

2011 ALASKA TRAFFIC CRASHES

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ABSTRACT

Crashes In General

Traffic crashes injured 4785 and killed 71 Alaskans during 2011. There were, on average, 34 crashes per day and 1.4 crashes per hour. One person died on Alaska highways every 5.1 days.

There were 274 traffic crashes per 100 million vehicle miles traveled (per 100 million VMT) and 1.35 fatal crashes per 100 million VMT in 2011.

12,576 crash reports (1.4% more than the previous year) were processed by Department of Transportation staff for 2011. Of 12,576 reported traffic crashes, seventy-three percent (73.1%) involved only property damage (no person injuries). In twenty-four percent (23.8%) of crashes, the most serious injuries were non-incapacitating (minor). In three percent (2.7%) of crashes, the most serious injuries were coded as incapacitating (major). Fatalities were reported in less than one percent (0.5%) of all crashes.

Police agencies filed reports for eighty-one percent (81.2%) of crashes in this publication. Drivers reported nineteen percent (18.8%).

Impaired Driving Crashes and Speed

Alcohol and/or drugs were suspected in six percent (5.6%) of all crashes (704 suspected impaired driving crashes) and suspected impaired drivers were involved in forty-eight percent (48.4%) of fatal crashes (30 alcohol and/or drug suspected fatal crashes). Speed contributed to thirteen percent (12.7%) of all crashes and thirty-seven percent (37.1%) of fatal crashes. Twenty percent (19.6%) of suspected impaired driver crashes and sixty-seven percent (66.7%) of suspected impaired driver fatal crashes also involved unsafe or excessive speed.

Occupant and Vehicle Involvement

There were 31,827 persons involved in traffic crashes during 2011. Ninety-five percent (95.4%) were occupants of automobiles, trucks, or buses.

There were 53 fatalities in automobiles, trucks, or buses (40 drivers and 13 passengers). Over ninety-three percent (93.3%) of all auto, truck, or bus occupants in police reported crashes wore seatbelts or used child restraints.

There were 178 motorcycle riders involved in traffic crashes in 2011. Ten motorcycle riders sustained fatal injuries (9 operators and 1 passengers). Over sixty-five percent (65.7%) of all motorcycle occupants in police reported crashes wore helmets for head protection.

Snowmobile and all-terrain vehicles and occupants are coded without distinction as off-highway vehicles and off-highway vehicle occupants. There were 113 off-highway vehicle occupants involved in traffic crashes in 2011. Four off-road vehicle occupants sustained fatal injuries (4 drivers and 0 passengers). According to the Fatality Analysis Reporting System (FARS), the four off road fatalities occurred on snowmobiles.

There were 51 pedestrians and 102 bicyclists involved in crashes with motor vehicles in 2011. Nine pedestrians died in traffic crashes and two bicycle fatalities were reported.

Statewide, seventy-five percent (75.0%) of traffic crashes involved multiple motor vehicles. Twenty-five percent (25.0%) were single motor vehicle crashes, including single motor vehicle crashes with non-motorists. A little more than ten percent (10.5%) of single vehicle and four percent (4.0%) of multiple vehicle crashes were suspected alcohol and/or drug related.

Location

Over three-quarters (78.4%) of all traffic crashes occurred on urban roadways. However, fatal crashes were more common in rural locations (62.9% rural, 37.1% urban).

A little over half of all crashes (52.2%) occurred at intersections, and 53.2% of fatal crashes were intersection-related.

Sixty-one percent (60.5%) of all traffic crashes and 24.2% of all fatal crashes occurred within the boundaries of the Municipality of Anchorage (MOA). The percentage of crashes in the MOA that resulted in fatalities (0.197%) was lower than statewide (0.374%). Seventy-six percent (75.7%) of all motor vehicle crashes with pedestrians, seventy-eight percent (77.8%) of all motor vehicle crashes with bicyclists, and twelve percent (11.9%) of all motor vehicle crashes with moose occurred in the MOA. Fifty-seven percent (57.0%) of crashes were alcohol and/or drug related were suspected and 56.6% of all speed-related crashes were reported in the MOA as well.

Eighty percent (80.0%) of statewide traffic crashes occurred in Alaska DOT's Central Region, 15.3% were reported from areas within the Northern Region, and there were 4.6% accidents from locations within the Southeast Region.

Data Collection

The percentage of reported crashes that resulted in injuries or fatalities were relatively unchanged from the previous year.

Data collected between 2000 and 2011 suggests a stable trend in the severity of traffic crashes that are reported.

2011 SUMMARY STATISTICS

CRASHES	2011
TOTAL CRASHES	12,576
FATAL CRASHES	62
MAJOR INJURY CRASHES	334
MINOR INJURY CRASHES	2,992
PROPERTY DAMAGE ONLY (PDO) CRASHES	9,188
SINGLE VEHICLE CRASHES	3,141
MULTIPLE VEHICLE CRASHES	9,435
CRASHES WITH DISABLING OR >\$501 VEHICLE DAMAGE	5,167
HIT & RUN TOTAL CRASHES	489
HIT & RUN FATAL CRASHES	2
HIT & RUN MAJOR INJURY CRASHES	4
HIT & RUN MINOR INJURY CRASHES	118
ALCOHOL &/OR DRUG RELATED CRASHES	704
ALCOHOL &/OR DRUG RELATED FATAL CRASHES	30
ALCOHOL &/OR DRUG RELATED MAJOR INJURY CRASHES	64
ALCOHOL &/OR DRUG RELATED MINOR INJURY CRASHES	229
POLICE REPORTED CRASHES	10,207
DRIVER REPORTED CRASHES	2,361
URBAN CRASHES	9863
URBAN FATAL CRASHES	23
% URBAN CRASHES THAT ARE FATAL	0.233%
RURAL CRASHES	2,708
RURAL FATAL CRASHES	39
% RURAL CRASHES THAT ARE FATAL	1.44%
CRASHES WITH MOOSE	666
FATAL CRASHES WITH MOOSE	0
ACCIDENT RATES	
CRASHES PER 100 MILLION VMT	274
FATALITIES PER 100 MILLION VMT	1.35
% OF CRASHES ARE ALCOHOL &/OR DRUG RELATED	5.6%
% OF FATAL CRASHES ARE ALCOHOL &/OR DRUG RELATED	48.4%

VEHICLES	2011
TOTAL VEHICLES IN CRASHES	22,893
AUTOS, TRUCKS & BUSES	
TOTAL AUTO, TRUCK & BUS VEHICLES IN CRASHES	21,635
AUTO/TRUCK/BUS VEHICLES IN CRASHES WITH >\$501 DAMAGE	8,358

VEHICLES (CONT)	2011
AUTO/TRUCK/BUS VEHICLES IN CRASHES - DISABLING DAMAGE OR TOTALED	5129
AUTO/TRUCK/BUS VEHICLES IN CRASHES WITH ALCOHOL &/OR DRUGS	677
MOTORCYCLES	
TOTAL MOTORCYCLES IN CRASHES	161
MOTORCYCLES IN ALCOHOL &/OR DRUG RELATED CRASHES	15
OFF-ROAD VEHICLES (ATV'S & SNOWMACHINES)	
TOTAL OFF-ROAD VEHICLES IN CRASHES	71
OFF-ROAD VEHICLES IN ALCOHOL &/OR DRUG RELATED CRASHES	13
BICYCLES	
TOTAL BICYCLES IN CRASHES	102
BICYCLES IN ALCOHOL &/OR DRUG RELATED CRASHES	8
OCCUPANTS	2011
TOTAL PERSONS	31,827
FATALITIES	71
MAJOR INJURIES	404
MINOR INJURIES	4,381
TOTAL PERSONS IN ALCOHOL &/OR DRUG RELATED CRASHES	1,680
ALCOHOL &/OR DRUG RELATED FATALITIES	32
ALCOHOL &/OR DRUG RELATED MAJOR INJURIES	64
ALCOHOL &/OR DRUG RELATED MINOR INJURIES	229
AUTO, TRUCK & BUS OCCUPANTS	
TOTAL AUTO/TRUCK/BUS OCCUPANTS	30,368
AUTO/TRUCK/BUS PASSENGER FATALITIES	13
AUTO/TRUCK/BUS DRIVER FATALITIES	40
AUTO/TRUCK/BUS OCCUPANTS IN ALCOHOL &/OR DRUG RELATED CRASHES	1,638
AUTO/TRUCK/BUS FATALITIES IN ALCOHOL &/OR DRUG RELATED CRASHES	27
AUTO/TRUCK/BUS OCCUPANTS PERCENT REPORTED WITH CORRECT SEAT BELT USE (POLICE REPORT ONLY)	64.9%
AUTO/TRUCK/BUS OCCUPANTS - PERCENT WITH AIR BAG DEPLOYMENT (POLICE REPORT ONLY)	18.2%
AUTO/TRUCK/BUS OCCUPANTS - PERCENT USING PROPER CHILD RESTRAINT (POLICE RPT)	3.6%
MOTORCYCLE OCCUPANTS	
MOTORCYCLE OCCUPANTS	178
MOTORCYCLE PASSENGER FATALITIES	1
MOTORCYCLE DRIVER FATALITIES	9
MOTORCYCLE OCCUPANTS IN ALCOHOL &/OR DRUG RELATED CRASHES	15
MOTORCYCLE FATALITIES IN ALCOHOL &/OR DRUG RELATED CRASHES	4
MOTORCYCLE PERCENT OCCUPANTS WEARING HELMETS (POLICE RPT ONLY)	65.7%
OFF-ROAD VEHICLE OCCUPANTS	
OFF-ROAD VEHICLE OCCUPANTS	113

OCCUPANTS (CONT)	2011
OFF-ROAD VEHICLE PASSENGER FATALITES	4
OFF-ROAD VEHICLE DRIVER FATALITIES	4
OFF-ROAD VEHICLE OCCUPANTS IN ALCOHOL &/OR DRUG RELATED CRASHES	14
OFF-ROAD VEHICLE FATALITIES IN ALCOHOL &/OR DRUG RELATED CRASHES	4
<i>PEDESTRIANS</i>	
TOTAL PEDESTRIANS	117
PEDESTRIAN FATALITES	9
PEDESTRIANS IN ALCOHOL &/OR DRUG RELATED CRASHES	10
PEDESTRIAN FATALITIES IN ALCOHOL &/OR DRUG RELATED CRASHES	2
<i>BICYCLISTS</i>	
TOTAL BICYCLISTS	251
BICYCLIST FATALITES	2
BICYCLISTS IN ALCOHOL &/OR DRUG RELATED CRASHES	8
BICYCLIST FATALITIES IN ALCOHOL &/OR DRUG RELATED CRASHES	2

PREFACE

2011 Alaska motor vehicle crash records are stored in the Highway Analysis System (HAS) database. HAS integrates crash data with road network and other information. HAS is maintained on the State of Alaska Computer Network at the Juneau Data Center. The State of Alaska and the Federal Highway Administration of the U.S. Department of Transportation provide funding for this publication and for the continued development of HAS.

Crash data specific to a particular crash is confidential according to Alaska Statute 28.15.151(f). An Attorney General's opinion of 1988 provides for reporting of aggregate crash data to the public.

Motor vehicle crash information is first recorded on crash report forms by police or by involved drivers. Police agencies send copies of Form 12-200 to the Department of Administration, Division of Motor Vehicles (Driver Services). Drivers submit report Form 12-209 directly to the Division of Motor Vehicles (Driver Services). The Division of Motor Vehicles then forwards copies of all crash reports to the Division of Program Development, Transportation Information Group, Alaska Department of Transportation and Public Facilities (ADOT&PF). The HAS database only includes crash reports received by ADOT&PF from the Division of Motor Vehicles.

At ADOT&PF, a state record tracking number is assigned, crash information is carefully checked for code consistency and a mile point location is determined for routes in the HAS linear reference system. The coded crash record is then loaded to the HAS database for permanent storage and analysis. Crash data reporting staff, members of the Transportation Data Services Unit of the Division of Program Development, determine which crashes meet program criteria and ensure that crash records submitted to the Highway Analysis System are complete and accurate.

As soon as all crash information is stored in the HAS database for a calendar year, it is available for analysis by ADOT&PF traffic engineers and statistical staff, as well as other authorized users of the State data network. Yearly summaries, including the statistical tables in this publication, are prepared at that time.

TRAFFIC CRASH TERMINOLOGY

Traffic Crash Definition: A traffic crash is a motor vehicle crash that occurs on a trafficway. Motor vehicle crashes in parking lots or on other private property, or crashes where the only vehicle(s) involved are not customarily used for transport on roads, e.g., forklifts or airline baggage carts, are not considered traffic crashes. Also excluded are motor vehicle crashes directly resulting from a natural disaster and crashes caused by an explosion or discharge of a weapon. To maintain consistency with the Fatality Analysis Reporting System (FARS) definition, fatalities directly attributed to pre-existing medical conditions are not considered traffic fatalities. These types of crashes have been omitted from this publication.

Reporting Requirements: Alaska State law (AS 28.35.080) requires the reporting of any motor vehicle crash that results in the death or injury of one or more persons or that causes total property damage of \$2,000 or more. Drivers involved in such crashes are required to report crash information to a police agency and submit Form 12-209 to the Department of Administration if police do not investigate. Whenever police investigate a motor vehicle crash, they are required to forward Form 12-200 to the Department of Administration, Division of Motor Vehicles. Drivers are not required to submit a report to the Division of Motor Vehicles if a police agency has investigated and assumed responsibility for reporting.

Alaska State law also requires that drivers or vehicle owners provide proof of motor vehicle liability insurance to the Department of Administration, Division of Motor Vehicles if they are involved in a motor vehicle crash on public property that involves injury, death, or total property damage exceeding \$501 (AS28.22.021). Because of this, many drivers voluntarily file Form 12-209 for crashes with less than \$2000 damage.

Crash Severity: Traffic crashes are categorized in this publication based on the most serious injury to motor vehicle occupants and any non-motorists that are involved (pedestrians and bicyclists struck by motor vehicles). Crashes that involve no injuries or deaths are designated property damage-only (PDO). A fatal crash has resulted in at least one death within thirty days of the crash. Crashes involving injuries are further subdivided into major and minor injury crashes. A major injury crash is one in which the most serious injury is incapacitating. The most serious injury in a minor injury crash is not incapacitating (typically pain, minor bleeding, a minor burn, a bruise, a contusion, or an abrasion).

Injury Severity: While crash severity reflects the most serious injury within a crash and counts crash incidents, occupant injury severity is evaluated for each person involved and counts persons. Minor, major, and fatal injury designations are based on the same criteria used for assigning crash severity. Occupant injury severity counts the number of persons receiving fatal, major, or minor injuries. Counts of persons not injured in crashes are accumulated under the no injuries category rather than a PDO designation. Vehicle injury severity, based on the most serious injury within a vehicle, is also calculated for some statistical tables in this publication. Numbers of vehicles in which no occupants received injuries are accumulated under a no injuries category. Numbers of vehicles in which fatalities occurred accumulate under the fatality category, while those in which the most serious injury was major or minor accumulate under the major injury or minor injury categories, respectively.

Classification of Vehicles: In the HAS database structure, pedestrians and non-motorized vehicles such as bicycles are stored as vehicle records. Motor vehicles traditionally used on public roadways as transport vehicles, excluding motorcycles, are called “autos, trucks, and buses” in this publication. This category includes vehicles such as passenger cars, pick-up trucks and other light trucks, large trucks, panel/van trucks, buses, motor homes, tractor-trailer combinations, and emergency vehicles. In “Auto/Truck/Bus” crashes, at least one vehicle involved in the crash must be an automobile, truck, or bus. Off-highway vehicles include snow machines and all-terrain vehicles combined.

Impaired Crashes: A crash is designated as potentially impaired (alcohol and/or drug related) if any driver or involved non-motorist is considered impaired by police. Passenger (non-driver) data is not considered. Criteria include police suspicion of alcohol or drug use, positive test results, and traffic citations. An alcohol test is positive if the blood alcohol concentration (BAC) or equivalent is nonzero. The term impairment is used in this publication to designate alcohol and/or drug use without respect the amount of alcohol and/or drugs indicated. In Alaska, intoxication is defined as having a BAC of 0.08% or more. In this publication, alcohol and/or drug related crashes do not necessarily involve drunk drivers and driver impairment does not refer to legal intoxication.

Speed-Related: A crash is designated speed related if any involved driver is issued a traffic ticket for speed (speed too fast for conditions) or is coded for in human circumstance as “unsafe speed.”

Holiday and Weekend Intervals: Holiday and weekend intervals comply with National Highway Traffic Safety Administration (NHTSA) guidelines. If a holiday occurs on either Saturday or Sunday, the holiday interval extends from 6:00 pm Friday to 5:59 am Monday. Intervals for holidays occurring on Monday or Tuesday extend from 6:00 pm Friday to either 5:59 am Tuesday or 5:59 am Wednesday. If the holiday falls on Wednesday, a 6:00 pm Tuesday to 5:59 am Thursday interval is used. If the holiday falls on Thursday, the holiday period runs from 6:00 pm Wednesday to 5:59 am Monday. The interval for a holiday occurring on Friday extends from 6:00 pm Thursday to 5:59 am Monday. For many holidays, the length of the holiday interval will vary from year to year. The weekend interval extends from 6:00 pm Friday to 5:59 am Monday (60 hours).

TRENDS IN ALASKA TRAFFIC CRASHES

Population estimates, numbers of licensed drivers and registered motor vehicles, and estimates of annual vehicle miles traveled (AVMT) by all motor vehicles in Alaska are given in Table 1. Annual Vehicle Miles Traveled (AVMT) is from estimates developed in the Federal Highway Administration's Highway Performance Monitoring System (HPMS). The data series for licensed drivers and motor vehicles are from the Division of Motor Vehicles, Alaska Department of Administration. Registered motor vehicle counts include snowmobiles and motorcycles. Drivers with instruction permits are counted as licensed drivers.

TABLE 1
Alaska Mid-year Population, Licensed Drivers, Vehicle Miles Traveled, Fatalities and Fatality Rate (2001 - 2011)

YEAR	MID-YEAR POPULATION	LICENSED DRIVERS	VEHICLE MILES TRAVELED (MILLIONS)	FATALITIES	FATALITY RATE*
2011	723,424	537,000	4,593	71	1.55
2010	710,000	532,000	4,798	56	1.17
2009	699,000	524,000	4,932	64	1.30
2008	687,000	519,000	4,895	62	1.27
2007	680,000	512,000	5,153	82	1.59
2006	675,000	506,000	4,968	74	1.49
2005	667,000	504,000	5,035	73	1.45
2004	660,000	500,000	4,990	101	2.02
2003	649,000	500,000	4,942	98	1.98
2002	642,000	498,000	4,906	89	1.81
2001	633,000	490,000	4,812	89	1.85

*FATALITY RATE IS CALCULATED PER 100 MILLION ANNUAL VEHICLE MILES TRAVELED

Sources: 1) Alaska mid-year population estimates are from the Alaska Dept of Labor. 2) Licensed driver estimates are from the Division of Motor Vehicles. 3) Annual vehicle miles traveled (VMT) are from the DOT&PF Highway Performance Monitoring System (HPMS).

Table 2 and Figure 1 summarize Alaska traffic crash severity for the ten-year period between 2001 and 2011.

There were 177 (1.4%) more traffic crashes processed in 2011 than in 2010. The number of fatal crashes increased by 10 (19.2%). The number of major injury crashes decreased by 14.4% while minor injury decreased by 7.4% and property damage only (PDO) crashes increased by 5.3% respectively in 2011 compared to 2010.

Police reported hit and run circumstances for 489 crashes in 2011 (3.9% of all reported crashes and 3.7% of injury plus fatal crashes). Hit and run circumstances were coded for two fatal crashes.

Between 2001 and 2011, injury crashes ranged from 26.4% (2011) to 31.9% (2002) of all crashes reported annually, while PDO crashes ranged from 67.5% (2002) to 73.1% (2011). In 2011, 26.4% of all crashes involved nonfatal injuries and 73.1% were classed as property damage only.

TABLE 2
Alaska Traffic Crashes by Crash Severity and Year (2000 - 2011)

YEAR	FATAL CRASHES	MAJOR INJURY CRASHES	MINOR INJURY CRASHES	PROPERTY DAMAGE ONLY CRASHES	TOTAL CRASHES
2011	62	334	2,992	9,188	12,576
2010	52	390	3,232	8,725	12,399
2009	59	384	3,395	9,052	12,890
2008	56	328	2,910	8,331	11,625
2007	82	343	2,728	7,425	10,578
2006	74	361	2,984	8,309	11,728
2005	67	468	3,584	9,018	13,137
2004	96	473	3,732	10,317	14,618
2003	89	534	3,869	10,296	14,788
2002	78	545	3,702	8,996	13,321
2001	80	364	4,152	10,652	15,248

Source: DOT&PF Highway Analysis System (HAS).

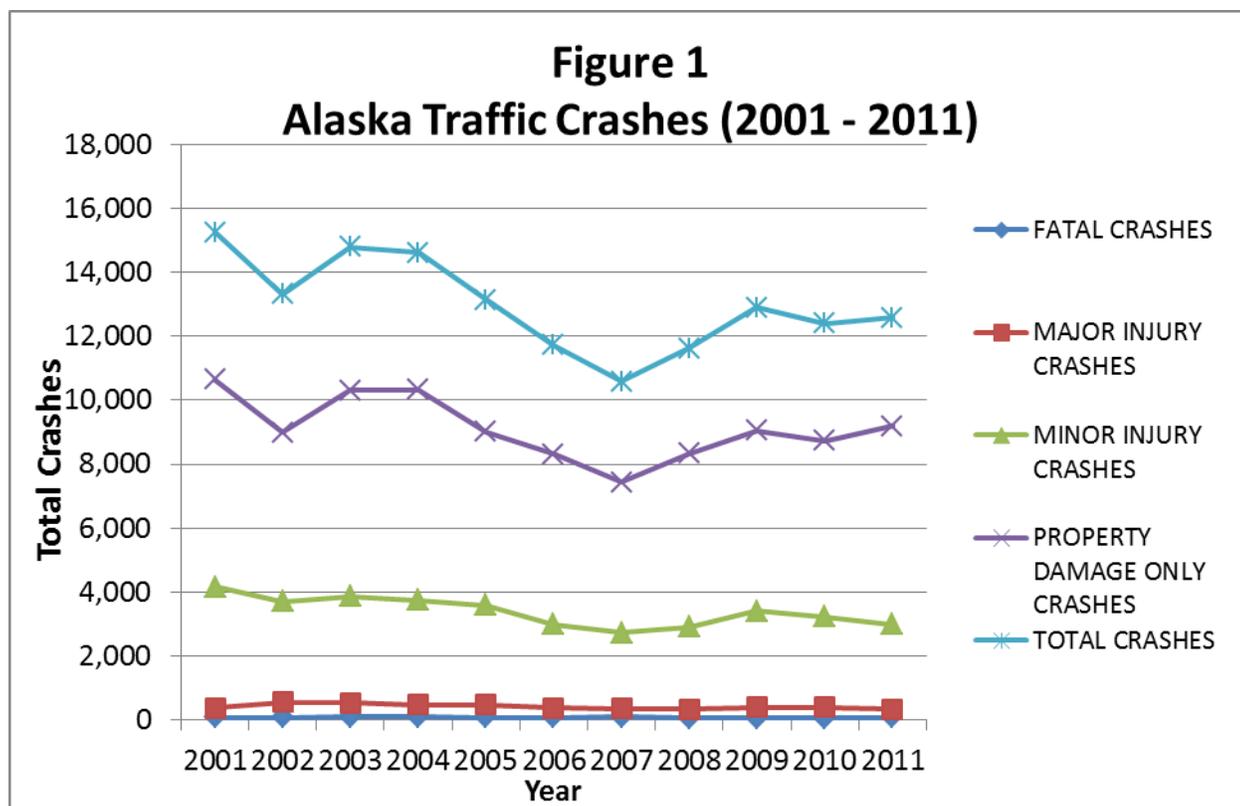


Table 3 summarizes numbers of persons injured or killed in Alaska traffic crashes between 2001 and 2011. Beginning with the 2002 reporting year, a dollar valuation is no longer assigned for the total cost of damages in each crash or to the cost of damage to individual vehicles. Limited data is available for the number of vehicles with estimated damage greater than \$501, for number of vehicles with disabling versus functional damage, and for the number of crashes in which non-vehicular damage occurred.

TABLE 3
Persons Killed and Injured
In Alaska Traffic Crashes (2001 - 2011)

YEAR	FATALITIES	MAJOR INJURIES	MINOR INJURIES	FATALITIES & INJURIES
2011	71	404	4381	4,856
2010	56	463	4787	5,306
2009	64	452	4878	5,394
2008	63	391	4251	4,705
2007	89	433	3956	4,478
2006	77	437	4584	5,098
2005	74	581	5395	6,050
2004	100	584	5607	6,291
2003	100	655	5854	6,609
2002	89	664	5704	6,457
2001	89	433	6104	6,626

Source: DOT&PF Highway Analysis System (HAS). Fatalities may not equal those reported in the Fatality Analysis Reporting System (FARS) due to differences in reporting criteria.

Alaska traffic crash deaths in 2011 included nine pedestrians, ten motorcyclists, four off-road vehicle occupants, two bicyclists, and 53 occupants of automobiles, trucks or buses. Twenty-seven deaths occurred in alcohol and/or drug related traffic crashes during 2011.

Two accepted methods for making crash severity comparisons are based on calculations of the number of fatalities per million vehicle miles traveled (VMT) or the number of fatalities per million licensed drivers. Table 4 summarizes the United States annual VMT, licensed drivers, and fatalities for the last ten years, as provided by the Federal Highway Administration, Office of Highway Information Management. See Table 1 for corresponding Alaska data.

TABLE 4
US Vehicle Miles Traveled,
Licensed Drivers, Fatalities and Fatality Rate (2001 - 2011)

YEAR	LICENSED DRIVERS (THOUSANDS)	ANNUAL VEHICLE MILES TRAVELED (MILLIONS)	FATALITIES	FATALITY RATE*
2011	211,875	2,950,000	32,310	1.09
2010	210,115	2,967,000	32,885	1.11
2009	209,618	2,957,000	33,883	1.15
2008	208,321	2,977,000	37,423	1.26
2007	205,742	3,031,000	41,259	1.36
2006	202,810	3,014,000	42,708	1.42
2005	200,549	2,989,000	43,510	1.46
2004	198,889	2,965,000	42,836	1.44
2003	196,166	2,890,000	42,884	1.48
2002	194,602	2,856,000	43,005	1.51
2001	191,276	2,796,000	42,196	1.51

* Fatality rate is calculated per 100 million VMT

Source: National Highway Traffic Safety Administration (NHTSA).

Figure 2 compares Alaska and U.S. annual fatalities per 100 million annual vehicle miles traveled for the last ten years. The national fatality rate decreased annually between 2000 and 2011, from 1.51 U.S. fatalities /100 million VMT in 2001 to 1.09 U.S. fatalities /100 million VMT in 2011. Alaska's rate also decreased, but mostly remained above the national rate. In 2001, Alaska's fatality was 1.85 fatalities per 100 million VMT. It decreased to 1.17 traffic fatalities per 100 million VMT in 2010 but spiked up to 1.55 fatalities per 100million VMT in 2011. , A few more years of data will be needed to see if the uptick in the 2011 fatality rate is the beginning of an increasing trend.

Figure 2
Alaska and US Fatalities (2001 - 2011)
Per 100 Million Vehicle Miles Traveled

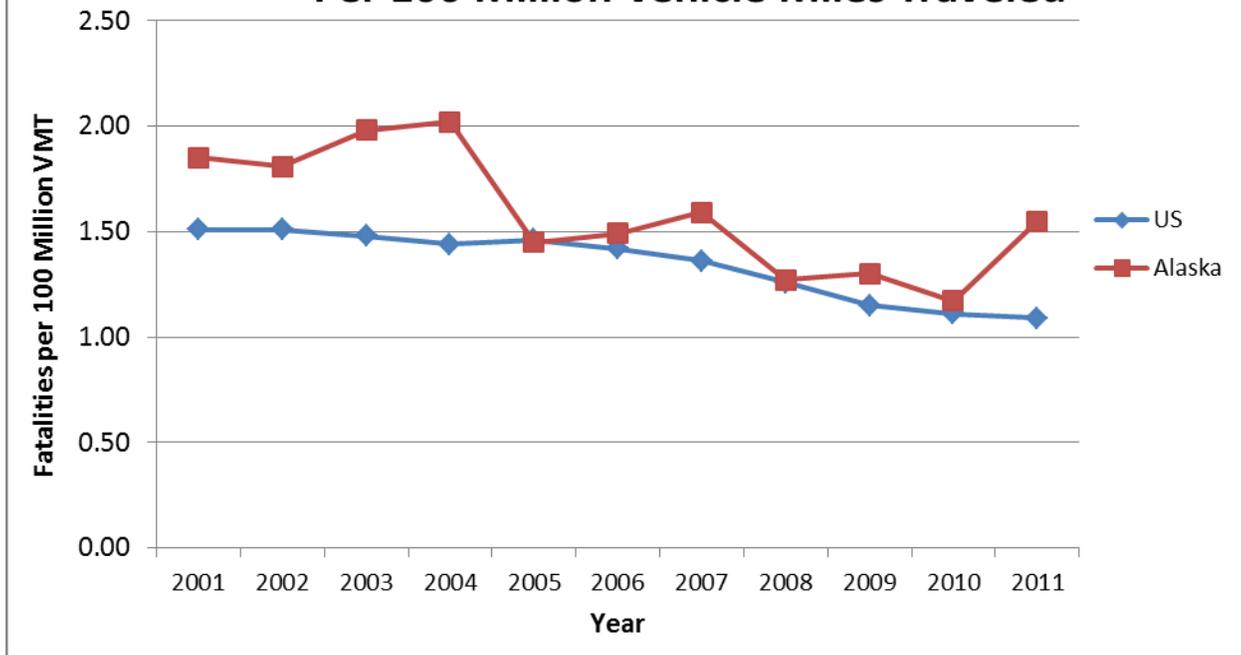
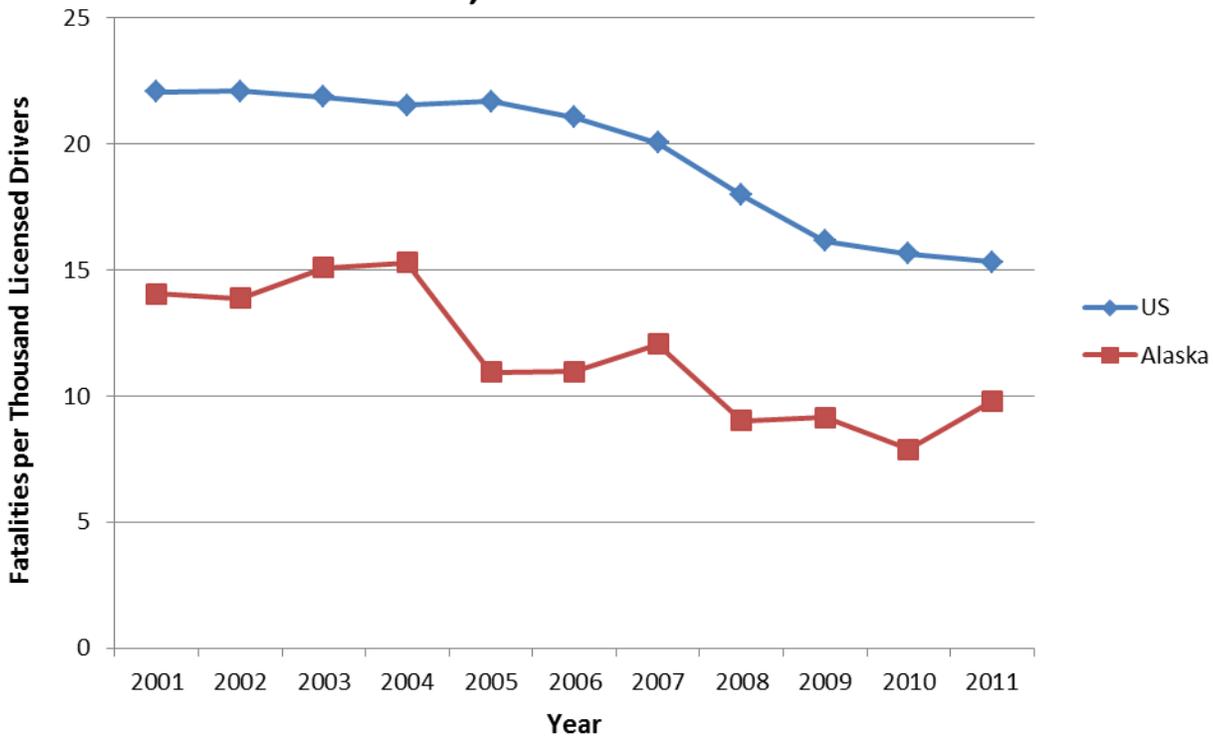


Figure 3 compares the U.S. and Alaska trends for fatalities per thousand licensed drivers. While Alaska traffic fatality rates based on traffic volumes (by VMT) are typically greater than the corresponding national rate, Alaska traffic fatality rates based on population, number of licensed drivers, or number of registered vehicles tend to be less.

Figure 3
Alaska and US Fatalities (2001 - 2011)
Per 100,000 Licensed Drivers



CRASH EVENTS

Event type, or type of crash, describes the events of the traffic crash. Law enforcement personnel indicate a first crash event for the entire crash and a possible second crash event for each vehicle, following procedures described in the State of Alaska Police Crash Report Manual. Drivers are asked only to describe a first crash event for traffic crashes that they report.

No attempt is made to assign a most harmful event in a sequence of crash events. The first crash event is not always the crash event responsible for the most serious injuries to vehicle occupants or for the most damage to vehicles.

The first crash event is used to classify the crash type referenced in this publication. For a single vehicle, this may be a crash with an animal, pedestrian, or fixed object such as a light pole or ditch, or it may be a non-crash event such as an overturn. For multiple vehicle crashes, the first event is typically a crash with another motor vehicle. Crashes between motor vehicles in transport (motor vehicles in the process of transporting people or goods on a public roadway) are classified as rear end, head on, angle, or sideswipe. Crashes between vehicles in transport and parked vehicles (vehicles parked outside of the travel lanes of public roadways) are classified as crashes with parked vehicles.

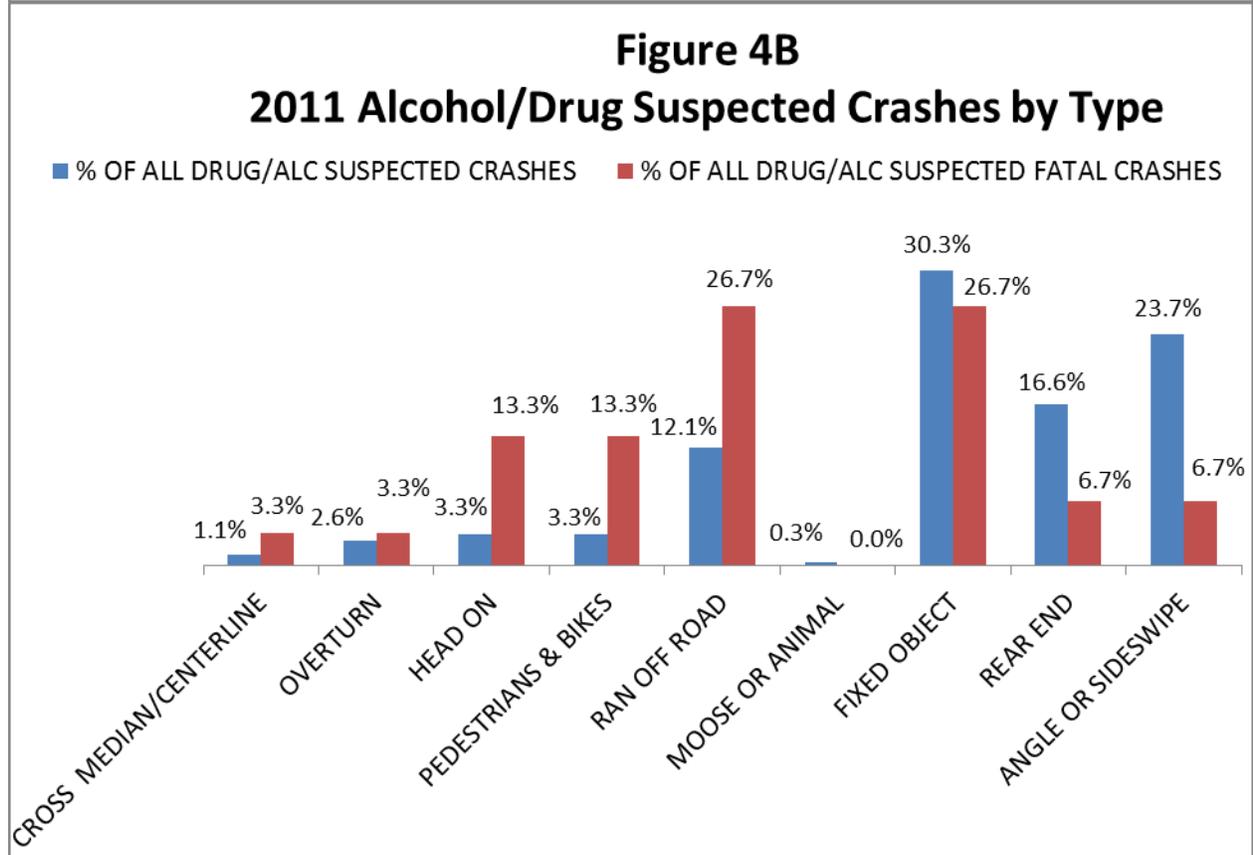
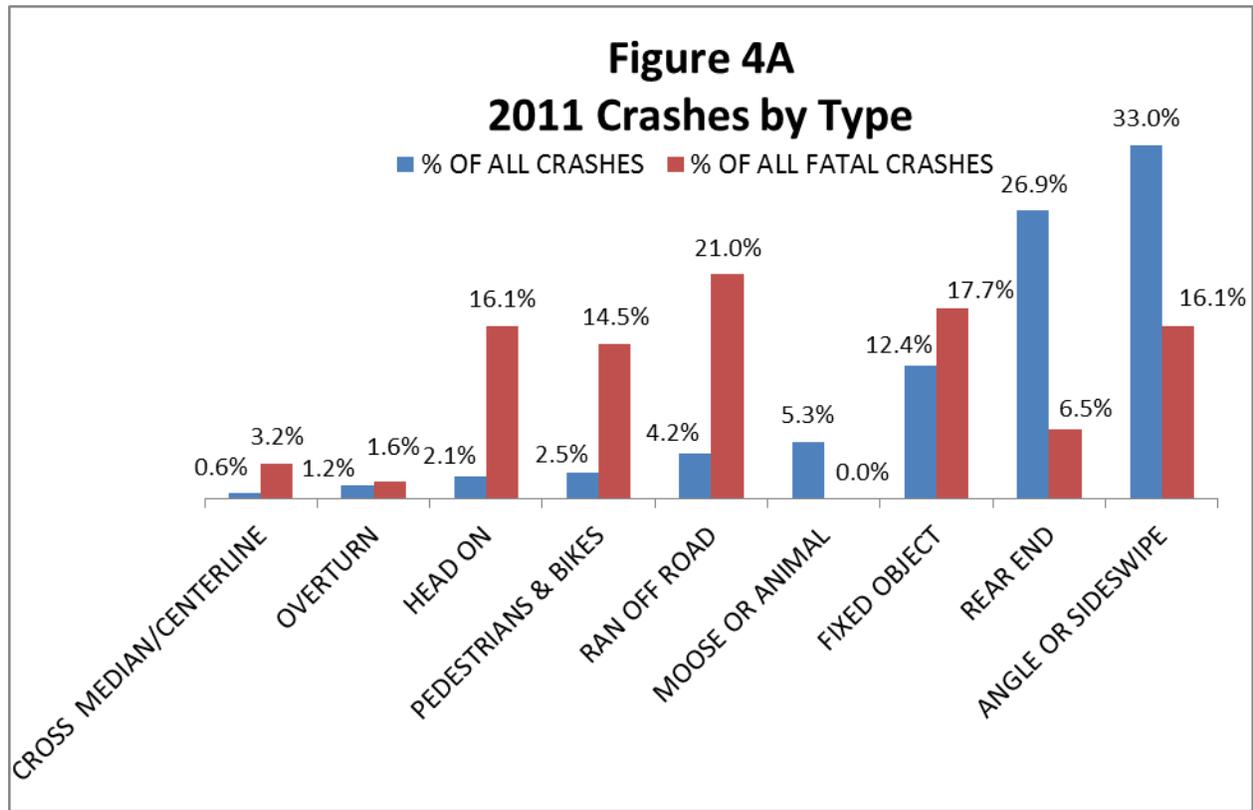
Figure 4A compares first crash event types for all crashes with those for crashes that resulted in fatalities. Figure 4B presents first crash event data for alcohol and/or drug-related crashes. Sideswipe crash data is combined with motor vehicle angle crash events for this figure. Event types that were very infrequently coded and events coded as “other” are not shown

All Crashes

Crashes between motor vehicles (head-on, rear-end, angle, and sideswipes combined) occurred as first harmful events in sixty-five percent of all crashes in 2011 (65.4% in 2011) and in thirty-nine percent (38.7%) of fatal crashes (an increase from 23% of fatal crashes in 2010). Thirty-three percent (33.0%) of all Alaska traffic crashes in 2011 involved motor vehicle (MV) angle crashes, a crash type associated typically with turning movements, passing, and failure to yield situations. Twenty-seven percent (26.9%) of all first crash events were MV rear end crashes, a crash type typical of situations involving unsafe speed and driver inattention at intersections or in slowing traffic. A little more than two percent (2.1%) of all crashes involved head-on first event crashes. Crashes with fixed objects were coded as the crash type for twelve percent (12.4%) of all traffic crashes in 2011.

Fatal Crashes

Fatal crashes included a higher percentage of crossing the median, head-on crashes, pedestrians and bikes, running off the road, and hitting fixed objects than traffic crashes overall. Crashes with other motor vehicles comprised nearly 40% of fatal crash types (16.1% head-on, 16.1% angle, and 6.5% rear-end crashes coded as first crash events). Eighteen percent (17.7%) of fatal crashes involved crashes with fixed objects. In 2011 there were no fatal crashes involving moose or other animal.

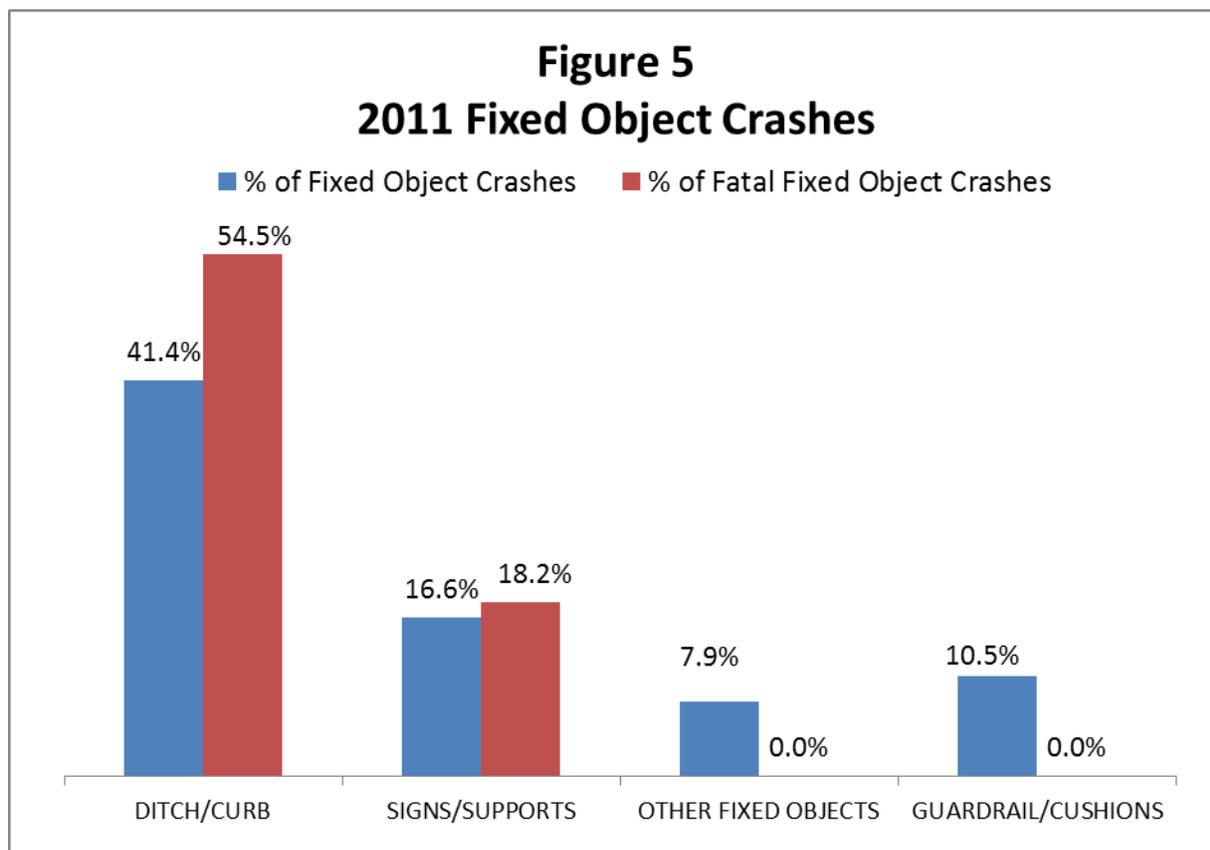


Impaired Crashes

In 2011, impaired crashes were a little more likely to involve crashes with another motor vehicle than other crash types. Crashes between motor vehicles accounted for forty-four percent (43.6%) of first event coding for all crashes when alcohol and/or drugs were involved and twenty-seven percent (26.7%) of first event coding for fatal crashes when alcohol and/or drugs was involved (from 40% and 18% respectively of crash event coding in all crashes and in all fatal crashes). Thirty percent (30.3%) of all impaired crashes and twenty-seven percent (26.7%) of fatal impaired crashes had first event coding indicating crashes with fixed objects. (This compared to 18% in all crashes and 12% in all fatal crashes). Impaired crashes were also more likely to involve run-off-road events. Impaired crashes with pedestrians and bicycles occurred at a similar percentage as pedestrians and bicycles involved crashes overall.

Crashes with Fixed Objects

Twelve percent (12.4%) of all crashes as well as eighteen percent (17.7%) of fatal crashes occurred when vehicles first struck fixed objects. Most often, fixed object crashes were coded for crashes with ditches, signs and guardrail faces. In some of these crashes, secondary events such as vehicle overturns or crashes with trees and culverts may have been more harmful to vehicle occupants. Figure 5 summarizes the kinds of objects struck in fixed object crashes.



“Ditch/Curb” includes embankments, walls and snow berms. Signs and utility posts are included with “signs/supports.” Bridge rails, overpasses and median barriers are grouped with “guardrail/cushions.”

Multiple Motor Vehicle Crashes

Multiple motor vehicles were involved in seventy-five percent (75.0%) of traffic crashes in 2011. Most multiple vehicle crashes occurred on urban roadways. The first crash event was usually (59% of the time) a crash with another motor vehicle not including parked vehicles, though 4.4% of crashes involving multiple motor vehicles had a crash with another motor vehicles coded as a secondary crash event. Four percent (4.0%) of multiple vehicle crashes may involve alcohol, drugs, or both.

Single Motor Vehicle Crashes

Twenty-five percent (25.0%) of all traffic crashes in 2011 were single vehicle crashes. Five percent (5.2%) of single motor vehicle crashes were with non-motorists. Most single vehicle crashes with pedestrians and bicyclists occurred in urban settings (86.0%). Crashes with fixed objects, crashes with moose or other animals, run-off-road crashes and crashes with non-motorists (in that order) predominate as first crash events in single vehicle crashes. Eleven percent (10.5%) of single vehicle crashes with suspected impairment.

Fatal Vehicle Crashes

Forty-two percent (41.9%) of fatal crashes involved multiple motor vehicles. Fifty-eight percent (58.1%) of fatal crashes involved single motor vehicles. Seven percent of fatal crashes (6.5%) were single vehicle crashes with pedestrians.

Impaired Crashes

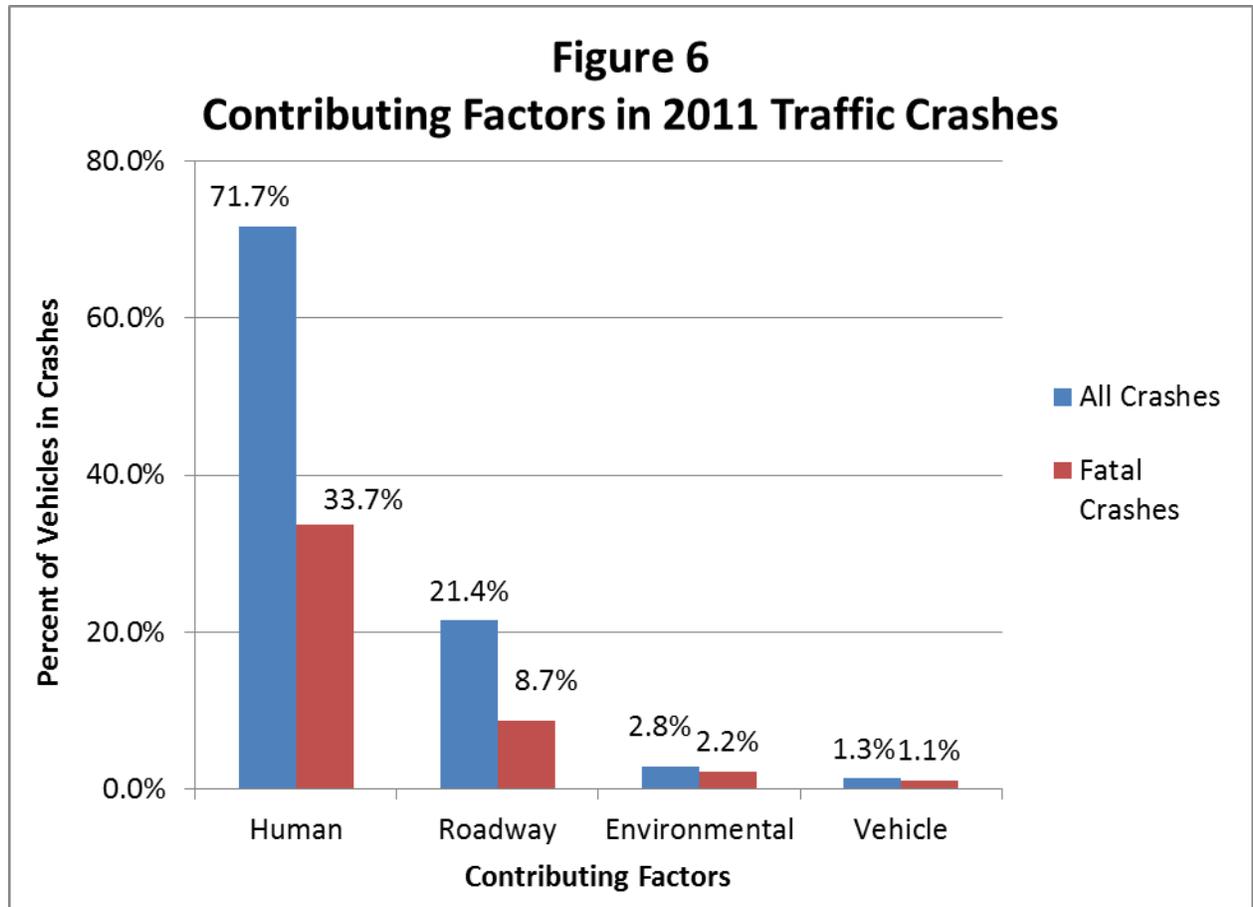
Fifty-three percent (53.3%) of crashes with suspected impairment involved multiple vehicles. Sixty-seven percent of fatal impaired crashes (66.7%) involved single vehicles. Ten percent of fatal impaired crashes (10.0%) were single vehicle crashes with pedestrians and bicyclists.

Vehicle Overturns

Only seven percent (7.4%) of crashes in 2011 were coded for secondary crash events. Vehicle overturns were coded more often as secondary crash events on vehicle records than as first crash events. There were 152 crashes with first event overturn coding and 258 crashes were coded for overturns as second events. Approximately 400 vehicles overturned during traffic crashes in 2011 (about 1.8% of vehicles).

FACTORS CONTRIBUTING TO ALASKA TRAFFIC CRASHES

Given the opportunity to select up to two factors for each driver, police coded at least one human circumstance for 52% (51.5%) of drivers. This excludes coding for no improper driving, missing and unknown). Twenty-one percent (21.4%) of vehicles were coded for roadway circumstances such as debris in roadway, pavement faults, and missing, obscured, or inoperative traffic control. Three percent (2.8%) were coded for environmental circumstances, including weather conditions, glare, and obstructed (or limited) view. Twenty-two percent (21.8%) of vehicles were reported as having vehicle defects that contributed to the crash. All of these contributing factors are shown in Figure 6.



Of vehicles where defects were coded, tire failure or inadequate tires was most frequently cited at twenty-five percent (24.7%). Weather was reported for seventy-eight percent (77.5%) of vehicles that had environmental circumstances cited. Road surface condition dominated roadway circumstances coding at eighty percent (80.4%).

Figures 7 and 8 show the major human factors that contributed to all crashes (Figure 7) and to fatal crashes (Figure 8) in 2011. Because some drivers were coded for two human factors, the number of occurrences does not correspond to the number of driver (vehicle) records.

Figure 7

Human Contributing Factors in 2011 Crashes

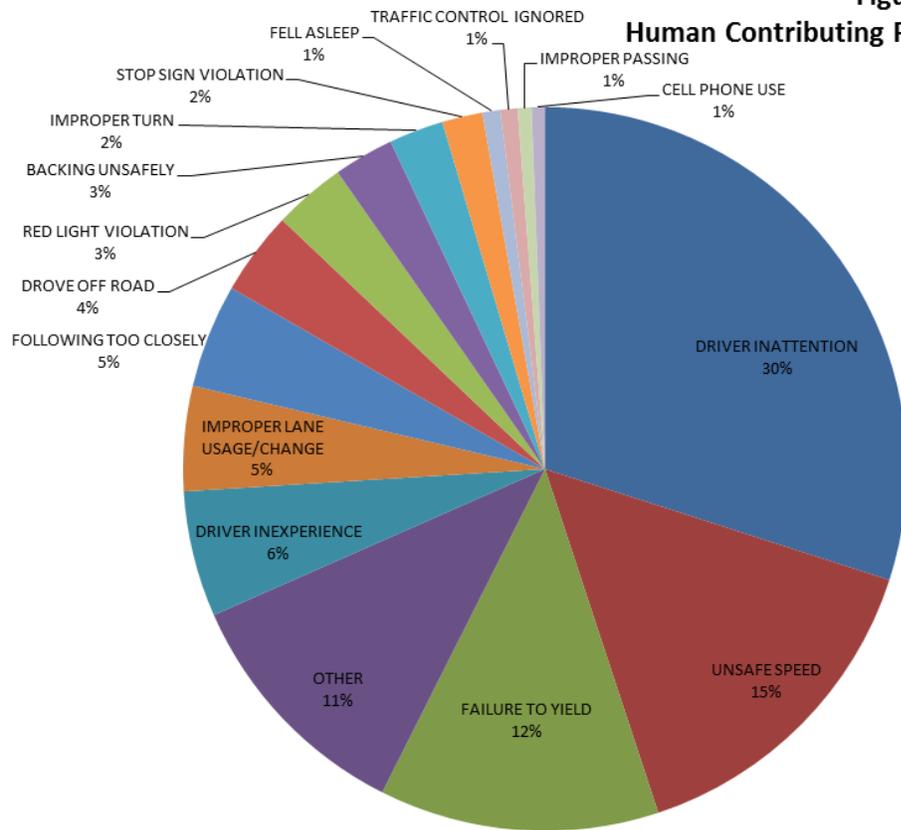
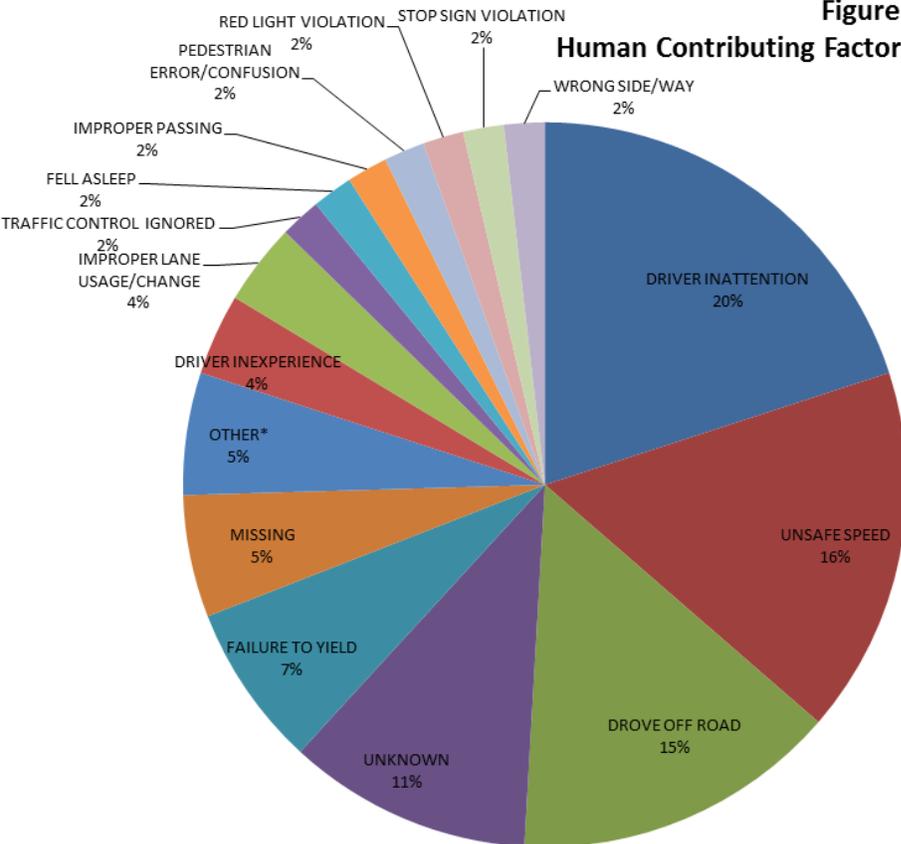


Figure 8

Human Contributing Factors in 2011 Fatal Crashes



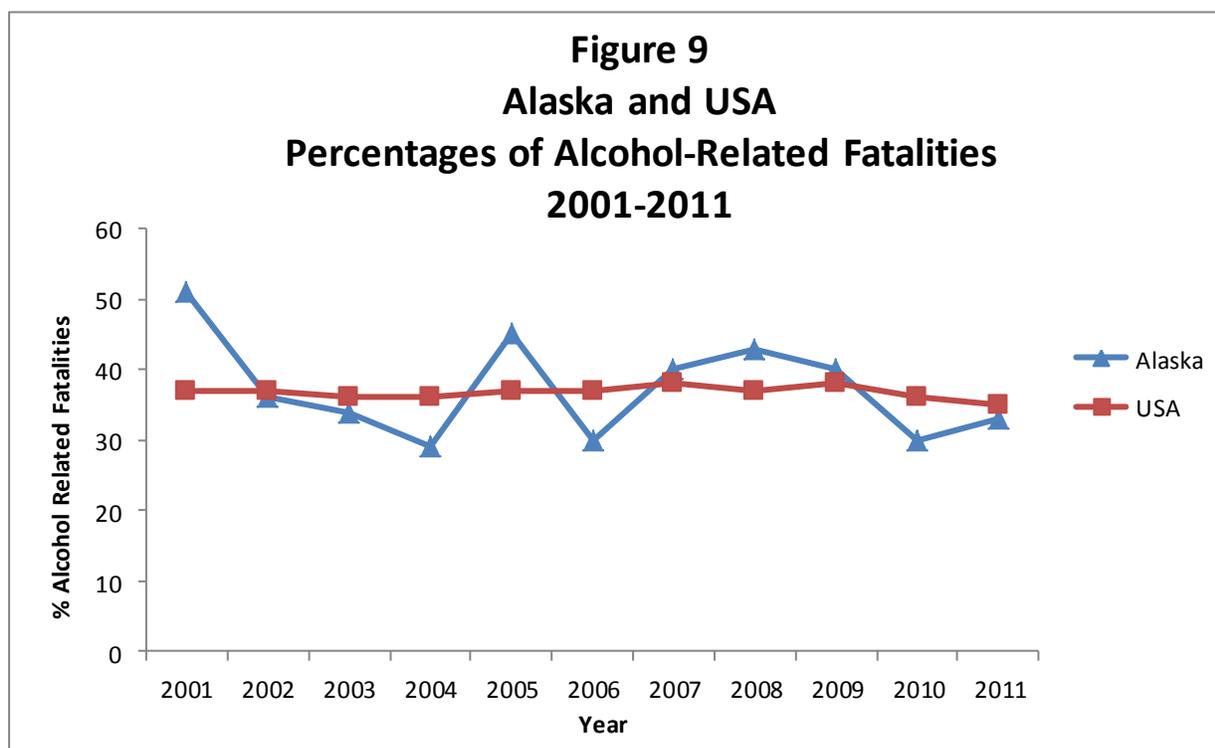
Driver inattention was the most frequently reported human contributing factor on all 2011 crash reports, followed by unsafe speed and failure to yield. Driver inattention and unsafe speed were the most frequently recorded human contributing factors on fatal crash reports during 2011.

IMPAIRED DRIVING

Alcohol and/or drug test results, traffic citations, and police suspicion of alcohol and /or drug use are considered when categorizing crashes and injuries in this publication as being impaired. Crashes can be designated impaired based on police suspicion without confirming alcohol or drug tests or based on alcohol or drug related traffic citations (such as driving while intoxicated or open container) without confirming alcohol or drug test results. Alcohol or drug tests are considered positive if non zero (0.001% blood alcohol would be considered a positive test) and crashes can be designated impaired if test results are the only data available. A crash can be designated impaired if an involved non-motorist (pedestrian/bicyclist) is impaired when involved motor vehicle drivers are not. Passenger involvement is not taken into consideration.

Statistics specifically for drunk driving crashes (those meeting the statutory 0.08% driver blood alcohol criteria) are not provided in this publication.

Figure 9 shows Alaska alcohol-related fatality percentages (percentage of fatalities that occurred in alcohol-related crashes) compared to national percentages¹ for the years 2001 to 2011. In 2011, 704 traffic crashes were determined to be alcohol-related (5.6% of all crashes). Eighteen fatal crashes involved alcohol use (29% of all fatal crashes). Thirty-three people died in alcohol related crashes (47% of all traffic fatalities).



¹ <http://www.fars.nhtsa.dot.gov/Trends/TrendsAlcohol.aspx>

The thirty-five persons that died in alcohol and/or drug related traffic crashes in 2011 included twenty-one occupants of automobiles and trucks, two pedestrians, two bicyclists, four off-road vehicle occupants, and four motorcyclists. All impaired automobiles and trucks fatalities were driver fatalities. There were no passenger fatalities were in auto/truck/bus vehicles operated by impaired drivers, and none were in vehicles struck by impaired drivers.

Four off-road vehicle operator (with zero off-road vehicle passenger) fatalities and four motorcyclist fatalities were impaired. Two impaired pedestrians were struck by motor vehicles. One driver was suspected to be on drugs. The second driver impairment status was not reported. Two impaired bicyclists were killed in a traffic crash during 2011. Zero child under age 16 and zero seniors age 65 or over died in impaired crashes. Alcohol and/or drugs were not involved in the motor vehicle crash with an animal that resulted in a human death in 2011.

Figure 10 shows the types of vehicles people occupied when they were fatally injured in traffic crashes during 2011. Data is presented for all vehicles involved in fatal impaired crashes.

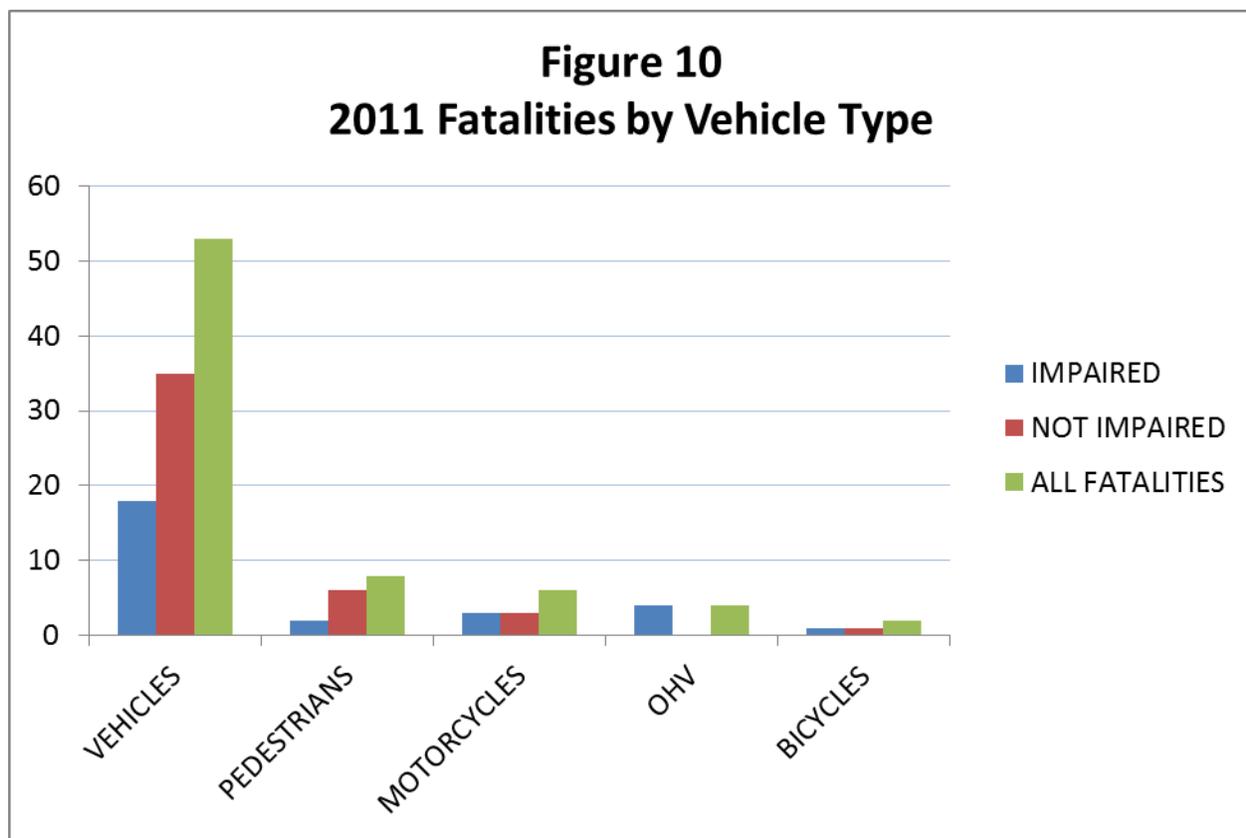


Table 5 summarizes traffic crashes over six holiday periods during 2011, showing the number of crashes as well as the number of persons injured or killed in all crashes during each holiday and in impaired crashes during each holiday.

TABLE 5
2011 Holiday Crashes and Injuries

HOLIDAYS 2011	CRASHES			INJURIES		
	CRASH TYPE	ALL CRASHES	IMPAIRED CRASHES	INJURY TYPE	ALL INJURIES	IMPAIRED INJURIES
NEW YEAR 6PM THU DEC 30 THROUGH 5:59AM MON, JAN 3 84 HOURS	FATAL	0	0	FATALITIES	0	0
	MAJOR INJURY	2	1	MAJOR INJURIES	2	1
	MINOR INJURY	27	3	MINOR INJURIES	41	9
	PROP DAMAGE	97	8	Total injuries	43	10
	TOTAL CRASHES	126	12	Crashes/hour	1.5	
MEMORIAL DAY 6PM FRI, MAY 27 THROUGH 5:59AM TUE, May 31 84 HOURS	FATAL	1	0	FATALITIES	1	0
	MAJOR INJURY	3	3	MAJOR INJURIES	5	5
	MINOR INJURY	20	6	MINOR INJURIES	28	10
	PROP DAMAGE	37	4	Total injuries	34	15
	TOTAL CRASHES	61	13	Crashes/hour	0.7	
4TH OF JULY 6PM FRI, JULY 1 THROUGH 5:59AM TUE, JULY 5 84 HOURS	FATAL	2	1	FATALITIES	2	1
	MAJOR INJURY	7	2	MAJOR INJURIES	15	4
	MINOR INJURY	20	4	MINOR INJURIES	51	9
	PROP DAMAGE	42	2	Total injuries	68	14
	TOTAL CRASHES	71	9	Crashes/hour	0.8	
LABOR DAY 6PM FRI, SEPT 2 THROUGH 5:59AM TUE, SEPT 6 84 HOURS	FATAL	1	1	FATALITIES	2	2
	MAJOR INJURY	1	5	MAJOR INJURIES	1	0
	MINOR INJURY	20	0	MINOR INJURIES	27	5
	PROP DAMAGE	37	4	Total injuries	30	7
	TOTAL CRASHES	59	10	Crashes/hour	0.7	
THANKSGIVING 6PM WED, NOV 23 THROUGH 5:59AM MON, NOV 28 108 HOURS	FATAL	0	0	FATALITIES	0	0
	MAJOR INJURY	0	0	MAJOR INJURIES	0	0
	MINOR INJURY	40	1	MINOR INJURIES	55	1
	PROP DAMAGE	158	1	Total injuries	55	1
	TOTAL CRASHES	198	2	Crashes/hour	1.8	
CHRISTMAS 6PM FRI DEC 23 THROUGH 5:59AM TUE DEC 27 84 HOURS	FATAL	1	1	FATALITIES	1	1
	MAJOR INJURY	2	0	MAJOR INJURIES	2	0
	MINOR INJURY	28	3	MINOR INJURIES	43	3
	PROP DAMAGE	84	4	Total injuries	46	4
	TOTAL CRASHES	115	8	Crashes/hour	1.4	
Holiday Totals	All Crashes	630	54	Injuries & Fatalities	276	102

Nearly nine percent (11.4%) of holiday crashes were alcohol and/or drug related in 2011, slightly more than the previous three years (9.5% in 2010; 7.4% in 2009; 9.3% in 2008). Nineteen percent (18.5%) of injuries and fatalities occurring during holiday periods were impaired in 2011 relative to 13.6% in 2010, 8.4% in 2009, and 16.7% in 2008.

Four of the six holiday traffic fatalities in 2011 were alcohol and/or drug related. The percentage of injuries due to impaired driving events was greatest during the Memorial Day weekend (44.1% of Memorial Day injuries plus fatalities), and least during the Thanksgiving holiday (1.8%). The percentage of holiday crashes that were impaired was greatest during the Memorial Day holiday (21.3%) and least over the Thanksgiving holiday (1.0%).

Figure 11 shows the percentage of crashes that were impaired during each holiday in 2011. An hourly rate (for all traffic crashes during that holiday interval) has been provided to facilitate comparisons between holidays. The lengths of the New Years, Independence Day, and Christmas holiday intervals vary each year, but the lengths of the Memorial Day, Labor Day, and Thanksgiving holiday intervals do not change. Timing and publicity surrounding police impaired driving enforcement during specific holidays likely also affected impaired crash statistics.

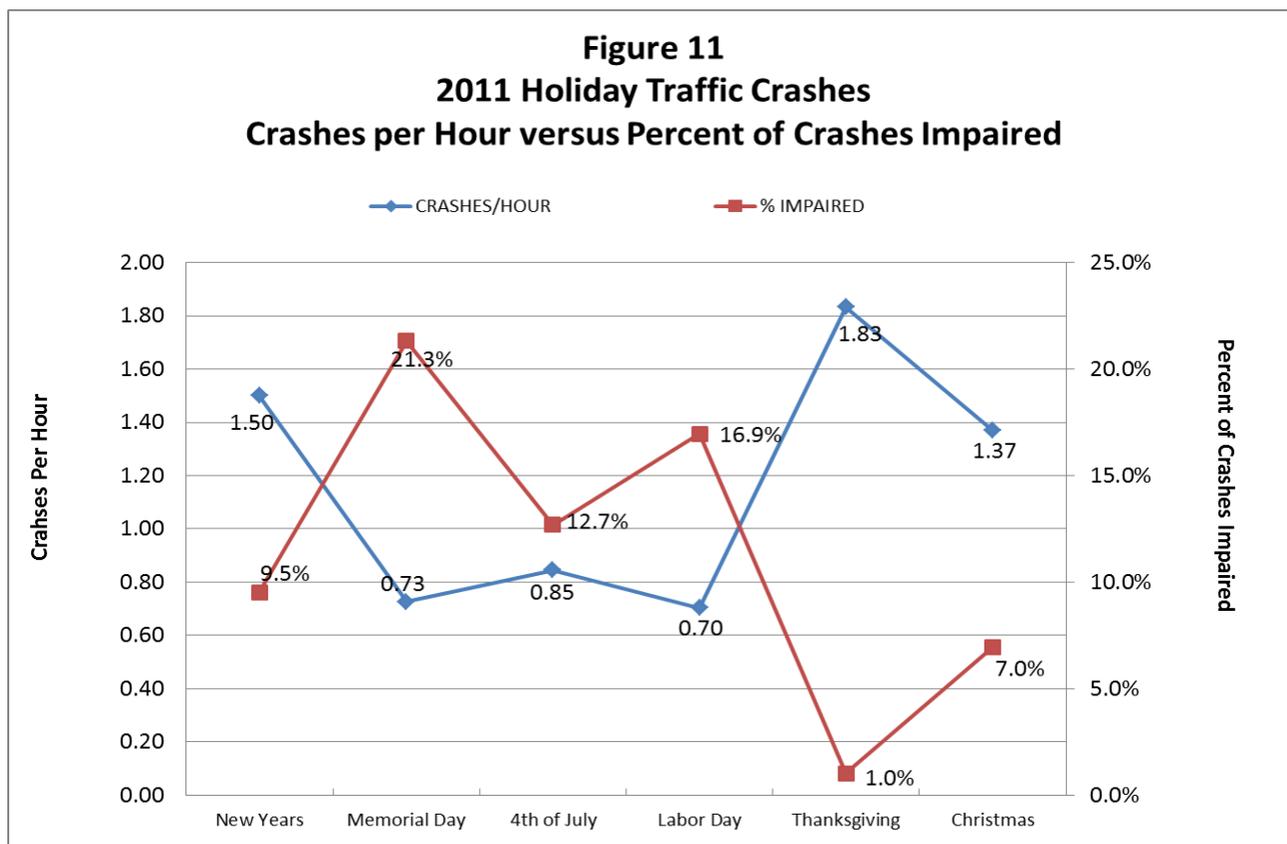


Figure 12 compares impaired holiday crashes between 2007 and 2011. Table 6 provides the average hourly crash rate (all crashes, crashes/hour) and number of hours in the holiday for each year. Impaired crashes, on average, occurred more frequently during summer holidays between 2007 and 2011 than winter holidays. The average number of crashes per hour for all holidays combined (each year) was consistent with the average number of crashes per hour throughout that year.

Figure 12
2007 to 2011 Holiday Crashes
Percent Impaired

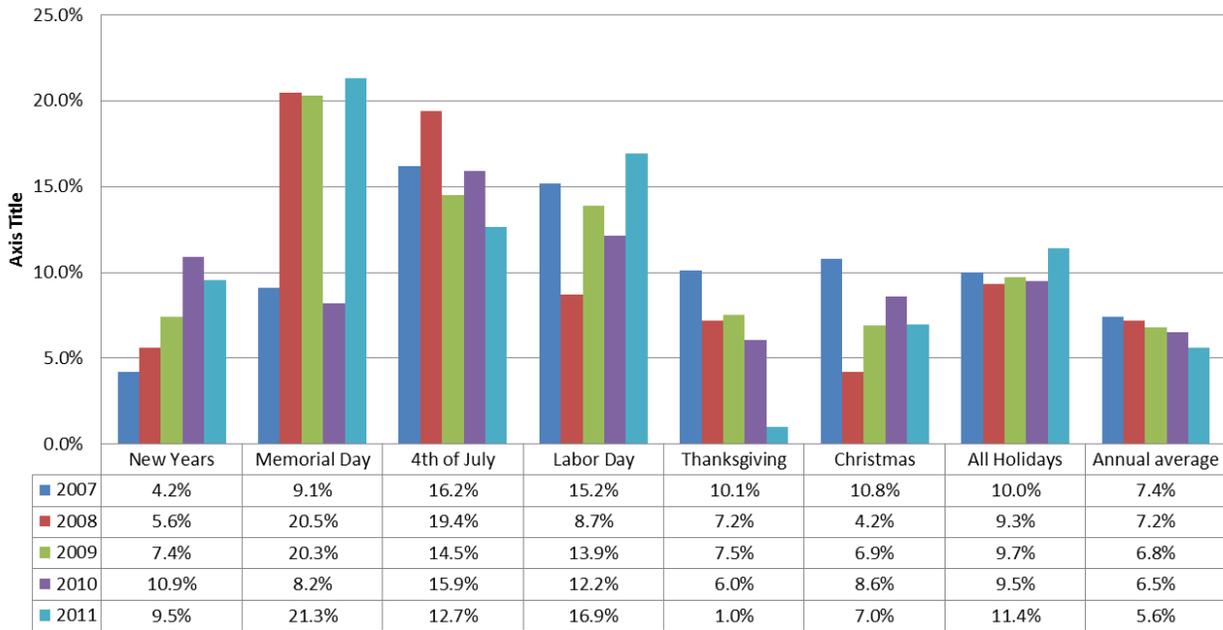
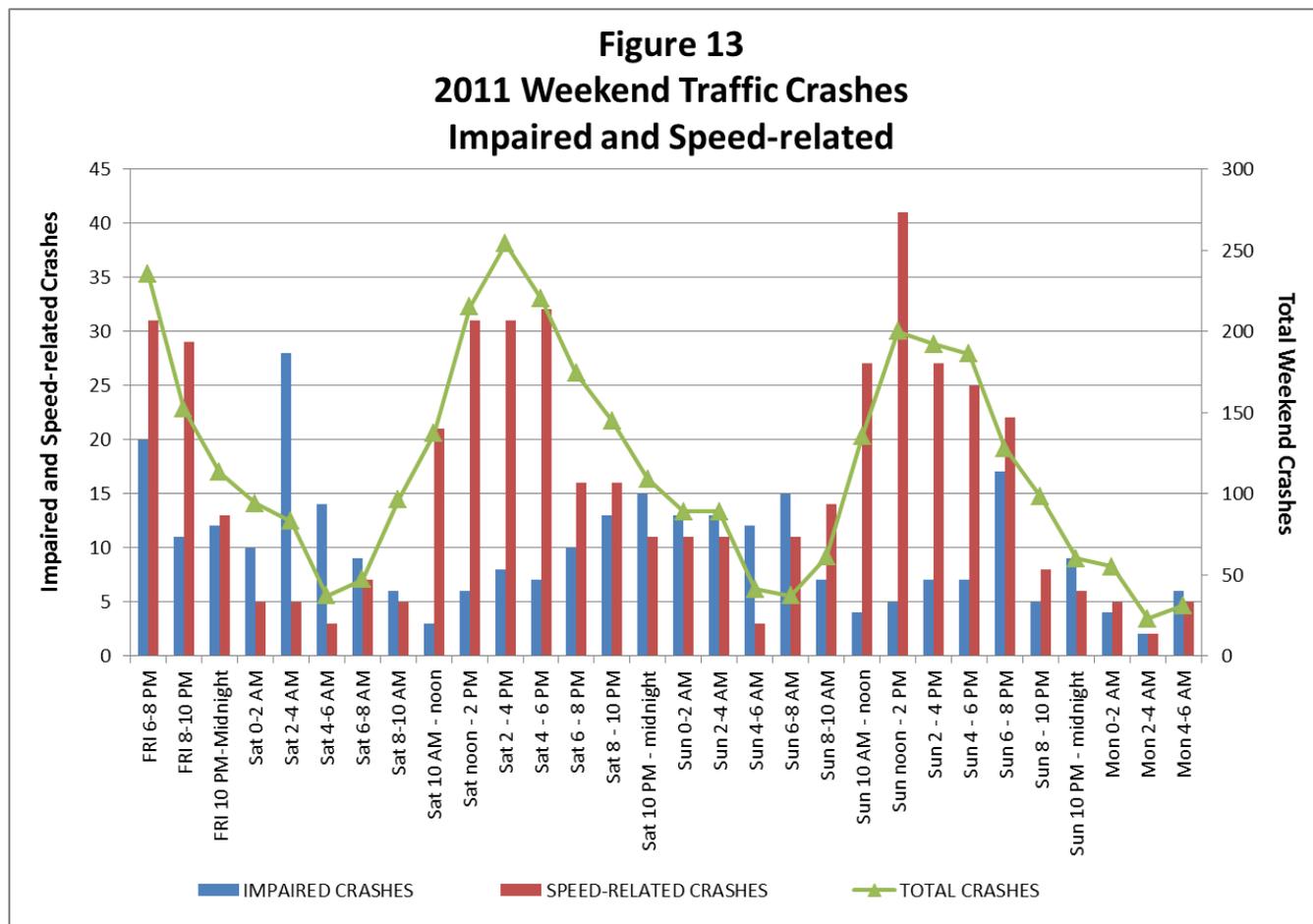


Table 6
2007 – 2011 Holiday Intervals
Average Crashes per Hour and Hours in the Holiday

HOLIDAY	2007		2008		2009		2010		2011	
	CR/HR	HRS								
NEW YEAR	1.7	84	0.8	108	2.5	108	1.0	108	1.5	84
MEMORIAL DAY	0.5	84	0.9	84	0.7	84	1.3	84	0.7	84
4TH OF JULY	1	36	0.9	84	1	60	0.8	84	0.8	84
LABOR DAY	1.3	84	1.1	84	0.9	84	0.9	84	0.7	84
THANKSGIVING	1.5	108	1.8	108	1.9	108	1.4	108	1.8	108
CHRISTMAS	1	108	1.3	108	0.9	84	1.9	84	1.4	84
ALL HOLIDAYS	1.2	504	1.2	576	1.4	528	1.2	552	1.2	528
ANNUAL	1.2		1.3		1.5		1.4		1.4	

The weekend is defined as the hours between 6 p.m. Friday evening and 6 a.m. Monday morning. Around forty-two percent (42.3%), of all impaired crashes occurred on weekends in 2011. This is compared to 57.7% during the rest of the week. Averaged over the year, an impaired crash occurred every 11 hours during weekends, but only every 14 hours the remainder of the week. During weekends, the proportion of overall crashes that are impaired increased to 8.4% from 4.5% throughout the rest of the week.

Figure 13 plots numbers of weekend impaired and speed-related crashes, by time of day. Numbers of impaired crashes peaked between ten in the evening and four the following morning. Peaks of speed-related crashes occurred between noon and six in the evening. Relative numbers of impaired crashes decreased on Sunday.



Speed contributed to 1595 traffic crashes (12.7% of all crashes) and to 474 weekend crashes (13.4% of weekend crashes). Twenty-three fatal crashes (37.1% of all fatal crashes) and nine fatal weekend crashes (33.3% of weekend fatal crashes) involved speed in 2011. It is interesting to note how closely total crashes track with speeding even though speeding is listed as a factor in only a fraction of the crash reports. This may indicate the conditions that encourage speeding are more likely to lead to crashes, or that speeding is a factor in many more crashes than is indicated on the crash reports.

Speeding appears to be the inverse of impairment, with peaks in winter or in the afternoon (Figures 14, 15, and 16). Drivers were least likely to be coded for the human factor “unsafe speed” when involved in crashes between April and October. Police may have a general tendency to cite more drivers for “basic speed” (unsafe speed for conditions or too fast for conditions) after responding to winter crashes on slick road surfaces than after responding to summer crashes.

Figure 14
Distribution of Impaired and Speed-related Crashes in 2011
by Month of Year

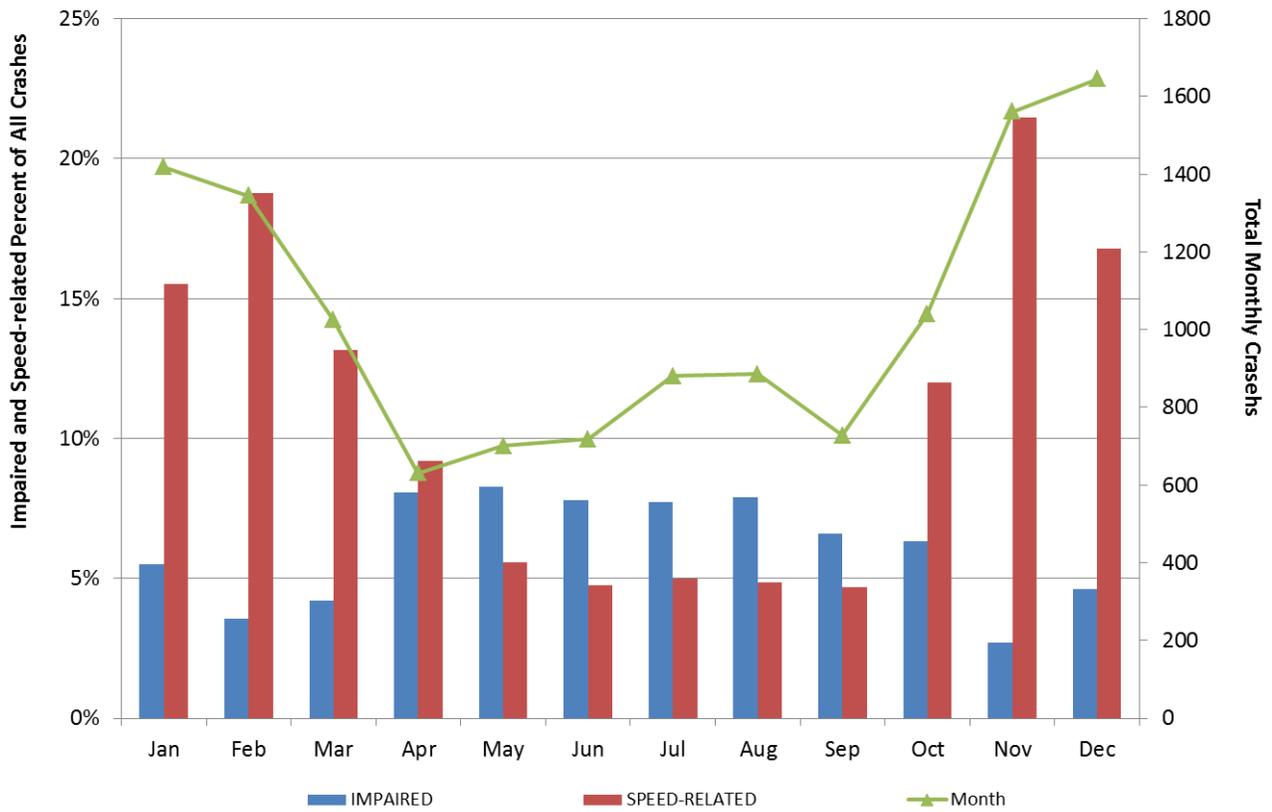


Figure 15
Distribution of Impaired and Speed-related Crashes in 2011
by Day of Year

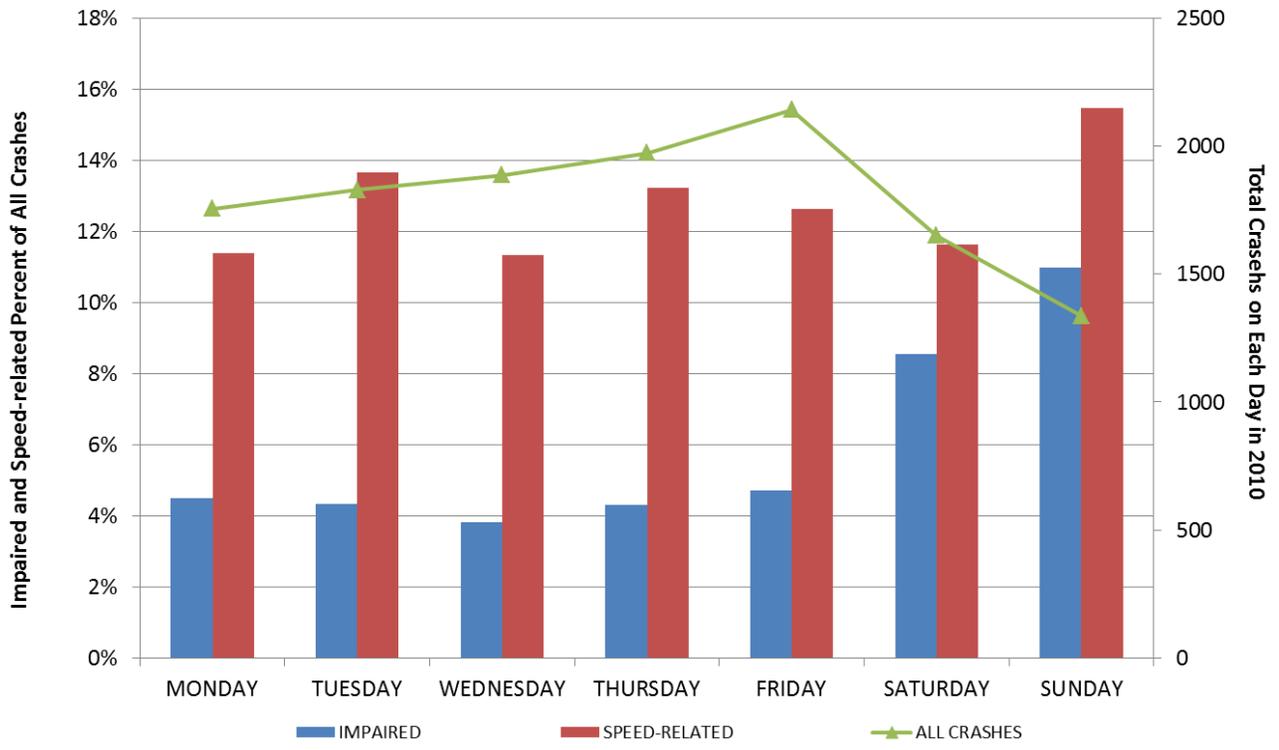
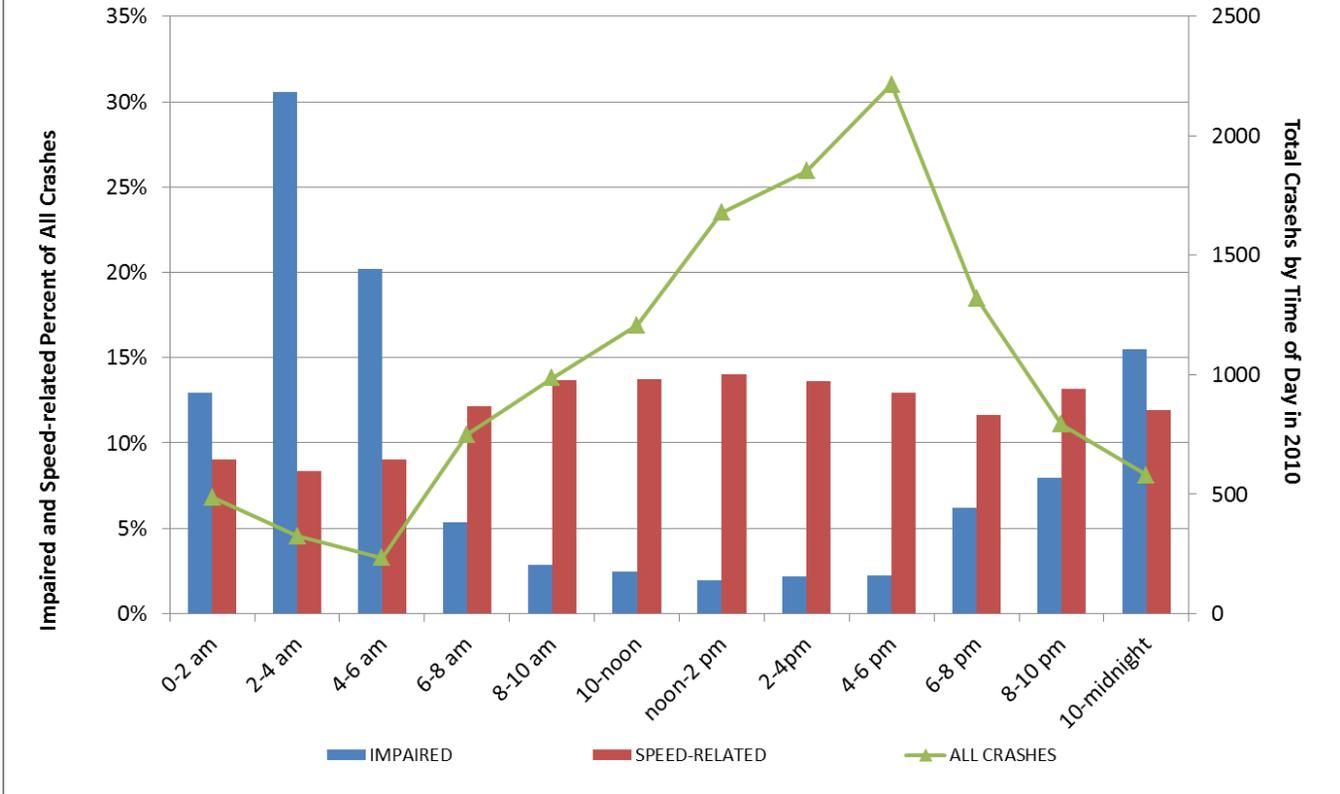


Figure 16
Distribution of Impaired and Speed-related Crashes in 2011
by Time of Day



Twenty percent (19.6%) of impaired crashes also involved unsafe or excessive speed. Twenty fatal crashes were coded for both impairment and speed involvement (32.3% of all fatal crashes in 2011).

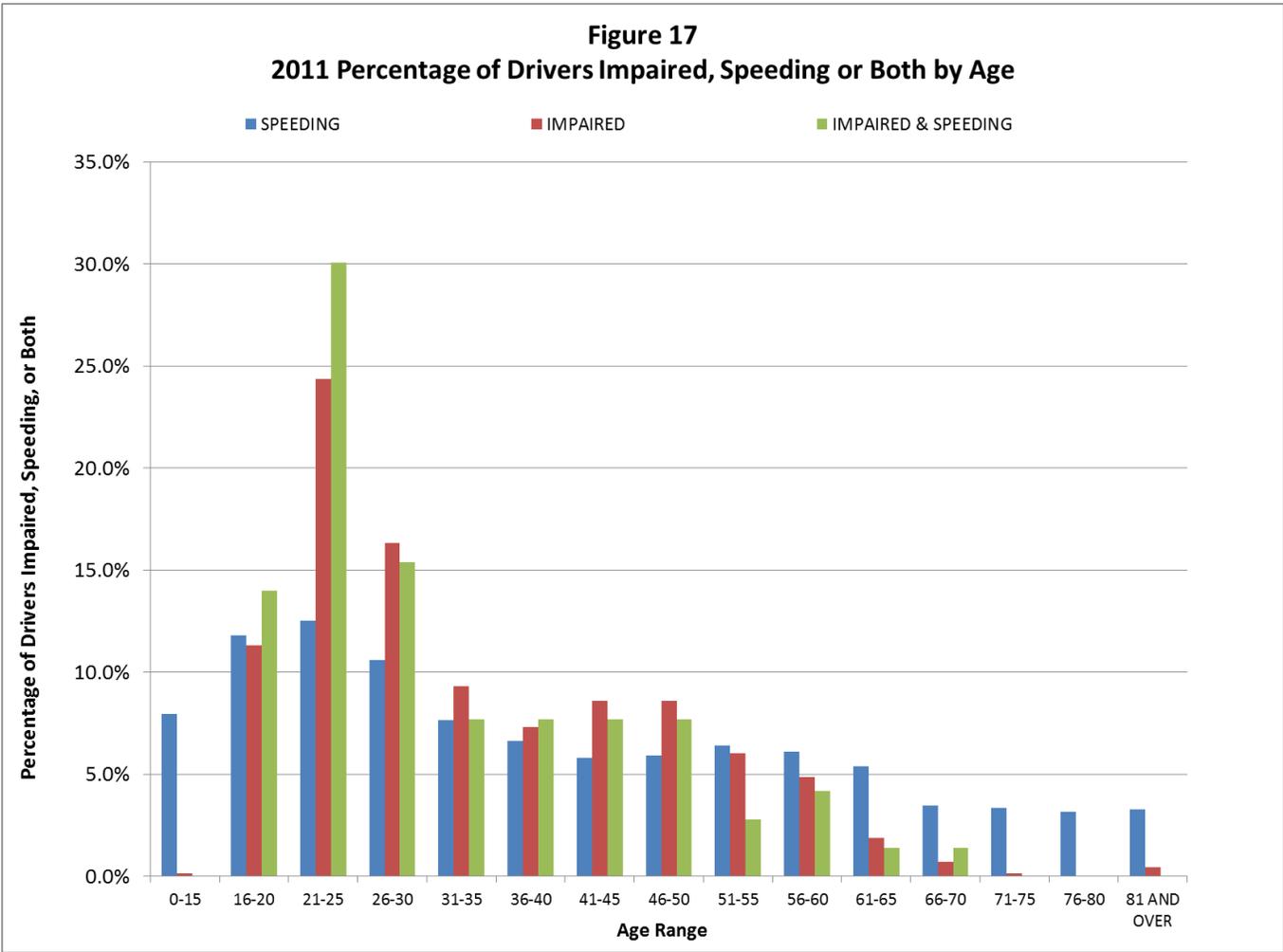
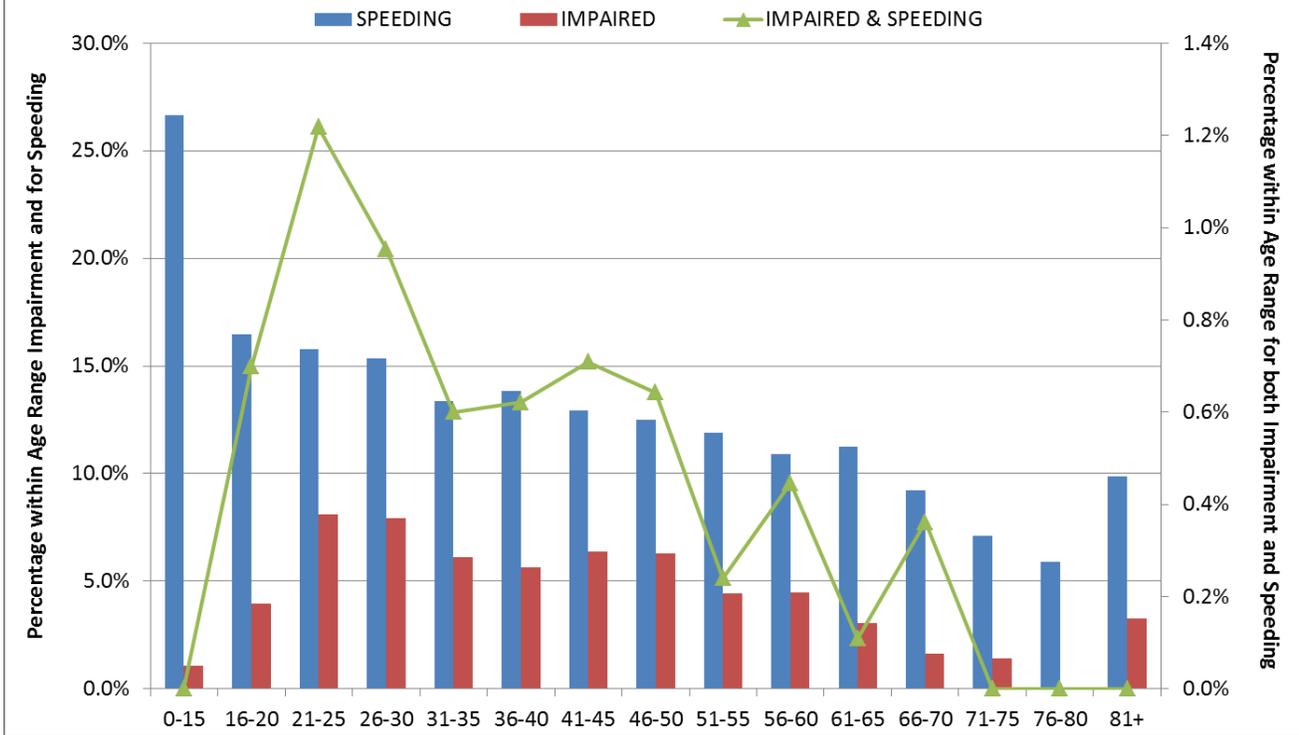


Figure 17 presents data for all automobile, truck and bus drivers involved in traffic crashes that were impaired, speeding or both during 2011 (percent by age of impaired drivers, speeding drivers, or both). Thirty-six percent of impaired drivers and 32% of speeding drivers were under 26 years of age. Forty-four percent of drivers that were both impaired and speeding at the time of the crash were between 16 and 25 years of age. Drivers between 16 and 25 comprised about 46% of all automobile, truck, and bus drivers involved in traffic crashes in 2011 and 17% of drivers with valid Alaska licenses (including instruction permits).

Figure 18 shows within each age group, the percent of drivers impaired, speeding, or both. Nearly 17% (16.5%) of drivers between the ages of 16 and 20 were speeding when involved in traffic crashes and 4.0% were impaired. Speeding was less frequent among drivers aged 21 to 25 (15.8%) but impairment was more frequent (8.1%).

Figure 18
2011 Impairment and Speeding by Driver Age Range
(Percentage of all Driver within each Age Range)



There were 21,757 drivers (of all vehicle types, including non-motorists) involved in traffic crashes during 2011 (both police and driver reported). Police coded 712 drivers as suspected of alcohol use or a combination of alcohol and drug use and reported alcohol test results for 365 drivers. There were 319 drivers that tested for blood alcohol concentrations (BAC) at or exceeding 0.08% (legal intoxication by Alaska statute). Forty-six drivers tested positive for alcohol use but below 0.08% BAC. Negative tests (0.0% BAC) were reported for 53 drivers. Police suspicion of (illegal) drug use or both drug use and alcohol was coded for 137 drivers.

SAFETY EQUIPMENT AND OCCUPANT EJECTION

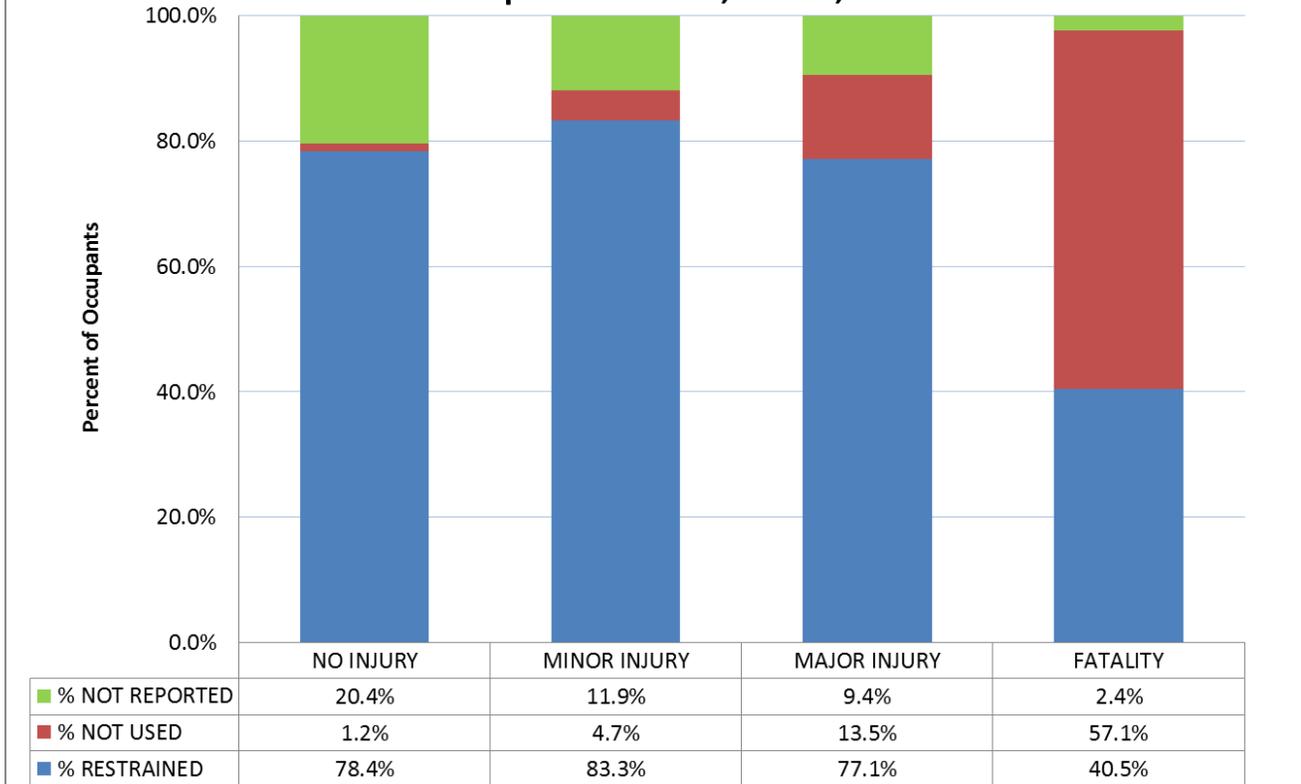
Seatbelt use, airbag deployment, and occupant ejection information is not collected on the driver report form. Discussions that follow are restricted to police reported data unless otherwise indicated.

Seatbelt Use

Nearly sixty percent (59.3%) of all automobile, truck, and bus occupants - where restraint use was reported - were restrained by combination lap and shoulder restraint systems or by properly installed and used child safety seats. Of vehicle occupants, 2.5% used lap belts or shoulder harness only, had no restraints installed, or improperly fitted child seats. Nearly 2% were reported by police to have failed to wear any safety restraint. For 3416 automobile, truck, and bus crash occupants, police failed to report seatbelt use.

For crashes where restraint use was reported, nearly eighty percent (79.4%) of automobile, truck and bus occupants that were not injured, or who only received only superficial injuries, properly used seatbelts at the time of the crash. Seatbelts were not used as often by occupants that received major or fatal injuries—for crashes where seatbelt use was reported, only twenty-three percent (22.7%) of fatalities, and a little over fifty percent (50.8%) of occupants with major injuries, wore seatbelts at the time of the crash. Figure 19 includes the small percentage of crashes that did not have seat belt use recorded.

Figure 19
2011 Safety Restraint Use by
Occupants of Autos, Trucks, and Buses



Seventy-four percent (73.8%) of infants and toddlers (through age 3) were riding in rear seat positions when crashes occurred. There was one fatality in this age group in 2011. The child was sitting in the back seat. There were three major injuries occurring in this age group. One was sitting in the back seat, while the other two had “other” marked as their seating position. Over eighty percent (80.3%) of infants and toddlers were reported by police to be properly restrained in child safety seats. For three percent (2.7%) of toddlers reported, police failed to report child restraint use. State law requires that all children under four years of age be restrained in child safety seats.

Sixty percent of children between 4 and 10 years of age occupied rear seat positions. There was one fatality in this age group; the child sat in the left rear seat. The child was properly secured in a child restraints. There were eight major injuries to children 4 to 10 in 2011. Of the eight who were passengers in a car, five were noted as being in rear seat positions, one was noted as “other”, and two were noted as “unknown”. Thirty-six percent (35.6%) of children in this age group used child restraints. Nearly fifty percent (49.5%) used lap/shoulder combinations, lap belts alone, or shoulder straps alone. Forty-six percent (45.9%) used lap/shoulder combination restraints. Police failed to report restraint use for one percent (0.7%) of children in this age group.

Twenty-nine percent (28.5%) of children in crashes between the ages 11 and 15 occupied rear seat positions. There were two fatalities in this age group. Both the fatalities in this age group were drivers. Seatbelt use was not reported. Seventy-one percent (71.0%) of children between 11 and 15 used lap/shoulder combination belts and an additional 3% used lap belts alone or shoulder

straps alone. Nine children, or just about 2% in this age group, were coded as being restrained in a properly installed child safety seat. Police failed to report child restraint use for nearly two percent (1.6%) of children in this age group.

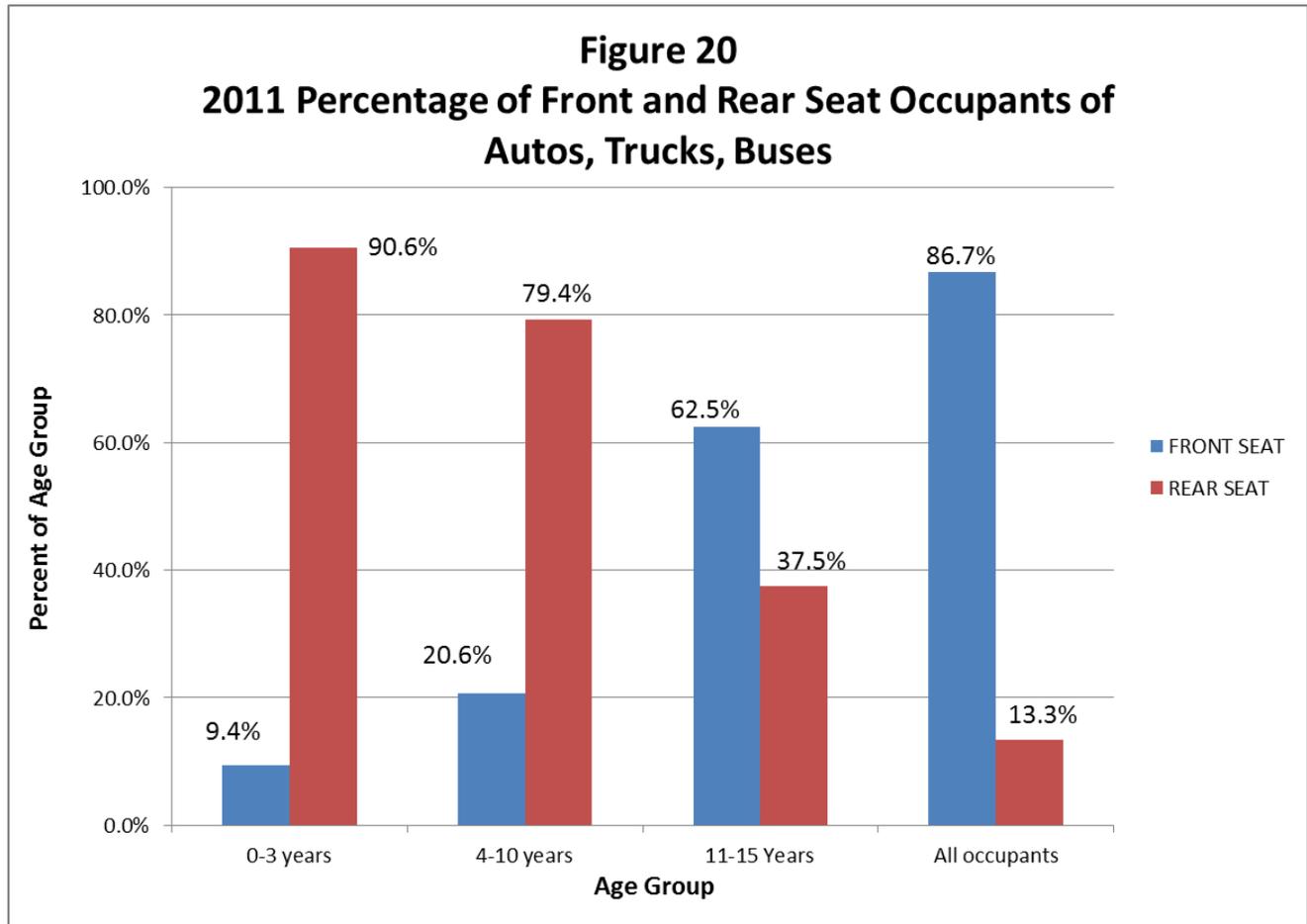
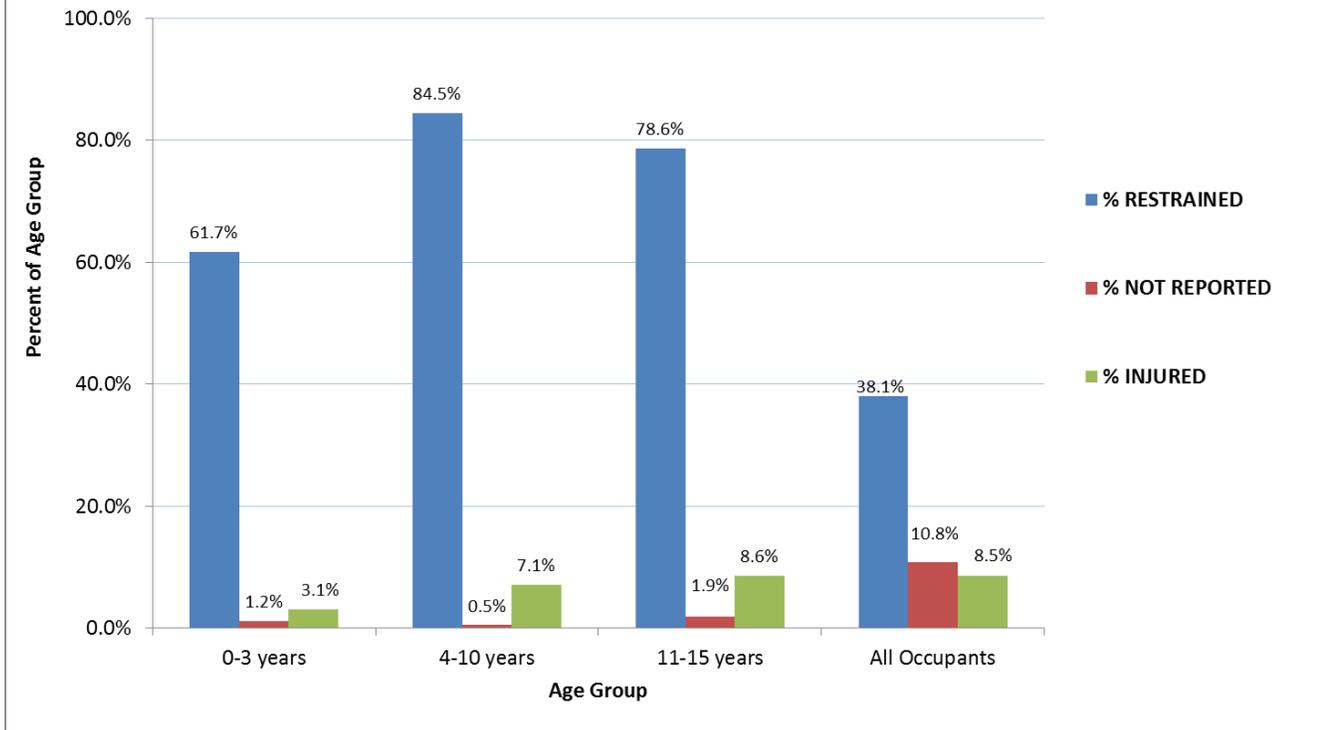


Figure 20 shows percentage of children riding in front and rear seat positions in automobiles, trucks, and buses that were involved in police reported crashes. Seat position data for all occupants (children and adults, all ages combined) is also presented.

Figure 21 summarizes percent restraint use (shoulder and lap combination or child seat), police non-reporting, and percent injury (non-fatal+fatal injuries) for children and all occupants.

Figure 21
2011 Percentage of Restrained, Unreported, and Injured/Killed Occupants
of Autos, Trucks, Buses



Airbag Deployment and Seat Position

Police reported that airbags were available and deployed for four percent (3.8%) of all auto, truck, and bus occupants. Airbags were available but did not deploy or were turned off for fifteen percent (14.7%) of auto, truck, and bus crash occupants. Around eighty percent (81.5%) of the time in 2011, police did not report airbag data for auto, truck, and bus occupants.

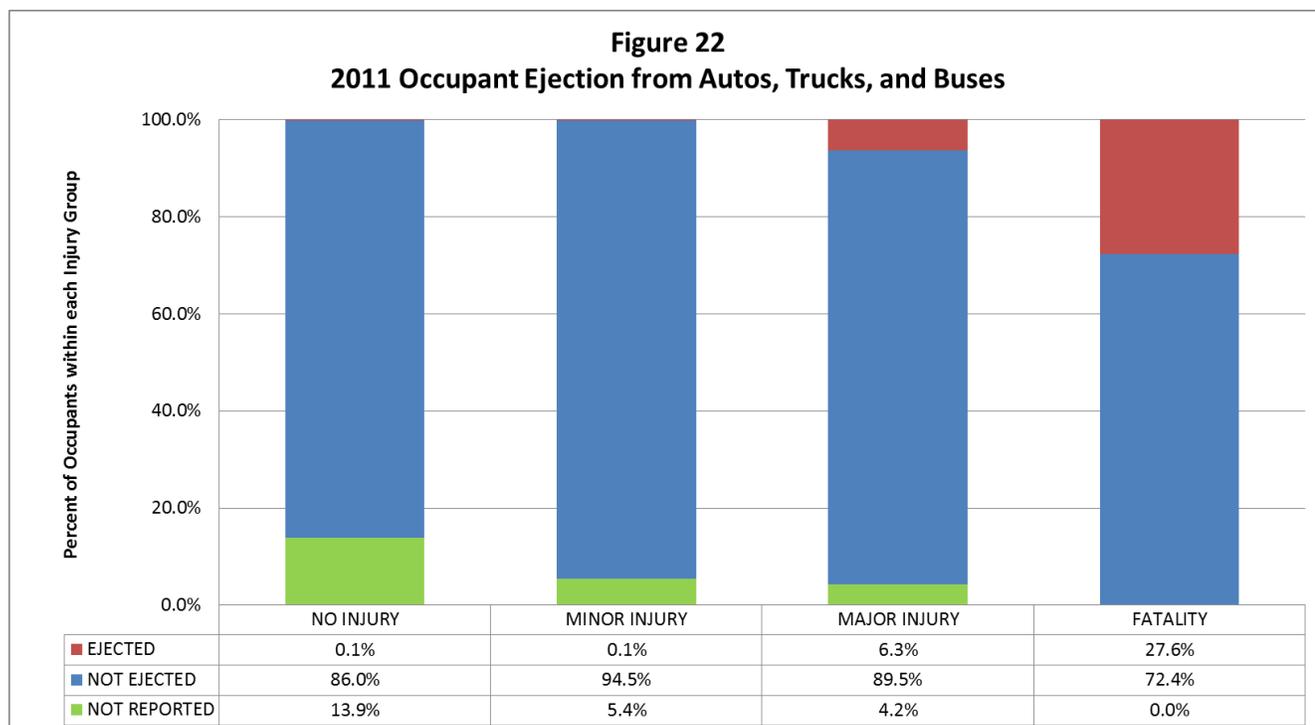
The number of vehicles involved in crashes that were equipped with airbags and the number of persons seated in positions protected by airbags are not available. Side bag protection for rear seat occupants is not provided in most vehicles manufactured prior to 2009 and rear seat occupants are not protected by front deployed airbags.

Eighty-six percent (86.0%) of auto, truck, and bus occupants occupied front seat positions and thirteen percent (13.2%) sat in rear seat positions. The proportions of front and rear seat occupants with minor, major or fatal injuries were similar (Generally, around 90% of injuries and fatalities occur in the front seat). Seventy-seven percent (77.0%) of front seat auto, truck, and bus occupants used some form of safety restraint, while ninety-four percent (94.3%) of rear seat occupants buckled up. Airbags deployed for nine percent (9.3%) of front seat occupants and only for one percent (1.4%) of those riding in rear seat positions.

Occupant Ejection

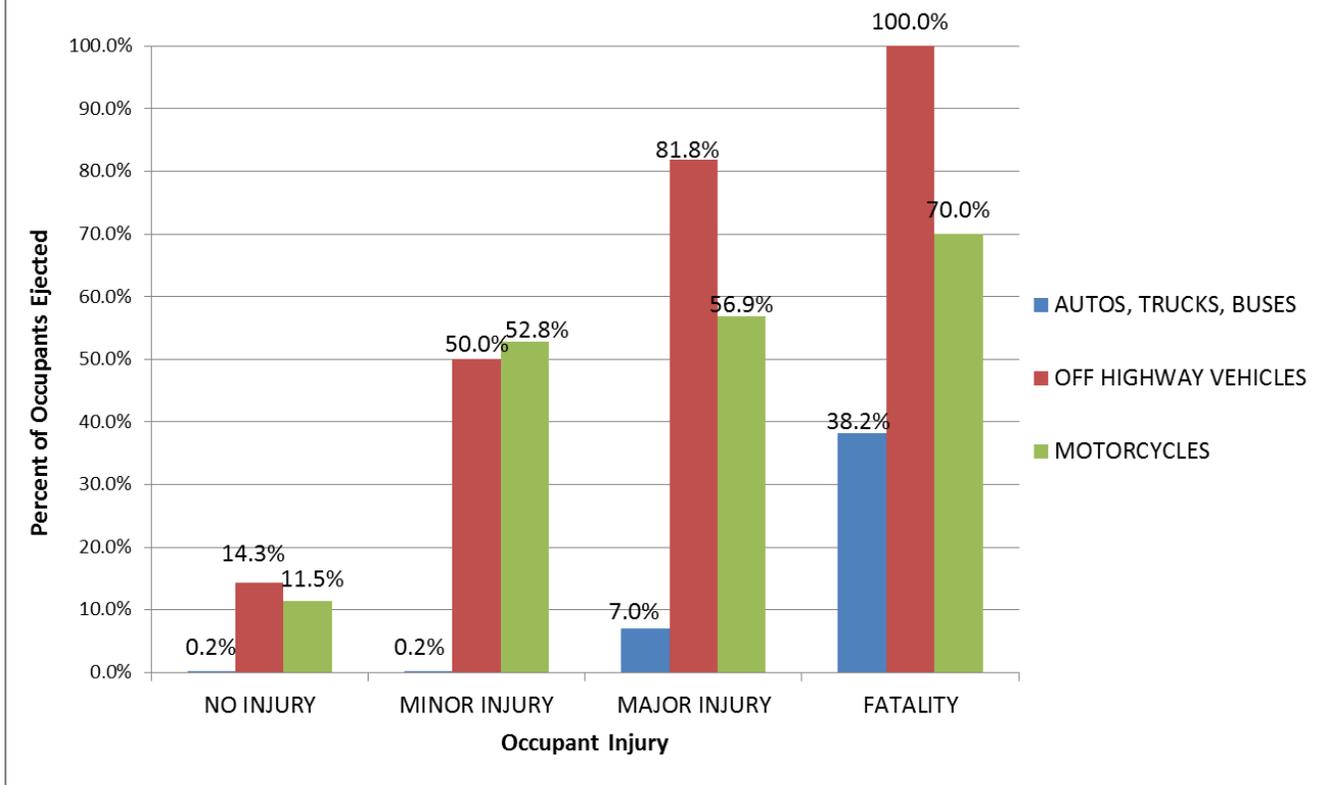
Less than 1% (0.6%) of all automobile, truck, or bus occupants were ejected during crash events. However, among those receiving fatal injuries, more than a quarter (26.0%) were ejected from their vehicles. Fifteen of 63 auto, truck, and bus fatalities were fully ejected and four were partially ejected.

Figure 22 shows the relationship between occupant ejection and injury to automobile, truck, and bus occupants. Partial and full ejection data is combined for the “percent ejected” category. Sixty-five percent (64.5%) of persons uninjured after being ejected from automobiles, trucks or buses had worn safety restraints at the time of the crash. In contrast, zero percent of fatalities wore safety restraints prior to being ejected from their vehicles – meaning ALL fatalities involving ejection involved occupants not wearing safety restraints.



With no seat restraints to keep them in position, riders of motorcycles and off-road vehicles were ejected from their seats and vehicles more frequently than occupants of other road vehicle types. Figure 23 compares the percent of occupants ejected and occupant injury severity for motorcycle occupants, off-highway vehicle occupants (including all-terrain vehicles and snowmobiles), and automobile, truck, and bus occupants.

Figure 23
2011 Occupant Ejection Comparison by Vehicle Type



Helmet Use by Motorcyclists and Off-Road Vehicle Riders

Riders of open vehicle types such as motorcycles, snow machines, and all-terrain vehicles, have only helmet (head protection) available to them. State law does not currently require operators of such vehicles to wear head protection while operating on public roadways.

Just over sixty percent (61.0%) of all motorcyclists involved in police reported crashes wore motorcycle helmets. Eight of ten motorcycle riders (80.0%) that received fatal injuries used head protection.

Riders of off-road vehicles, including snow machines and all-terrain vehicles, were less inclined to wear helmets. Only six percent (6.1%) of all off-road vehicles riders involved in traffic crashes during 2011 reportedly wore helmets. Of the four fatalities in this group, zero used head protection.

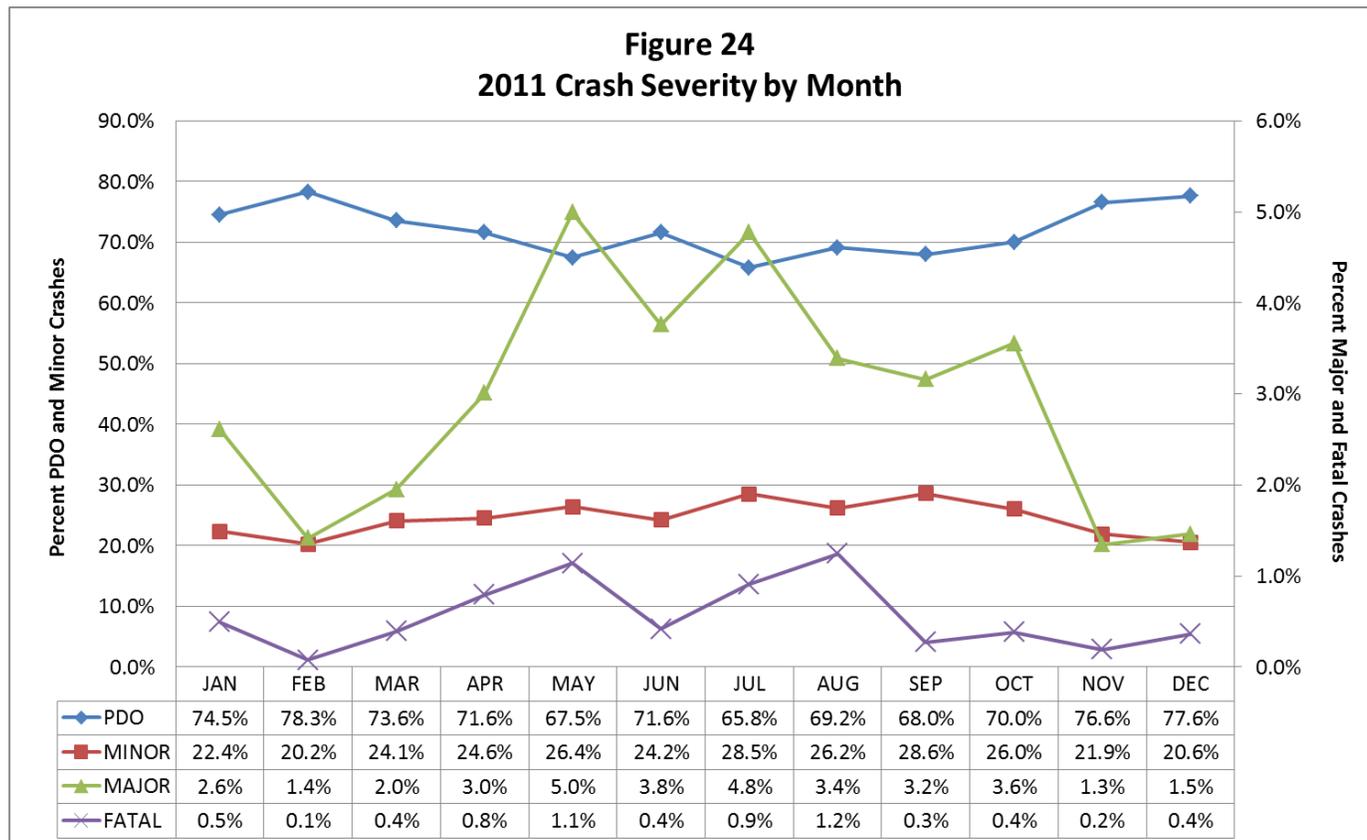
TEMPORAL DISTRIBUTIONS

On average, there were 1048 traffic crashes per month and 34.5 traffic crashes per day in 2011. Thirty-two percent of all crashes (31.7%) happened between midnight and 11:59 a.m. and sixty-seven percent (67.2%) happened between noon and 11:59 p.m. (Time of day was not reported for 1.1% of crashes).

Month of Year

From January to December 2011, the percentage of monthly crashes that caused only property damage ranged from 65.8% (July) to 77.6% (December). The percentage of all crashes that involved minor injuries ranged from 20.2% (February) to 28.6% (September). Major injury crashes ranged from 1.3% (November) to 5.0% (May) of all reported crashes each month. The percentage of crashes that involved fatalities ranged monthly from 0.1% (February) to 1.2% (August).

During spring and late summer of 2011, the percentage of crashes that involved injuries or fatalities increased while the percentage of crashes that caused only property damage fell. Numbers of major injury and fatal crashes are often higher during summer months, possibly due to higher daily traffic volumes, higher speeds with lower levels of driver caution, and longer hours of daylight. When drivers reduce speed and are more cautious due to adverse driving conditions during the winter months, crashes that do occur are often less severe.



During 2011, fatal crashes were most frequent in May, July, and August (Figure 25). Crash frequency (all severity categories combined) was highest in the month of December (13.1% of all

crashes during the year; nearly three times the frequency in April). April was the safest month to drive on Alaska roadways in 2011; 5.0% of all crashes occurred in April. February was the least lethal month, with 1.6% of fatal crashes occurring that month.

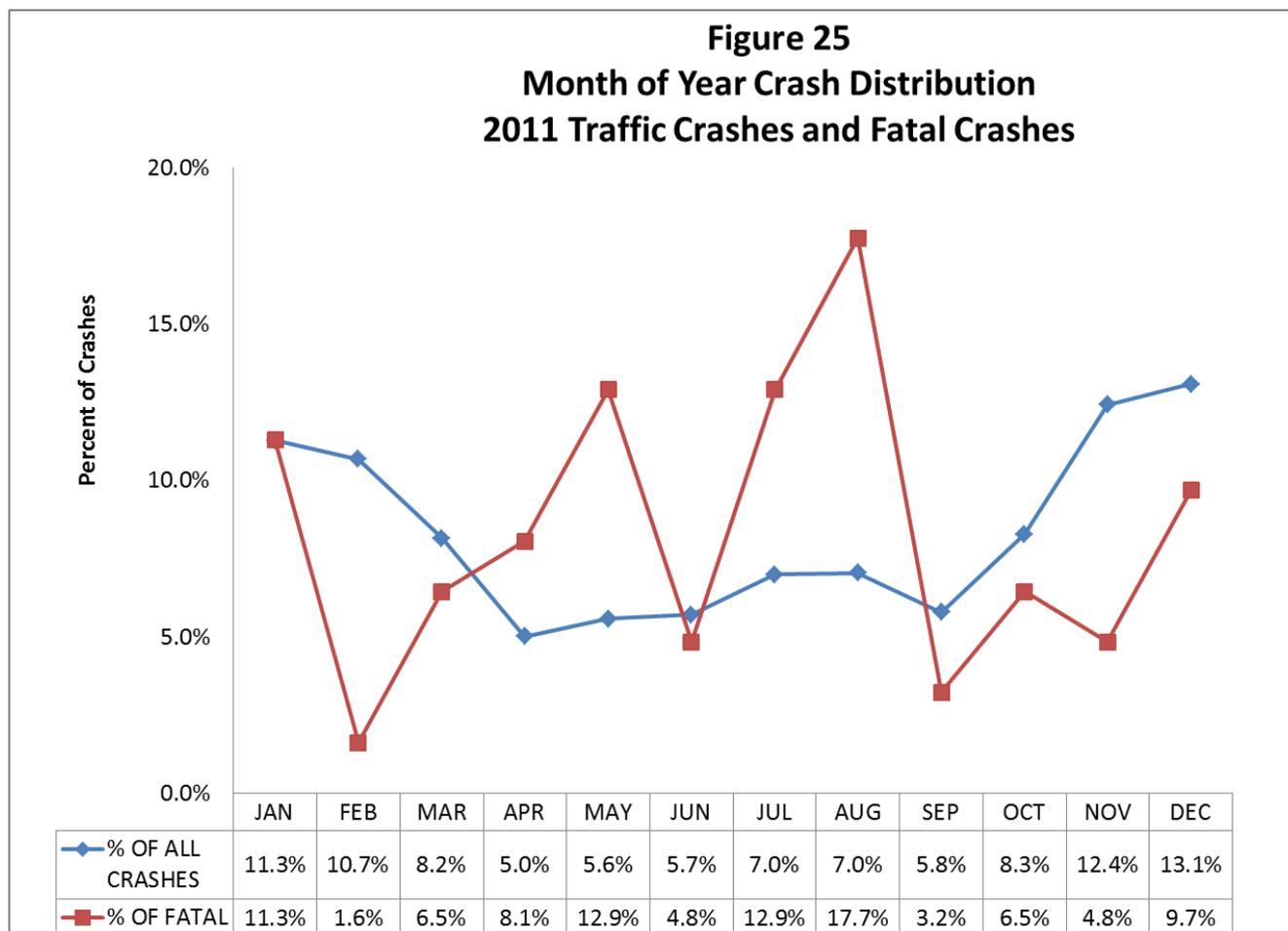


Figure 26 plots crash distribution by month for all crashes and for fatal crashes that occurred between 2000 to 2011 (12 years of aggregate data). Figure 27 compares monthly fatal crash distributions for the last four years.

Figure 26
Month of Year Crash Distribution
2000-2011 Aggregate Data

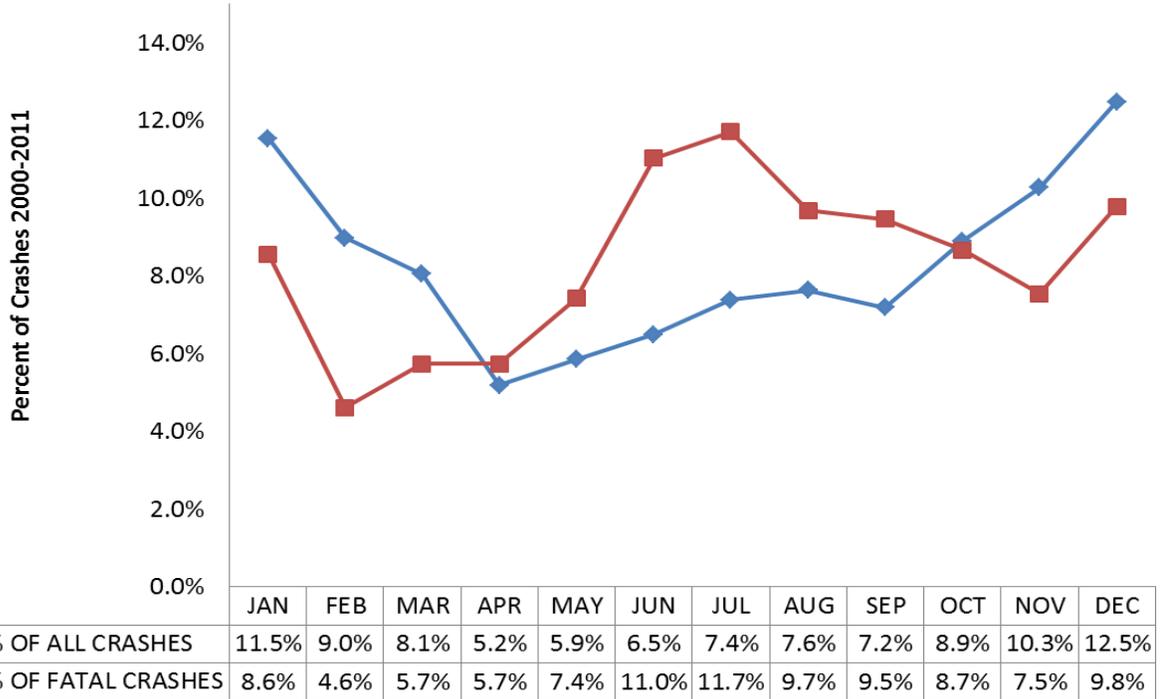
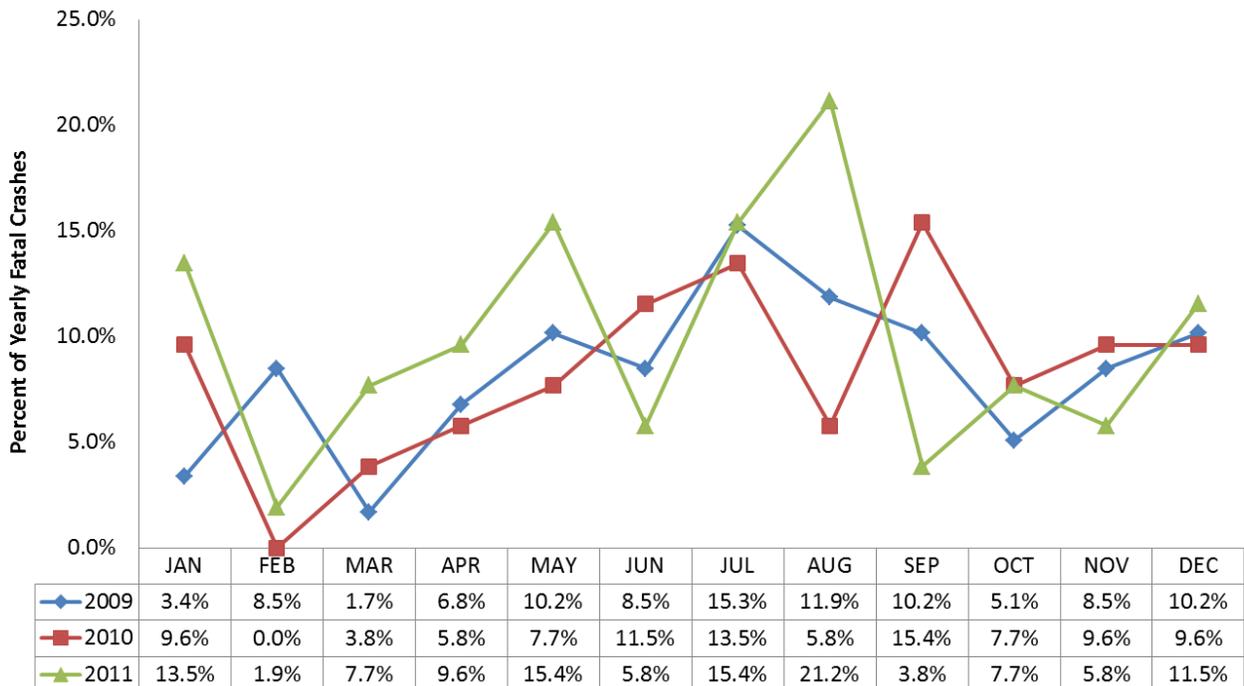


Figure 27
Fatal Crashes 2009-2011
Percent Distribution by Month of Year



Day of Week

Property damage only crashes ranged from a low of 71.8% of daily crashes on Saturday and Sunday, to a high of 74.0% of daily crashes on Thursday, during the workweek. The percentage of crashes that involved minor injuries ranged from a low of 22.9% on Monday to a high of 24.7% on Tuesday and Saturday. The percentage of crashes that caused major injuries ranged from 2.2% (Fridays) to 3.0% (Wednesdays) of daily crashes. Fatal crashes ranged from 0.3% to 0.7% of all daily crashes and occurred with the highest frequency on Sunday.

During 2011, the proportion of traffic crashes that involved fatalities increased on weekends. Major injury crashes appear to dip Wednesday and Thursday. Otherwise there was no clear trend within the proportion of crashes involving only major and minor injuries, and property damage. (Figure 28). The number of traffic crashes that happen daily between Monday and Friday is usually higher than the number that occur on either Saturday or Sunday, possibly due to heavier urban traffic volumes as people commute to work. Though there are fewer crashes during weekends, the crashes that do occur on Saturday or Sunday appear to be more likely to result in a fatality. However, this conclusion has not been evaluated statistically.

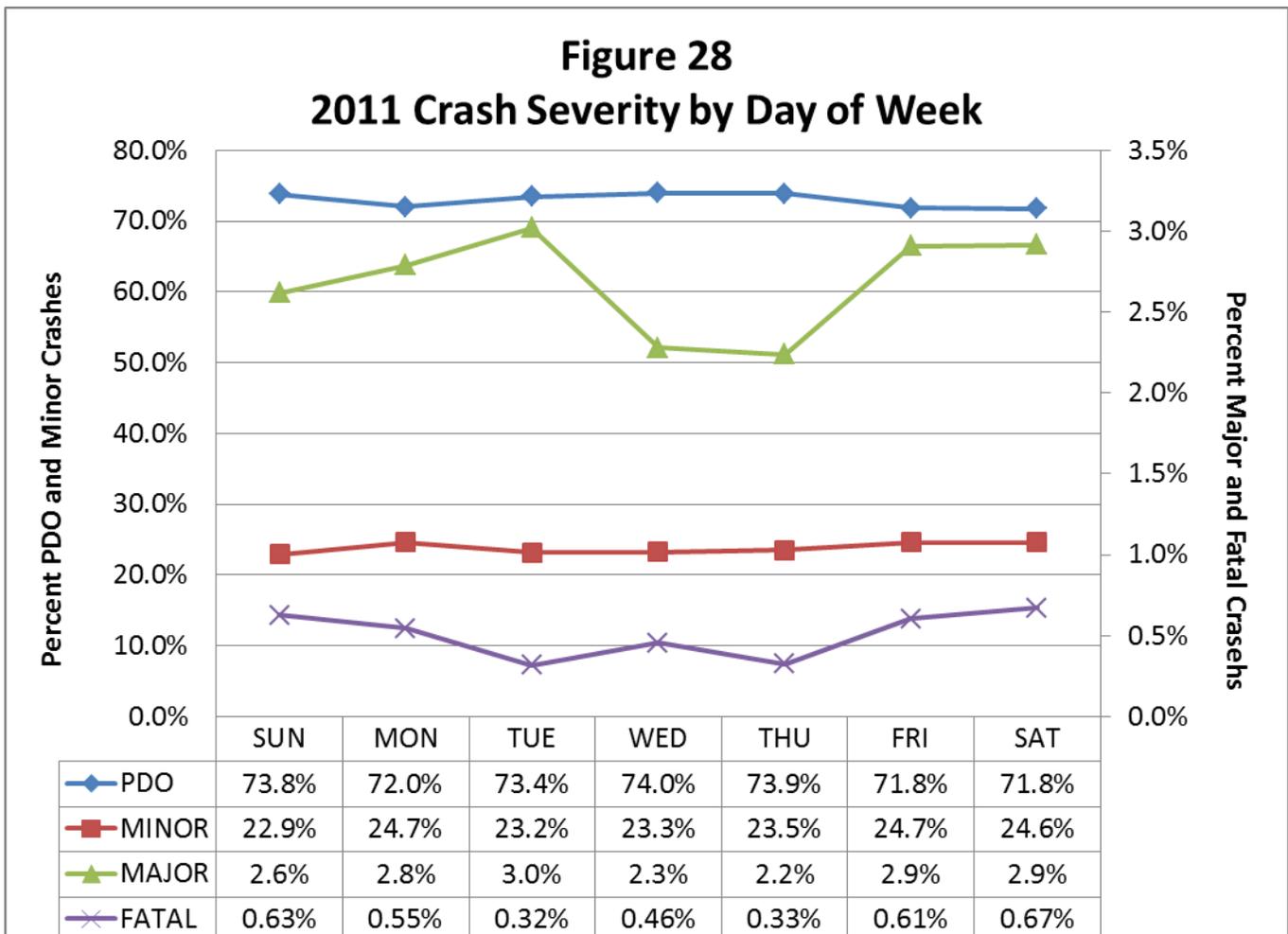
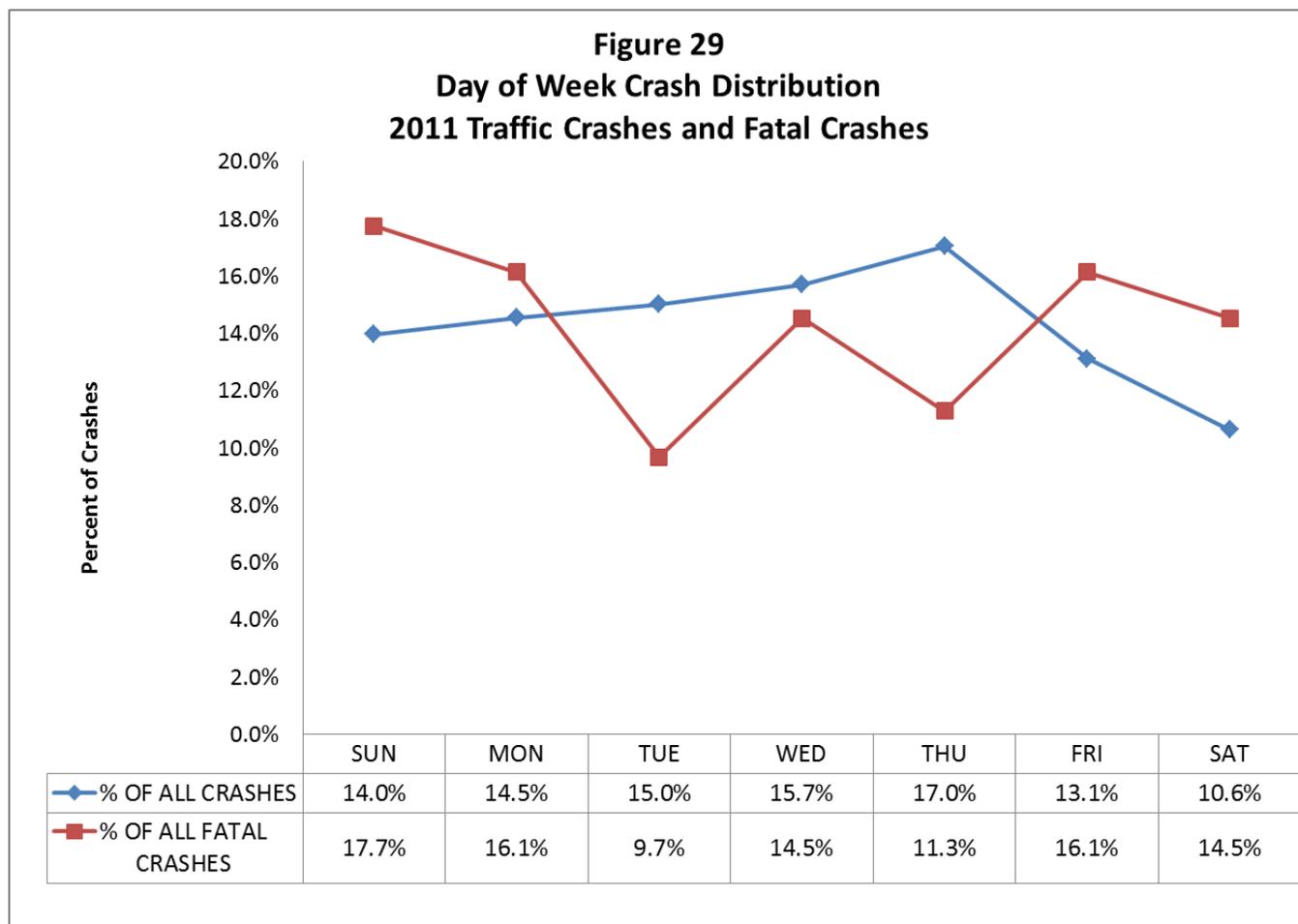


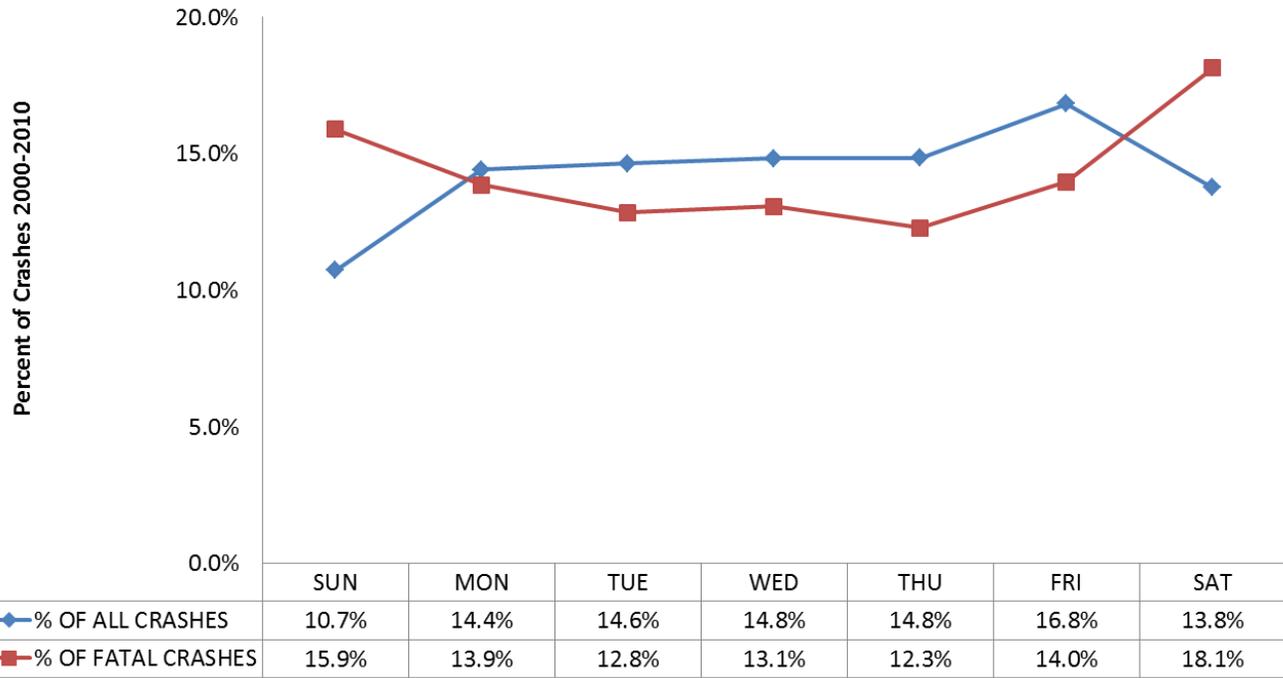
Figure 29 shows crash distribution by day of week during 2011, using standard 24-hour days ending at midnight. Figure 30 presents the corresponding distributions for the 11-year data aggregate.

In 2011, more crashes occurred on Thursday than on any other day of the week (2143 crashes, or 17.0% of all crashes). The number of crashes that occurred on Saturday was lower than on any other day of the week (1337, or 10.6% of all crashes).

The percentage of fatal crashes that occurred on Saturday and Sunday combined (32.3%) in 2011 decreased from the previous year (from 34.6% in 2010) while the percentage of all traffic crashes that occurred on Saturday and Sunday increased to 24.6% from 22.8% in 2010. The percentage of fatal crashes that occurred on Monday increased almost by three times (5.8% in 2010 to 16.1% in 2011). The the percentage of all crashes did not differ much from the previous year.



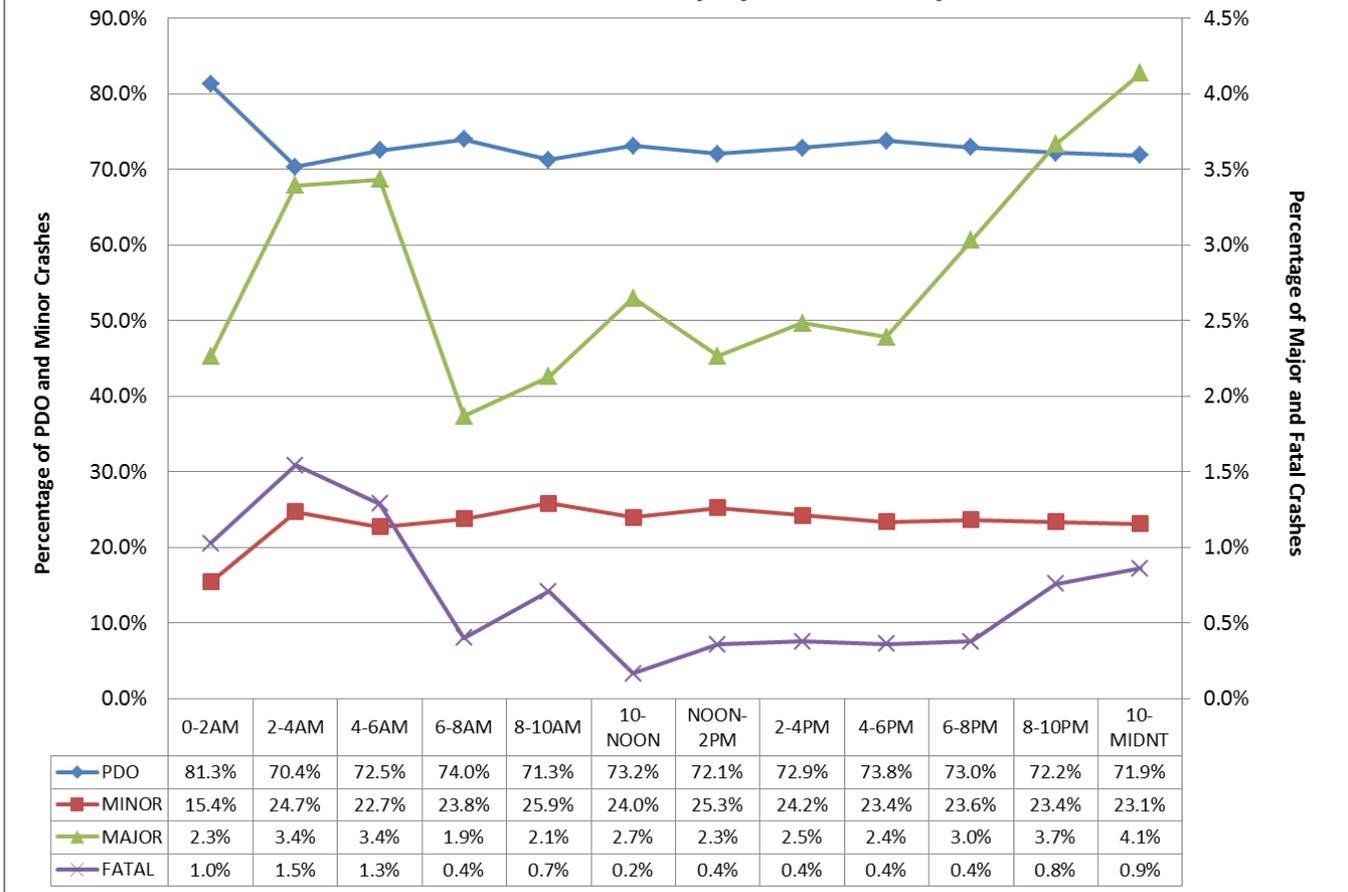
**Figure 30
Day of Week Crash Distribution
2000-2011 Aggregate Data**



Time of Day

The percentage of property damage only crashes ranged from 70.4% between 2am and 4am, to 81.3% between the two hours preceding, midnight and 2am. The percent that involved minor injuries ranged from 15.4% between midnight and 2am to 25.9% between 8am and 10am. The percent that involved major injuries ranged from 1.9% from 6am to 8am to 4.1% from 10 pm to midnight. The percent of crashes that involved fatalities was greatest between 2am and 4am. Time of day was not reported for about 0.1% of crashes (data not included in Figure 31).

**Figure 31
2011 Crash Severity by Time of Day**



Traffic crashes (all severity classes combined) followed the expected hourly distribution in 2011, rising from lowest numbers of crashes between 4am and 6am, reaching a maximum during the afternoon rush hour, then falling steadily from midnight to 6am. Figure 32 plots crash distribution for all crashes and fatal crashes by time of day for the current year and Figure 33 presents the corresponding distribution for 2000-2011 crashes combined.

Typically, numbers of fatal crashes increase after 2 or 4 in the afternoon (beginning with the afternoon commute) and remain high throughout the evening and early morning hours. Drivers are least likely to become involved in fatal crashes in the hours from 2 morning on through the morning commute to 10am. In 2011, the frequency of fatal crashes was greatest between 4 in the afternoon and 6pm (12.9% of all fatal crashes).

Figure 32
2011 Traffic Crashes and Fatal Crashes
by Time of Day

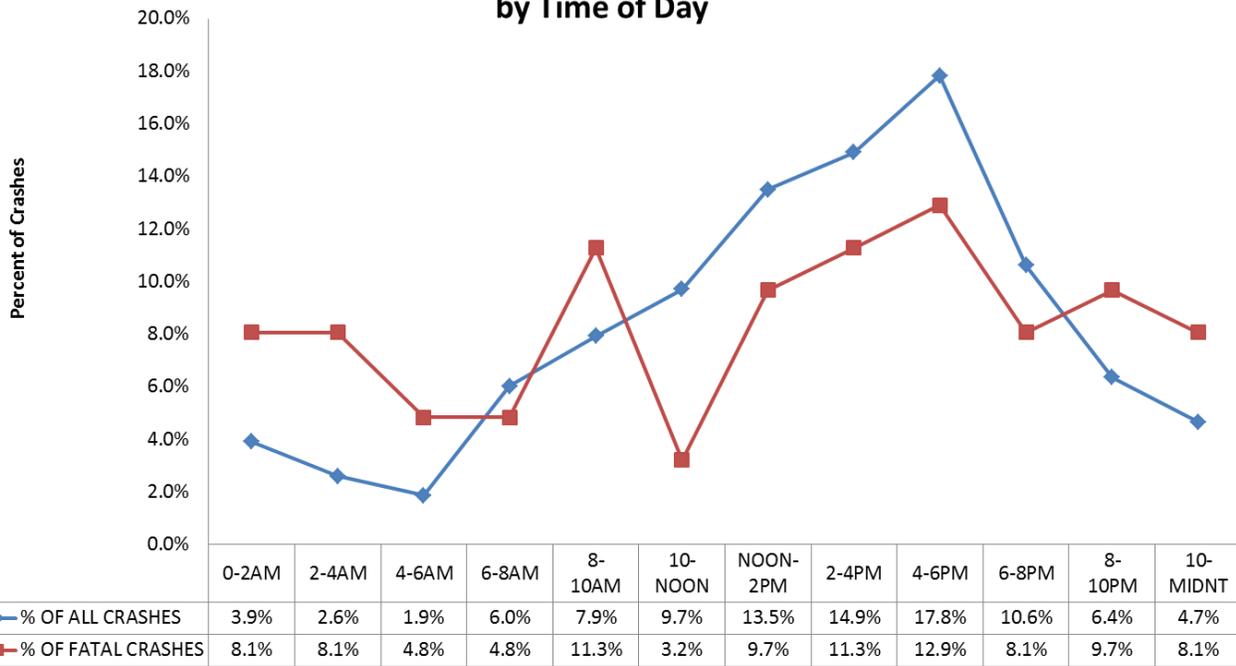
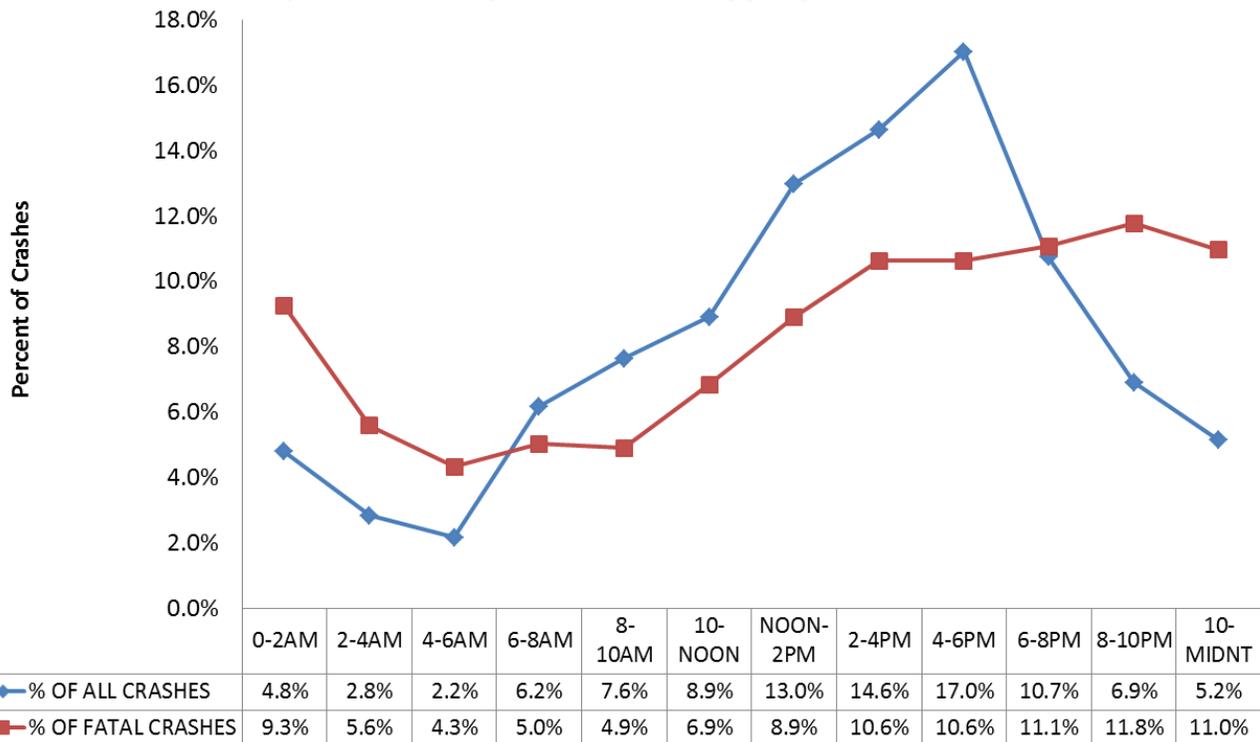


Figure 33
Traffic Crash and Fatal Crash Distribution
By Time of Day, 2000-2011 Aggregate Data

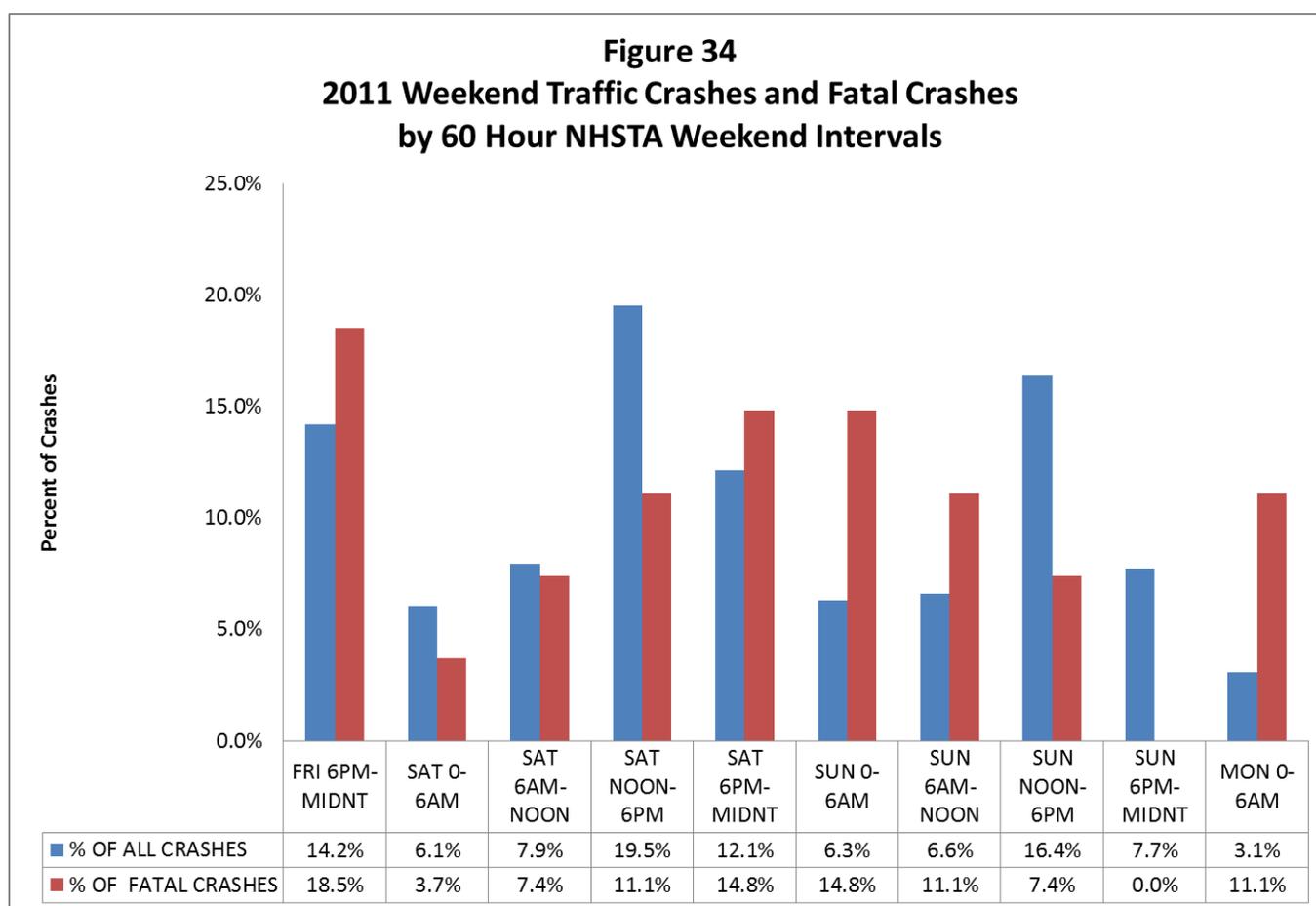


Weekends

Figure 34 summarizes 2011 crash activity during the 60 hour NHSTA weekend interval, from 6 pm Friday evening to 6 am Monday morning.

Twenty-eight percent (28.4%) of all Alaska traffic crashes and 43.5% of fatal crashes occurred on weekends during 2011. The percentage of annual fatal crashes that occurred on weekends in 2011 was similar to 2010 and 2009, and nearly 45% higher than 2008 (42.3 in 2010, 40.7% in 2009, 29.1% in 2008).

Weekend crashes in 2011 were most frequent on Saturday afternoons between noon and 6 pm. Overall crash frequency was also high Friday evenings and Sunday afternoons. Fatal crashes were most likely on Friday evenings. Fatal crash frequency was also high on Saturday nights and Sunday early mornings.

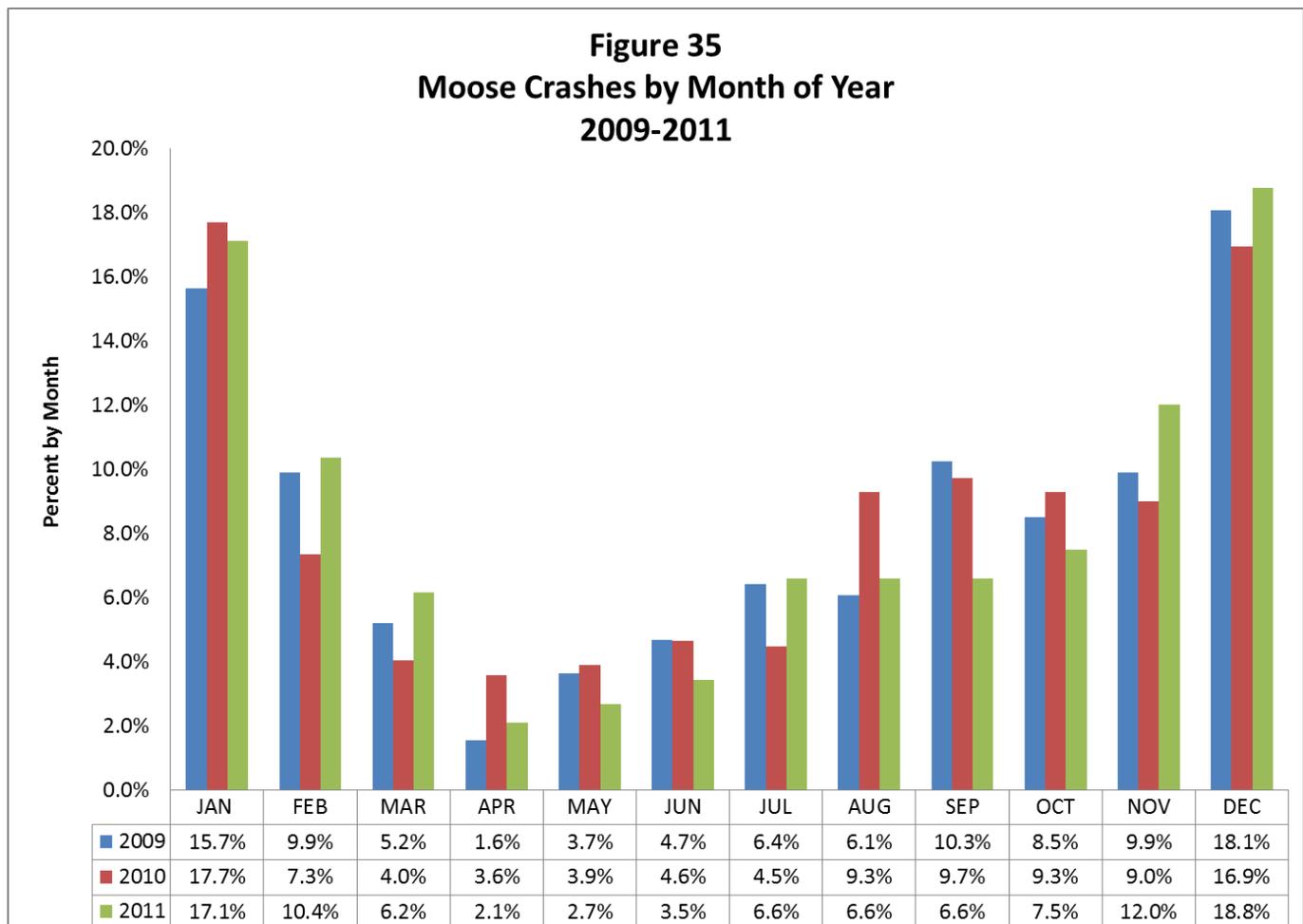


CRASHES WITH MOOSE

There were 666 motor vehicle crashes with moose on Alaska roadways in 2011 (5.4% of all traffic crashes, based on the crash event type). This is almost identical to the number in 2010.

While overall crash rates and fatal crash rates probably reflect road conditions, traffic volumes, and driver error, crashes with moose may be more dependent on environmental conditions (snowfall patterns in Southcentral Alaska and hours of daylight) and are often the consequence of animal foraging behavior and visibility.

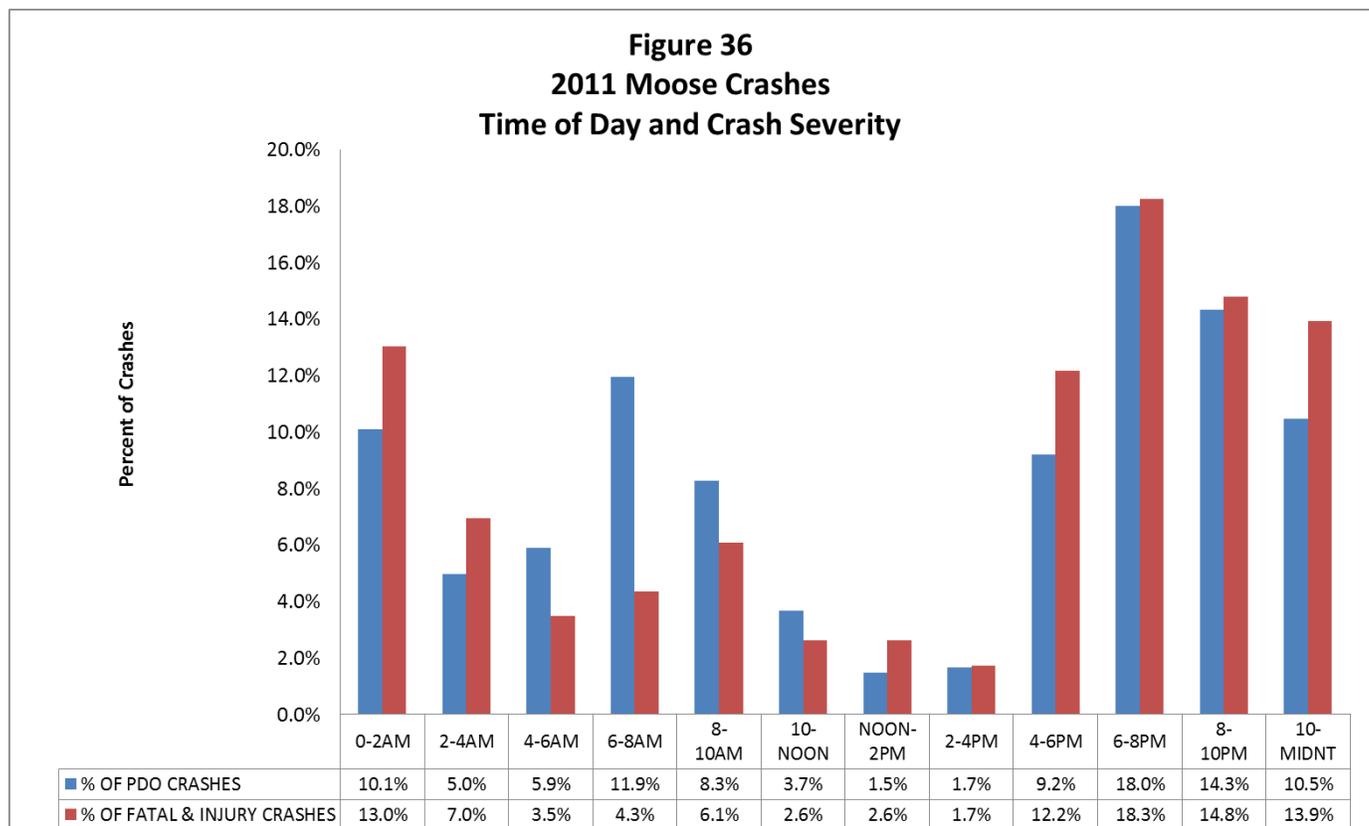
In 2011, moose collisions occurred more frequently in December (18.8%) than other months of the year. The month of April had the lowest frequency of encounters (2.1% of all moose crashes). On average, there were 80 moose crashes per month between September and February and 31 moose crashes per month between March and August in 2011. Figure 35 compares monthly distribution of moose collisions between 2009 and 2011.



Fifty-three percent (53.4%) of crashes with moose occurred during the six hours between 6 in the evening and midnight. Moose encounters on Alaska roadways were least likely during the midday (only 6.8% occurred in the six hours between 10 in the morning and 4 in the afternoon). The distribution of moose collisions by time-of-day in 2011 was similar to that in 2009 and 2010.

Motor vehicle collisions with moose usually result in fewer injuries to vehicle occupants than other traffic collisions. Eighty-two percent (82.3%) of moose collisions in 2011 caused only property damage, 16.2% resulted in only minor injuries to vehicle occupants, and less than 2% caused major injuries (1.5%). There were no fatalities associated with moose collisions in 2011.

Figure 36 shows the percent of non-injury (PDO) and injury crashes (minor, major, and fatal combined) with moose by time-of day. Both non-injury and injury crashes were most frequent in the evening. On average, at any hour of the day, almost eighteen percent (17.7%) of moose collisions caused person injuries in 2011. That percentage increased to twenty two percent (22.1%) between midnight and 4 in the morning, possibly due to reduced light conditions and less time for drivers to take evasive action.

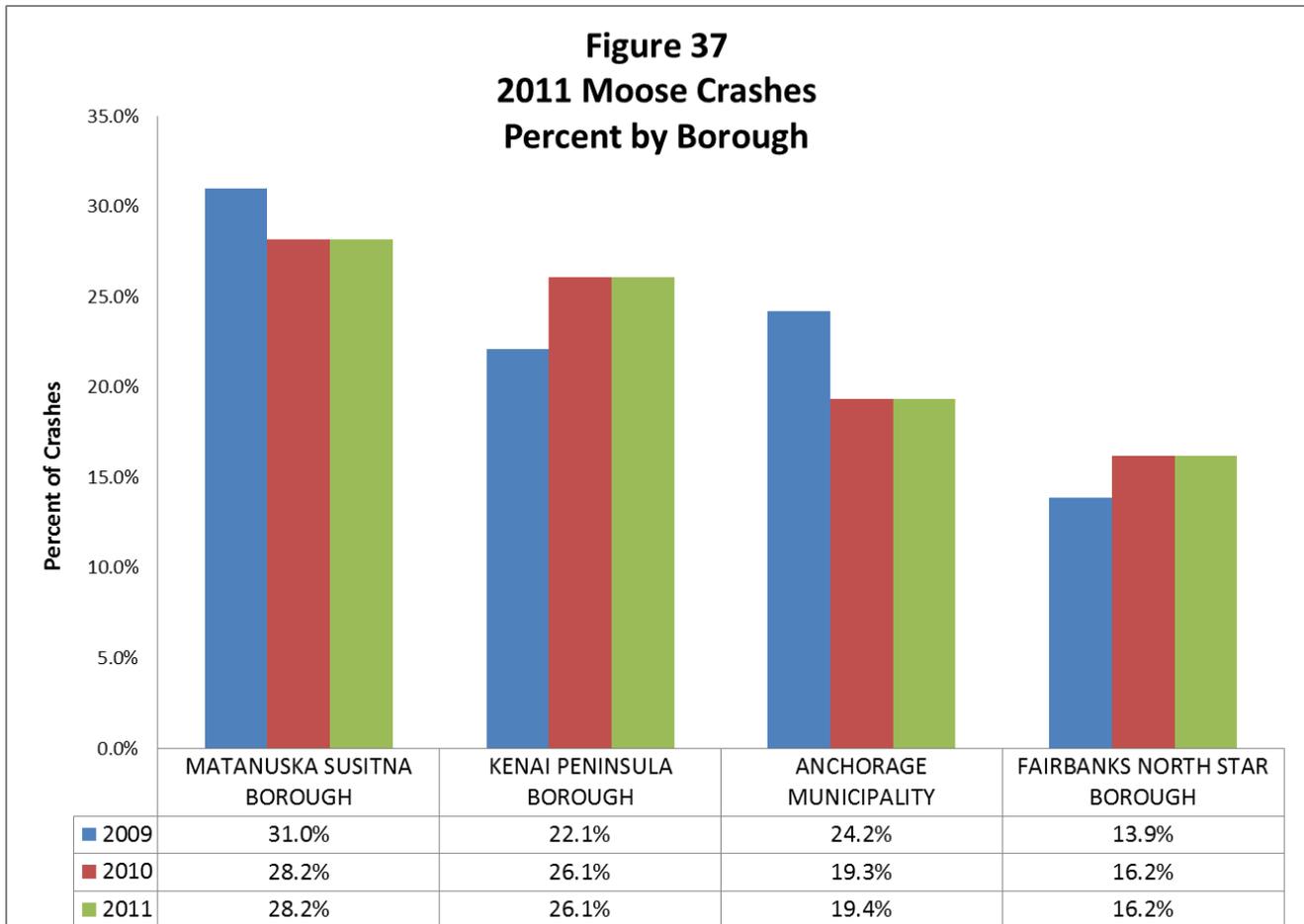


Most moose collisions occurred at night from 6pm to 6am (65.1%) where darkness or in reduced light conditions, such as twilight or street lamps, would predominate. No adverse weather conditions were coded for nearly half (47.9%) of moose collisions; most occurred in clear or cloudy weather without precipitation or blowing debris. A little over ten percent (12.2%) occurred in snowy conditions.

Seventy-six percent (75.7%) of all moose collisions happened on rural roadways and twenty-four percent (24.3%) occurred at urban locations. Almost a third (32.6%) moose collisions occurred on rural and urban interstate highways. Forty-two percent (41.7%) of all moose collisions statewide occurred on the Sterling, Seward, Glenn, Parks, Richardson, Alaska, or Tok Cut-Off highways.

Seventy-four percent (73.7%) of statewide moose collisions occurred in three large Southcentral boroughs. The proportion of moose collisions occurring within the boundaries of the Municipality of

Anchorage decreased from 24.2% of statewide in 2009 to 19.3% in 2010 where it stayed for 2011 at 19.4%. Kenai Peninsula moose crashes increased slightly, from 22.1% in 2009 to 26.1% in 2010 where it stayed for 2011. Moose collisions in the Matanuska-Susitna Borough decreased slightly from 31% in 2009 to 28.2% in 2010 and 2011. Sixteen percent (16.2%) of all moose collisions occurred in the Fairbanks Northstar Borough (the same proportion in 2010).



GEOGRAPHIC DISTRIBUTION OF TRAFFIC CRASHES

Figures 38 through 46 illustrate property damage and injury crash trends for the years 2000 through 2011. Figures 38 through 45 chart the percent of crashes that involved injuries (nonfatal and fatal combined), the percent of crashes that involved only property damage, and the total number of crashes for Alaska's eight most populous boroughs. Figure 46 summarizes for all other areas (less populous boroughs and unorganized areas). Statewide data was presented in Figure 1.

The same number of boroughs reported fewer traffic crashes as more traffic crashes in 2011 than in 2010. The Municipality of Anchorage, Matanuska Susitna Borough, Ketchikan Gateway Borough, and Sitka City and Borough report more crashes. Fairbanks North Star Borough, Kenai Peninsula Borough, the City and Borough of Juneau, and Kodiak Island Borough report fewer crashes. The proportion of crashes with higher severity increased only in the Fairbanks North Star and Matanuska Susitna Boroughs. The other six boroughs saw a decrease in the proportion of severe crashes.

Reduced crash reporting may have influenced severity statistics over the past few years. When law enforcement agencies report fewer property damage only crashes, the proportion of severe crashes increases because they become an increasingly reported crash type. This may have happened for 2009 data which is not consistent with previous trend of slightly decreasing severity of reported traffic crashes. 2010 and 2011 seems to continue this larger trend of reduced crash severity. Figure 47 shows a simple linear trend for crash severity (annual percent injury plus fatal crashes) in the most populous boroughs.

By 2011, about thirteen percent (12.7%) of the State's population lived within the Matanuska-Susitna Borough boundaries. Nearly eleven percent (10.8%) of alcohol related crashes, thirty-eight percent (37.8%) of moose collisions, and fifteen percent (14.5%) of fatal crashes occurred there in 2011. The percentage of traffic crashes that resulted in fatalities decreased from the previous years (0.819% in 2010, 0.659% in 2009) and remained higher than the statewide percentage.

The Municipality of Anchorage, with forty-one percent (40.9%) of the State's population in 2011, reported sixty-one percent (61.4%) of all traffic crashes and twenty-four percent (24.2%) of all fatal crashes that occurred statewide during 2011. Seventy-six percent (75.7%) of motor vehicle crashes with pedestrians and 51.8% of crashes with bicyclists occurred within Anchorage boundaries. Fifty-seven percent (57.0%) of Alaska's alcohol-related crashes and twelve percent (11.9%) of crashes with moose occurred there. The percentage of traffic crashes that resulted in fatalities was lower than the statewide percentage (0.493% statewide; 0.197% in the Municipality of Anchorage).

Figure 38
Anchorage Municipality Traffic Crashes
by Crash Severity 2000-2011

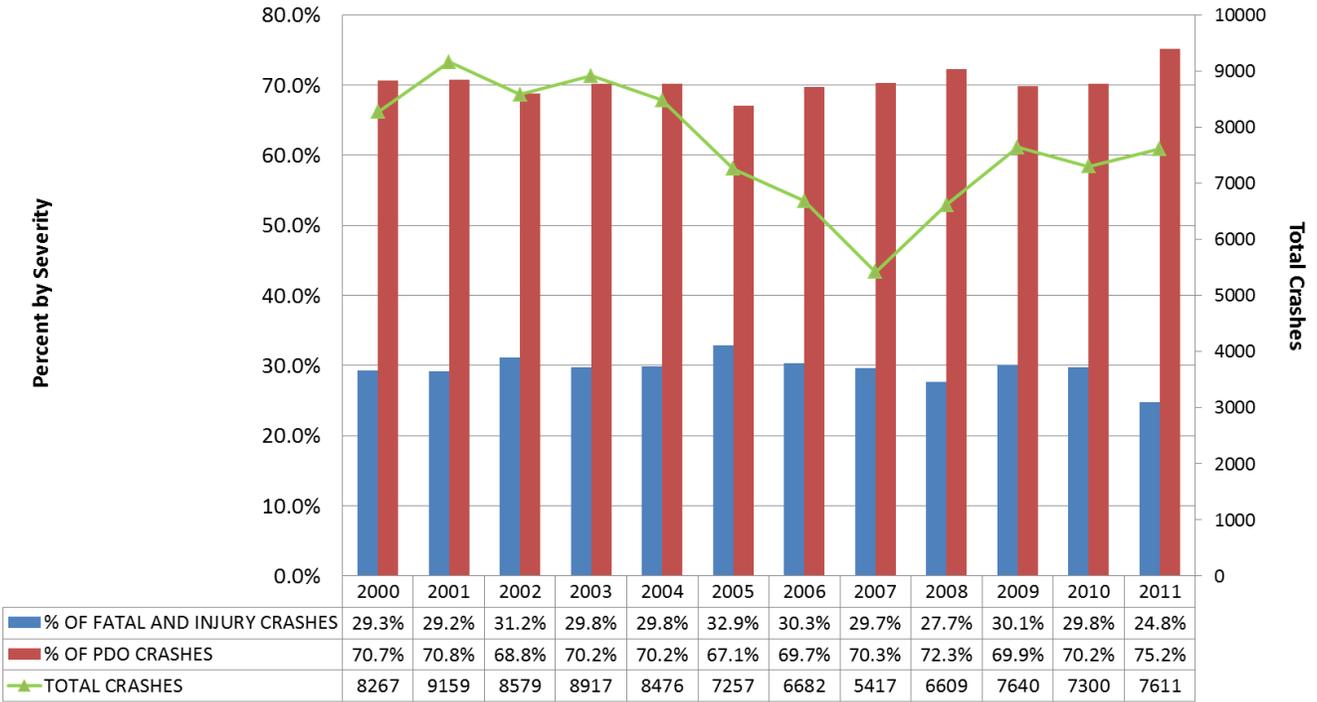


Figure 39
Fairbanks North Star Borough Traffic Crashes
by Crash Severity 2000-2011

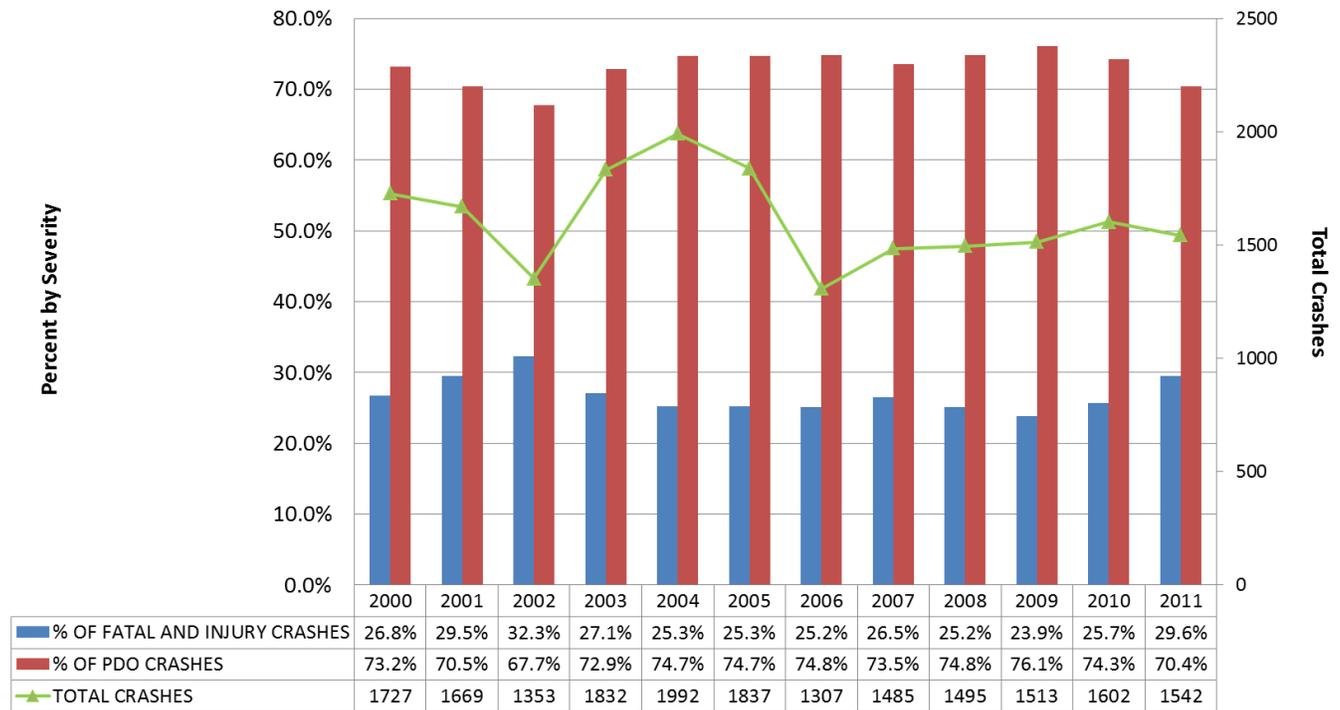


Figure 40
Kenai Peninsula Borough Traffic Crashes
by Crash Severity 2000-2011

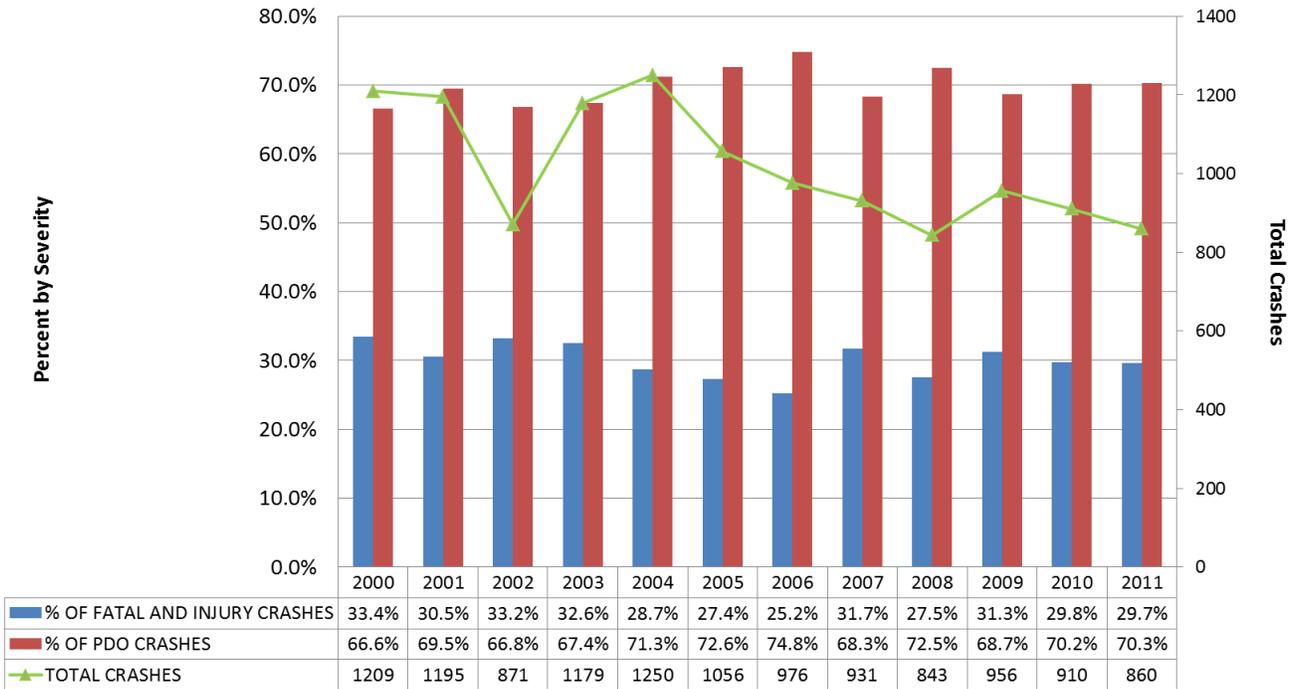
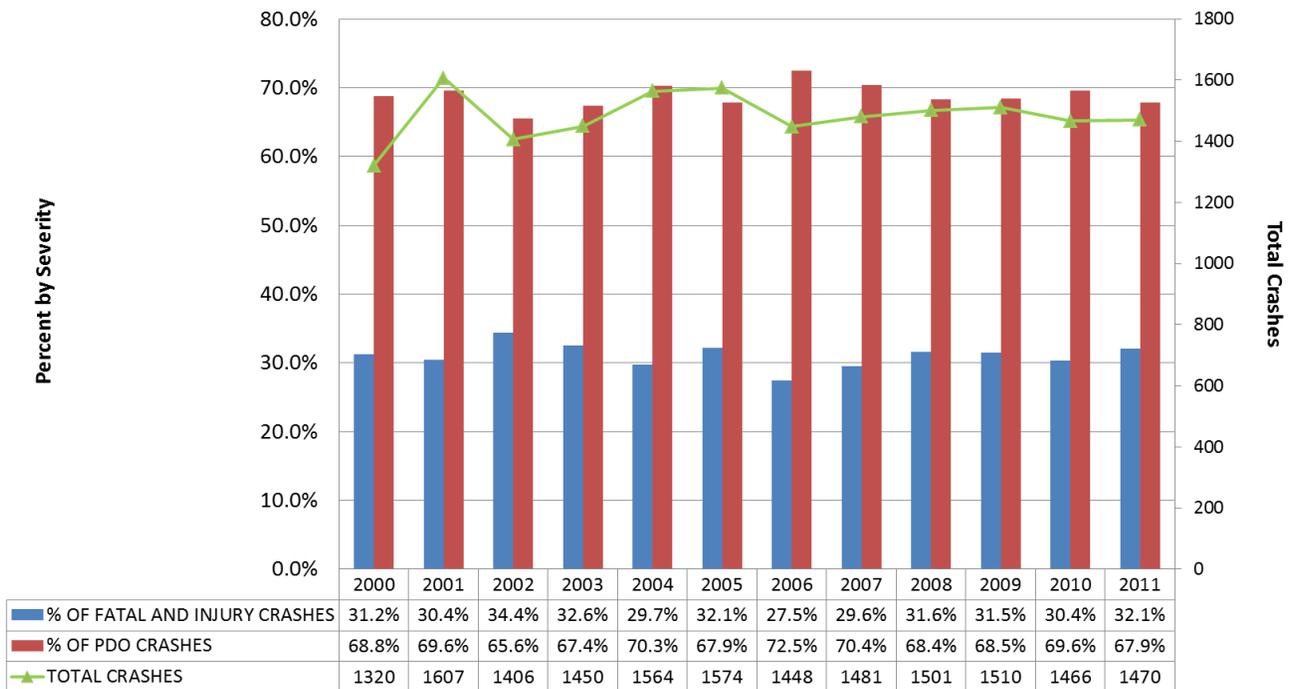
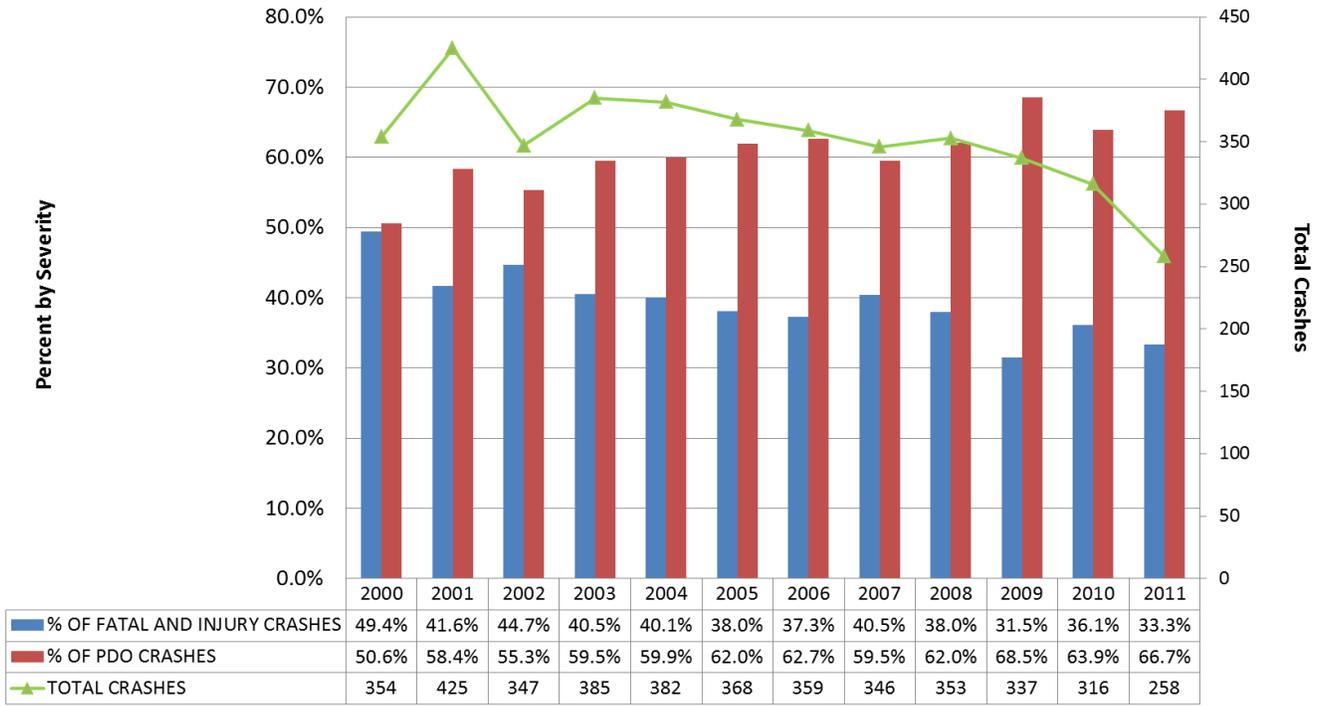


Figure 41
Matanuska Susitna Borough Traffic Crashes
by Crash Severity 2000-2011



**Figure 42
Juneau City and Borough Traffic Crashes
by Crash Severity 2000-2011**



**Figure 43
Ketchikan Gateway Borough Traffic Crashes
by Crash Severity 2000-2011**

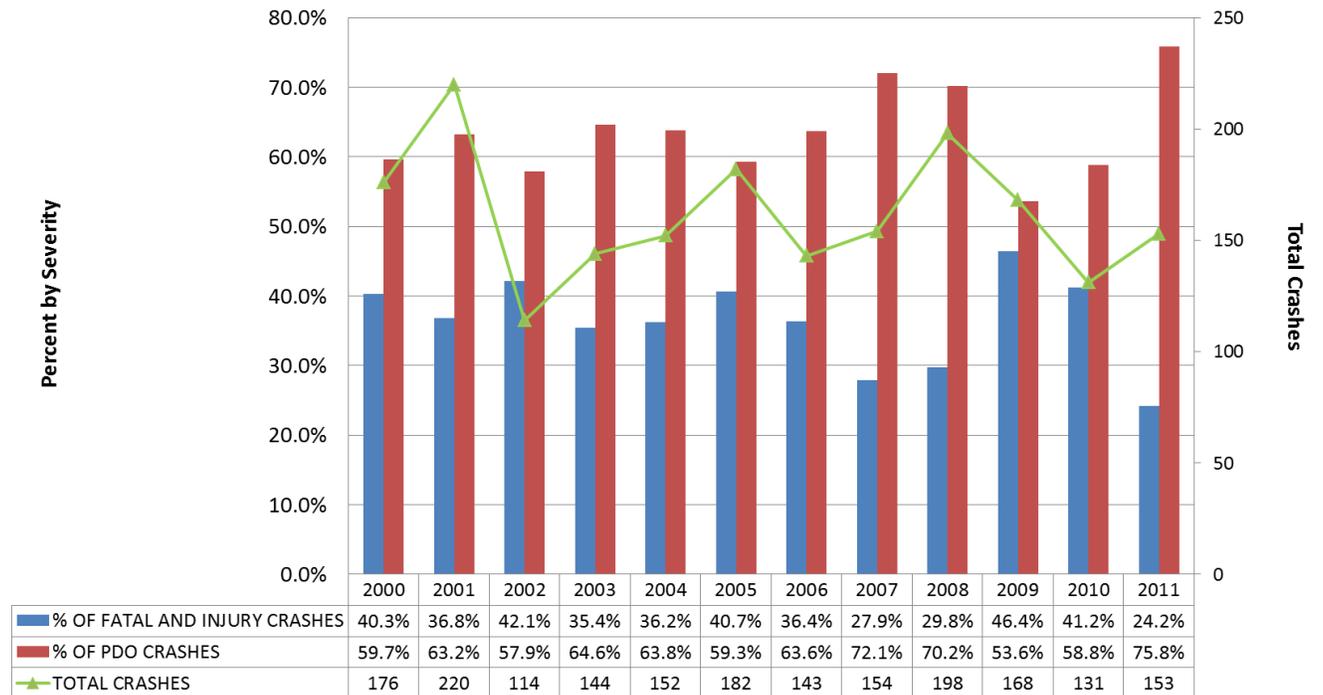


Figure 44
Kodiak Island Borough Traffic Crashes
by Crash Severity 2000-2011

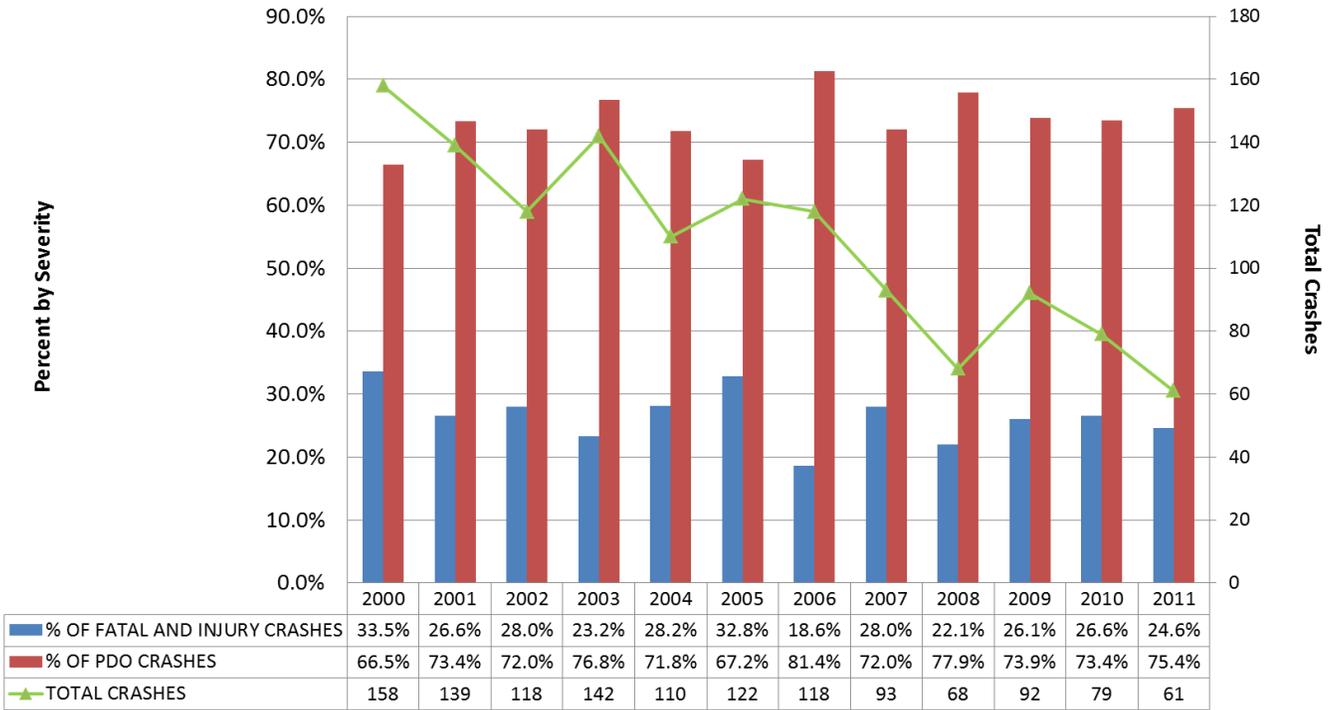


Figure 45
Sitka City and Borough Traffic Crashes
by Crash Severity 2000-2011

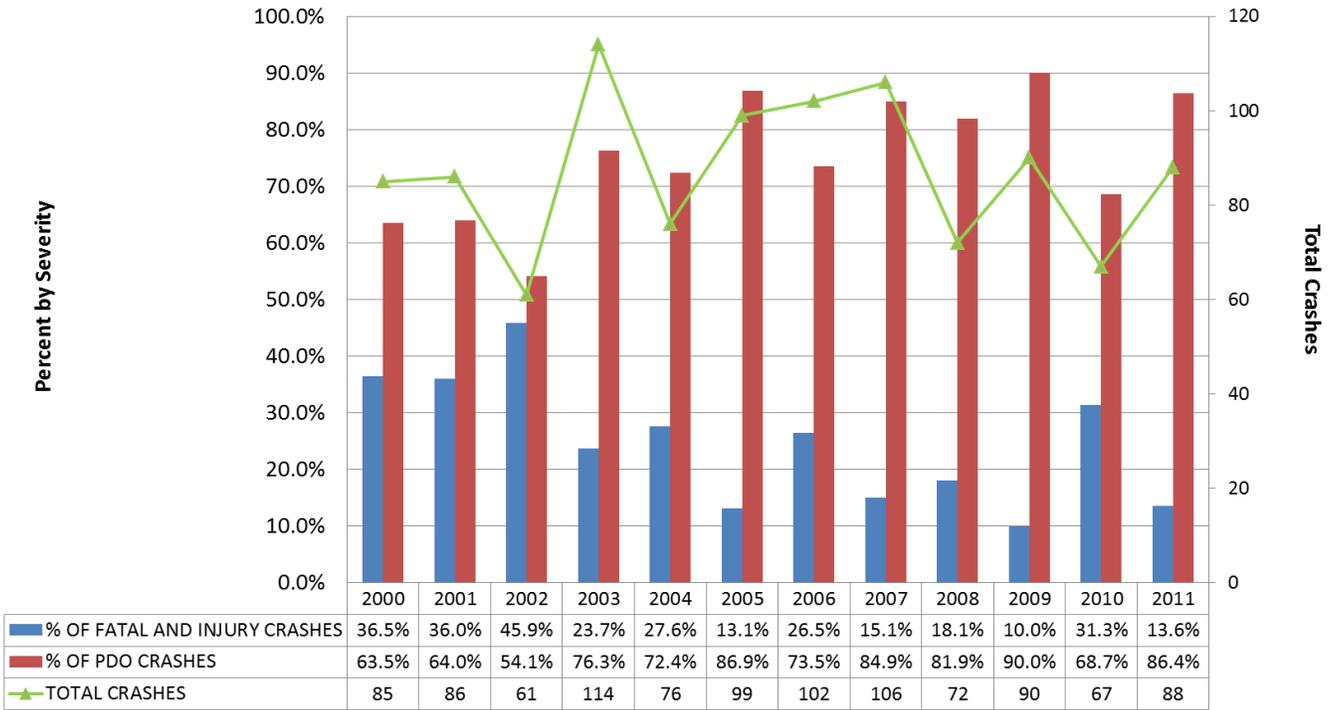


Figure 46
Sparsely Populated Areas Traffic Crashes
by Crash Severity 2000-2011

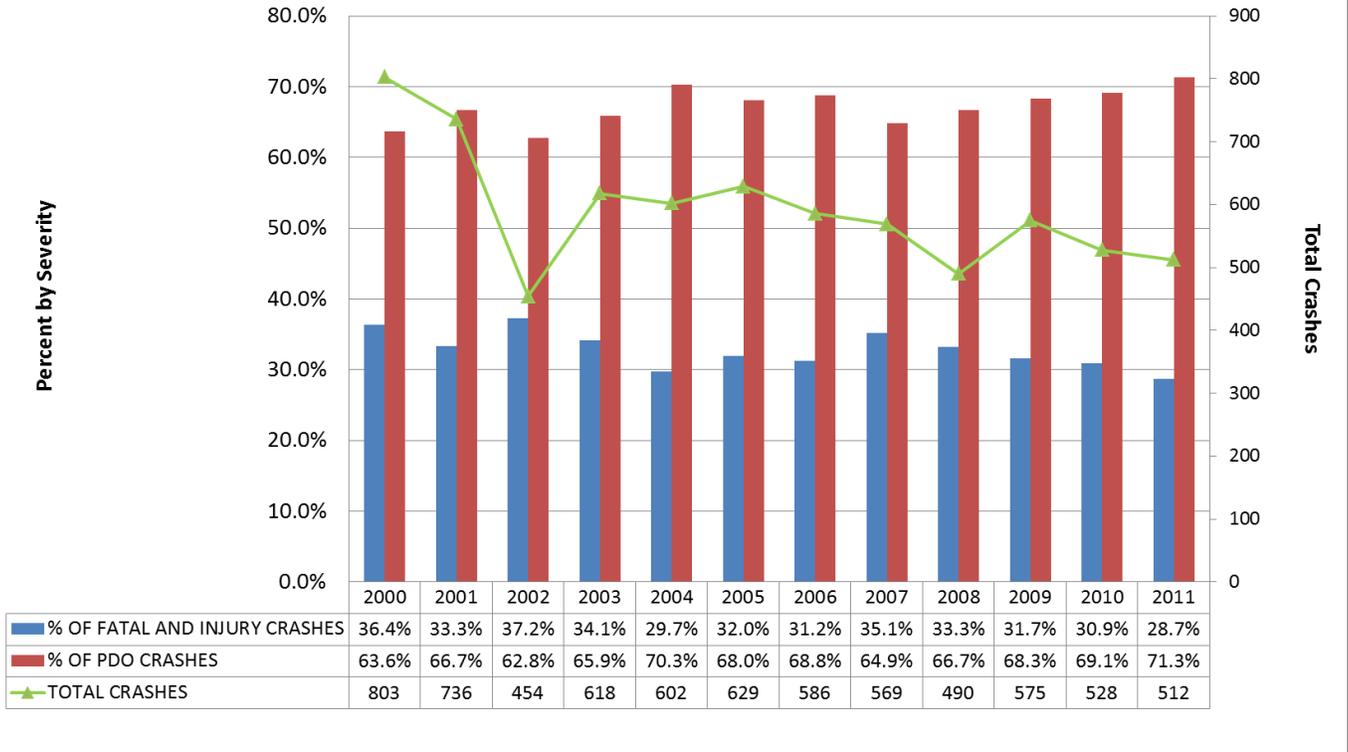
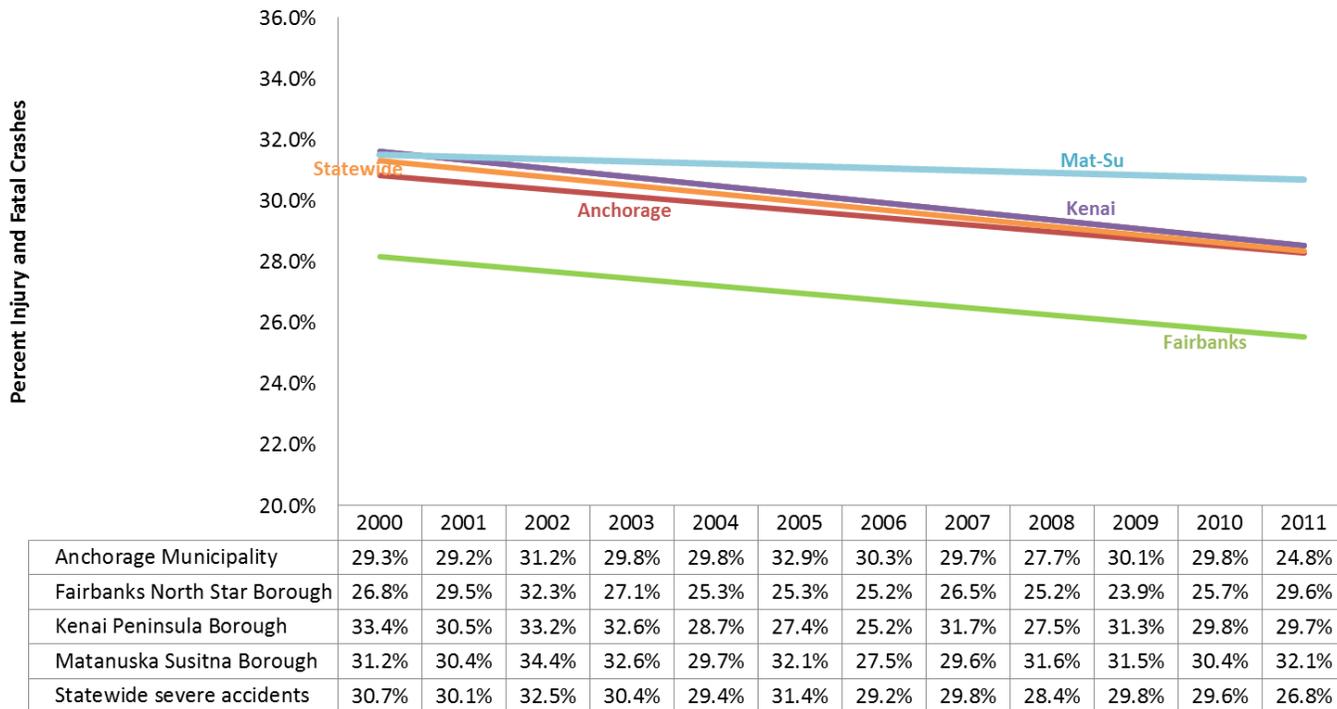


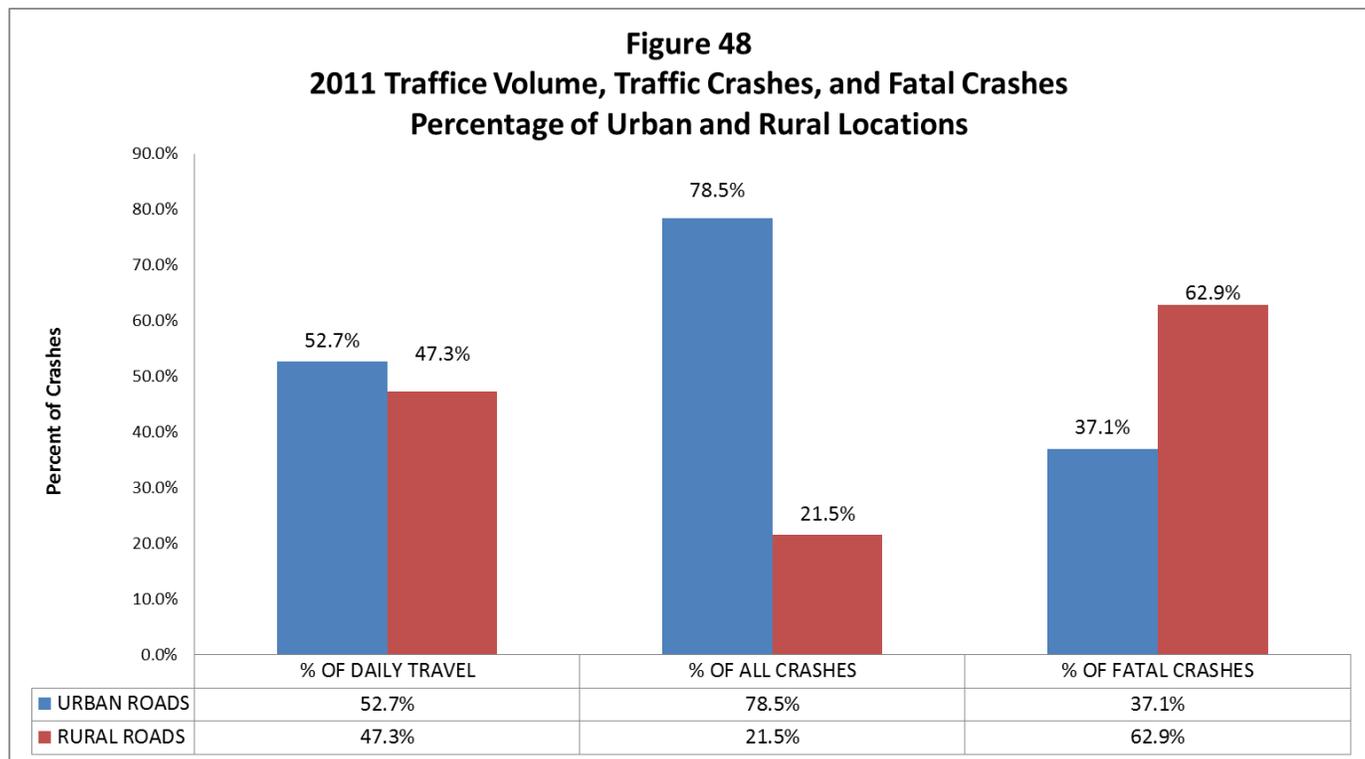
Figure 47
Crash Severity Trendlines by Borough 2000-2011



ROAD TYPE & LOCATION

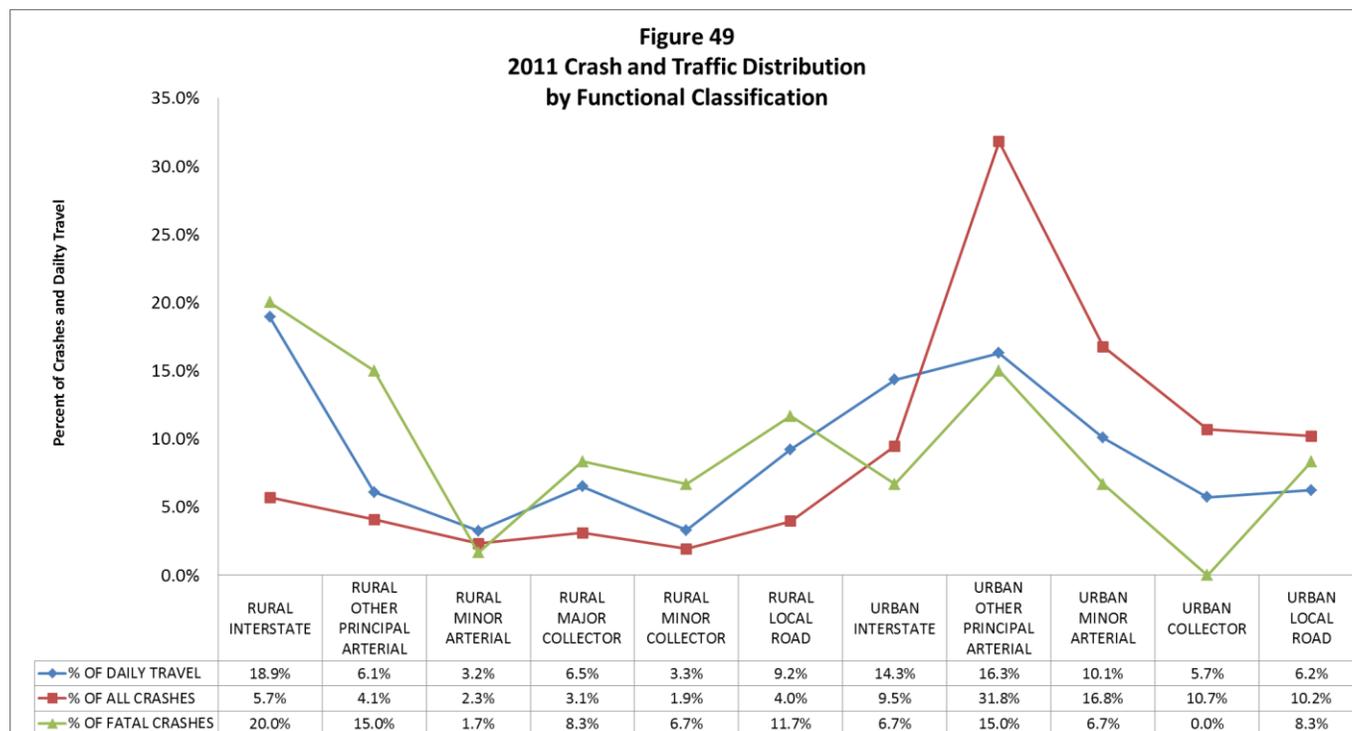
Urban/Rural

Although traffic volumes on rural and urban roadways were similar, over three quarters of the traffic crashes that were reported in 2011 occurred on urban roadways (Figure 48). The percent urban/rural distribution for all 2011 crashes is consistent with Alaska crash data collected since 2000. Between 2000 and 2011, the percent of fatal crashes on rural roadways annually exceeded the percentage at urban locations except for 2002 and 2007. During 2002, fifty-five percent of fatal crashes occurred on urban roadways and forty-five percent occurred on rural roadways. The split in 2007 was forty-nine percent rural versus fifty-one percent urban.



Functional Class and Rural/Urban

Figure 49 shows percent distributions of crashes and traffic volumes by road functional class at urban and rural crash locations.



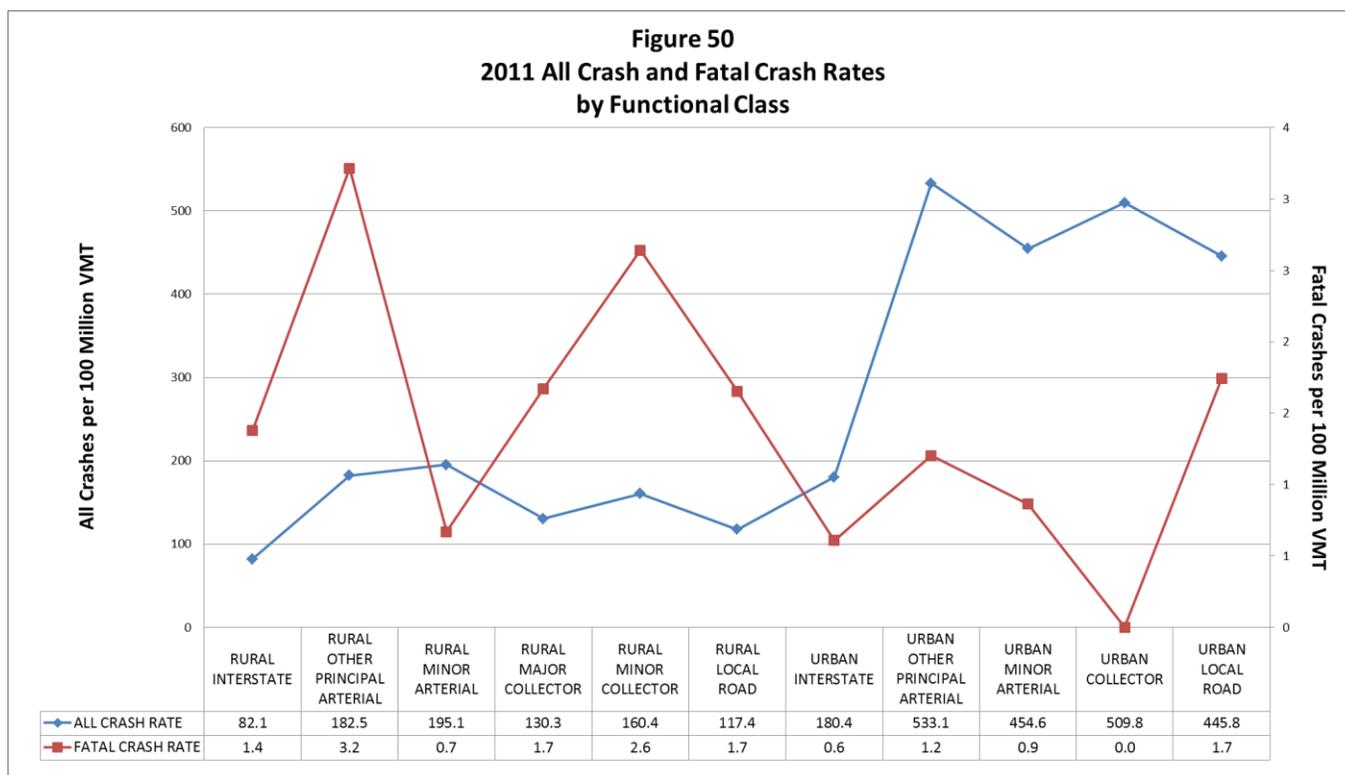
Traffic volumes were highest on rural interstate highways (18.94% of average annual daily traffic in 2011), followed by other urban principal arterials (16.3%), and urban interstate roadways (14.3%). Twenty percent (20.0%) of fatal crashes occurred on rural interstates, 15.0% on other urban principal arterials, 15.0% on rural other principal arterials, 11.7% on rural local roads, and less than 10% on all other functional classifications.

Accident Rates

Statewide, there were 273 traffic crashes for every 100 million vehicle miles traveled during 2011. The crash rate at rural locations was 125 crashes per 100 million VMT and at urban locations, 408 crashes per 100 million VMT. There were 1.4 fatal crashes per 100 million VMT statewide, with 1.8 fatal crashes per 100 million VMT on rural roads and 0.95 on urban roads. Figure 50 presents crash rates and fatal crash rates by road functional class at urban and rural crash locations during 2011.

For all functional classes, crash rates on rural roads were less than half the rates on urban roads in 2011. The highest overall crash rates occurred on urban other principal arterials, urban minor arterials, and urban collectors.

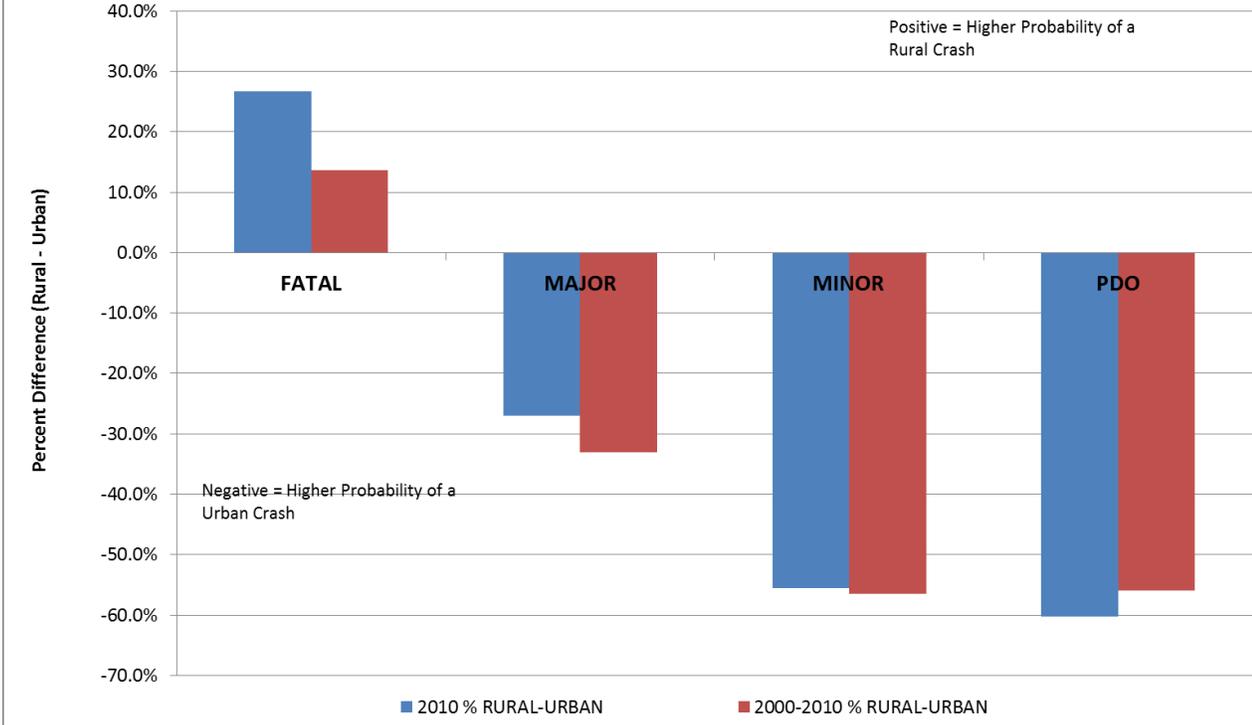
The highest fatal crash rates were calculated for rural other principal arterials while the lowest fatal crash rates were calculated for urban collectors. Fatal crash rates for rural minor arterials were similar to fatality rates for urban minor arterials.



Although motorists were less likely to be involved in crashes on rural roadways, they were more likely to be killed if a crash occurred at a rural location. The proportion of crashes that involved minor and serious person injuries was higher on urban than rural roadways, on average, for all road functional classes.

In 2011 the difference between the percents of crashes that were fatal in rural and urban areas was 26.7%. The number of fatal crashes is considered a statistically small sample size. For the same comparison of rural to urban in 2011, the difference in the percent of crashes that caused major injuries was 26.9% with urban areas now higher. If combining minor and major injury crashes, and fatal injury crashes, the difference in percents is 51.3%, with urban areas again higher. For property damage crashes, the difference in percents is 60.2% with urban areas having the higher percentage. This is a larger difference between urban and rural crashes' respective share of overall crashes. This might indicate that proportionally fewer property-damage-only crashes are being reported in rural areas. The percent difference between rural and urban crash severity for 2011 displayed in Figure 51 is otherwise consistent with annual and aggregate crash data since 2000.

Figure 51
2011 Crash Severity - Percent Difference between Rural and Urban Locations

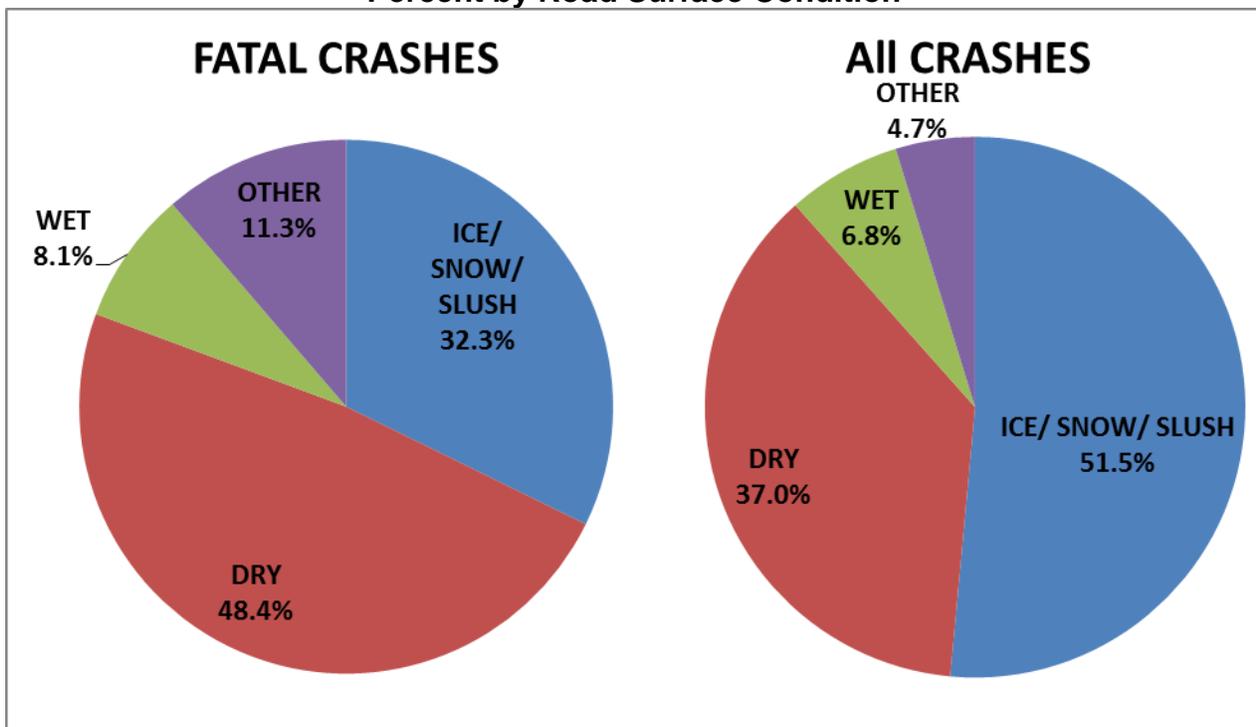


ROADWAY ATTRIBUTES

Roadway Surface

Fifty-two percent (51.5%) of crashes during the year occurred on ice, slush, or snow. Thirty-seven percent (37.0%) occurred on dry pavement. Wet pavement conditions were coded for another 6.8% of crashes. Five percent of crash locations had loose gravel or standing water on the road surface. Figure 52 graphically contrasts surface conditions for all crashes versus fatal crashes.

Figure 52
2011 All Crashes and Fatal Crashes
Percent by Road Surface Condition



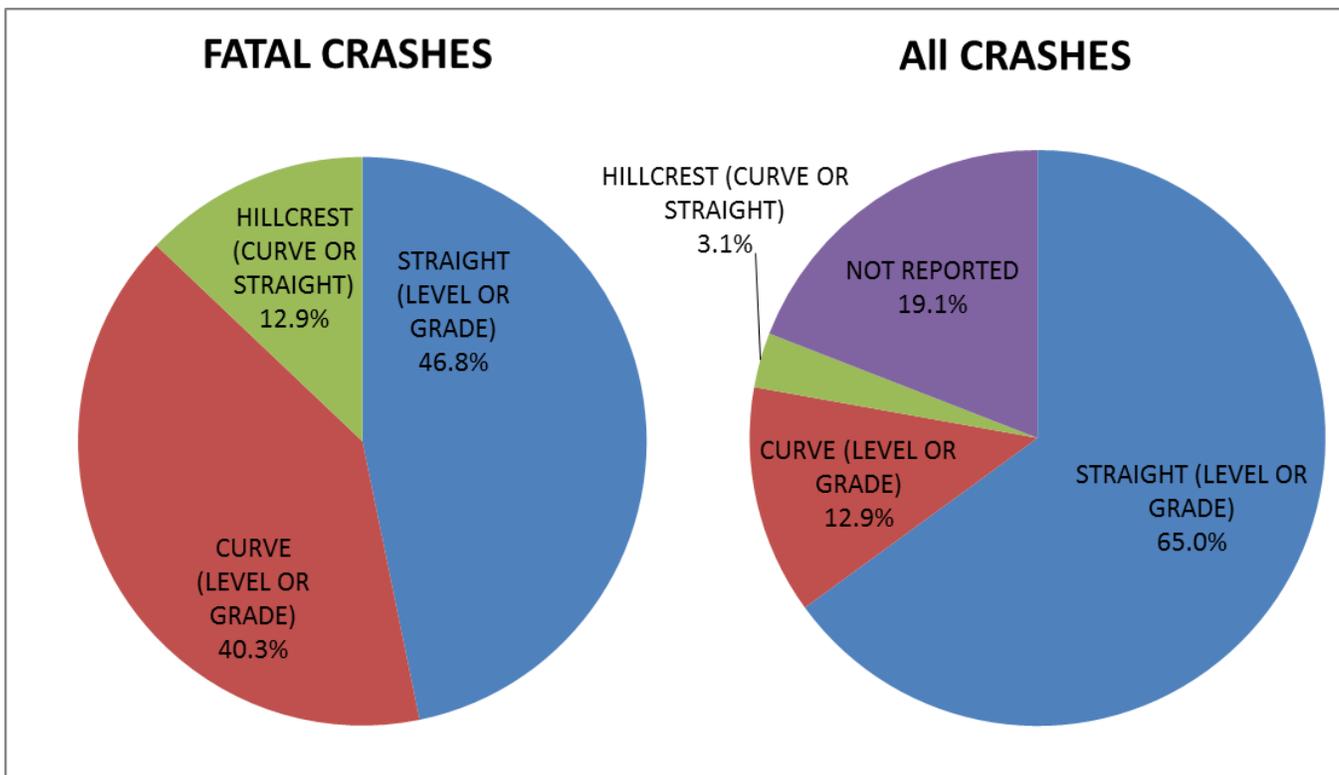
Compared with surface conditions at locations of property damage only crashes, a higher proportion of major injury, and fatal crashes occurred on dry pavement (49.2% of major injuries and 48.4% of fatal). A higher proportion of minor injury and property damage only crashes occurred on icy, snowy, or slushy pavement (46.5% of minor injury crashes and 53.9% of property damage only crashes). The proportion of major injury and fatal crashes that occurred on wet pavement was similar to the proportion for property damage only and minor injury crashes.

Roadway Geometry

Most crashes (65.0% of property damage only, injury, and fatal crashes combined) occurred on straight stretches of roadway, either level or at grade. Thirteen percent (12.9%) of all crashes occurred on curves (either level or at grade) and another 3.1% occurred at hillcrests of either straight or curved roadways (Figure 53).

Fatal crashes also occurred most frequently on straight stretches of roadway (46.8%). Higher proportions of fatal crashes occurred on curves and hillcrests than crashes overall. Forty percent (40.3%) of fatal crashes occurred on curves compared to 12.9% of all crashes. Thirteen percent of fatal crashes (12.9%) occurred on hillcrests compared to only 3.1% of all crashes.

Figure 53
2011 Fatal and All Crashes Crashes
Percent by Roadway Geometry



Roadway Segment Accident Rates

Statewide crash rates for 2009 through 2011 are provided in Table 9. Road categories in this table are based on the functional class of the roadway, presence of medians (divided or undivided), and opposing traffic (1 or 2 way traffic). The crash rate was calculated as the number of crashes per 1 million vehicle miles traveled at crash locations.

TABLE 9
2009 - 2011 Statewide Segment Crash Rates
by Road Category

CATEGORY	ROAD TYPE	CRASH RATE		
		2009	2010	2011
A	UNDIVIDED URBAN & RURAL INTERSTATE	1.001	0.911	1.044
B	DIVIDED RURAL INTERSTATE	0.948	0.677	0.667
C	DIVIDED URBAN INTERSTATE/OTHER FREEWAY & EXPRESSWAY	1.080	0.978	0.783
D	DIVIDED OR UNDIVIDED RURAL ARTERIAL - PRINCIPAL OR MINOR	1.080	1.166	1.286
E	DIVIDED OR UNDIVIDED RURAL COLLECTOR/LOCAL MAJOR OR MINOR	1.089	1.139	1.169
F	UNDIVIDED URBAN ARTERIAL/PRINCIPAL OR MINOR/TWO-WAY TRAFFIC	1.991	1.995	2.123
G	UNDIVIDED URBAN ARTERIAL/PRINCIPAL OR MINOR/ONE-WAY TRAFFIC	3.021	2.7	7.128
H	DIVIDED URBAN ARTERIAL/PRINCIPAL OR MINOR	1.344	1.298	1.390
J	DIVIDED OR UNDIVIDED URBAN COLLECTOR & LOCAL ROADS	2.244	2.27	2.624

Intersection Crash Rates

A little less half of all traffic crashes in 2011 occurred at intersections and 36% occurred at locations where no traffic could enter the roadway (not at junction). Two percent (2.2%) of crashes were not coded for road junction information.

Table 10 summarizes statewide intersection crash rates for 2009 through 2011. Intersections are grouped by number of conflicts and traffic control type. The analysis in Table 10 is based on “named intersections” (a group of intersections identified as statistically significant and tracked for safety analysis by Alaska DOT&PF Traffic Safety Engineers).

TABLE 10
2009 -2011 Statewide Crash Rates at Intersections
by Number of Conflicts

NUMBER OF CONFLICTS	TRAFFIC SIGNAL				TWO-WAY STOP				FOUR-WAY STOP			
	COLLISION RATE			NUMBER OF SITES	COLLISION RATE			NUMBER OF SITES	COLLISION RATE			NUMBER OF SITES
	2009	2010	2011		2009	2010	2011		2009	2010	2011	
1	N/A	N/A	N/A	N/A	0.076	0.077	0.382	1/1/2	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A	0.522	0.432	0.409	5/4/5	N/A	N/A	N/A	N/A
3	1.360	1.327	1.054	29/30/31	0.591	0.278	0.937	4/3/6	N/A	N/A	N/A	N/A
5	0.820	1.299	1.018	4/5/5	0.702	0.139	0.800	2/1/2	N/A	N/A	N/A	N/A
6	0.876	0.843	0.808	82/72/70	0.503	0.512	0.362	292/315/256	0.418	0.267	0.400	1/1/1
8	1.277	1.237	1.238	74/73/76	0.692	0.781	0.610	10/8/11	N/A	N/A	N/A	N/A
11	0.506	0.848	1.085	1/1/1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	2.012	1.858	1.208	1/1/1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	1.749	1.673	1.344	274/274/276	0.652	0.522	0.535	68/52/65	0.723	0.993	0.809	3/5/5

Most intersection crashes occurred either at “T” or 4-way intersections of public roads (43.8%, combined). Fourteen percent (14.2%) of all crashes occurred at or were related to traffic flow at “T” intersections. Thirty percent (30.0%) occurred at or were related to traffic flow at 4-way intersections. Five percent (4.6%) of crashes occurred at a junction with driveways (including private residences, businesses and public facilities) and 2.2% occurred at an intersection with on ramps or off ramps.

Fatal crashes were less likely to occur at an intersection. Only 35.5% of fatal crashes occurred at “T”, or 4-way intersections. In 2011, no fatal crashes occurred at driveways, or on or off ramps. About sixty-five percent (64.5%) of fatal crashes were not intersection related.

National Highway System Crashes

The National Highway System (NHS) is a Federal-aid system mandated by Congressional legislation. Each state, in coordination with the Federal Highway Administration, has developed a statewide NHS list that incorporates highways of various functional classifications.

Table 11 provides a summary of calendar year 2011 crash data for selected Alaskan NHS routes. Data is provided for the Sterling, Seward, Glenn, Parks, Richardson, Alaska and Tok Cutoff Highways. Thirty-one percent (30.6%) of all fatal crashes, thirty-five percent (35.3%) of all moose crashes, and ten percent (9.5%) of all impaired crashes occurred on the seven selected NHS highways. Crashes on these roadways comprised 12.5% of all crashes statewide.

TABLE 11
2011 NHS Route Crash Summary

NHS ROUTE	FATAL CRASHES	MOOSE CRASHES	IMPAIRED CRASHES	TOTAL CRASHES	TOTAL MILES
ALASKA HIGHWAY	0	5	0	18	198
GLENN HIGHWAY	3	66	25	456	180
PARKS HIGHWAY	5	76	17	454	324
SEWARD HIGHWAY	3	15	13	391	125
STERLING HIGHWAY	8	69	11	238	138
TOK CUTOFF HIGHWAY	0	4	1	18	122

CRASH DATA SOURCE

Summary

Eighty-one percent (81.2%) of the traffic crashes (10,207 of 12,576 crash reports) processed into the HAS crash database for 2011 were submitted on the police report form 12-200; nineteen percent (18.8%, 2,361 reports) were submitted by drivers using report form 12-209. The total number of crash reports processed increased by 1.4% from the previous year.

The proportion of police reported crashes increased about four percent from 2008 (75% in 2008, to 78% in 2009, to 81% in 2010 and 2011) while driver reported crashes decreased proportionately (24.8% in 2008, to 21.7% in 2009, to 18.6% in 2010 and 18.8% in 2011). Property damage only crash reporting by police increased by about 6% in 2011 from 2010. Minor injury crash reporting decreased by a little over eight percent (8.4%), and major injury crash reporting by police decreased by fifteen percent (15.3%) from the previous year.

Statutory Reporting Requirements

Alaska State law (AS 28.35.080) requires the reporting of any motor vehicle crash that results in the death or injury of one or more persons or that causes total property damage of \$2,000 or more. Drivers involved in such crashes are required to report crash information to a police agency. If the police agency with jurisdiction declines to investigate, drivers must submit crash information to the Department of Administration, Division of Motor Vehicles (using driver report form 12-209). When police investigate a motor vehicle crash, they assume responsibility to report crash information to the Division of Motor Vehicles, using police report form 12-200. Drivers are not required to submit a report to the Division of Motor Vehicles if a police agency has investigated and assumed responsibility for reporting it.

Alaska State law also requires that drivers or vehicle owners provide proof of motor vehicle liability insurance to the Department of Administration, Division of Motor Vehicles if they are involved in a motor vehicle crash on public property that involves injury, death, or total property damage exceeding \$501 (AS28.22.021). Because of this, many drivers voluntarily file the driver report form 12-209 for crashes with less than \$2000 damage.

Police Reporting Policies

Some legally reportable Alaska motor vehicle crashes (injury crashes and those with total damage equal to \$2000 or more) escape investigation by local police officers or State Troopers and probably also go unreported by drivers. Law enforcement agencies may not perform a formal crash investigation when there are no apparent injuries, the crash does not involve collision with wildlife, and all vehicles can be driven away from the crash scene. Each local police agency establishes its own policy for investigating traffic crashes, with some departments having a floor of \$5,000 or more before they will do an on-scene investigation. If police decline to investigate, some drivers may not understand their obligation to report, or may choose not to report the crash to the Division of Motor Vehicles.

Crash Severity

The 12-200 crash report form implemented on January 1, 2002 collects damage information for each involved vehicle using two data elements: vehicle damage type (disabling or functional), and vehicle damage estimate (greater or less than \$501). Non-vehicular damage (presence or absence of other property damage) is collected only from police reported crashes. A dollar estimate for vehicle damage is not assigned and the cost of all damage in a crash is not estimated or stored.

For this publication, (crash) damage severity has been derived from vehicle damage reporting. Damage severity over \$501 was assigned if any vehicle involved in the crash had a vehicle damage estimate greater than \$501. Damage severity under \$501 was assigned if no vehicle was coded for damage over \$501.

Forty-eight percent (47.8%) of all crashes involved over \$501 damage to at least one involved vehicle. Drivers reported twenty-three (22.9%) of all crashes with more than \$501 vehicular damage and seventeen percent (16.7%) of all crashes with less than \$501 damage to vehicles. Police reported seventy-seven percent (77.1%) and eighty-three percent (83.3%), respectively.

Forty-one percent (40.7%) of property damage only (PDO; non-injury) crashes had damage to vehicles exceeding \$501 in 2011 and fifty-nine percent (59.3%) were coded for vehicular damage of less than \$501.

Crash Data Requests

This and prior years crash reports can be found at:
<http://www.dot.alaska.gov/stwdplng/transdata/crash.shtml>

Other requests for crash data can be directed to the Statewide Crash Data Manager, Clint J. Farr at (907) 465-6996 or bonnie.walters@alaska.gov.