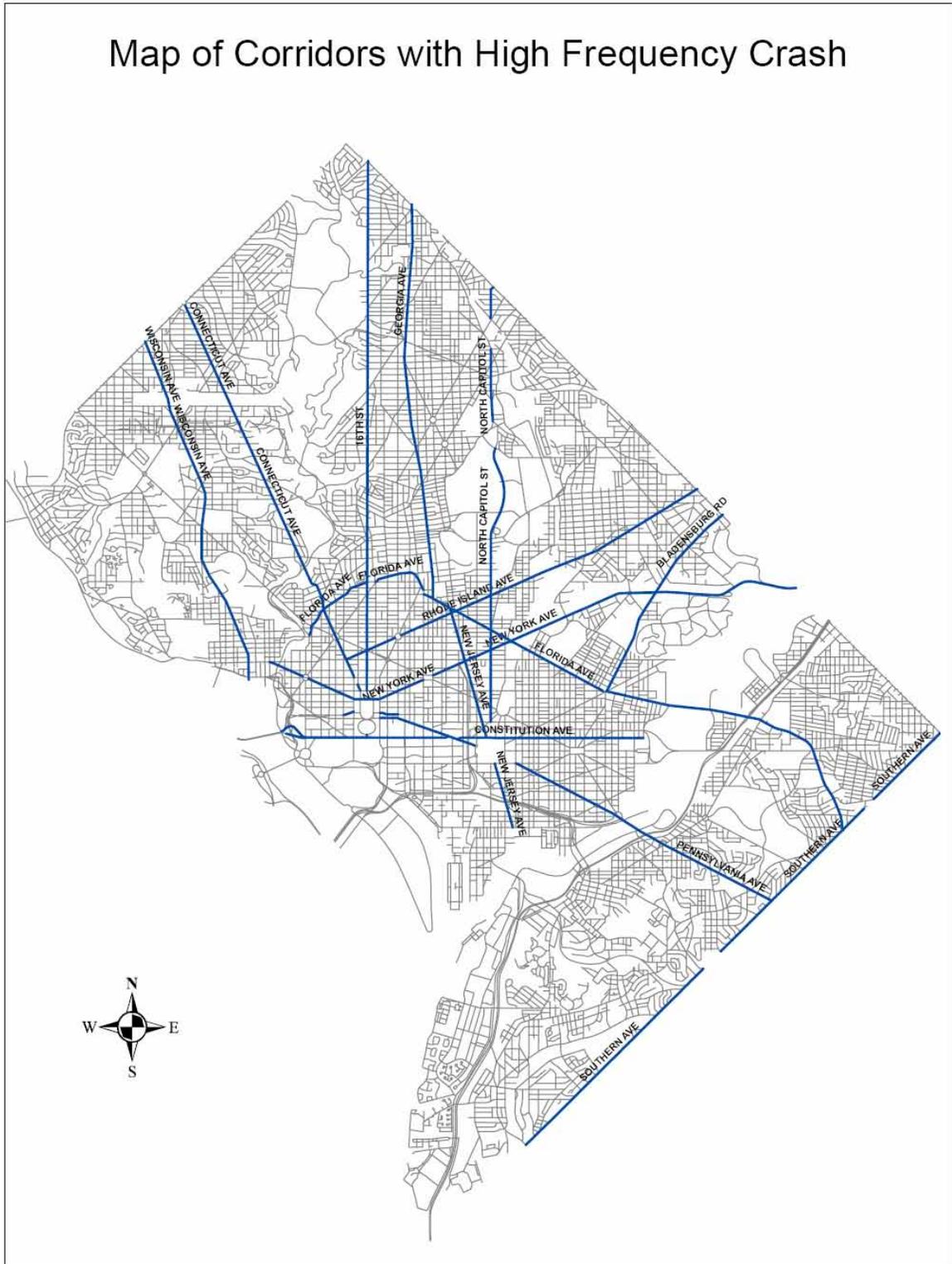


Figure 4.4 Map of Corridors with High Frequency Crash

Table 4.5 Summary of High Frequency Crash Corridors (2006~2008)

Corridor	Length(miles)	No. of Intersection	No. of CMV Crash (2006-2008)	Average CMV Crashes per Mile	Average CMV Crashes per Intersection
PENNSYLVANIA AVE	5.48	89	449	81.93	5.04
NEW YORK AVE	5.08	46	347	68.31	7.54
WISCONSIN AVE	4.87	65	298	61.19	4.58
GEORGIA AVE	4.76	65	286	60.08	4.40
CONNECTICUT AVE	5.01	73	241	48.10	3.30
NORTH CAPITOL ST	3.85	73	247	64.16	3.38
BENNING RD	3.39	45	177	52.21	3.93
FLORIDA AVE	5.46	80	203	37.18	2.54
SIXTEENTH ST	6.39	89	199	31.14	2.24
RHODE ISLAND AVE	4.56	49	181	39.69	3.69
BLADENSBURG RD	2.65	45	138	52.08	3.07
CONSTITUTION AVE	3.9	52	129	33.08	2.48
NEW JERSEY AVE	2.79	38	78	27.96	2.05
SOUTHERN AVE	5.4	122	95	17.59	0.78

CHAPTER 5 APPENDICES

5.1 New PD10 Form - Traffic Crash Report

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) <input type="checkbox"/> 01 Fatality <input type="checkbox"/> 02 Injury <input type="checkbox"/> 03 Property Damage Only <input type="checkbox"/> 04 Hit & Run <input type="checkbox"/> 05 Pedestrian <input type="checkbox"/> 06 D.C. Prop. <input type="checkbox"/> 07 Non-Collision <input type="checkbox"/> 08 Comm. Veh. <input type="checkbox"/> 99 Other			8 Location (Street/bridge/tunnel name & quadrant)	9 District	10 PSA
192 (Road Condition)	Enter the number of feet, in whatever direction, from the nearest intersection or block (0 feet if at an exact location). On freeways, enter the number of feet from the nearest mile post or PEPCO pole no., etc. Indicate if accident occurred on exit ramp, bridge, tunnel or other. Finally, circle the city quadrant.					
193 (Street Lighting)	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					
194 (Light Condition)	12 Construction Zone? <input type="checkbox"/> Y <input type="checkbox"/> N	13 On-Street Location <input type="checkbox"/> 01 At Intersection <input type="checkbox"/> 02 Within 100' of Intersection <input type="checkbox"/> 03 Not at Intersection <input type="checkbox"/> 04 Private Property <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other: _____		14 Off-Street Location <input type="checkbox"/> 01 Public Space <input type="checkbox"/> 02 Private Property <input type="checkbox"/> 97 N/A <input type="checkbox"/> 99 Other: _____		15 Report taken on scene? <input type="checkbox"/> Y <input type="checkbox"/> N
195 (Weather)	16 Photos taken? <input type="checkbox"/> Y <input type="checkbox"/> N	16a If yes, # photos	17 # Vehicles Involved	18 # Injured Persons	19a-d # Occupants (Incl. driver) Vehicle # 1 _____ 2 _____ 3 _____ 4 _____	
196 (Traffic Condition)	21 OBJECT TYPE (Describe fixed object and damage in narrative) <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: _____			50 OBJECT TYPE (Describe fixed object and damage in narrative) <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: _____		
197 (Roadway Type)	22 Last Name First Middle		23 Sex	24 DOB		51 Last Name First Middle
198 (Traffic Controls)	25 Street Address		26 City, State, Zip		54 Street Address	
199 (Pedestrian Action)	27 Home/Cell Number		28 Work Number		56 Home/Cell Number	
200a-h (Sequence)	29 License Number		30 State	31 Class	32 Ins Exp Date	
	33 Driver's Insurance Co. Name		34 Policy #		62 Insurance Co. Name	
	35 Make	36 Model	37 Year	38 Body	39 Color	
	40 Vehicle ID Number (VIN)					
	41 Tag Number		42 State	43 Year		
	44 Owner's Last Name First Middle <input type="checkbox"/> Same as Operator Info (skip to next section)			45 Owner Notified? <input type="checkbox"/> Y <input type="checkbox"/> N		
	46 Owner's Street Address		47 City, State, Zip			
	48 Owner's Telephone #		49 Veh. Insurance Co. (if different from #33)			
	58 License Number		59 State	60 Class	61 Ins Exp Date	
	62 Insurance Co. Name		63 Policy #			
	64 Make	65 Model	66 Year	67 Body	68 Color	
	69 Vehicle ID Number (VIN)					
	70 Tag Number		71 State	72 Year		
	73 Owner's Last Name First Middle <input type="checkbox"/> Same as Operator Info (skip to next section)			74 Owner Notified? <input type="checkbox"/> Y <input type="checkbox"/> N		
	75 Owner's Street Address		76 City, State, Zip			
	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

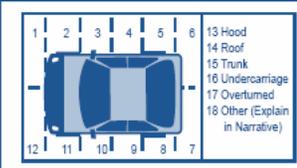
<p>200h-p (Sequence)</p> <p>201a-c (Seat Location Code)</p> <p>202a-c (Seat Belt Code)</p> <p>203a-c (Air Bag Code)</p> <p>204a-c (Ejection Code)</p> <p>205a-c (Injury Code)</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</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>51</p> <p>52</p> <p>53</p> <p>54</p> <p>55</p> <p>56</p> <p>57</p> <p>58</p> <p>59</p> <p>60</p> <p>61</p> <p>62</p> <p>63</p> <p>64</p> <p>65</p> <p>66</p> <p>67</p> <p>68</p> <p>69</p> <p>70</p> <p>71</p> <p>72</p> <p>73</p> <p>74</p> <p>75</p> <p>76</p> <p>77</p> <p>78</p> <p>79</p> <p>80</p> <p>81</p> <p>82</p> <p>83</p> <p>84</p> <p>85</p> <p>86</p> <p>87</p> <p>88</p> <p>89</p> <p>90</p> <p>91</p> <p>92</p> <p>93</p> <p>94</p> <p>95</p> <p>96</p> <p>97</p> <p>98</p> <p>99</p> <p>100</p> <p>101</p> <p>102</p> <p>103</p> <p>104</p> <p>105</p> <p>106</p> <p>107</p> <p>108</p> <p>109</p> <p>110</p> <p>111</p> <p>112</p> <p>113</p> <p>114</p> <p>115</p> <p>116</p> <p>117</p> <p>118</p> <p>119</p> <p>120</p> <p>121</p> <p>122</p> <p>123</p> <p>124</p> <p>125</p> <p>126</p> <p>127</p> <p>128</p> <p>129</p> <p>130</p> <p>131</p> <p>132</p> <p>133</p> <p>134</p> <p>135</p> <p>136</p> <p>137</p> <p>138</p> <p>139</p> <p>140</p> <p>141</p> <p>142</p> <p>143</p> <p>144</p> <p>145</p> <p>146</p> <p>147</p> <p>148</p> <p>149</p> <p>150</p> <p>151</p> <p>152</p> <p>153</p> <p>154</p> <p>155</p> <p>156</p> <p>157</p> <p>158</p> <p>159</p> <p>160</p> <p>161</p> <p>162</p> <p>163</p> <p>164</p> <p>165</p> <p>166</p> <p>167</p> <p>168</p> <p>169</p> <p>170</p> <p>171</p> <p>172</p> <p>173</p> <p>174</p> <p>175</p> <p>176</p> <p>177</p> <p>178</p> <p>179</p> <p>180</p> <p>181</p> <p>182</p> <p>183</p> <p>184</p> <p>185</p> <p>186</p> <p>187</p> <p>188</p> <p>189</p> <p>190</p> <p>191</p> <p>192</p> <p>193</p> <p>194</p> <p>195</p> <p>196</p> <p>197</p> <p>198</p> <p>199</p> <p>200</p>	<p>VEHICLE #3 (TYPE, CONTACT INFO, INSURANCE, ETC.)</p> <p>79 OBJECT TYPE (Describe fixed object and damage in narrative)</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 (skip to next section) <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 (Describe fixed object and damage in narrative)</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 (skip to next section) <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%;">1</th> <th style="width: 15%;">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></td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td><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></td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td><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></td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> </tr> </tbody> </table>			1	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
1	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: 5%;">1</th> <th style="width: 20%;">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></td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> <td></td> </tr> </tbody> </table>			1	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						
1	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																																	
<p>Non-Involved Witnesses</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">1</th> <th style="width: 30%;">152a-c Last Name First Middle</th> <th style="width: 35%;">153a-c Street Address, City, State, Zip</th> <th style="width: 30%;">154a-c Telephone #</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			1	152a-c Last Name First Middle	153a-c Street Address, City, State, Zip	154a-c Telephone #	1				2				3																							
1	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 _____				
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 _____				
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 _____				
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						

5.2 New PD10B – Traffic Crash Report Supplemental

PD 10B Rev. June 2007

TRAFFIC CRASH REPORT SUPPLEMENTAL

Metropolitan Police Department, Washington, DC

Complaint Number (CCN)

Record N/A in any field that does not apply to this event. Field numbers mirror those from the PD 10. Explain any "other" responses in narrative.
Record one code for each vehicle.

Private, Government & Commercial Vehicle Information	Vehicle #1	Vehicle #2	Vehicle #3	Vehicle #4
217a-d Bus Type 00 Unknown 01 School 02 Transit 03 Intercity 04 Charter 97 N/A, Not a Bus 99 Other				
218a-d Cargo Body Type 00 Unknown 01 Bus (Seats 9-15, including driver) 02 Bus (seats more than 15, including driver) 03 Van/Enclosed Box 04 Cargo Tank 05 Flatbed 06 Dump 07 Concrete Mixer 08 Auto Transporter 09 Garbage/Refuse 10 Grain, Chips, Gravel 11 Pole 12 Log 13 Intermodal Chassis 14 Vehicle-Towing Another Motor Vehicle 97 N/A 99 Other				
219a-d US DOT #				
220a-d MC #/MX #				
221a-d State #				
222a-d Issuing State				
223a-d Gross Vehicle/Combination Weight Rating 00 Unknown 01 10,000 lbs or less 02 10,001-26,000 lbs 03 Greater than 26,000 lbs 97 N/A				
224a-d Interstate Vehicle Type 00 Unknown 01 Interstate Carrier 02 Intrastate Carrier 03 Not in Commerce: Government (Trucks and Buses) 04 Not in Commerce: Other Truck (over 10,000 lbs) 97 N/A 99 Other				
225a-d Carrier Name				
226a-d Carrier Address (Street # and Name, Quadrant, Apt. #, City, State & Zip)				
227a-d Haz Mat Placard? (yes/no)				
228a-d If Yes, 4-digit Placard Number				
229a-d Haz Mat Class Number 01 Explosives 02 Gases (Compressed, Dissolved or Refrigerated) 03 Flammable Liquid 04 Flammable Solids (Combustible, Water Reactive) 05 Oxidizing Substances (Organic Peroxides) 06 Poisonous (Toxic) and Infectious Substances 07 Radioactive Material 08 Corrosives 09 Miscellaneous Dangerous Goods 97 N/A 99 Other				
230a-d Hazardous Cargo Materials Released? (yes/no)				

5.3 Coding Sheet

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 Overtake
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
- 01 Heavy
- 02 Medium
- 03 Light
- 99 Other

197 Roadway Type

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

198 Traffic Controls

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

199 Pedestrian Action

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

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

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

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

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



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	