

# The Status Of Transportation Safety In Maine



Maine Transportation Safety  
Coalition  
January 2011









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# Maine Transportation Safety Coalition

P.O. Box 818 • Augusta, Maine 04333-0818



*Working Together To Promote Safe Transportation In Maine*

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Dear Transportation Safety Advocate:

On behalf of the Maine Transportation Safety Coalition (MTSC), I am pleased to provide you with **The Status of Transportation Safety in Maine** report. This report is the second edition of a compendium of crash and other safety data that both qualitatively and quantitatively defines the major transportation safety issues facing our state today. It is a multi-agency effort undertaken to compile comprehensive Maine-specific transportation safety data and facts into one document. It includes sections for all the current focus areas of Maine's Strategic Highway Safety Plan.

This report was prepared by the Data Committee of the MTSC to identify focus areas for our organization and to assist our state leaders in making informed decisions on programs and activities affecting transportation safety in Maine. Sincere thanks goes to the extraordinary efforts made by the following individuals of the MTSC Data Committee, who compiled the data, wrote and edited the Report:

- Gregory J. Stone, Maine Turnpike Authority  
Chairman of the MTSC Data Committee
- Carl Hallman, Maine Department of Public Safety, Bureau of Highway Safety
- Michelle Ward, Maine Department of Public Safety, Bureau of Highway Safety
- Duane Brunell, Maine Department of Transportation, Safety Office

Special thanks also goes to the Maine Department of Public Safety, Bureau of Highway Safety, for providing the funding needed to publish this document.

The MTSC is a non-profit organization consisting of federal and state agencies, private organizations and individuals involved in transportation safety in Maine. Our Mission is "To promote safe transportation in Maine". We are committed to working collaboratively with our member agencies and others to improve safety for all Maine travelers.

If you have questions or would like additional copies of the report, please feel free to contact the MTSC at its web site, [www.themtsc.org](http://www.themtsc.org).

Katharyn Zwicker  
Chair, Maine Transportation Safety Coalition





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# Glossary of Terms

## Crash Injury Levels:

Crash injuries are classified **K, A, B, C or PDO** as defined below, based on the injury severity observed by the responding Police Agency.

**(K) FATAL INJURY OR FATALITY** - any injury that results in death within 30 days of a crash.

**(A) INCAPACITATING INJURY** - any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities the person would be capable of performing before the injury occurred.

**(B) NON-INCAPACITATING INJURY** - any injury, other than fatal injury or an incapacitating injury, which is evident to observers at the scene of a crash in which the injury occurred.

**(C) POSSIBLE INJURY** - any injury reported or claimed which is not a fatal, incapacitating injury or non-incapacitating injury.

**(PDO) PROPERTY DAMAGE ONLY** - Damage is harm to property that reduces the monetary value of that property.

## Additional Definitions

**5YAA** - the five year annual average crash or fatality experience (2005 through 2009)

**FARS** - the Fatality Analysis Reporting System (FARS) contains data derived from nation-wide fatal traffic crashes. FARS data includes the death of a person (occupant of a vehicle or a non-motorist) within 30 days of the crash.

**FHWA** - Federal Highway Administration

**HMVM** - Hundred Million Vehicle Miles traveled

**MATURE DRIVERS** - Drivers from 65 years old and up.

**NHTSA** - National Highway Traffic Safety Administration

**TEEN DRIVERS** - Drivers between the ages of 16 and 18.

**VMT** - Vehicle miles traveled

**YOUNG DRIVERS** - Drivers between the ages of 16 and 24.



# Introduction and Overview



**The Maine Transportation Safety Coalition (MTSC)** is an independent, non-profit organization created in 1997. The mission of the MTSC is to promote safe transportation in Maine. In carrying out its mission, the MTSC supports a variety of activities using education, engineering, enforcement and emergency services strategies. Go to MTSC's website at [www.themtsc.org](http://www.themtsc.org) for more information.

This publication updates a multi-agency effort that gathers transportation safety data and compiles it into a report to identify the priority challenges Maine faces today. Crash data (unless otherwise noted) is obtained through Fatal Analysis Reporting System (FARS) or MaineDOT. This data is obtained through crash reports submitted statewide by law enforcement agencies. Data sources include the following:

- Federal Highway Administration
- Maine Department of Transportation
- Maine Bureau of Highway Safety
- Maine State Police/Commercial Vehicle Division
- Maine Department of Health and Human Services/Center for Disease Control
- Maine Bureau of Motor Vehicles
- Maine Department of Inland Fisheries and Wildlife
- National Highway Traffic Safety Administration
- Fatal Accident Reporting System (FARS)/ National Center for Statistics and Analysis

Data included in this publication is developed from police reported crashes. The topics covered reflect many key safety issues in Maine. Maine has updated its Strategic Highway Safety Plan which covers fourteen focus areas, all of which are covered in this report.



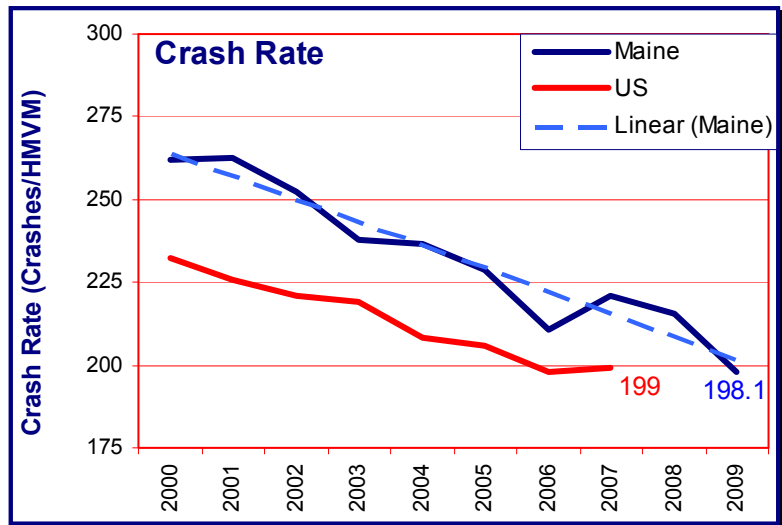




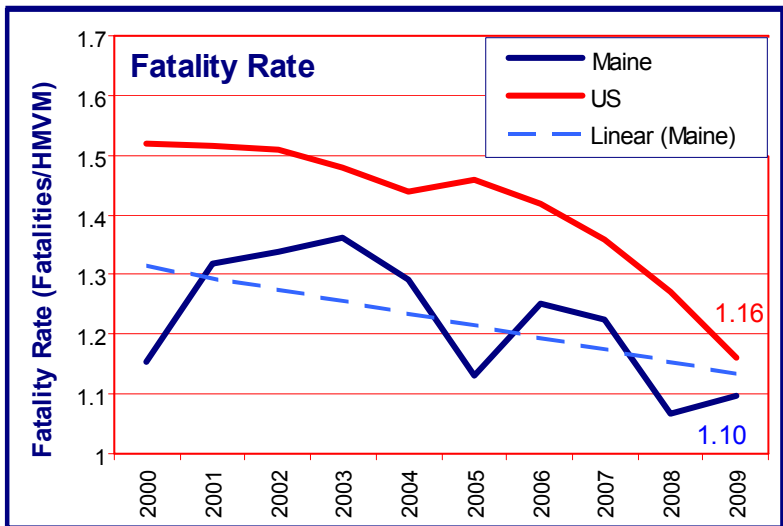
# Introduction

Maine is a rural state and our highways are the lifeblood of our economic and personal lives. The impact of road crashes in Maine is very significant.

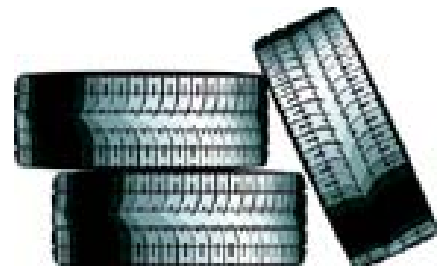
In 2009, there were about 30,000 crashes reported on Maine’s public roads. That’s almost 100 a day! All vehicle crashes in 2009 resulted in 159 fatalities and about 11,000 injuries and an estimated economic impact of \$1.0 billion. The crash numbers are substantial but the personal impact felt by the family and friends of those involved, injured or killed is immeasurable and long lasting.



Highway crashes and fatalities have decreased both in the state and nationwide during recent years. Some of this improvement may be the result of ongoing safety efforts and increased driver awareness and much may be a result of the impact on travel from the recent economic downturn. Crashes and fatalities in most of the following individual topics similarly declined in recent years. Unchanged or increasing trends noted in any of the following areas may be an indication of additional safety concern.

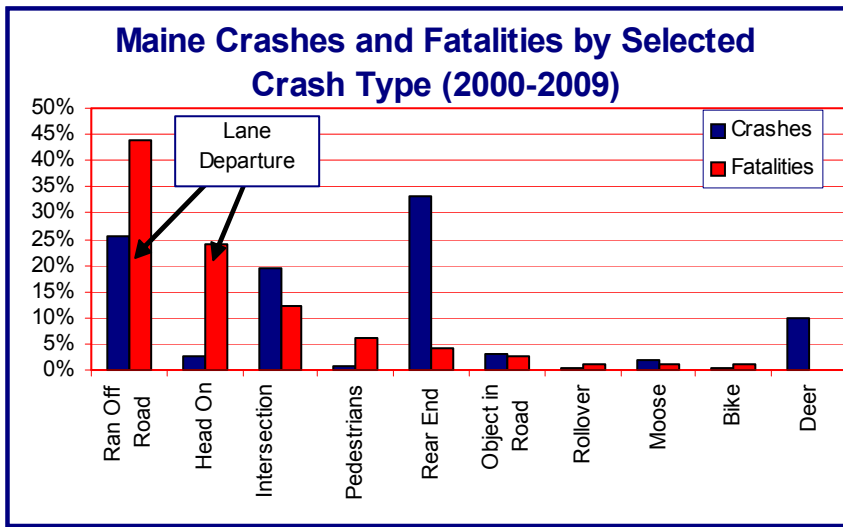


Maine’s crash rate is nearly the national average, while its traffic fatality rate is better than the national average (see Crash Rate and Fatality Rate charts).



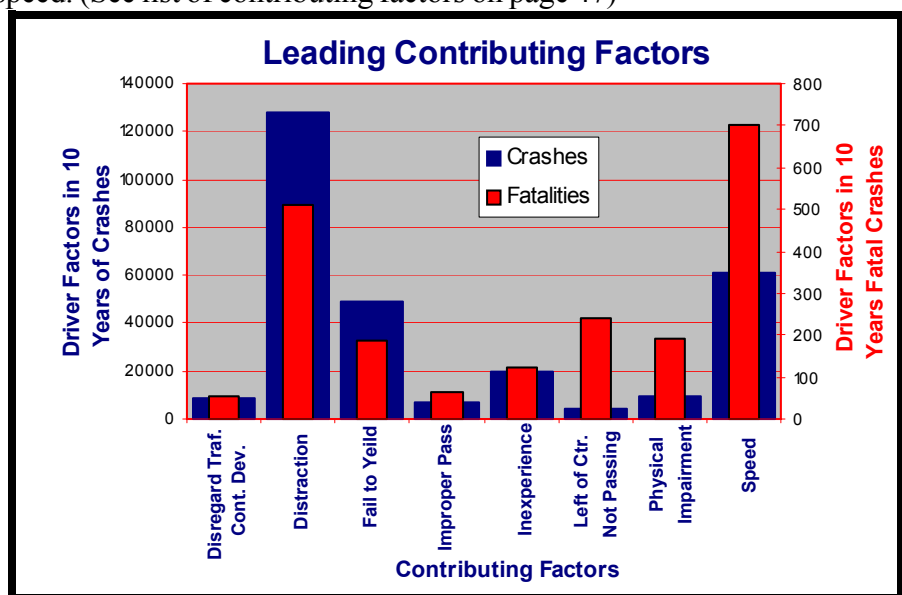


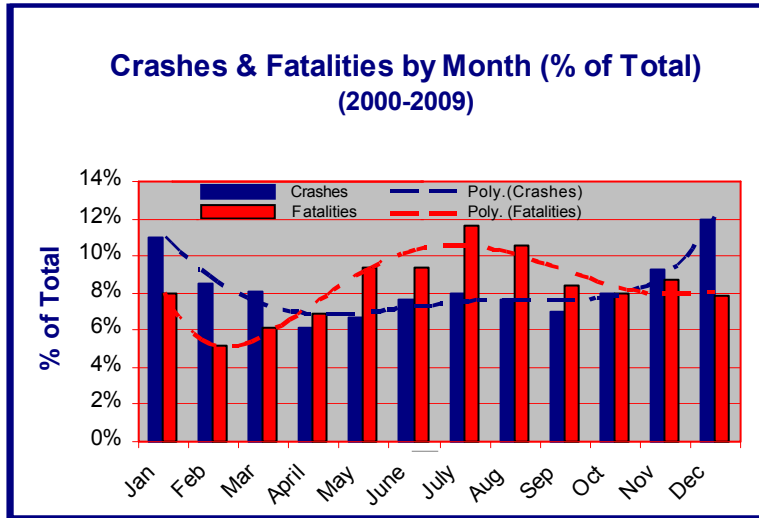
The common types of crashes that occur in Maine are shown in the chart below. Maine's most common crash type is Rear End. Maine's deadliest crash type is Run Off Road. The most severe crash types can be identified by comparing how much higher the red (fatality) bar is than the blue (crash) bar on a relative basis.



Based on the crash types illustrated to the left, Pedestrian and Head-on crashes are most likely to have severe outcomes. Lane Departure crashes are largely made up of Run Off Road and Head-On crashes, the two crash types that account for the most fatalities.

The underlying cause of most vehicle crashes involves contributing factors of the driver. Police crash reports can capture two such contributing factors for each involved vehicle unit. The following chart shows the leading reported factors. Distraction is the most frequent crash factor (blue). Speed leads to the most fatalities (red). When the red bar height is higher than the blue, it reflects a crash that will likely be more serious in nature. Examples of those severe contributing factors are improper passing, left of center/not passing, physical impairment and speed. (See list of contributing factors on page 47)





The seasonality of crashes and fatalities in Maine differ (shown above). Crashes (blue) are most common during the months of December and January. Fatalities (red) are most frequent during the months of May through August.





# Summary

Crash trends of strategic interest are summarized below with the latest 2009 results shown. All crash types are important and strategic efforts in any focused safety area has merit. Maine’s Strategic Highway Safety Plan (SHSP) has identified the priority focus areas below.

The table below shows the fourteen areas included in the SHSP, reported on the most recent 5 year annual average (5YAA). The first data column shows the average number of annual crashes in the most recent 5 year period. Many safety topics are interrelated. (Using Lane Departure as an example; Lane Departure crash factors possibly involve one or more of the next nine focus areas). The next column is the average annual fatalities. The last column is an indicator of average crash severity.

The first ‘ALL CRASHES’ row serves as a benchmark to compare the relative performance of individual categories. For severity comparison, the ‘ALL CRASHES’ result of 5.4 is the average, and many focus area categories have noticeably higher rates.

<b>LEAD FOCUS AREAS</b>	<b>5 Year Average Annual Crashes (05-09)</b>	<b>5 Year Average Annual Fatalities (05-09)</b>	<b>Severity Comparison Fatalities/1000 Crashes</b>
<i><b>ALL CRASHES</b></i>	<i><b>31,784</b></i>	<i><b>170.8</b></i>	<i><b>5.4</b></i>
<b>Lane Departure</b>	<b>10,462</b>	<b>125</b>	<b>11.9</b>
<b>Speed</b>	<b>6,091</b>	<b>71.6</b>	<b>11.8</b>
<b>Unbelted</b>	<b>N/A</b>	<b>60</b>	<b>N/A</b>
<b>16-24 Year Old</b>	<b>11,717</b>	<b>55.6</b>	<b>4.7</b>
<b>16-18 Year Old</b>	<b>4,284</b>	<b>19.2</b>	<b>4.5</b>
<b>Impaired Driving (Alcohol)</b>	<b>1,619</b>	<b>47.8</b>	<b>29.5</b>
<b>Distracted Driving</b>	<b>11,817</b>	<b>42.2</b>	<b>3.6</b>
<b>Mature Drivers (65+ years old)</b>	<b>4,695</b>	<b>41.4</b>	<b>8.8</b>
<b>Motorcycles</b>	<b>592</b>	<b>20.6</b>	<b>34.8</b>
<b>OTHER STRATEGIC AREAS</b>			
<b>Winter</b>	<b>7,054</b>	<b>18.6</b>	<b>2.6</b>
<b>Intersections</b>	<b>9,168</b>	<b>20</b>	<b>2.2</b>
<b>Large Trucks (5 axle +)</b>	<b>646</b>	<b>12.6</b>	<b>19.5</b>
<b>Pedestrians</b>	<b>257</b>	<b>11.8</b>	<b>45.9</b>
<b>Bicycles</b>	<b>192</b>	<b>2.4</b>	<b>12.5</b>
<b>Large Animal (Moose)</b>	<b>587</b>	<b>1.8</b>	<b>3.1</b>
<b>Operating After Suspension</b>	<b>669</b>	<b>10.4</b>	<b>18.8</b>



Maine’s overall safety goal is to achieve a fatality rate of less than 1.0 fatalities/hundred million vehicle miles traveled by 2014. The following sections cover various focus areas. Improvement can be achieved through a coordinated plan that includes Enforcement, Education, Engineering, and Emergency Medical Service response.

The Data Committee of the Maine Transportation Safety Coalition has compiled this report to help define the traffic safety issues that Maine faces. Our hope is that this report will serve as a comprehensive source for information on traffic safety.

This publication will cover all the above areas plus a few additional. An appendix is included to show other data displays that may be of interest.



## Younger Drivers

# Chapter 1



The population of younger drivers (16-24 year olds) in Maine is relatively small. This group represents only 13% of licensed Maine drivers, yet these drivers are involved in more than 36% of all crashes. In addition to this increased likelihood of being involved in a crash, they are also more likely to be involved in severe crashes; those involving personal injury or death. The injury rate for younger drivers is 3 times higher than that for drivers older than 24. There is a direct relationship between the age of the driver and the risk of a crash or injury.

### Statewide

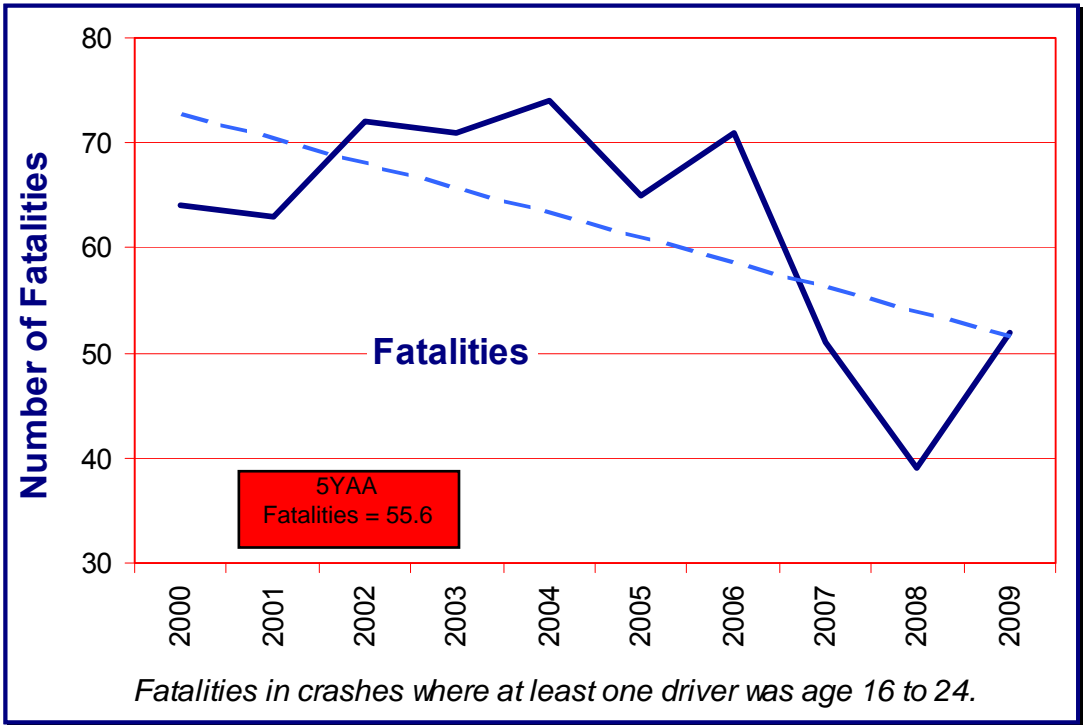
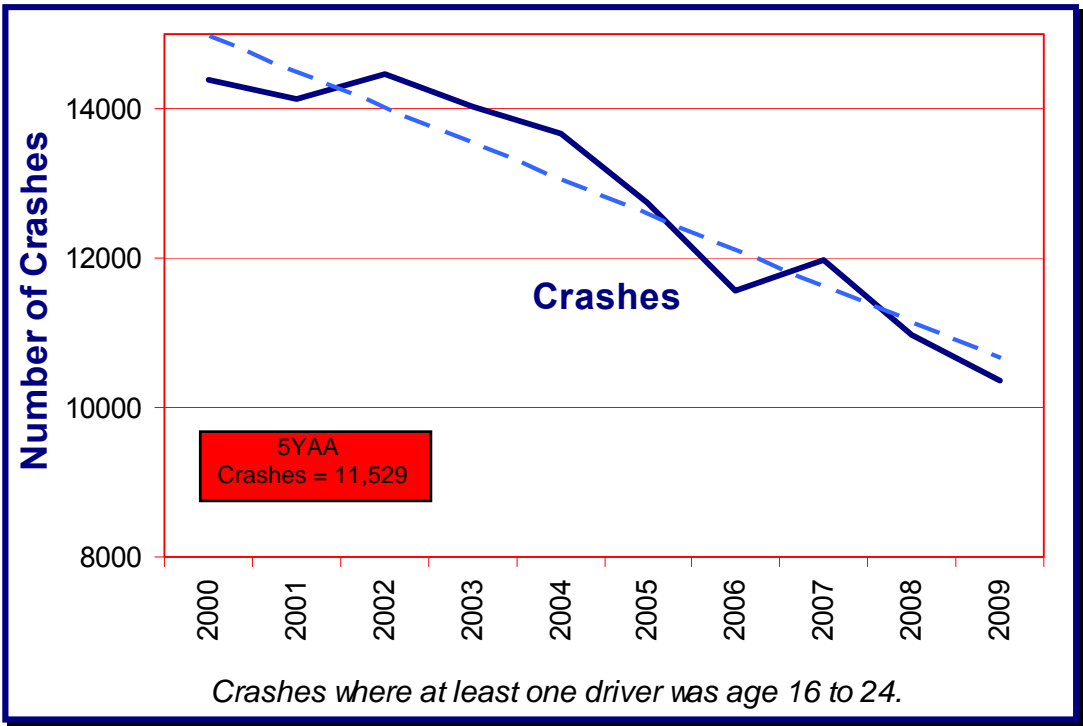
- Teen drivers aged 16-18 represent less than 3% of the licensed drivers in Maine, but account for approximately 12% of those with serious crash related injuries.
- 16 year old drivers are eight times more likely to be injured in a motor vehicle crash than drivers 25 years or older. 17 year olds are five times more likely.
- Motor vehicle crashes remain the leading cause of death for children and youth, aged 1-24 in Maine.
- Younger drivers are more likely to be involved in crashes directly related to risk taking behaviors, such as speeding and alcohol use. Teen fatality rates are highest (on a fatality per estimated total vehicle miles traveled basis) during the hours of 10PM to 5AM.
- Younger drivers are more likely to be involved in crashes resulting from distracted driving.

### Maine's Graduated License Program

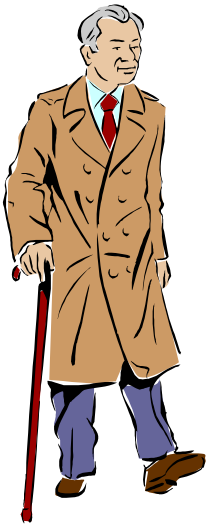
In 2003 the Maine Legislature passed a bill establishing a 3-step graduated license system for new drivers under the age of 21. This bill was designed to address the safety of the youngest drivers and intended to allow new drivers to gain valuable driving experience under lower risk conditions.

*For more details on Maine's Graduated License Program, please see section one in the appendix.*



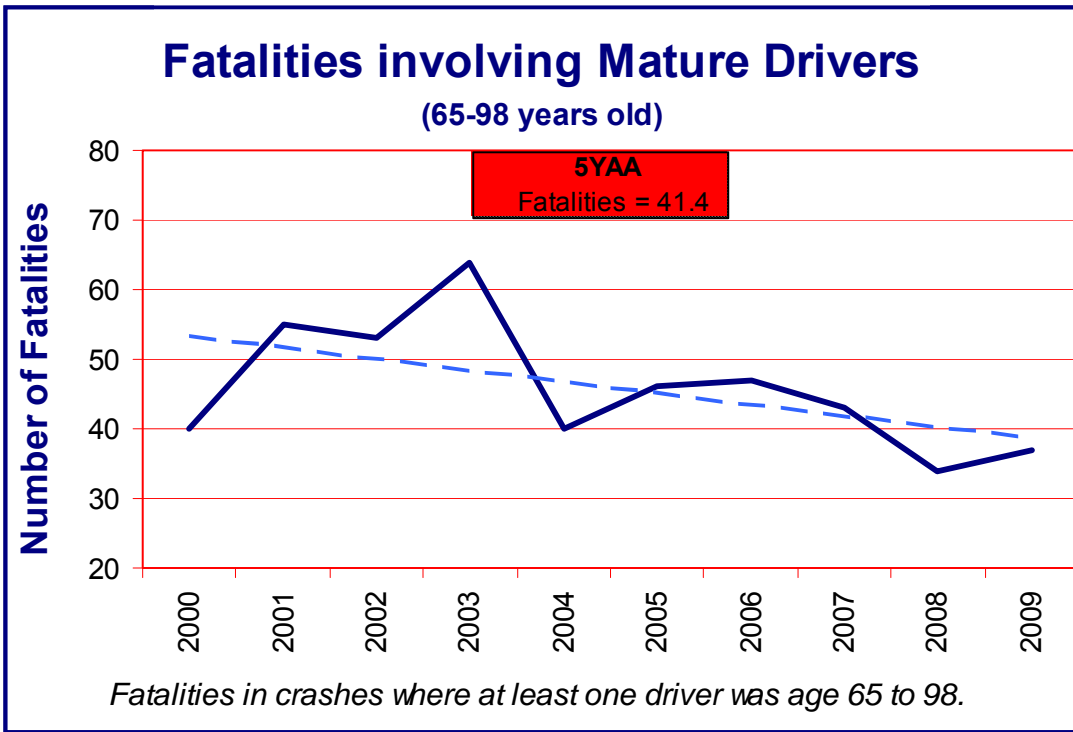
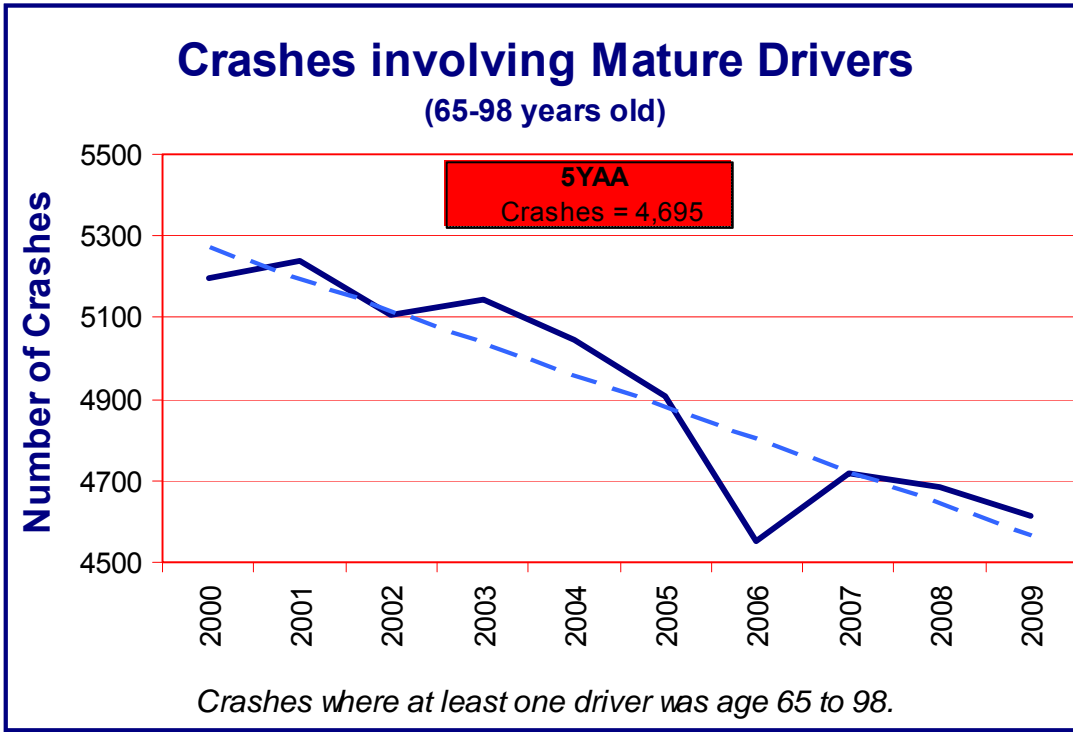


## Chapter 2



Maine has the highest median age (40.7 years) in the United States (35.5 nationally). For the purposes of this report Mature Drivers are classified as drivers 65 years of age and older. The driving population of Mainers over the age of 65 has grown steadily over the past decade, climbing nearly 24% between 2000 and 2009. There are currently over 175,000 licensed Maine drivers over the age of 65.

- Physical limitations such as decreases in flexibility, reaction time and deterioration of eyesight start to play a greater role in crashes. Physical frailty makes mature drivers more susceptible to serious injury and slower to recover from their injuries if involved in a crash. Additionally, mature drivers are more likely to be prescribed a variety of medications, some of which may impact their ability to operate a motor vehicle.
- Although the number of mature drivers has grown over the past ten years, the number of drivers involved in fatal crashes has remained stable since 1994. During the past 5 years mature drivers who died in crashes represent 16% of all fatalities. Total fatalities of all occupants involved in mature driver related crashes is 22% of all crash fatalities.
- Mature drivers are less likely to be involved in speed or alcohol related crashes but more likely to be involved in intersection crashes, failing to keep in the proper lane, crashes related to distractions, failing to yield the right of way and disregarding traffic control devices, traffic signs and safety zone laws.
- Drivers in the mature age group tend to drive fewer miles than other age groups.



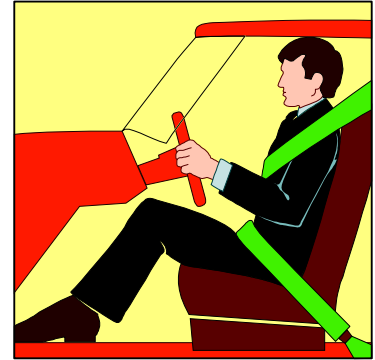
Crash data that is coded as 'age 99' is often a miscellaneous coding, so age data up to 98 is only evaluated.



# Safety Belt Use

## Chapter 3

Maine has made great progress in the area of safety-belt usage over the past eight years. In 2002, safety-belt usage in Maine was the third lowest in the United States, with only 59% of Mainers buckling up compared to 79% of Americans. In 2009, this percentage improved to nearly 83%, almost on par with the national average of 84%.



### Statewide

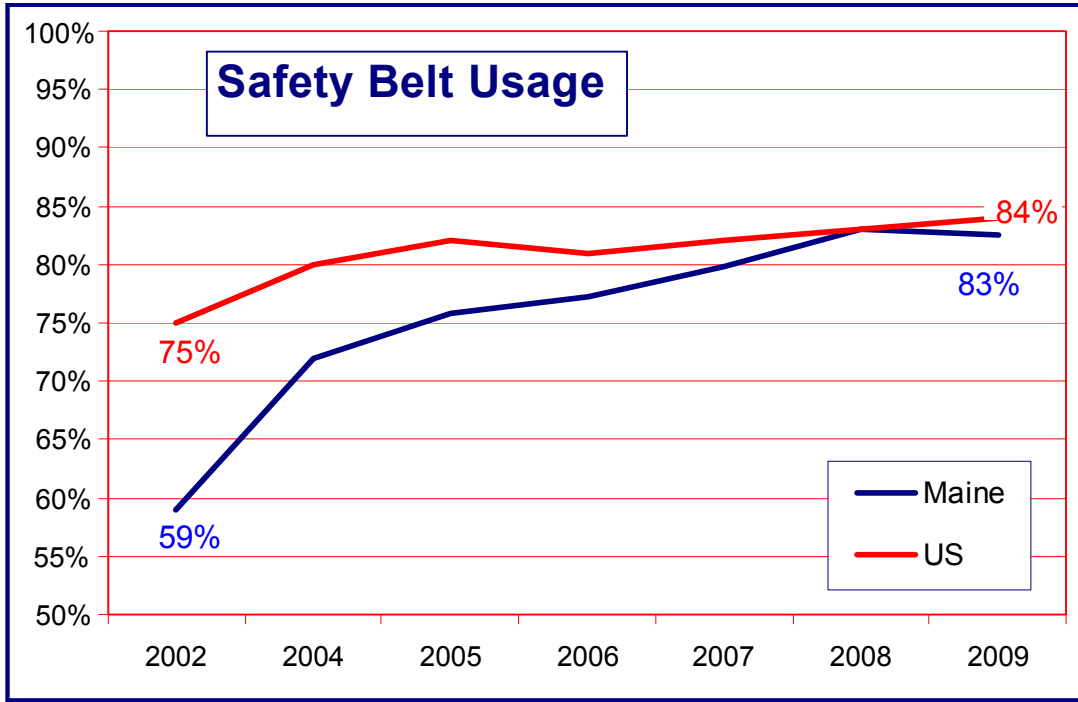
Safety-belt usage data is gathered using two methodologies:

1. **Police Crash Reports.** These reports are not considered reliable because some unbelted occupants might indicate “yes” when asked by the police if they were wearing a safety-belt prior to the crash. Police Reports involving fatalities are more reliable. Data from the FARS (Fatal Analysis Reporting System), which is comprised of Maine data from police fatal crash reports, places safety-belt usage at approximately 60%. Because unbelted occupants have a significantly higher chance of being killed in a crash, this number is not a good estimate for overall safety-belt usage.
2. **Observational Surveys.** The Maine Bureau of Highway Safety conducts periodic observational surveys of safety-belt usage among vehicle occupants in Maine. In 1997 and 2002 this survey showed safety-belt usage to be 59%. In 2009 this survey showed usage to have increased to nearly 83%. This type of study is the best estimate of overall safety belt usage.

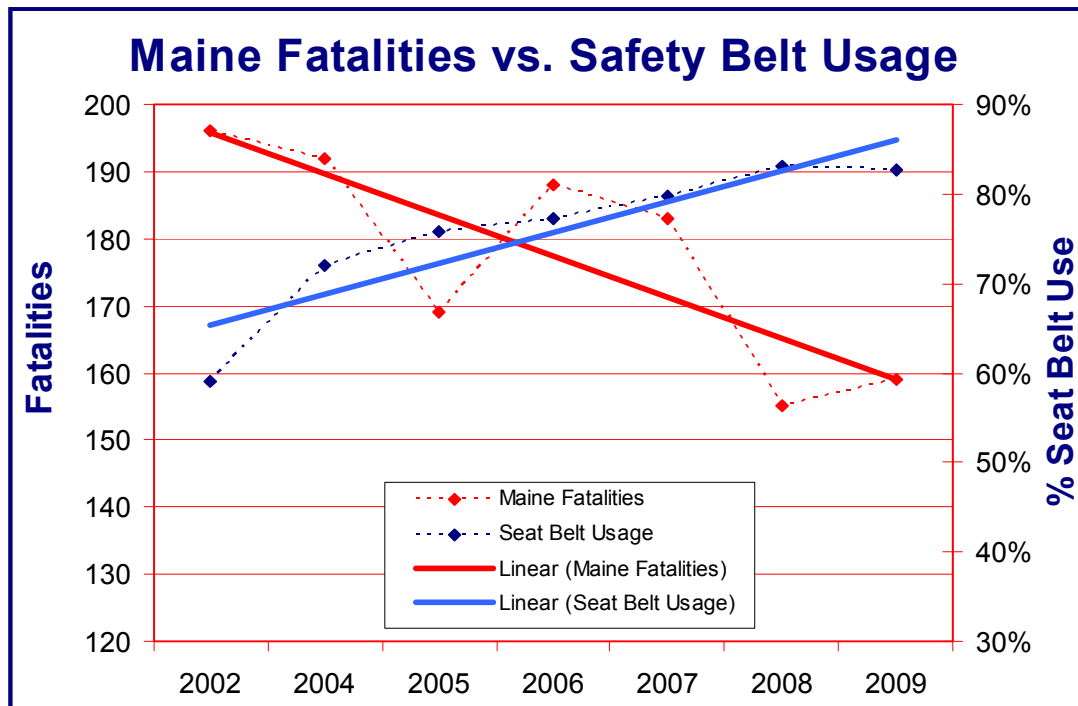
In 2007 Maine law changed failure to use safety belts from a secondary offense to a primary offense. This means that a law-enforcement officer may stop a motor vehicle if the driver or any occupant is observed not wearing a safety-belt, without the need for another traffic violation to have occurred.

### Comparison with National Trends

- The national average of seat belt usage is 84%.
- States that have primary seat belt laws have an average usage rate of 88%.
- States that have secondary laws have an average usage rate of 77%.
- Pickup trucks have the lowest seat belt usage rates among passenger vehicle types at 74%.
- Occupants of sport utility vehicles have the highest usage rate at 86%.
- Research finds that lap/shoulder seat belts, when properly used, reduce the risk of fatal injury to front-seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%.
- In 2008 alone, seat belts saved an estimated 13,250 lives (Traffic Safety Facts: 2008 Data, NHTSA, DOT HS 811153)



Maine’s safety belt usage rate has steadily increased since 2002. Maine’s current usage rate is now just below the national average.



As Maine’s safety belt usage has increased, crash fatalities have decreased. Increased use of safety belts is one important factor in the state’s improving fatality rate.



## Driver Behaviors

# Chapter 4

The leading causes of crashes are unsafe driver behaviors. At least one unsafe behavior was noted in nearly all the crashes in Maine. Police Reports can identify 22 unsafe behaviors (please see page 47 of the appendix for the list of contributing factors in Maine Police Crash Reports).

This Chapter highlights the four leading unsafe behaviors behind crashes in Maine: Impaired Driving, Speed, Distraction/Inattention and Drowsy Driving.

## Section A: Impaired Driving

Society has become less tolerant of drinking and driving. The decrease in alcohol related fatalities over the past 30 years reflects this changing attitude. Today, there are far fewer crashes and fatalities where drinking and driving were reported than in 1976, when fewer miles were being traveled.

The FARS administered by the National Highway Traffic Safety Administration (NHTSA) indicates that any positive blood alcohol level is considered an alcohol related fatality (for drivers and pedestrians only). There is increased attention to crashes where a driver has a blood alcohol content of .08 or greater (alcohol impaired).

### Statewide

- Maine has come a long way since the late 1970's when Maine's alcohol related fatalities were 60% of the total. In the last several decades, alcohol related crash fatalities have greatly decreased to a level of nearly 28% in 2009.
- In 1980 there were 157 alcohol related crash fatalities. In 2009 that number dropped to 44 fatalities, 113 fewer deaths than in 1980.
- Since 2002, when the percent of alcohol related fatalities was 18.5%, the percentage of alcohol related fatalities has increased to 27.7% in 2009.
- Maine is slightly below the FARS national alcohol related crash rate of 32%.
- In 2009, Maine had 50 alcohol-related fatal crashes. Forty-four of these fatal crashes had a BAC of .08 or higher.
- Impaired driving includes driving while under the influence of drugs which includes illegal drugs, prescription drugs, and drugs available over the counter. Arrests for OUI-drugs are on the rise.



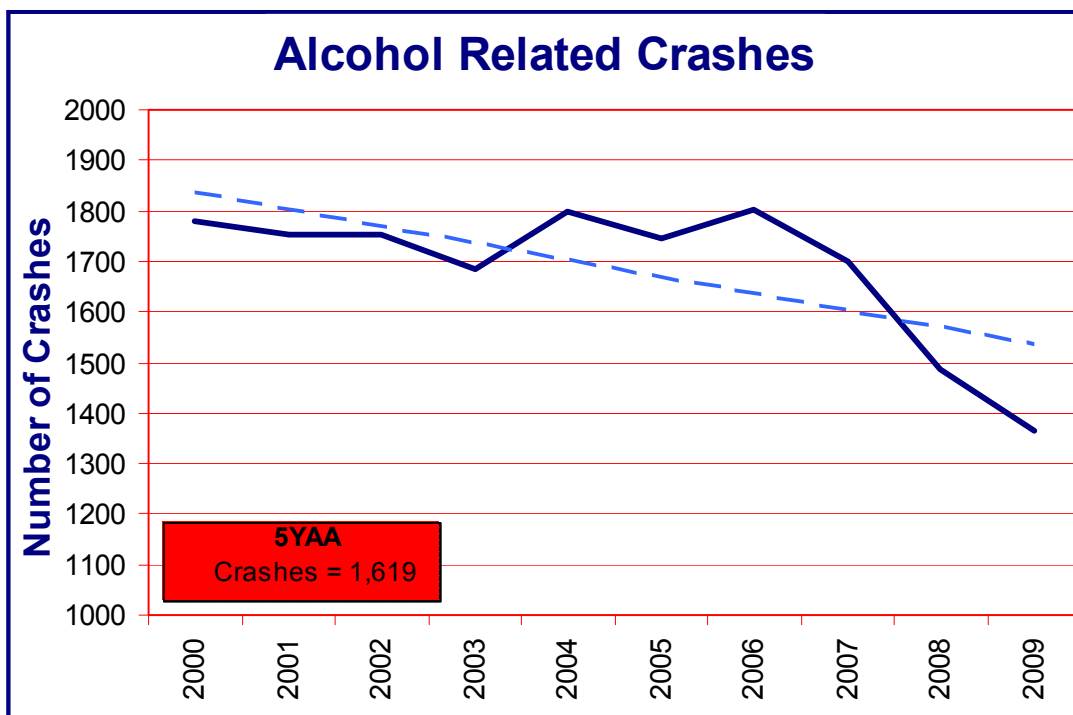
- Enforcement - The number of arrests for operating under the influence (OUI) has fluctuated between 9,000 and 11,000 a year for the last three years. Federal OUI grant programs have been available to law enforcement agencies on a yearly basis. These enforcement programs are designed to specifically arrest violators for operating under the influence of alcohol/drugs.

YEAR	ARRESTS
2007	10,482
2008	9,318
2009	10,569

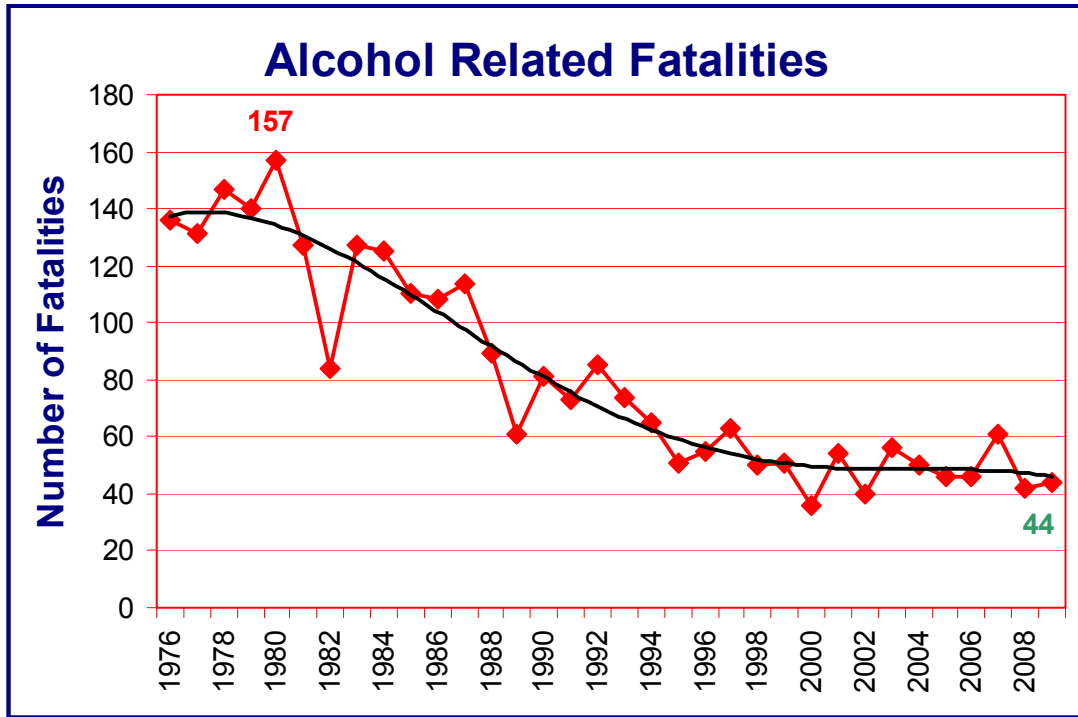
### Comparison with National Trends

A national study conducted by NHTSA in 2008 estimates alcohol-related fatalities are 37% of the total fatalities. This percentage has been relatively stable for the past five years. Alcohol-related crash fatalities predominantly:

- Occurred at night and on weekends
- Involved drivers between the ages of 21-24





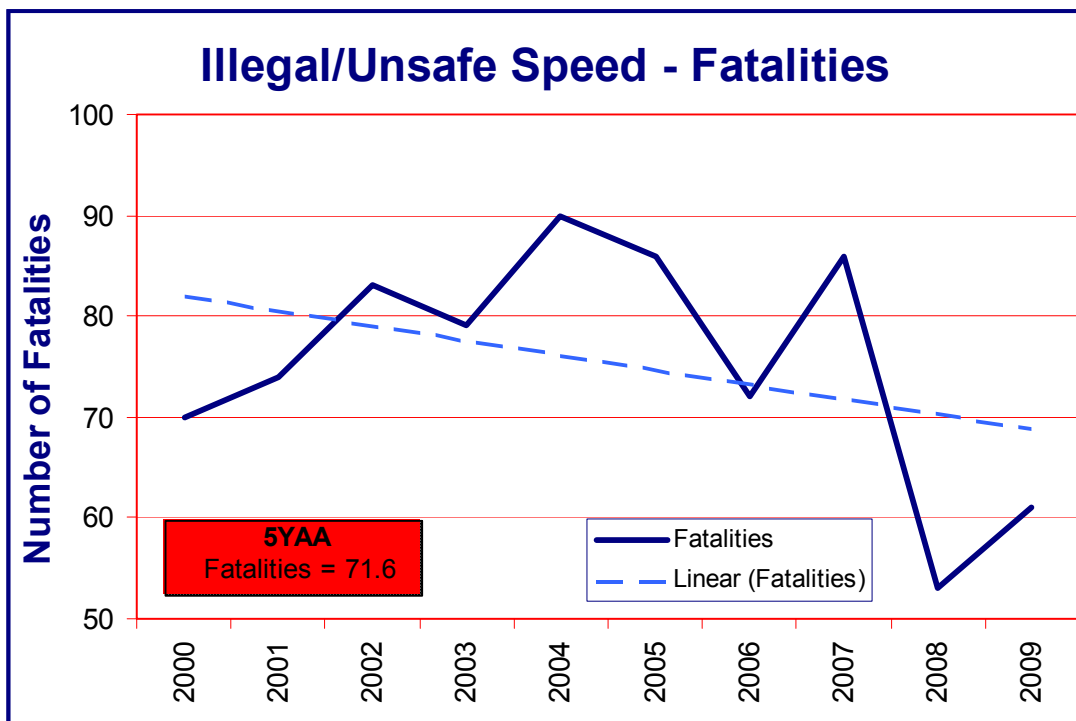
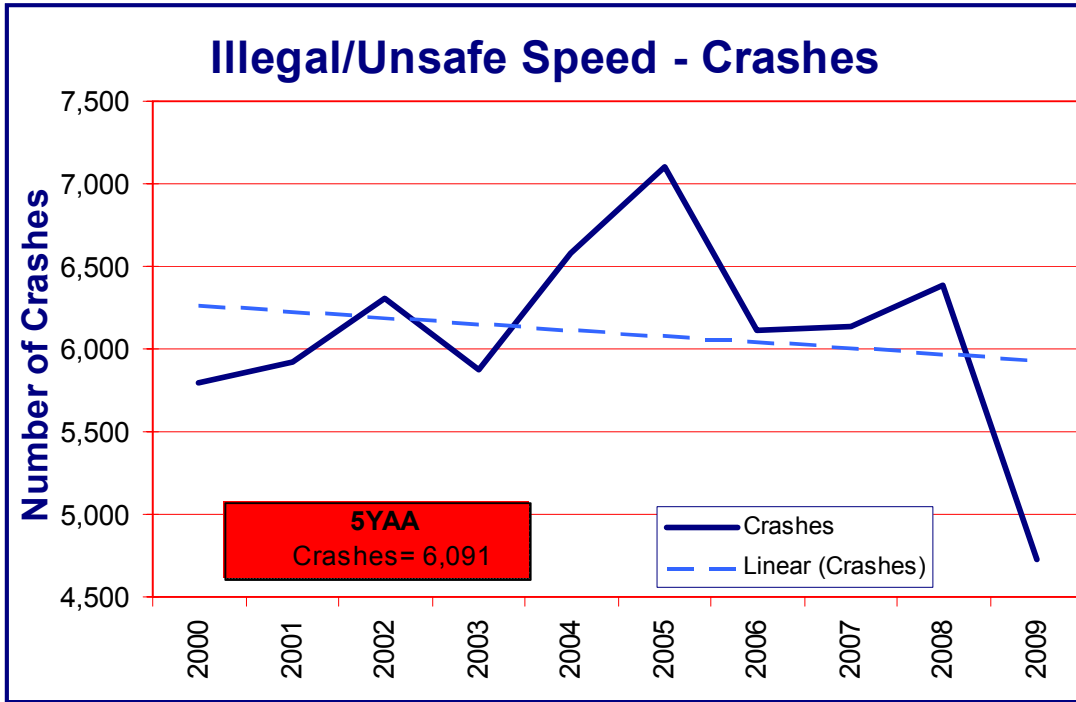


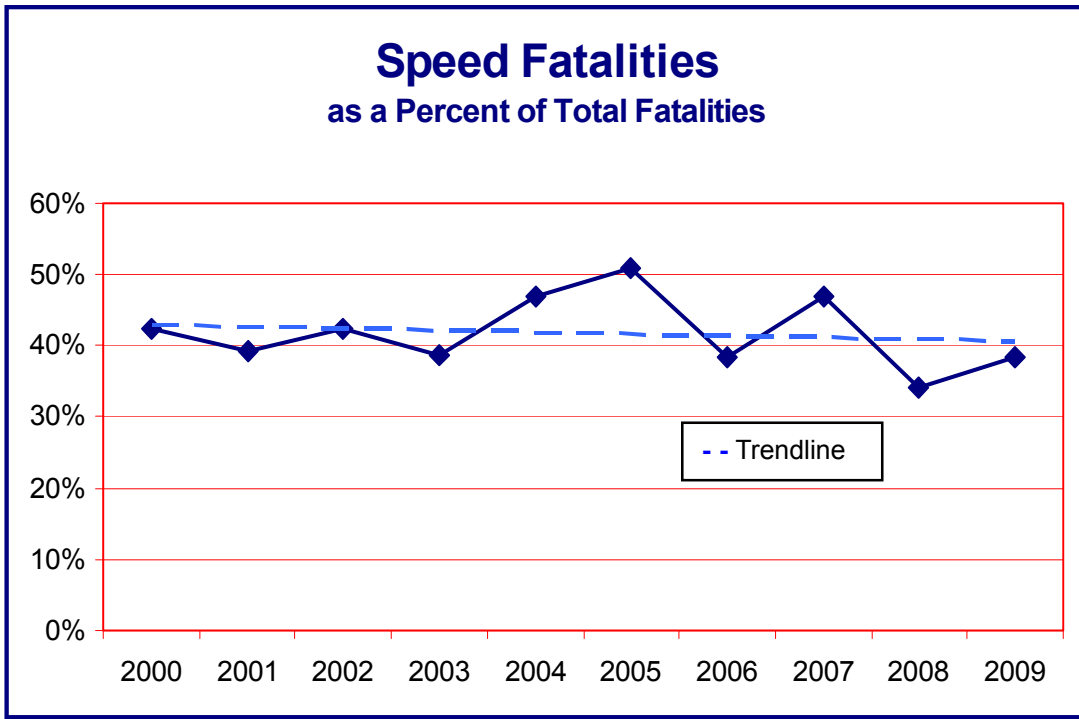
## Section B: Illegal/Unsafe Speed

Although overall crash trends are down, crashes resulting from excessive and unsafe speed have not improved as dramatically. Unsafe speed was cited as a factor in an average of 6,100 crashes per year. Speed-related crashes account for 19% of the total crashes and 42% of total fatalities.

This category includes crashes resulting from speed in excess of posted speed limits or occurring when road or weather conditions dictate a lower, more prudent speed.

- Illegal/unsafe speed is the number one contributing factor in fatal motor vehicle crashes in Maine.
- Over the past five years 358 Mainers lost their lives in crashes related to illegal/unsafe speed.
- Excessive speeds not only increase the chances of being in a crash, but increase the severity of crashes.
- Not adjusting speed for weather-related road conditions is a problem. Annually in Maine unsafe speed is noted in an average of 3,500 crashes that occur on snowy, slushy or icy road surfaces and another 700 occur on wet road surfaces.







## Section C: Inattention/Distracted Driving



Driver inattention and distraction continues to be a growing concern with the proliferation of driver conveniences including personal electronics and communication devices. Distracted driving is more than just texting and talking on a cell phone. Eating, looking at maps, interacting with passengers and applying cosmetics are just some of the activities that take the driver's visual or mental attention away from the road. Driving is a full-time job, and doing so safely requires a person's full attention.

Maine's Distracted Driver law that became effective on September 12, 2009 includes this definition: "Operation of a motor vehicle while distracted" means the operation of a motor vehicle by a person who, while operating the vehicle, is engaged in an activity:

1. That is not necessary to the operation of the vehicle; and
2. That actually impairs, or would reasonably be expected to impair, the ability of the person to safely operate the vehicle.

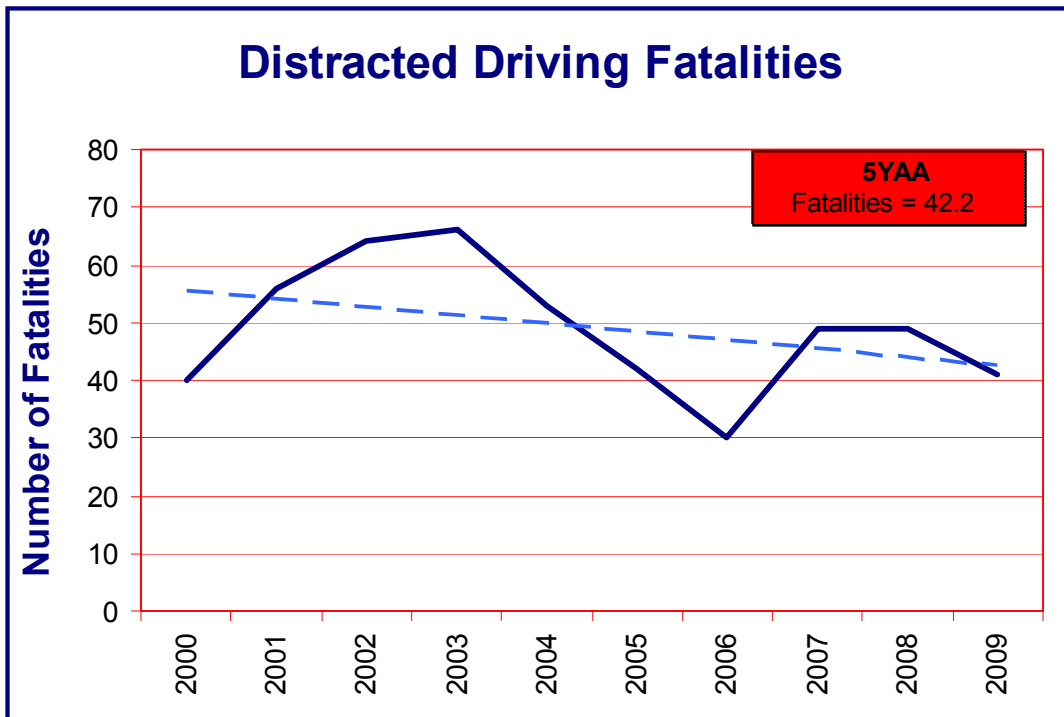
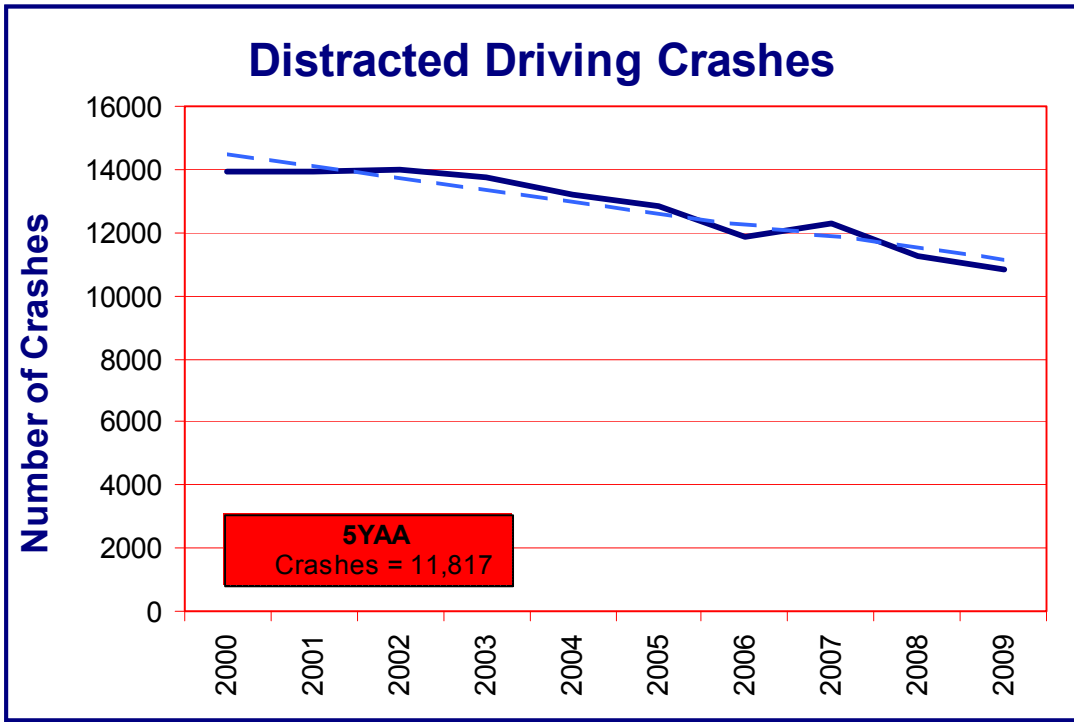
### Statewide

Driving while distracted remains the number one contributing factor in overall Maine police crash reports.

- In 2002 there were 14,000 crashes in Maine attributed to driver inattention or distraction. This number is reported to be under 11,000 crashes in 2009.\*

\*It is very difficult to collect accurate information about driver distraction at crash scenes because it typically relies on an explanation or admission on the part of the driver that they were, for some reason, distracted. The significant decrease in the number of crashes reported to be caused by distraction or inattention may be a product of drivers becoming more hesitant to admit to this behavior, possibly due to recent media attention of the problem, the perception of potential consequences for these behaviors, and a change in what is seen as socially acceptable.







## Section D: Drowsy Driving

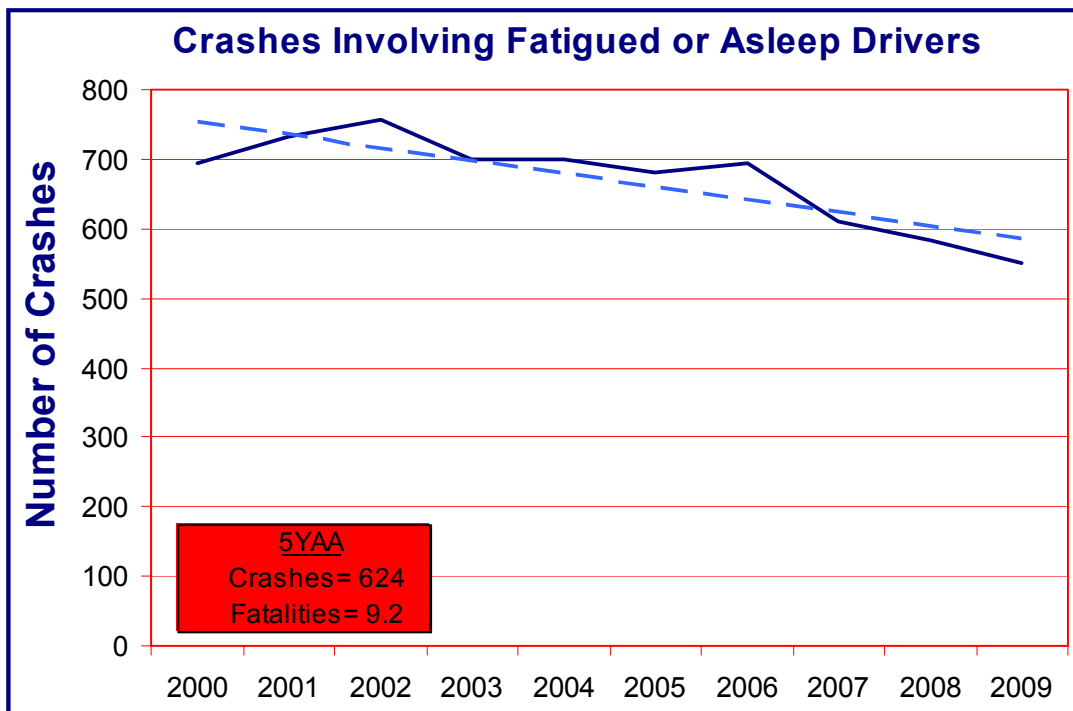
Drivers who are fatigued and fall asleep while driving are a problem in Maine. Fatigue can happen on any road, at any time of the day. A person falling asleep behind the wheel of a car is just as dangerous as a person who drives drunk.

### National Statistics

According to the National Sleep Foundation's (NSF) 2005 Sleep in America poll, 60% of adult drivers – about 168 million people – say they have driven a vehicle while feeling drowsy in the past year, and more than one-third (37% or 103 million people) have actually fallen asleep at the wheel! In fact, of those who nodded off, 13% say they have done so at least once a month.

Sleep related crashes are most common in young people, especially men, adults with children and shift workers. According to the NSF's 2005 poll:

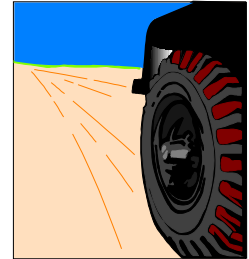
- Adults between 18-29 years of age are much more likely to drive while drowsy compared to other age groups.
- Men are more likely than women to drive while drowsy and are almost twice as likely as women to fall asleep while driving.
- Adults with children in the household are more likely to drive drowsy than those without children.
- Shift workers are more likely than those who work a regular daytime schedule to drive to or from work drowsy at least a few days a month.
- Sleep deprivation increases the risk of a sleep-related crash; the less people sleep, the greater the risk.
- According to a study by the AAA Foundation for Traffic Safety, people who sleep six to seven hours a night are twice as likely to be involved in such a crash as those sleeping eight hours or more, while people sleeping less than five hours increased their risk four to five times.



# Operating After Suspension

## Chapter 5

Driver’s license suspensions are often initiated due to a history of unsafe driving practices. Young drivers are more susceptible to license suspension due to provisions in the state’s graduated driver’s license program. Unfortunately, some drivers with suspended licenses continue to drive despite demonstrating that they cannot drive safely.



Maine recently enacted a law that redefines which drivers are covered by mandatory minimum sentences. Known as “Tina’s Law”, the new statute creates the crime of Aggravated Operating after Habitual Offender Revocation and imposes new penalties.

- For habitual offenders who drive drunk, drive to endanger or commit other serious offenses after having their licenses revoked or suspended, mandatory penalties range from \$500 to \$3,000 and six months to five years in jail.
- The courts can sentence a driver to up to five years and order fines of up to \$5,000 for causing a crash in which another person is injured. A driver causing a fatality could spend ten years in prison and pay up to \$20,000 in fines.

Suspensions can also be initiated due to other violations such as failure to pay child support. This diversity in suspension causes makes it difficult to link suspension types to crash outcomes, but regardless, the number of Maine license suspensions and the related crashes and fatalities are significant.

The data suggests that suspended drivers are more likely to engage in behaviors that result in more serious crashes.

- Since 2003, the percentage of crashes where a driver was suspended averaged 2.1%. During this same period the percentage of fatal crashes where a driver was suspended averaged 7.4%.

### Crashes Involving Driver with Suspended Licenses

Year	ALL Maine Crashes	Suspended Crashes	% of Susp. Crashes	ALL Maine Fatalities	Suspended Fatafs	% of Suspended Fatafs
2003	35,562	798	2.2%	204	9	4.4%
2004	35,151	851	2.4%	192	20	10.4%
2005	34,196	705	2.1%	169	17	10.1%
2006	31,626	675	2.1%	188	12	6.4%
2007	33,077	779	2.4%	183	16	8.7%
2008	31,330	577	1.8%	155	4	2.6%
2009	28,692	607	2.1%	159	14	8.8%
<b>Total</b>	229,634	4,992	2.2%	1,250	92	7.4%

<b>5YAA</b>	<b>668.6</b>	<b>2.1%</b>
-------------	--------------	-------------

<b>12.6</b>	<b>7.4%</b>
-------------	-------------

Maine Licensed Drivers: 1,016,827



# Chapter 6

Lane Departure crashes are the outcomes of what happens when vehicles leave their designated lane and are involved in either a Head-On or Run Off the Road crash. The results are devastating whether the errant vehicle collides head-on with an oncoming vehicle or slams into a fixed object, rolls over or has some other severe impact. Run Off Road is Maine’s most frequent fatal crash type.



- Lane Departure crashes are 33% of Maine’s crash total (5 year annual average).
- An average of 125 fatalities result from Lane Departure crashes, and remains relatively unchanged in the last 10 years. This represents 73% of Maine’s total crash fatalities (about 33% of Lane Departure fatalities were Head-On and 67% were Run Off Road).
- 48% of Lane Departure fatalities were speed related.
- Weather plays a role in Maine’s Lane Departure crashes – 4,600 crashes a year resulting in an average of 14 fatalities occurred on wintry road surfaces; 1,375 crashes resulting in 18 fatalities on wet roads.
- Most fatalities did NOT occur on major or interstate highways. Of Lane Departure fatalities, 57% occurred on these secondary road classes: major collectors (23%), minor collectors (12%) and local roads (22%).
- With 114 fatalities in 2009, this is Maine’s leading fatal crash type (71% of the total).

## Run Off Road

- In 2009 there were 6,600 crashes resulting in 66 fatalities.
- Run Off Road crashes usually occur when a vehicle strikes a fixed object, such as a pole, tree, ditch or ledge.

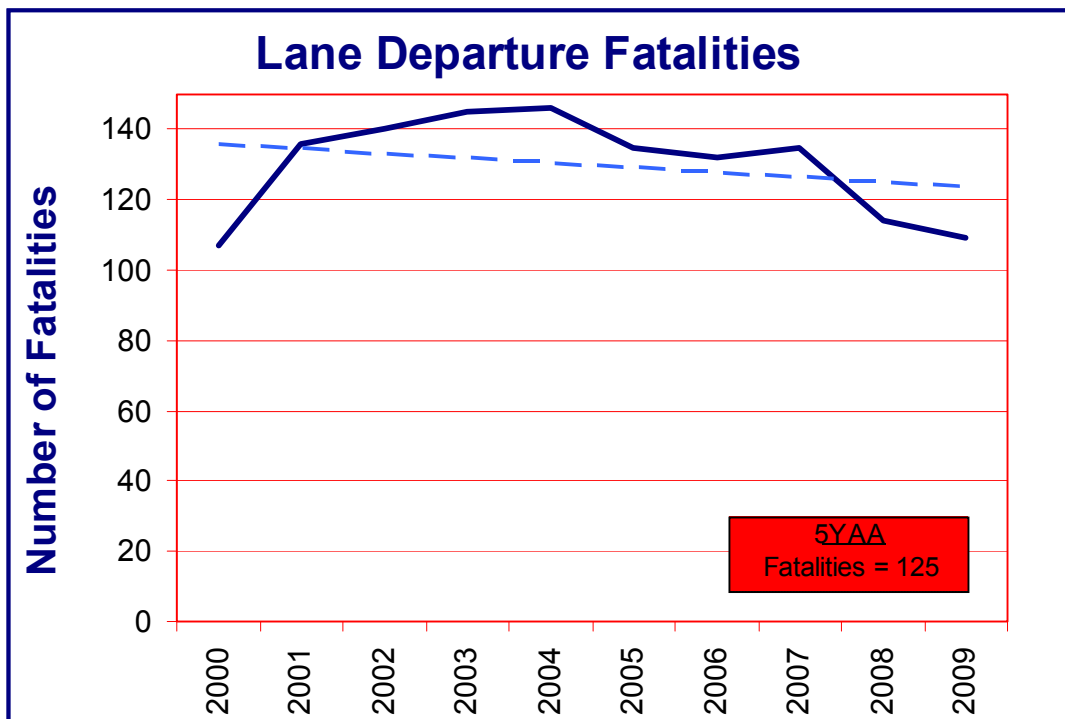
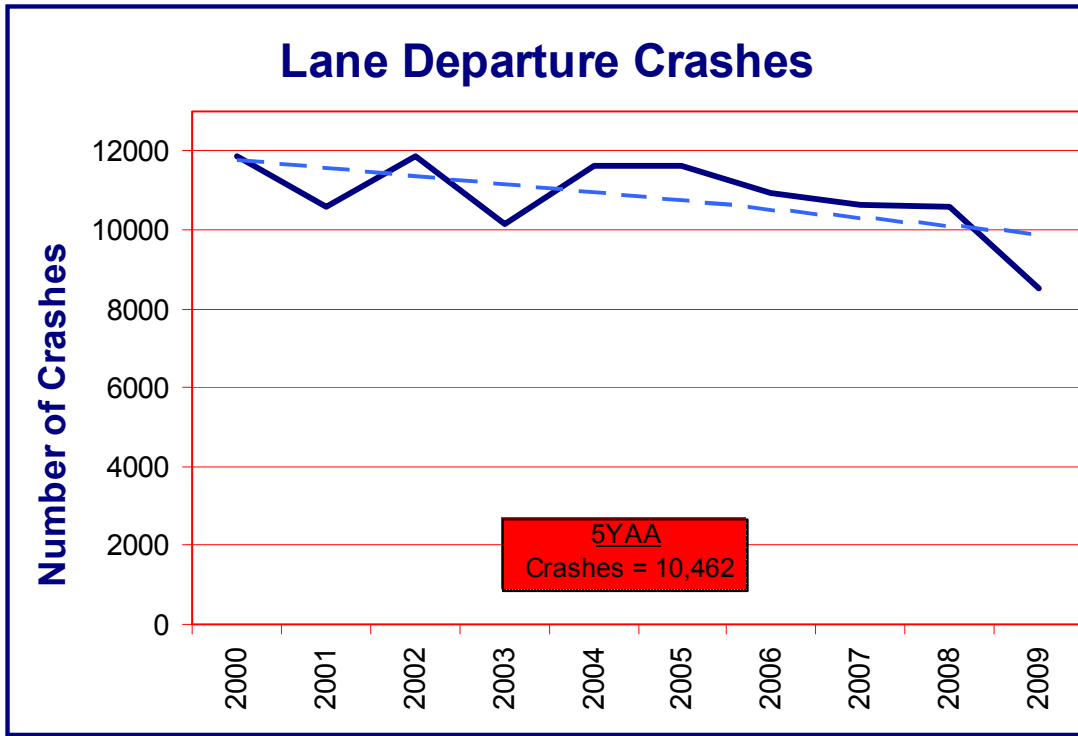
## Head-On

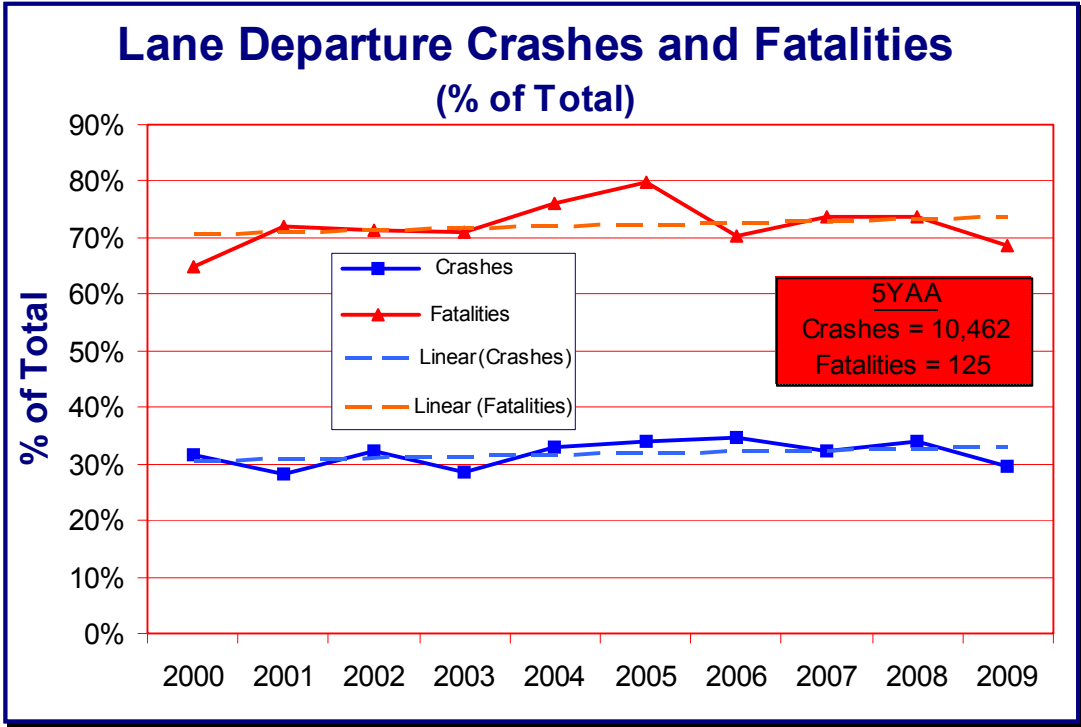
With 832 crashes accounting for 41 fatalities, Head-On Crashes are low frequency, high consequence events. When compared to all Maine’s crashes, which in 2009 averaged one fatality per every 180 crashes, head-on crashes averaged 1 fatality per every 19 crashes, a rate that is nearly 10 times higher than the statewide fatality to crash ratio.

Head-On crashes are the most severe vehicle crash type. Below are the comparative fatality rates for Head-On crashes, Run Off Road crashes and All Crash types:

Fatalities per 1,000 crashes	
ALL Crashes	5.2
Run Off Road	9.0
Head On	45.6







Lane Departure crashes are severe, with about 33% of Maine’s crashes being this type, but these crashes result in 73% of the state’s fatalities.

# Intersections

## Chapter 7

Every year in Maine, thousands of crashes occur at intersections. A number of factors contribute to these crashes, especially at signalized intersections. Disregarding of traffic signals is a major crash cause in Maine. There are many reasons why crashes occur at signalized intersections, including:



- There is a lot of activity. Signalized intersections are heavily traveled locations with slowing, stopping, and turning vehicles. The traffic scene constantly changes.
- Intersection layout and signal timing vary.
- Some drivers make mistakes - others take chances.
- Drivers looking for landmarks or signs lose sight of changes in traffic movement and traffic signals.
- Unsafe behaviors lead to taking chances such as: trying to make up time when running late; being aggressive or upset; or under the influence of alcohol or drugs.

### Statewide

- There were 8,300 crashes at Maine intersections in 2009, resulting in 18 fatalities and 3,500 injuries.
- The annual number of overall intersection crashes has been decreasing.
- The percent of intersection crashes to total crashes has been unchanged for most of the past 10 years.
- Common driver contributing factors over a 5-year period are:
  - Driver Inattention/Distraction – 22,831
  - Failure to Yield Right of Way -12,987
  - Following Too Close – 7,177
  - Illegal Unsafe Speed – 4,279
  - Disregard Traffic Control Device – 3,312
  - Improper Turn – 1,947



Traffic signals provide more defined instructions for vehicle movement, but do not ensure safe passage as the crash numbers below show:

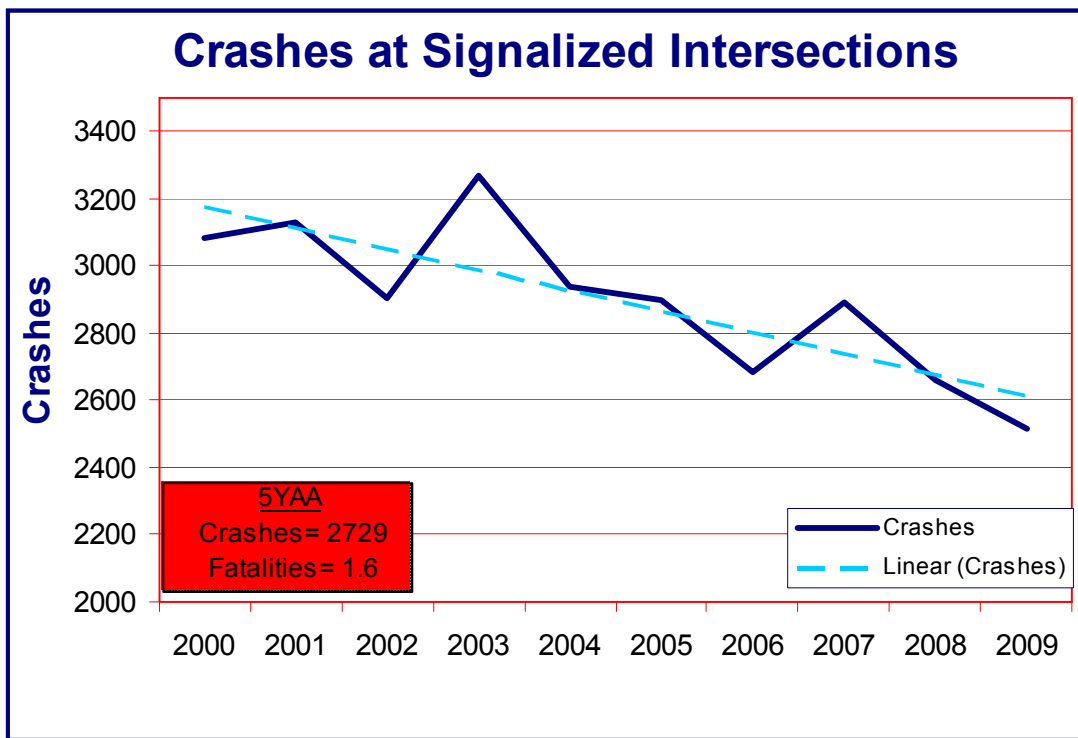
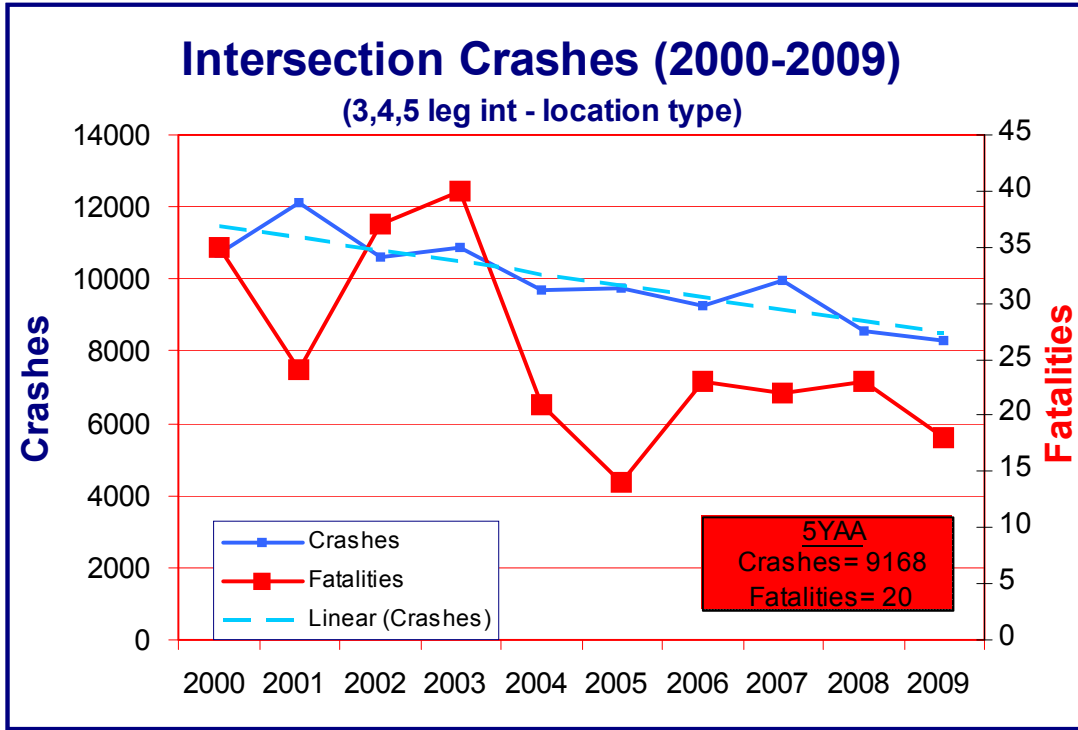
### **Signalized Intersections**

In Maine, there are about 800 traffic signal controlled intersections.

- There were 2,700 crashes at these locations resulting in one fatality and 1,000 injuries in 2009.
- Red light running crashes account for approximately 12% of all crashes occurring at traffic lights.
- There are two common driver errors at Maine traffic lights: disregarding traffic control devices and failing to yield the right of way.

### **Comparison with National Trends**

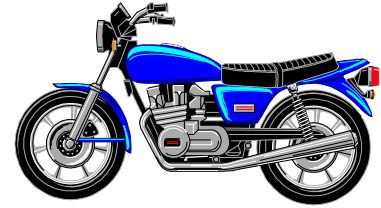
- In 2002, there were more than 1.8 million intersection crashes.
- In 2001, there were about 8,500 intersection related deaths.
- In 2002, there were 219,000 red light running crashes resulting in 1,000 deaths and 181,000 injuries.
- 42% of all pedestrian injuries and 21% of pedestrian fatal injuries occurred at intersections.





# Motorcycles

## Chapter 8



Motorcycle riding in Maine is a seasonal activity. Although the number of fatalities over the years has remained consistent, it is difficult to accurately estimate vehicle miles traveled, and that can be impacted by adverse weather that limits riding opportunities. Maine motorcycle registrations have steadily increased during the past 10 years. The lack of helmet use in fatal crashes remains high.

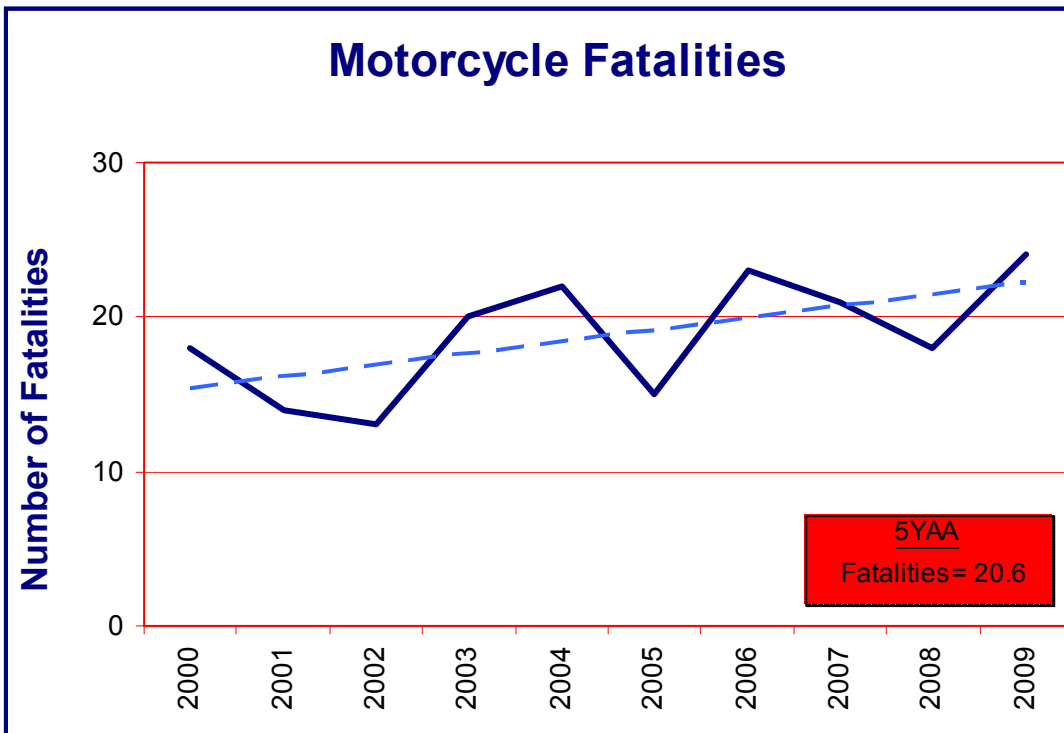
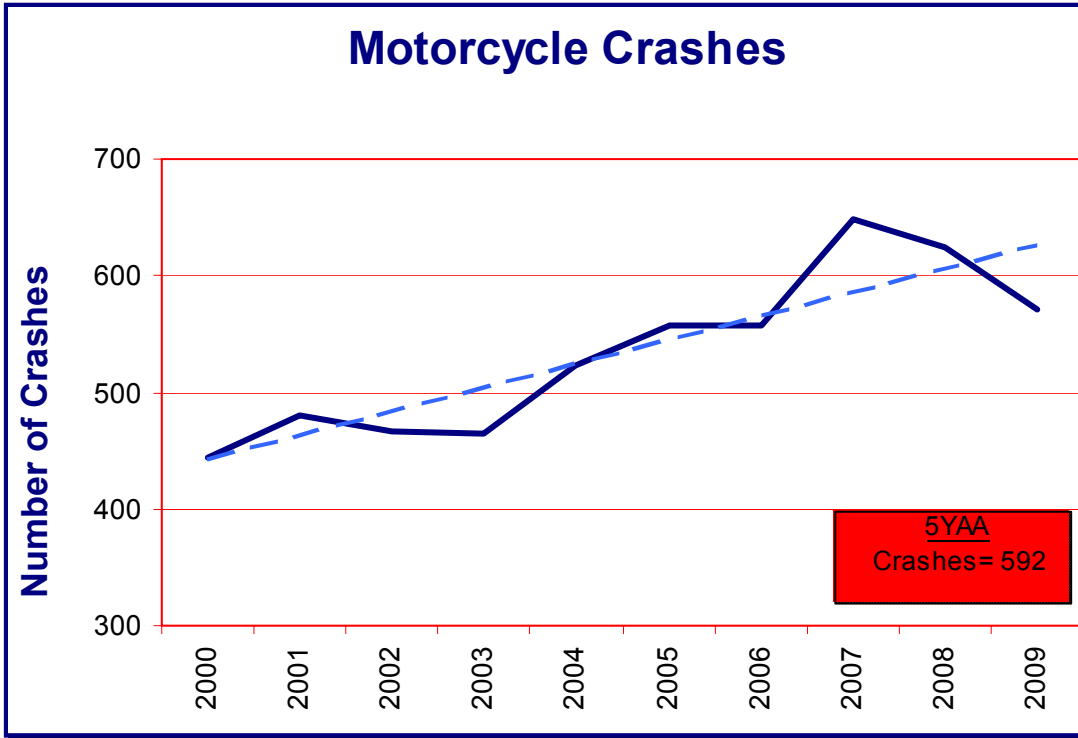
Alcohol use is a factor in fatal motorcycle crashes. Over a 9-year span, 35% of Maine motorcycle drivers involved in fatal crashes used alcohol. An additional area of concern in fatal motorcycle crashes is the number of unlicensed or improperly licensed riders involved in serious and fatal crashes.

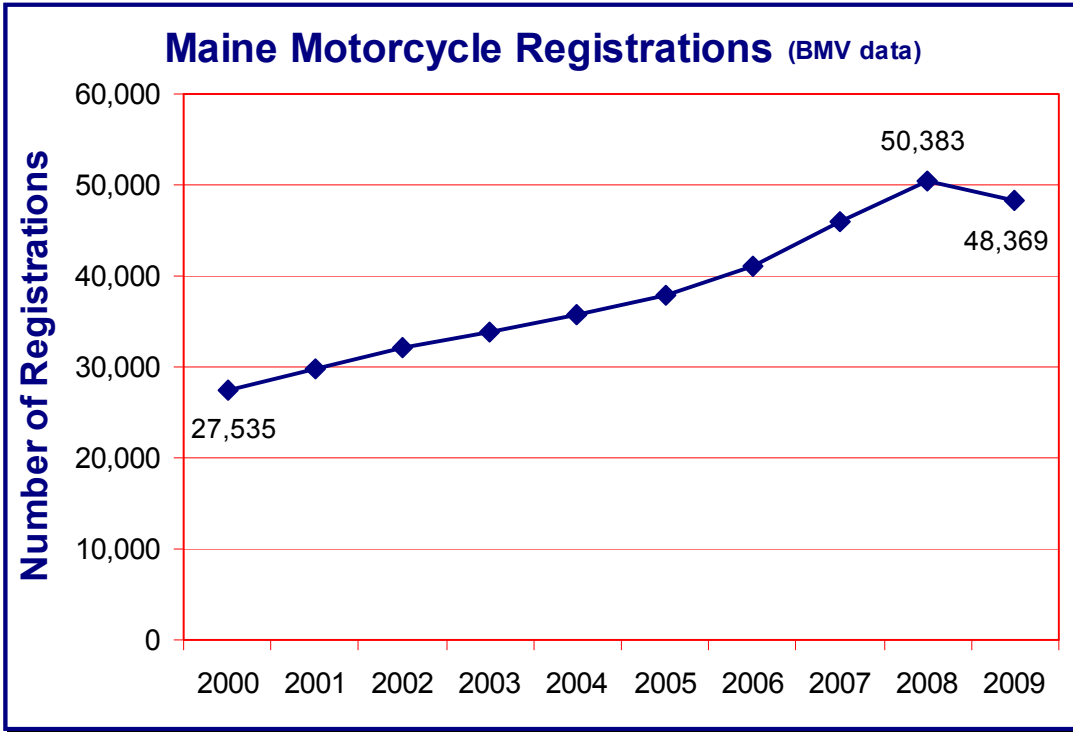
### Statewide

- From 2000 to 2009, males accounted for 93% of all motorcycle fatalities in Maine. This number is slightly higher than the national average of 90% (2005).
- The number of Maine motorcycle fatalities during the past three years was 24 in 2009, 18 in 2008, and 21 in 2007. The 24 fatalities in 2009 was the highest number in 18 years (seven fatalities in 1997 was the lowest).
- 188 people have been killed on motorcycles over the ten-year span since 2000. Of these, 123 people (65%) were not wearing helmets. Maine's helmet law was repealed in 1977.
- In the most recent Maine observational survey, 35.6% of motorcycle riders wore helmets. In a 2009 NHTSA observational study, the average helmet use rate for all states without helmet laws was 55%.
- Helmets are required for drivers in the following circumstances: operating on a permit, for one year following successful completion of a driving test, and any person under 18 riding as a motorcycle passenger.
- The most predominant types of crashes are: run off road, rear-end, head on, and intersection related.
- The number of fatalities has remained relatively stable over the last few years, however the number of crashes and injuries has risen.
- Maine motorcyclists have a higher percentage of Rear End Crashes (24%) when compared to national rates (12%). A NHTSA study in 2006 found that in 68% of rear-end collisions between motorcycles and passenger vehicles, the motorcycle was recorded as striking the other vehicle.

### Comparison with National Trends

- A 2008 NHTSA study found that 24% of fatally injured motorcycle operators were operating their motorcycle with an invalid license.
- NHTSA estimates that helmet use is 37% effective in preventing fatal injuries.





Maine motorcycle registrations have steadily increased during the past 10 years.

## Large Trucks

# Chapter 9

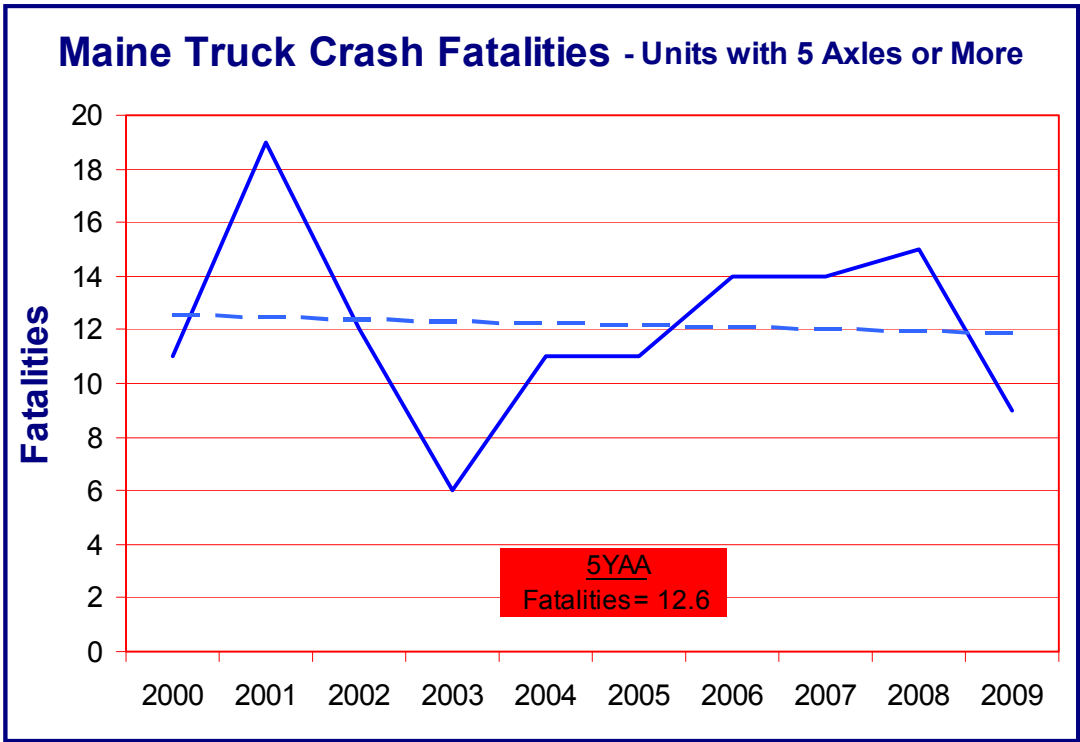
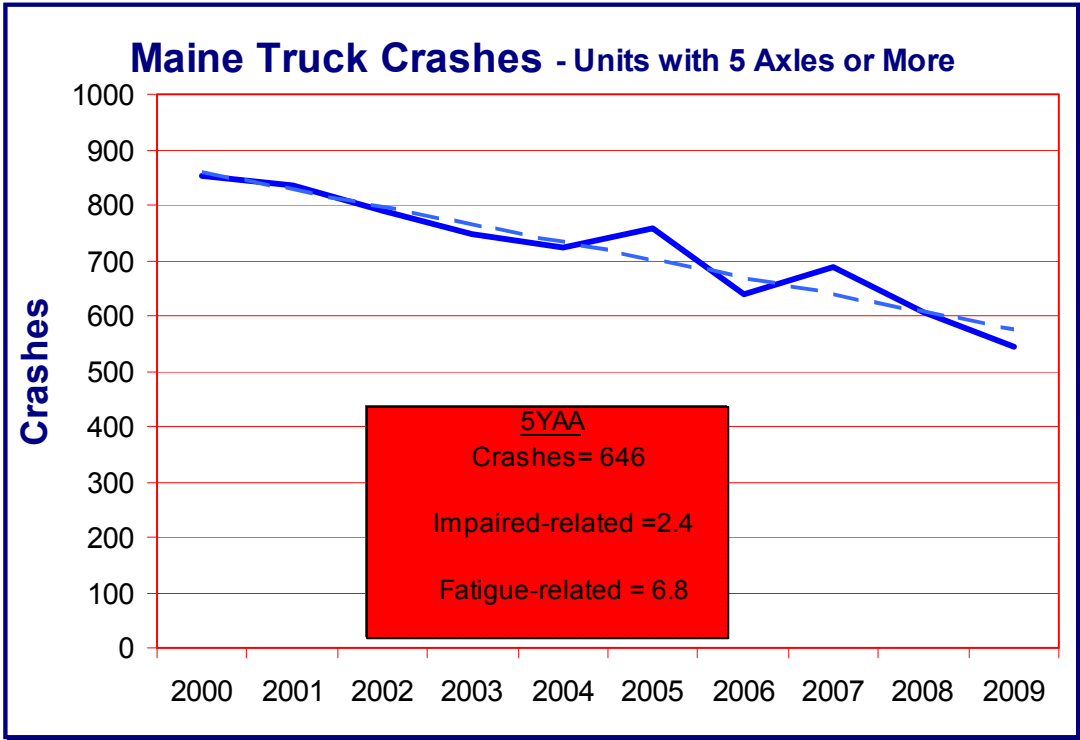
Large Trucks are a concern due to the size and load differential between 4, 5 and 6 axle larger truck units and passenger vehicles. There is additional focus on fatigue related to long haul operations. Overall, truck crash and fatality rates have improved over the years. The fatality rate has decreased at a slower pace.



Currently, many Large Truck crashes occur on secondary roads. Attention is being given to increasing weight limits on Maine interstate roads that is designed to take some traffic off more local roads.

In December 2009, the U.S. Congress authorized a one-year pilot program that allowed Maine and Vermont to use their respective state weight limits on their Interstate Highways, instead of the federal truck-weight cap of 80,000 pounds. Through two executive orders and followed by state legislation, Governor Baldacci and the Maine Legislature acted quickly and modified state law to allow three-axle truck tractors with three-axle semi-trailers at 100,000 pounds gross vehicle weight (GVW) to use Maine's entire Interstate system. The purpose and effect of this change is to divert large trucks from non-Interstate highways and onto the Interstate. Previously, Maine law contained separate truck-weight limits for the Interstate and non-Interstate highways, and these six-axle trucks were only authorized to operate on the Maine Turnpike, from its southerly terminus to the New Hampshire border.

Potential benefits of moving truck traffic from two-lane state roads that pass through local communities to the four-lane, divided highway with access control (the Interstate) include improved transportation system safety, reduced shipping costs, and reduced energy consumption and greenhouse gas emissions. In previous years, MaineDOT has performed extensive analyses that predicted and quantified these benefits, and since implementation of the pilot project, the department has been assisting the Federal Highway Administration (FHWA) with its required six-month report to Congress on the pilot's impacts. The Interstate Highway Truck weights-White Paper report was prepared by Maine DOT on September 10, 2010.





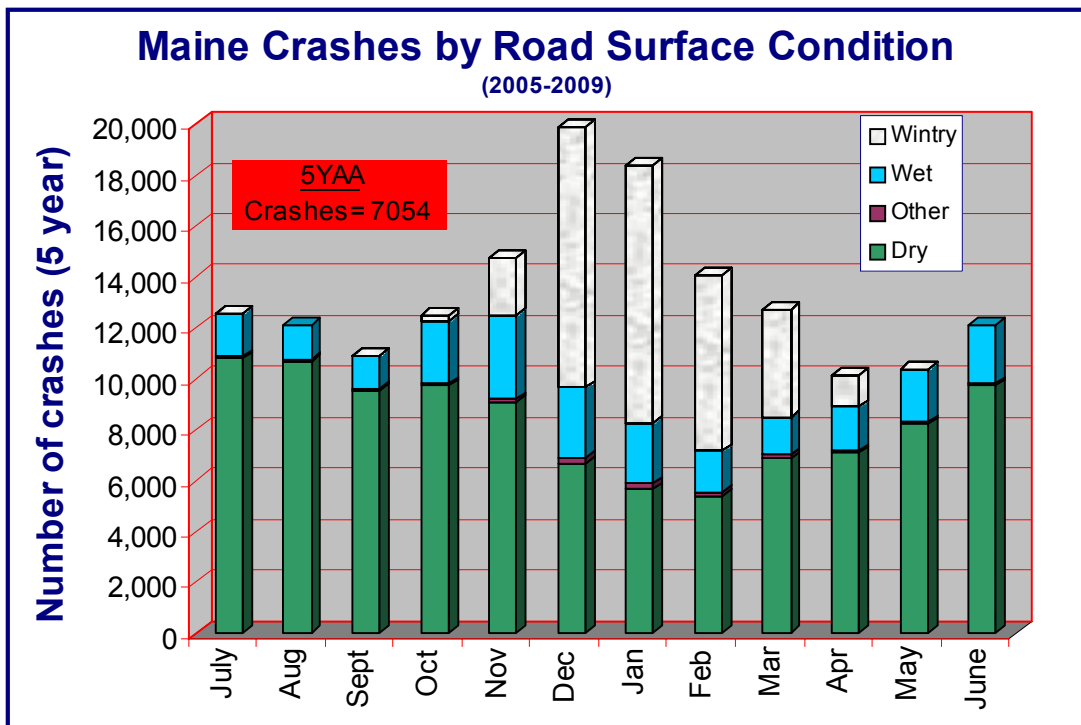
# Winter Driving

## Chapter 10

Wintry road surface conditions create stopping and handling problems. Following too close and traveling too fast for road conditions are the major crash causation factors. Storm conditions affect the condition of roadways, not only on the day of the storm, but possibly for days after a storm when thaw-freeze cycles may occur. Black ice is another condition that presents a danger to motorists.



Winter crashes account for a surprisingly high number of crashes each year – over 7,000 – nearly 20% of Maine’s annual crash total. December wintry road surface-related crash activity appears highest of any month, although December is probably not the month having the most frequent and severe storms. December’s high wintry crash frequency seems to indicate that it takes drivers time to adjust to the new season of ice, snow and slush conditions. Run Off Road and Head On collisions double in proportion to that on dry roads indicating the degree of vehicle control issues that exist. Not surprisingly, police crash reports cite driver unsafe speed three times as often when wintry road conditions exist.



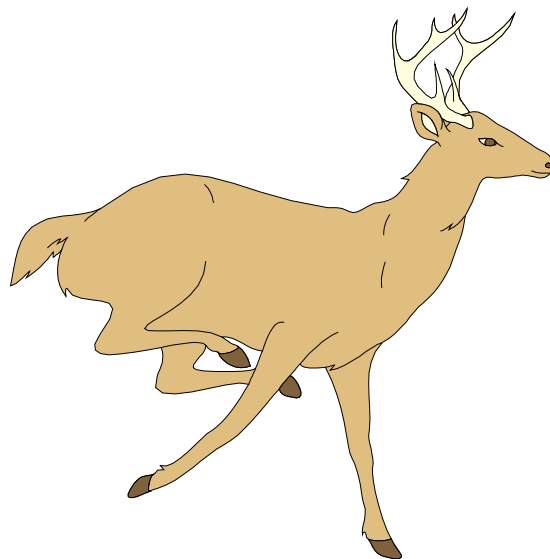
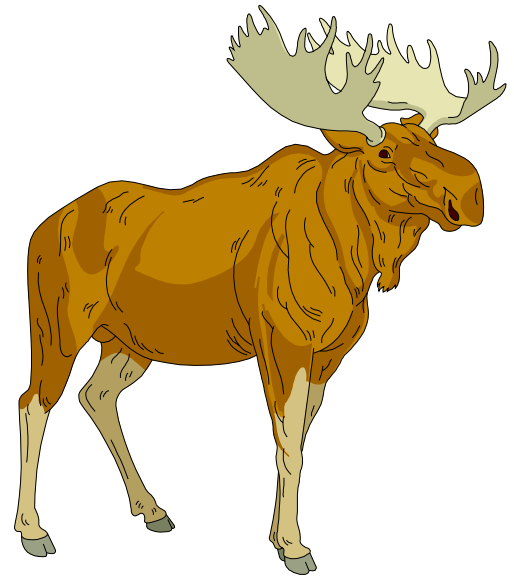
## Large Animal Crashes

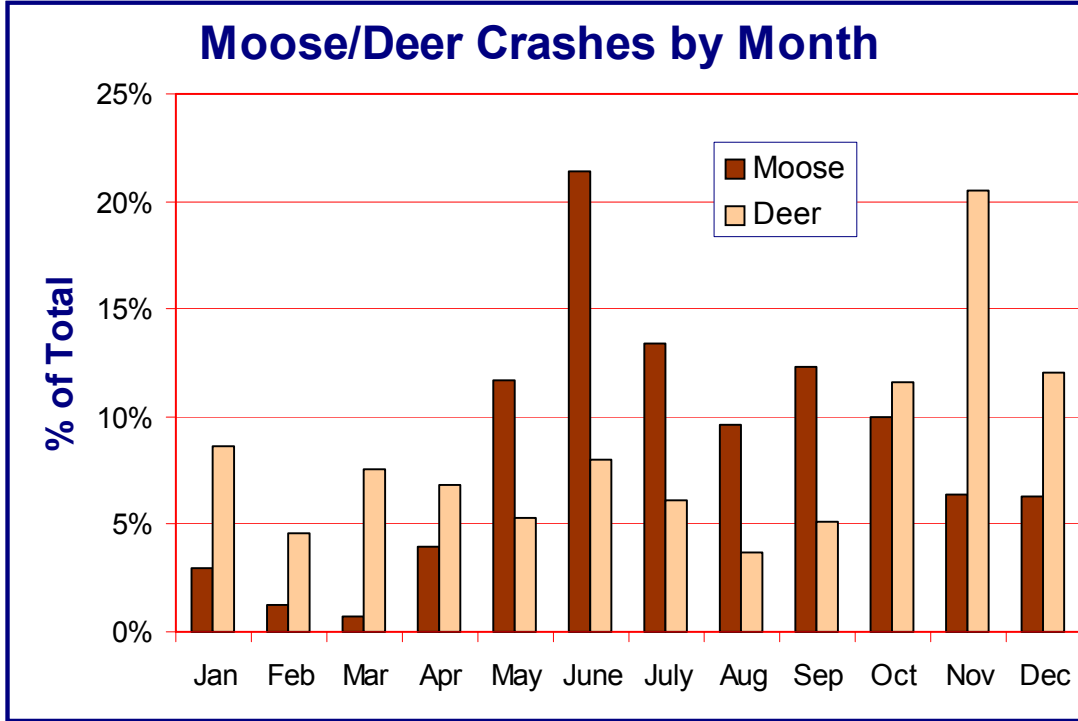
# Chapter 11

Maine is known for its terrific scenery and the accompanying wildlife. Moose, deer, turkeys and other creatures may find their way onto any road, anywhere, and anytime. Moose and deer have the highest crash activity involvement from dusk to dawn. The peak months for moose and deer crashes is shown in the chart on page 39. In recent years overall animal crash activity has been decreasing. To maintain this trend, Maine has a multi-agency task force to address related safety issues.

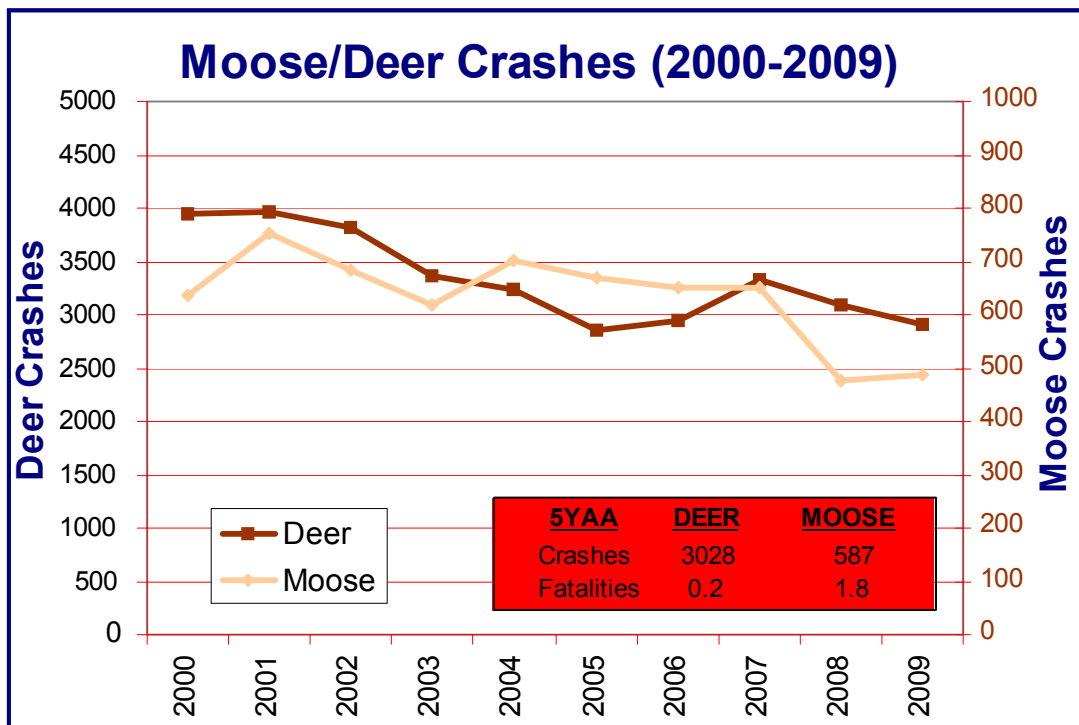
Moose do not represent the most frequent Maine animal crash type, but they are the highlighted species due to their sheer size. Impact with these animals can be devastating with countless stories about these tall, heavy animals entering the passenger compartment upon impact causing serious injury and death.

Deer crashes are more frequent and although the animal is smaller, injuries or even fatalities do sometimes result.





The seasonality for moose and deer crashes is different. Moose crashes are at their peak in late spring/early summer and Deer crashes peak in the fall.



Both Moose and Deer crashes have decreased during the past ten years.

# Pedestrians and Bicyclists

## Chapter 12

Pedestrians and bicyclists are the most vulnerable of all road users. Most crashes result in some degree of injury – some very serious. A pedestrian crash occurs almost every day in Maine and can occur in any setting – from a busy urban intersection to rural lanes. As walking and biking continue to be advocated for exercise and as a commuting alternative, safety for this road-using segment must be considered. There is increased emphasis on providing pedestrian and bike-friendly facilities. There is ongoing public education reminding all road users to take appropriate safety precautions.



Pedestrian behaviors that contribute to crashes with motor vehicles include intoxication, crossing outside of crosswalks, darting into traffic or between stopped cars, walking with traffic and wearing clothing that does not provide adequate visibility.

In 2007, Maine passed a law designed to increase the safety of bicyclists on Maine roads. In 2009, this law was amended to include roller-skiers.

“An operator of a motor vehicle that is passing a bicycle proceeding in the same direction shall exercise due care by leaving a distance between the motor vehicle and the bicycle of not less than 3 feet while the motor vehicle is passing the bicycle. A motor vehicle operator may pass a bicycle traveling in the same direction in a no-passing zone only when it is safe to do so. (MRSA, Title 29-A, § 2070, subsection 1-A)”.

The number of pedestrians involved in crashes has been increasing since 2004. Pedestrian involved crashes are slightly higher than pedal cycle involved crashes, but the number of pedestrian deaths is over five times greater. While fatal bicycle (pedal cycle) crashes account for less than 1% of all pedal cycle crashes, pedestrian fatal crashes account for over 4% of total crashes involving pedestrians.

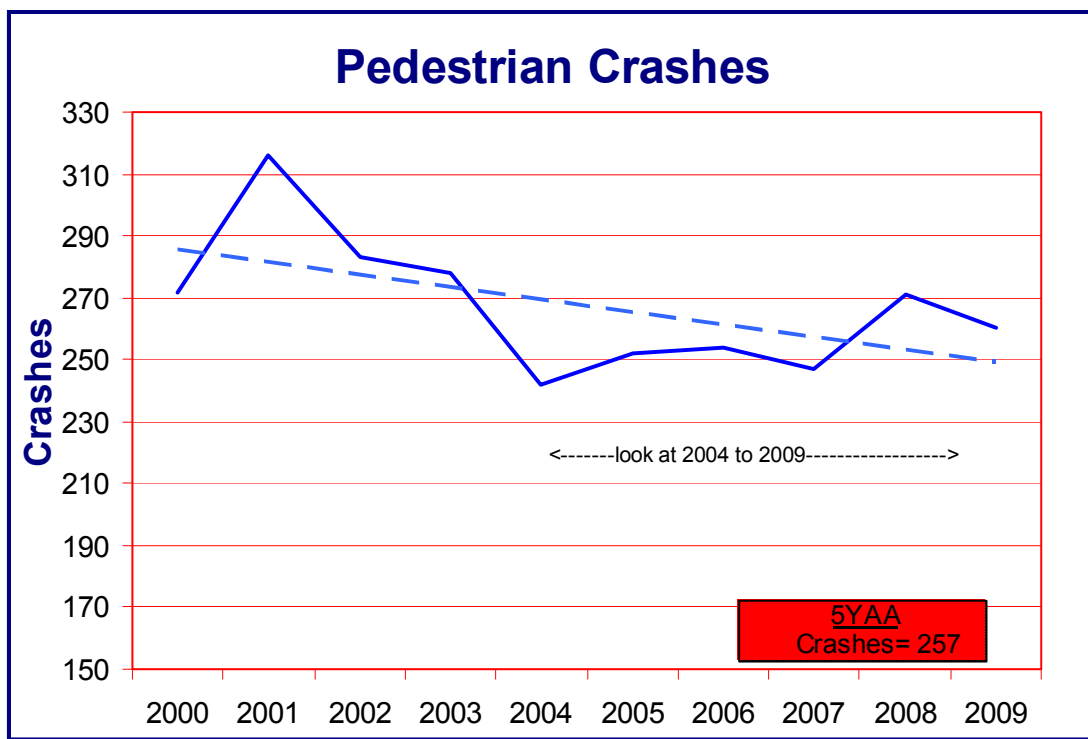
### Statewide

- From 2000-2009 there were 2,675 pedestrian crashes (less than 1% of all crashes) resulting in 124 deaths (7 % of all crash fatalities).
- Over 97% of all pedestrians involved in crashes sustained some kind of injury.
- Youth under age 19 are commonly involved in pedestrian crashes. They account for 31% of the total.
- The most common cause of pedestrian involved crashes was pedestrian violations, followed by driver inattention.
- For pedestrian fatalities, 25% had a positive blood alcohol level.



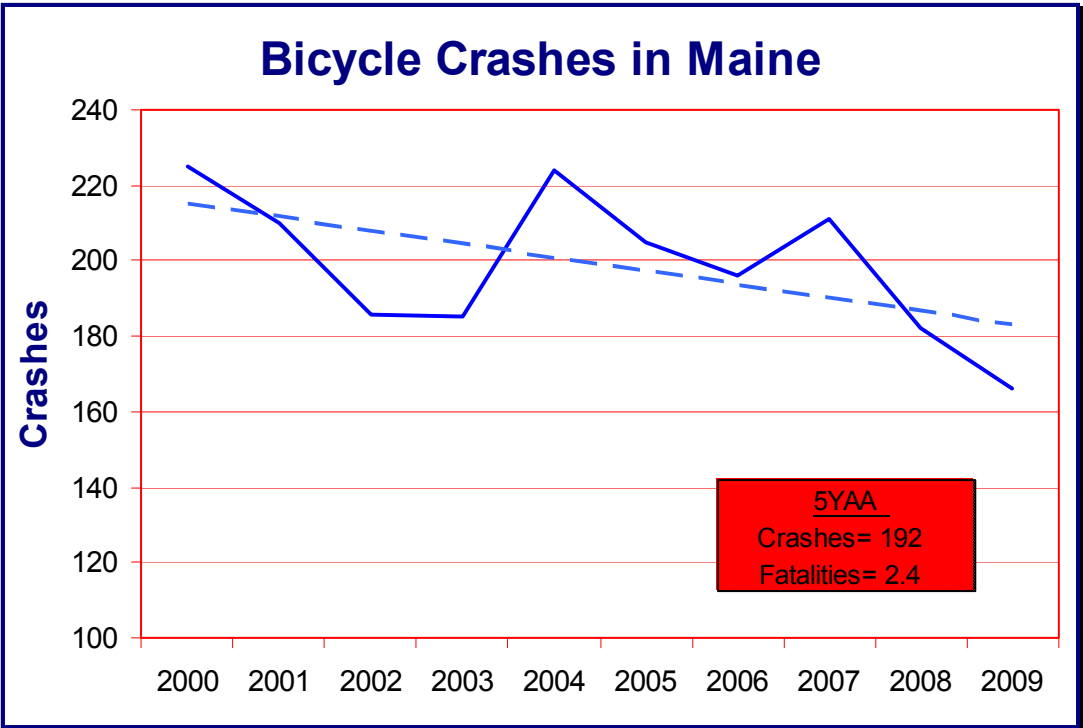
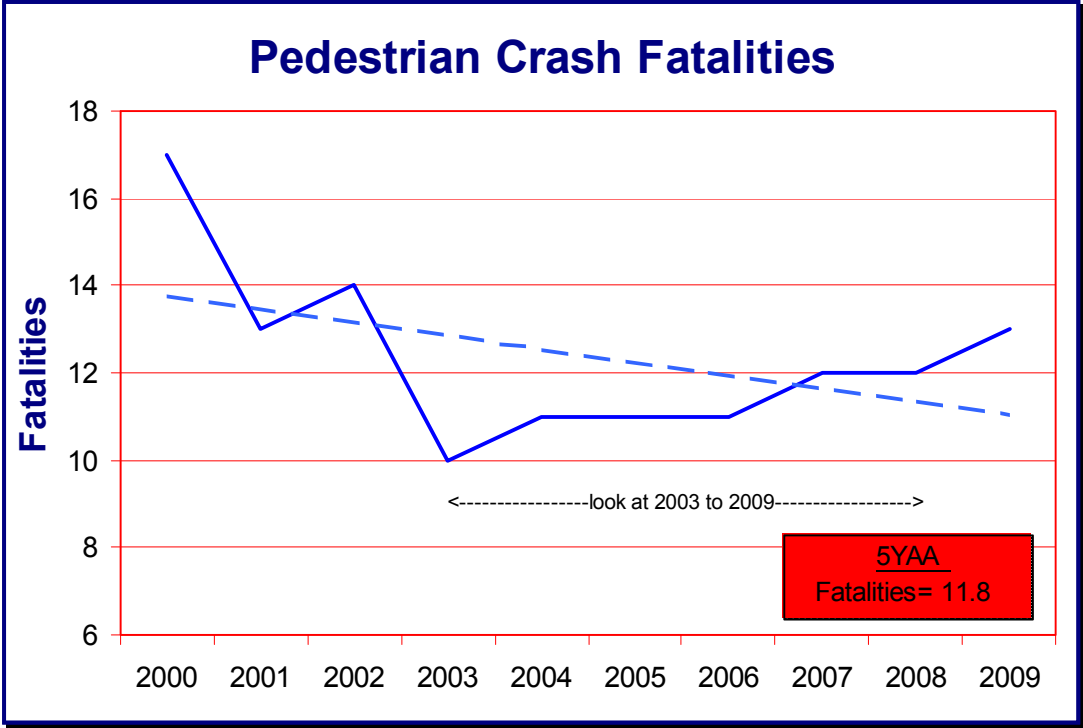
## National Trends

- January 1 and October 31 were the deadliest days of the year, having the highest number of pedestrian fatalities.
- The older age group (over 64) has a much greater possibility than other age groups of being killed in a crash.
- As a pedestrian's blood alcohol concentration (BAC) increases, the probability of a pedestrian being killed in a crash increases.
- Pedestrians have a higher probability of being killed in a crash under dark conditions than under other light conditions.
- Regarding posted speed limits, the higher the posted speed limit, the higher the probability of a pedestrian fatality.
- Nearly 46% of pedestrian fatalities are alcohol-involved.
- One in five pedestrians killed were killed in hit-and-run motor vehicle crashes.



Although the overall trend for Pedestrian crashes (above) and fatalities (pg. 42) have been decreasing when looking at the entire past 10 year period, numbers have been on the increase in the latter half of this review period.





# Snowmobile and ATV

## Chapter 13

Snowmobile and All Terrain Vehicle (ATV) use has increased in Maine in the last decade. Recreational motor vehicle use is important to Maine’s economy and way of life.



### Snowmobiles

- There are over 13,000 miles of maintained snowmobile trails in Maine.
- During the last 10 years, 85 people have died in snowmobile crashes and 1,794 were injured.
- Over 73% of all reported crashes resulted in some kind of injury.
- The three most commonly cited reasons for snowmobile crashes during the last 10 seasons were Unsafe Speed, Operator Inattention, and Operator Inexperience.
- Alcohol-related crashes account for 5%-7% of all snowmobile crashes.

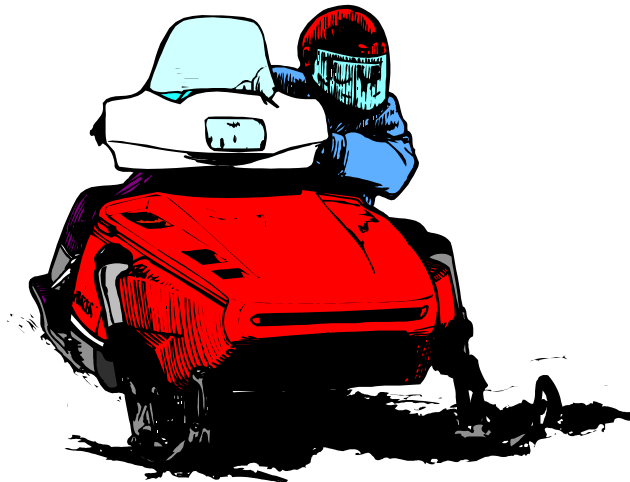
SNOWMOBILE ACCIDENTS					
Year	Incidents	Injuries	Fatalities	OUI Arrests	Registrations
2008-2009	66				
2007-2008	192	144	12	14	
2006-2007	172	155	6	18	91,733
2005-2006	117	92	7	17	75,235
2004-2005	298	160	7	15	102,802
2003-2004	206	166	8	21	92,633 (1)
2002-2003	401	307	16	28	107,285
2001-2002	265	174	12	26	95,395
2000-2001	428	330	12	38	96,921
1999-2000	369	266	**5	17	86,501
(1)Registration number will be adjusted per licensing.					
**One additional fatality occurred as a result of death from complications from a snowmobile/motor vehicle incident. (2008-2009 data not yet fully available)					



### All Terrain Vehicles (ATVs)

- ATV registrations have increased by 58% in the last 10 years.
- Crash trends are inconclusive due to reporting changes.
- In the past 10 years, 2,857 persons have been injured and 68 have died in ATV crashes in Maine. This is a significant increase over the prior reporting period.
- There were 267 alcohol-related crashes (10.2% of all ATV crashes).

ATV Incidents						
Year	Incidents	Injuries	OUI	Fatal	Juveniles (fatal)	Registrations
2008	144	148	20	5	2	N/A
2007	214	255	14	9	2	63,467
2006	246	284	27	9	2	62,268
2005	268	307	35	9	3	62,774
2004	332	362	28	11	1	66,044
2003	313	340	38	6	0	56,784
2002	323	333	40	6	1	52,830
2001	279	298	24	1	0	46,141
2000	261	277	5	5	1	44,796
1999	256	253	38	7	0	40,264





# Appendix

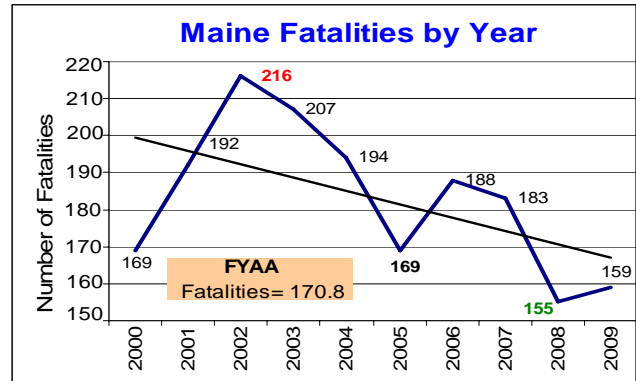
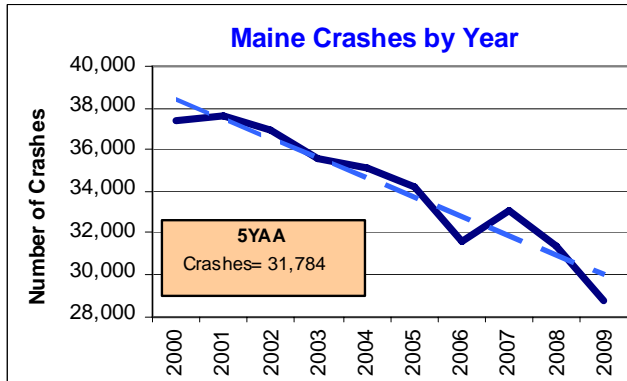
The Appendix includes additional data that provides other looks at topical crash information that further illustrate safety performance. Appendix displays will include chapter references that the additional data refers to (not all chapters have supplemental information). Appendix exhibits are:

<b>Introduction and Overview (Maine crash data)</b> .....	<b>Page 46</b>
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• Crashes & Fatalities by Time of Day	
• Driver Contributing Factors List	
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• Crash and Fatality Experience by Driver Age	
• Teen Driver Crash and Fatality Rates	
• Summary of Teen Fatality Trends - 2003-2009	
• Maine’s Graduated Driver’s License (GDL)	
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<b>A. Impaired Driving</b>	
- Alcohol-Involved Fatality Trends Since 1976	
- Alcohol-Related Crashes by Age	
- 2006-2008 Maine Driver Top Drug Result Findings	
<b>B. Illegal/Unsafe Speed</b>	
- Speed-Related Crashes and Fatalities by Age	
<b>D. Drowsy Driving</b>	
- Asleep or Fatigued Drivers by Age	
<b>Chapter 6. Lane Departure Crashes</b> .....	<b>55</b>
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• Types of Fixed Objects Struck	
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• Moose and Deer Crashes by Light Conditions	
• Moose and Deer Crashes by County	
• Maine Moose Crash Map	

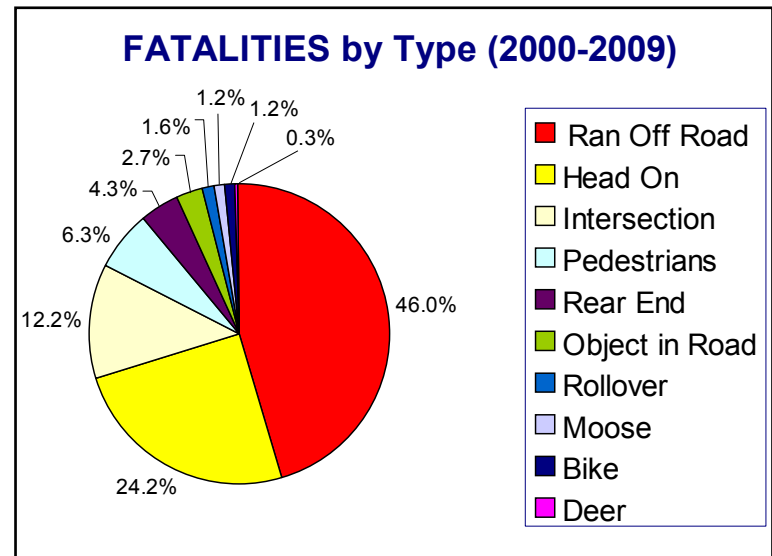
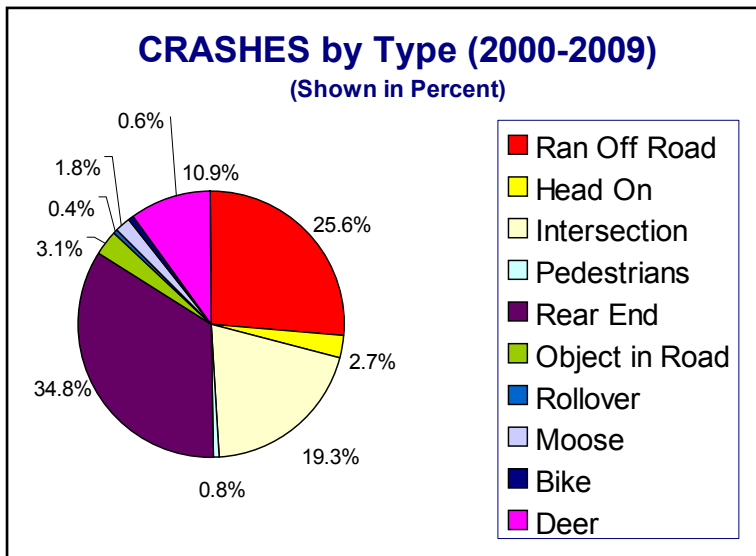


# Introduction and Overview

## General Maine Trends

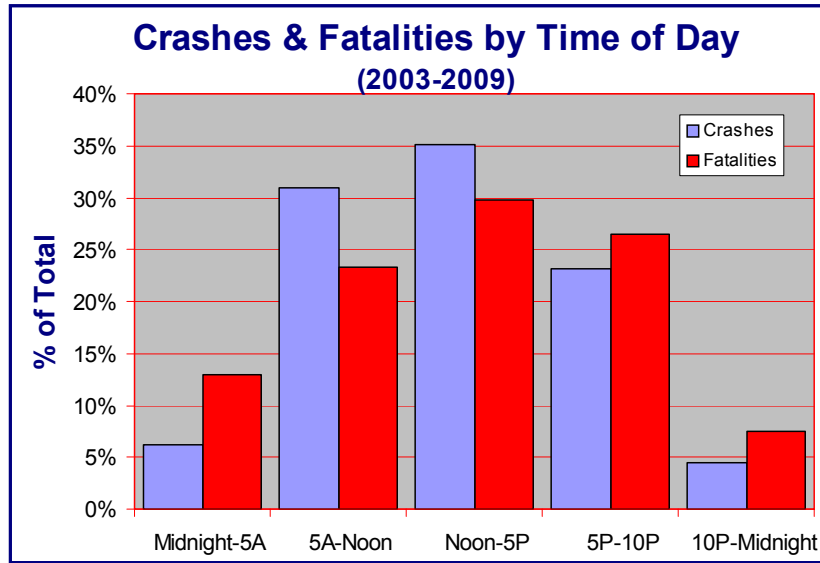


Maine's crash and fatality trends have improved during the last 10 years. Fatalities peaked in 2002 and had the fewest in 2008. Fatalities still account for an average of 171 deaths per year.



The major types of crashes in Maine are shown in the two pie charts above. One key observation is with the yellow and red pie slices (Run Off Road and Head On – which are the main components of Lane Departure crashes). The larger representation of these crash types in the Fatalities pie chart reflect how severe these crash types are.





This bar chart shows Maine crash activity by time of day. Most travel is conducted between 5AM and 10PM, so the higher crash and fatality numbers are expected. There is very little traffic volume from 10PM through 5AM, and even though the bars may be lower, they do represent a disproportionate number of crashes and fatalities for these hours based on traffic volume. The red bar being higher than the blue in these nighttime hours indicates the much higher severity of these crashes on average.

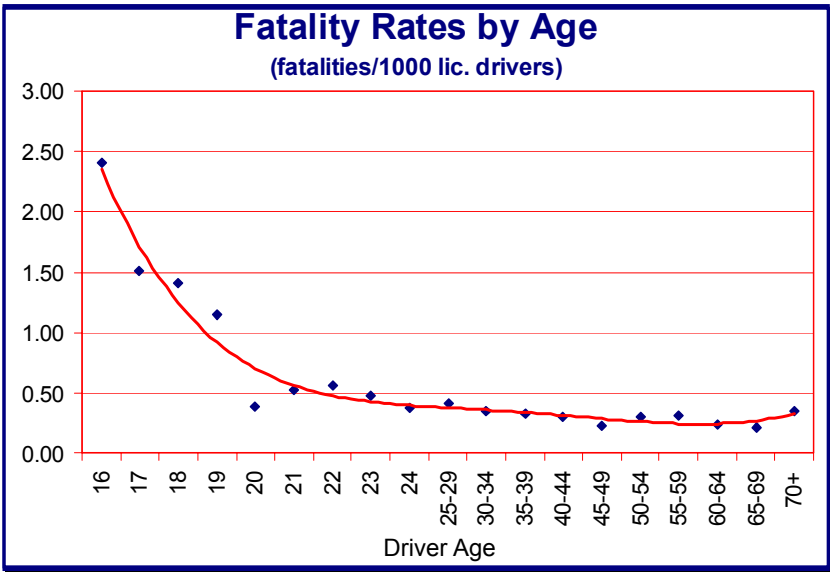
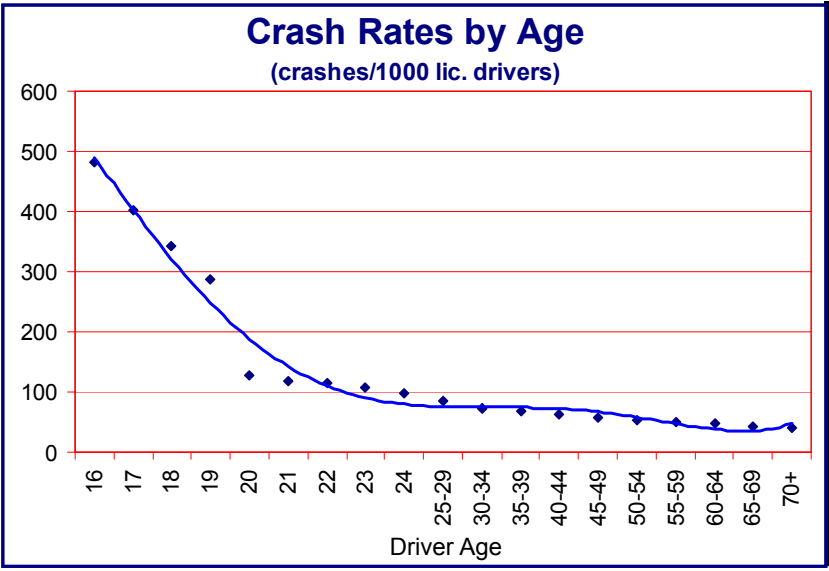
### Driver Contributing Factors That Can Be Cited In Maine Police Crash Reports

Disregard Traffic Control Device	Improper Turn
Driver Inattention - Distraction	Improper Unsafe Lane Change
Driver Inexperience	No Signal or Improper Signal
Driving Left of Center Not Passing	Other Human Violation Factor
Failure to Yield Right of Way	Other Vehicle Defect or Factor
Following Too Close	Other Vision Obscurement
Hit and Run	Pedestrian Violation Error
Illegal Unsafe Speed	Physical Impairment
Impeding Traffic	Unsafe Backing
Improper Parking: Start, Stop	Vision Obscured - Sun, Headlights
Improper Passing - Overtaking	Vision Obscured - Windshield Glass



# Chapter 1: Younger Drivers

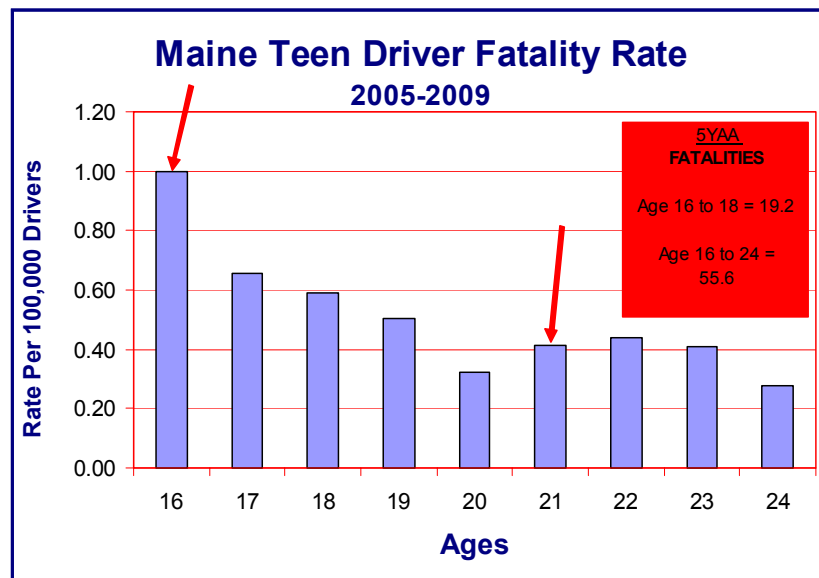
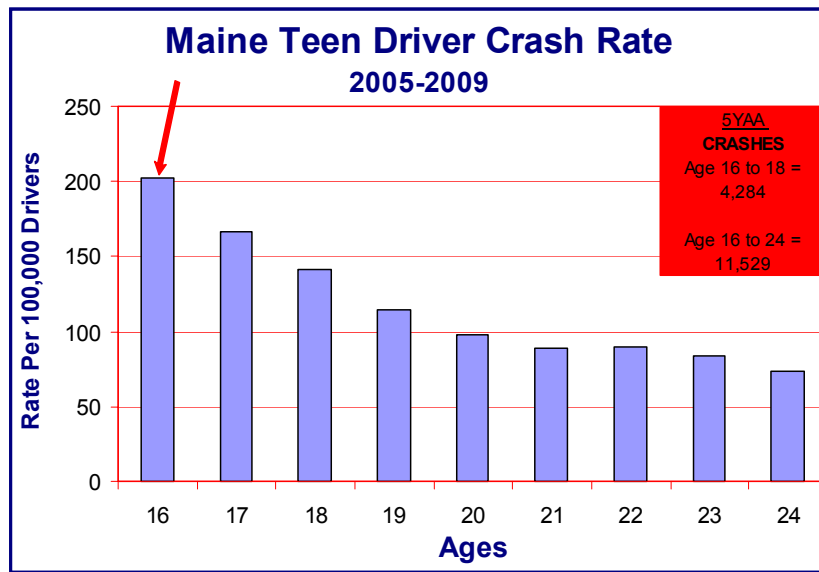
## Crash Experience by Driver Age



When normalizing crash and fatality experience by licensed driver age, it is clear that younger drivers are much more susceptible to crashes, including those with fatal results. When adjusted for miles traveled (not shown), older drivers also show crash performance deterioration sometime after 70 years of age, on average.



## Crash Experience by Driver Age



Maine Teen Crash and Fatality rates are shown in the above two charts. For Crashes in the upper chart, rates steadily decrease with age, with rates plateauing at age 21 and then continue to decrease a couple of years later. For Fatalities shown in the lower table, the rates decrease until age 20, and at age 21, rates increase for the next several years. The legal drinking age of 21 may be the reason for this trend change.



## MAINE 16-20 YEAR OLD DRIVER FATAL CRASH DATA

	2003	2004	2005	2006	2007	2008	2009
Total Number of Fatalities - All Ages	207	194	169	188	183	155	159
Total Number of Crashes - All Ages	186	178	151	168	170	144	153
Total Number of 16-20 Year Old Involved Drivers	33	39	34	37	26	18	20
Total Number of Deceased 16-20 Year Olds	21	36	27	32	28	15	17
Total Number of Deceased 16-20 Year Old Drivers	13	21	16	23	13	12	11
Number of Fatal Crashes involving 16-20 YO Drivers	33	39	34	37	26	17	15
Number of Deaths caused by 16-20 YO Drivers	39	50	41	47	28	18	16
Number of Deceased Drivers (16-20) with a Positive BAC	3	7	5	8	5	4	3
Number of Deceased Drivers (16-20) Using a Seat Belt	3	5	6	4	4	8	5

### *Contributing causation factors with teen drivers are as follows:*

- Unsafe speed or going too fast for road conditions
- Crossing center line or run off road
- Failure to keep in proper lane
- Driver Inexperience
- Driver Inattention
- Drowsy, Sleepy, Asleep, Fatigued

This table shows recent trends in 16-20 year old driver crash experience compared with total crash and fatality experience in Maine. Number of deaths caused by these young drivers peaked from 2004-2006, but has improved since then.





## **Maine's Graduated Driver's License (GDL)**

The GDL restrictions are:

Learner's Permit - Under 21 years old:

If a permit is issued to a person under 21 years of age, that person must hold the permit for six months before applying for a road test (previous law was three months) and is prohibited from using a cellular phone while operating with a permit.

- If a permit is issued to a person under 21 years of age, they must log 35 hours of driving and five of the hours must be done after dark.
- If a permit expires, the person must take an exam for a new permit but will not be required to wait before applying for a road test. The restriction from using a cellular phone still applies.

Learner's Permit - Age 21 and Over:

- If a permit is issued to a person 21 years of age and over, that person does not have to wait six months before applying for a road test, however, they are prohibited from using a cellular phone while operating with a permit.

License - Under 18 years of age:

If a license is issued to a person under the age of 18 on or after September 13, 2003, that person will receive an "Intermediate License" which prohibits the licensee from the following:

- Carrying passengers, except immediate family (grandparent; step grandparent; parent; stepparent; spouse; child; stepchildren; brother; sister; stepbrother; stepsister; a foreign exchange student that is living with the immediate family) unless accompanied by a licensed driver who is at least 20 years of age and has held a valid license for the past two years and is occupying the seat beside the driver for six months after licensure.
- Operating a motor vehicle from 12 a.m. to 5 a.m.
- Operating a motor vehicle while using a cellular phone.

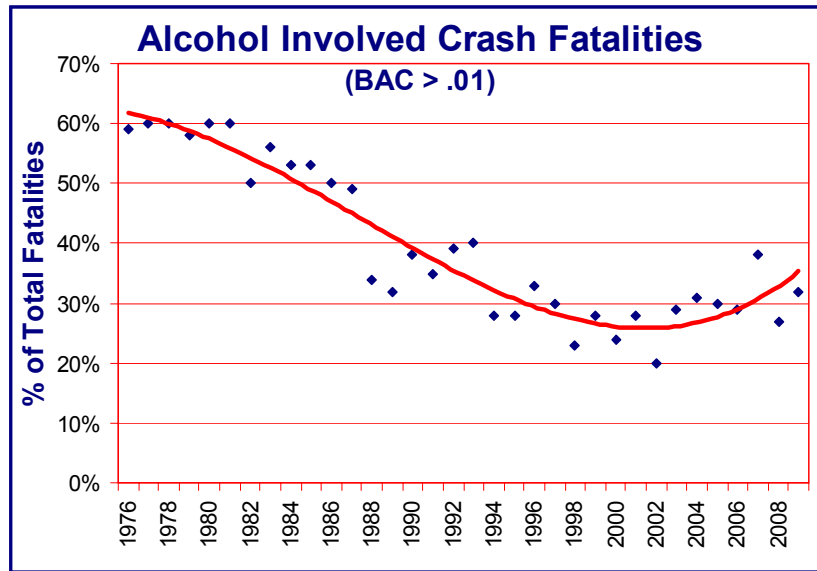
A person must hold an intermediate license for 180 days from the date the license was originally issued before they can receive an unrestricted license. If someone is convicted of violating one of the three restrictions listed above, the license restrictions will be extended for an additional period of 180 days from the date of the violation.

Use of any handheld electronic device, including cellular phones, is prohibited for anyone under 18 years of age.

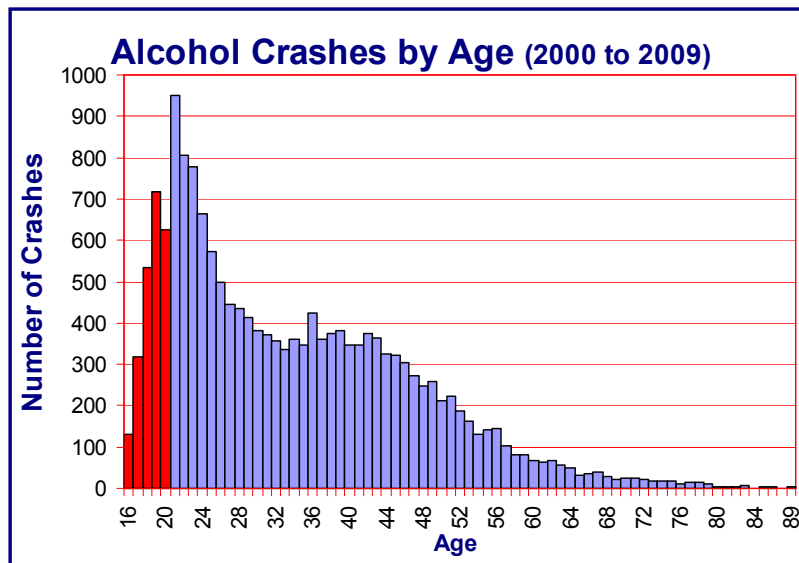


# Chapter 4: Driver Behaviors

## A. Impaired Driving - Alcohol



Alcohol involved crashes expressed as a percent of total fatalities was about 60% in the late 1970's. This percentage steadily improved through 2002. Since 2002, the percentage of total fatalities has shown an increasing trend.



This chart illustrates a number of important alcohol-related crash findings:

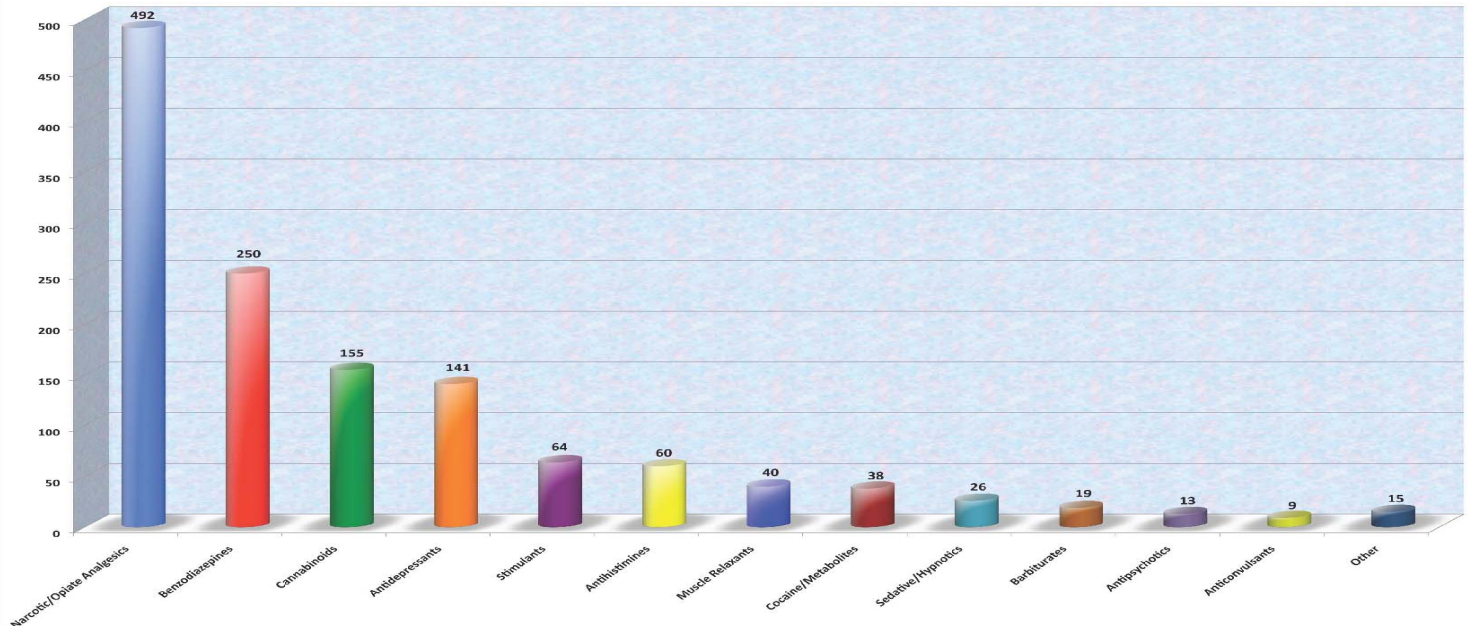
1. The number of underage alcohol-related crashes.
2. The sharp increase of alcohol-related crashes for those of early legal drinking age (21-23)
3. The decrease in alcohol-related crashes as age increases (driver population decreases in later years).



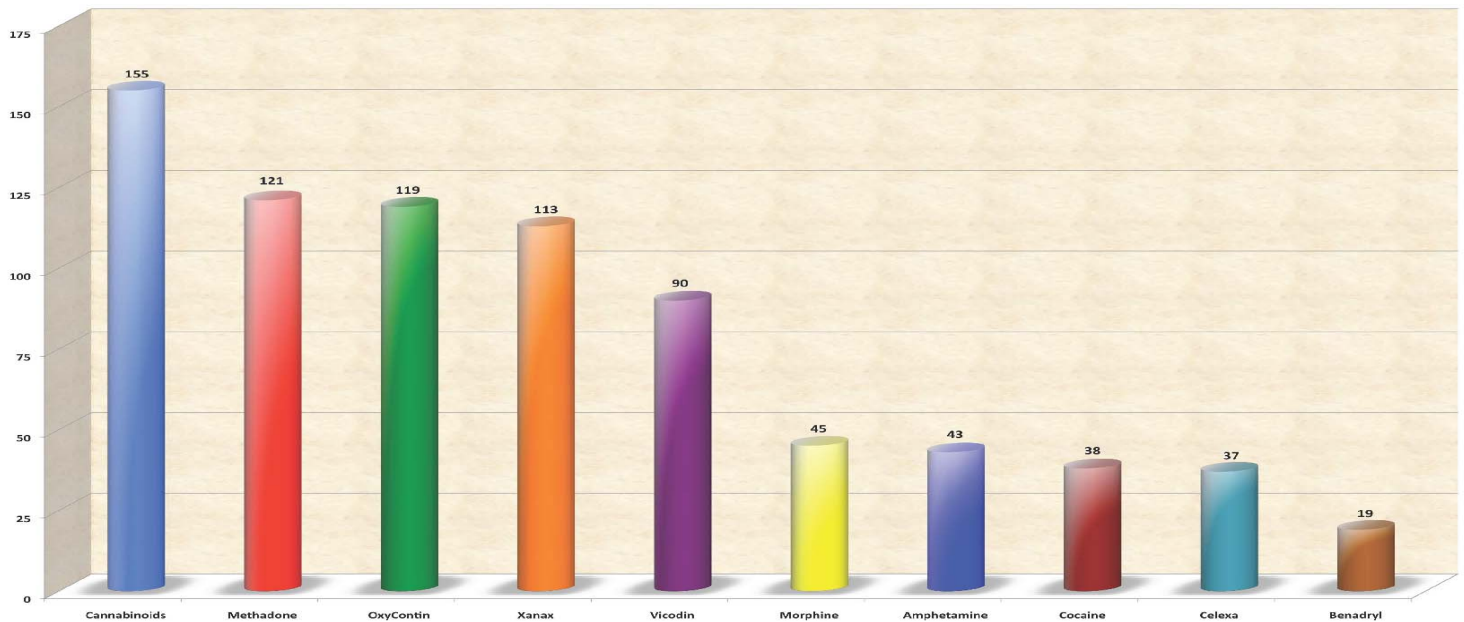


## Drugs 2009-2010 Maine Driver Drug Results

2009 - 2010 Maine Driver - Drug Test Results by Category



Top Ten 2009 - 2010 Maine Driver - Drug Test Results by Drug



Graphing assistance provided by: Rod Larson, Husson University School of Pharmacy

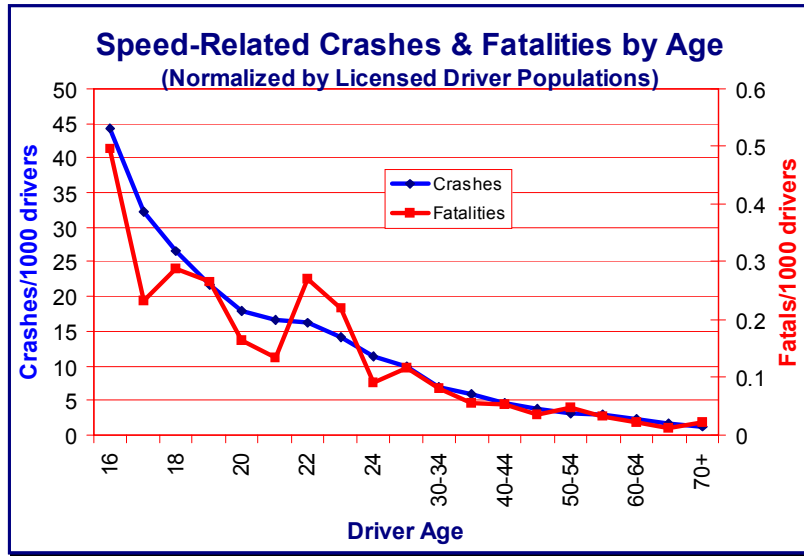
207-941-7163; LarsonR@Husson.edu

Submitted by: Duane Brunell, MaineDOT, Safety Office 207-624-3278; duane.brunell@maine.gov  
Maine Transportation Safety Coalition, Vice Chair

Data provided by: Steve Pierce, Maine DHHS/CDC, (207) 287-1712; steve.pierce@maine.gov

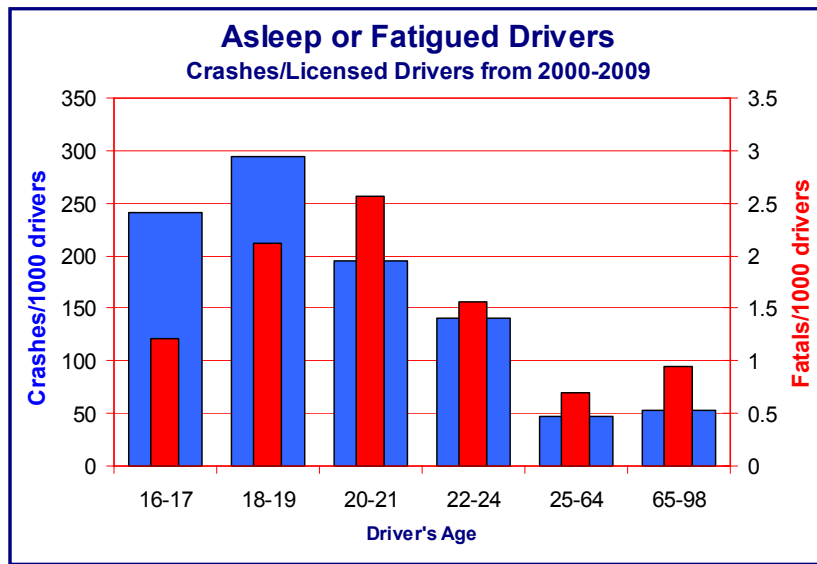


## B. Illegal or Unsafe Speed



Speed-relationship in crashes and resulting fatalities is most prevalent in younger driver ages.

## D. Drowsy Driving



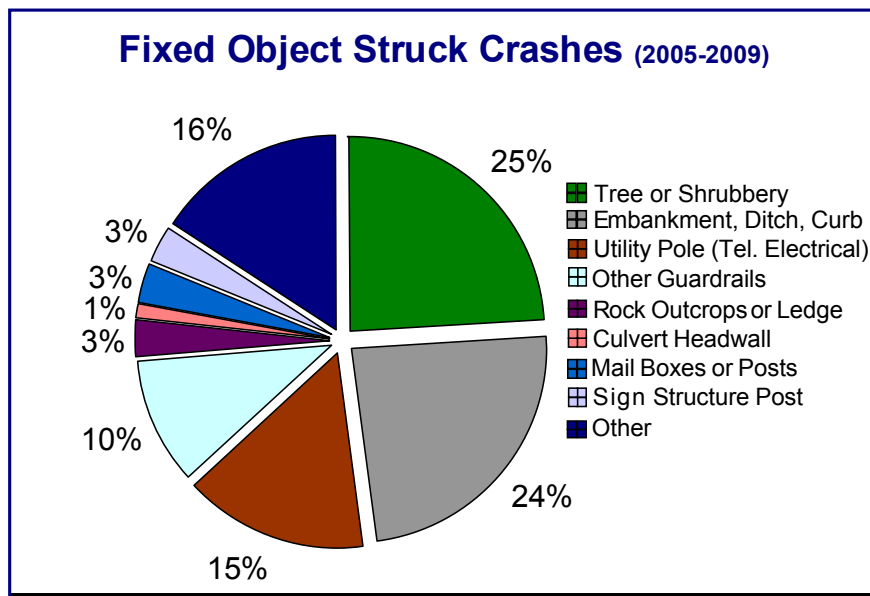
Sleepy/fatigue-related crashes are not just a mature driver phenomenon as the above chart indicates. The chart shows crash and fatality data on a per licensed driver basis. Crashes and fatalities are common for younger drivers.



## Chapter 6: Lane Departure Crashes

Single vehicle crashes often are Run Off Road type crashes. Here are some findings about single vehicle fatal crashes:

- 58 % of all fatal crashes are single vehicle
- 50 % of all single vehicle crashes are speed-related
- 37 % of all single vehicle crashes are alcohol-related  
(12% of drivers of single vehicle crashes are not tested)

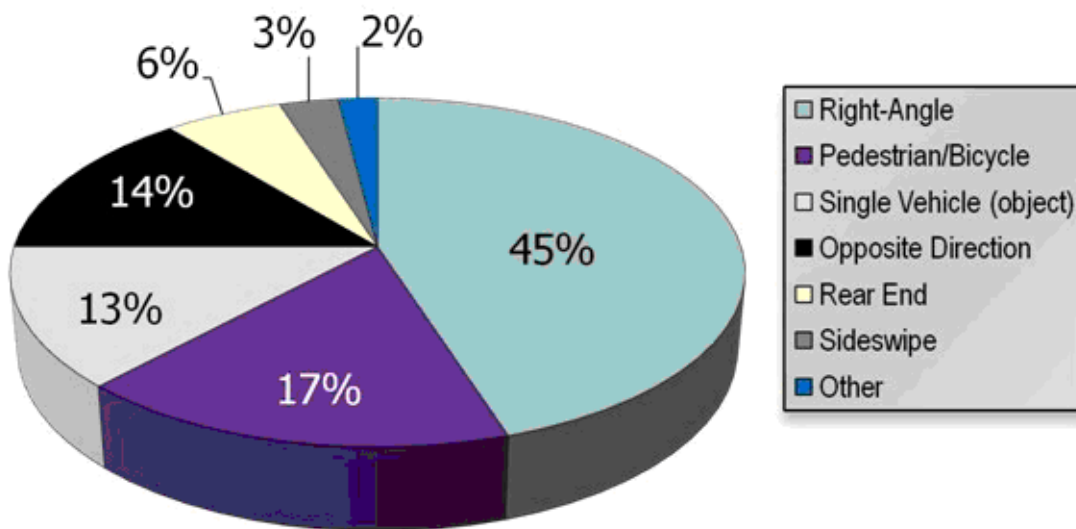


Hitting a fixed object is a frequent outcome when a vehicle leaves the road, and also the source of injuries to the vehicle occupants. The leading types of fixed objects struck are trees, embankments/ditches, and utility poles.



# Chapter 7: Intersections

## Fatal Crash Type Distribution (Nationwide FARS data)



Nationally, the number one fatal crash type at intersections is Right-Angle. This pie chart also shows that pedestrians and bicyclists are particularly vulnerable.





# Chapter 8: Motorcycles

## Motorcycle Crashes by Type (2000-2009)

Red is top ranked, Blue is second, Bold is third

Crash type	Crashes	Fatalities	SEVERITY (Fatalities/ 1000 crashes)
<b>Ran Off Road</b>	1529	79	<b>51.7</b>
<b>Intersection Movement</b>	1227	44	35.9
<b>Rear End/Sideswipe</b>	1194	10	8.4
<b>Other</b>	643	12	18.7
<b>Head-on/Sideswipe</b>	172	<b>37</b>	<b>215.1</b>
<b>Deer</b>	170	3	17.6
<b>Object in Road</b>	157	4	25.5
<b>Rollover</b>	131	2	15.3
<b>All Other Animal</b>	74	0	
<b>Moose</b>	37	7	189.2
<b>Pedestrians</b>	21	1	47.6
<b>Bike</b>	13	0	
<b>Bear</b>	2	0	
<b>Fire</b>	2	0	
<b>TOTAL</b>	5372	199	

## 2005-2009 Motorcycle Fatalities by Age

Age	Fatalities
16-20	4
21-24	8
25-34	15
<b>35-44</b>	<b>23</b>
<b>45-54</b>	<b>24</b>
<b>55-64</b>	<b>19</b>
65-74	4
75+	1

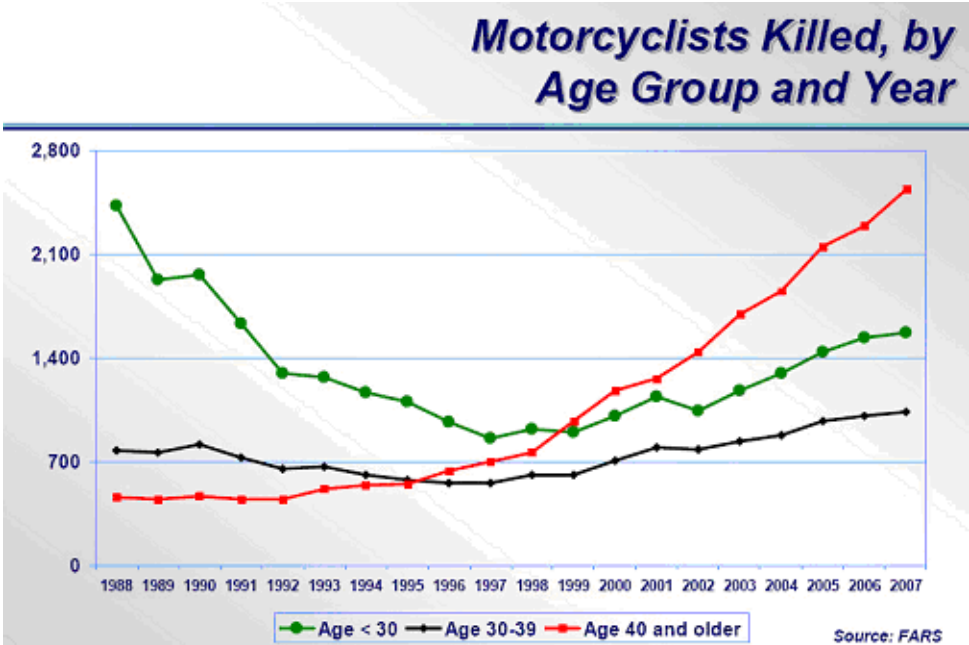
Motorcycle crashes by type are shown (left). The two most frequent crash and fatality types are Run Off Road and Intersection.

The table above shows Maine fatalities by age group, with most of the fatalities occurring to 35 to 64 year olds.

Year	Fatalities	No Helmet	% No Helmet
<b>2000</b>	18	15	83.3%
<b>2001</b>	14	5	35.7%
<b>2002</b>	13	8	61.5%
<b>2003</b>	20	13	65.0%
<b>2004</b>	22	12	54.5%
<b>2005</b>	15	9	60.0%
<b>2006</b>	23	15	65.2%
<b>2007</b>	21	15	71.4%
<b>2008</b>	18	13	72.2%
<b>2009</b>	24	18	75.0%
<b>TOTAL</b>	<b>188</b>	<b>123</b>	<b>65.4%</b>

The table above shows number of motorcycle fatalities by year, and helmet use. Overall, helmets were not worn in 65% of the fatalities.





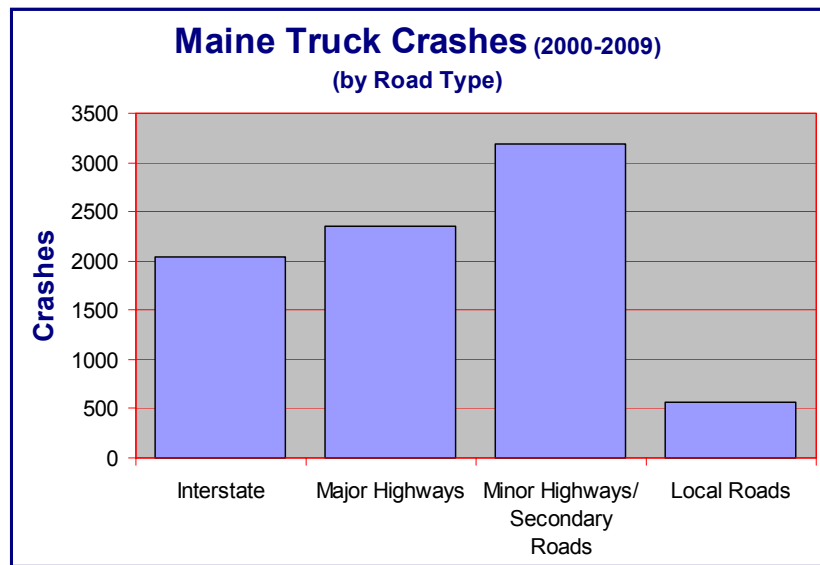
Nationwide, riders aged 40 years and older represent the largest fatal age-bracket. This age group also represents the largest fatality trend increase.







# Chapter 9: Large Trucks



Large truck crashes can happen on any road type, with a large number of crashes occurring on minor highways and secondary roads.

<b>5+ Axle Truck Crash Contributing Factors (2005-2009)</b>	
<b>Apparent Contributing Factor</b>	<b>Number of Crashes</b>
Driver Inattention, Distraction	637
Illegal Unsafe Speed	298
Failure to Yield Right of Way	154
Other Vehicle Defect or Factor	153
Following Too Close	151
Improper Turn	143
Improper Unsafe Lane Change	124



Above are the leading reported crash contributing factors involving large truck units.



### Maine State Police Commercial Vehicle Violation Data

2009 Top 10 Commercial Driver Violations		2009 Top 10 Commercial Vehicle Violations	
	Totals		Totals
Medical Certificate	466	Brakes, Out of Adjustment	865
False Record of Duty Status(RODS)	771	Brakes, All Others	4,472
No RODS/RODS not current	1,840	Emergency Equipment	1,377
10/11 & 14/15 Hours	1,107	Windshield	602
Speeding	409	Annual Inspection	900
All Other Hours-of-Service	1,481	Lighting	4,461
Disqualified Drivers	448	Steering & Suspension	1,435
Drugs & Alcohol	82	Tires	1,803
Seat Belt	72	Load Securement	1,163
All Other Violations	3,953	All Other Vehicle Defects	2,291
<b>Total</b>	<b>10,629</b>	<b>Total</b>	<b>19,369</b>

Maine State Police Commercial Vehicle Unit Activity (2009)	
Summonses	7,002
Warnings	25,997
Defects	5,178
Crashes Investigated	408
Assist to other MSP	125
Assist to other Agencies	530
Speaking Engagements	53
OUI/.04 Violations	27
OAS/Disqualified Drivers	448
Calls for Service	5,318
Total Trucks Weighed	10,922
Aggravated Overweight Violations	8
Interstate Violations	265
CVSA Safety Inspections (total)	21,321
Drivers Out Of Service	2,088
Vehicles Out Of Service	3,922
Safety Audits / Compliance Reviews	145
<b>Total Trucks Checked</b>	<b>32,243</b>



# Chapter 10: Winter Driving

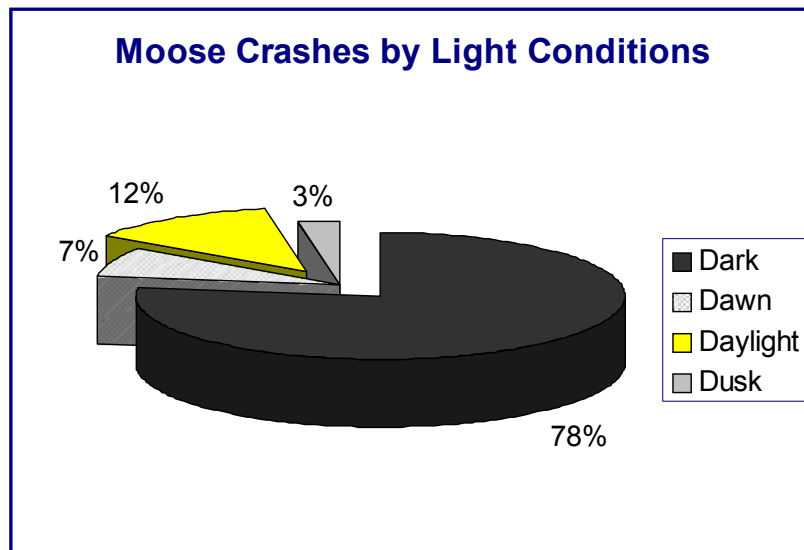
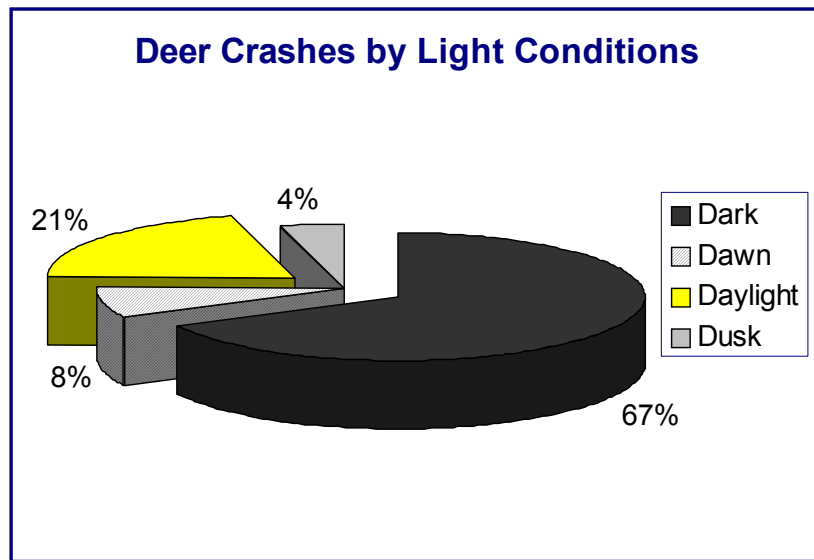
## Increased Likelihood of Lane Departure Crashes on Wintry Road Surfaces (2005-2009)

CRASH TYPE	Crashes on ALL Roads		Crashes on Wintry Surfaces	
	Crashes	% of Total	Crashes	% of Total
<b>Ran Off Road</b>	42031	26.2%	18623	<b>52.8%</b>
<b>Rear End</b>	52917	32.9%	6596	18.7%
<b>Intersection</b>	30352	18.9%	4096	11.6%
<b>Object in Road</b>	15140	9.4%	2511	7.1%
<b>Head-on</b>	4134	2.6%	1774	<b>5.0%</b>

Slick roads coupled with driving at unsafe speed result in increased driver difficulty with lane discipline. This is reflected in the table above, where the higher representation of Run Off Road and Head-on collisions on 'Wintry Surfaces' can be seen compared with 'ALL Road' Surface conditions.



# Chapter 11: Large Animals



Crashes with large animals (Moose and Deer) are most common from dusk until dawn, and particularly at night.



<b>Moose and Deer Crashes by County (2005-2009)</b>		
<b>County name</b>	<b>Moose Crashes</b>	<b>Deer Crashes</b>
<b>Androscoggin</b>	42	875
<b>Aroostook</b>	1139	713
<b>Cumberland</b>	92	2126
<b>Franklin</b>	294	494
<b>Hancock</b>	59	1184
<b>Kennebec</b>	82	1614
<b>Knox</b>	17	429
<b>Lincoln</b>	17	318
<b>Oxford</b>	211	707
<b>Penobscot</b>	374	2039
<b>Piscataquis</b>	98	402
<b>Sagadahoc</b>	8	375
<b>Somerset</b>	225	1066
<b>Waldo</b>	30	829
<b>Washington</b>	133	596
<b>York</b>	112	1382



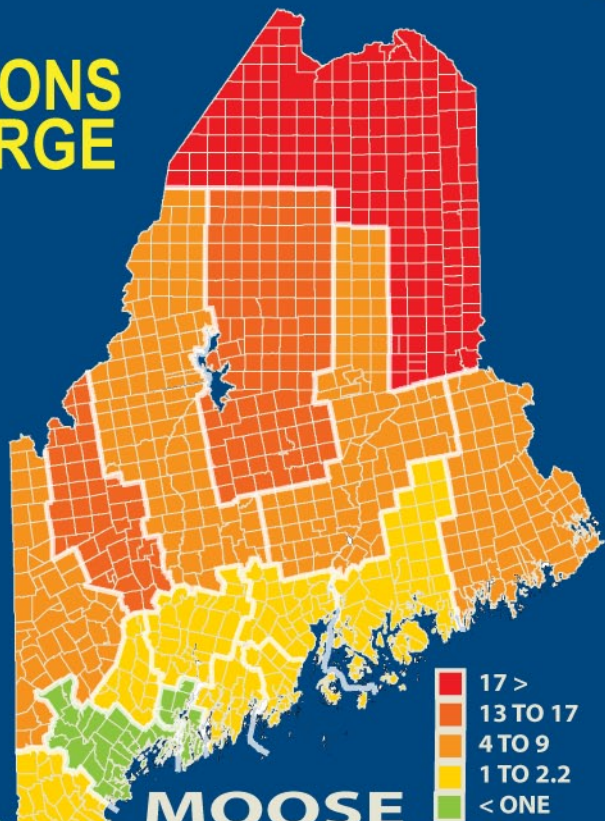
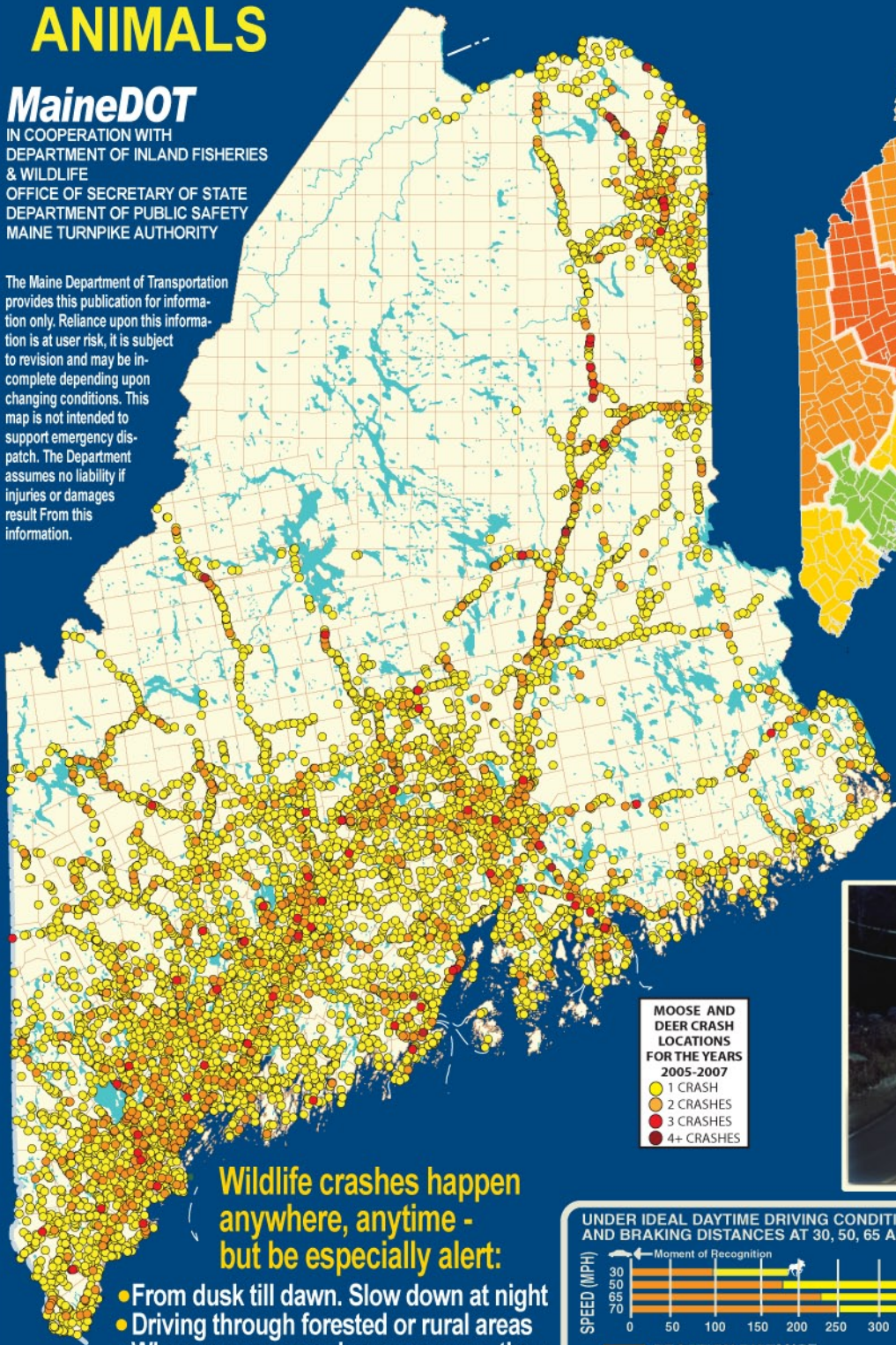


# MAINE COLLISIONS BETWEEN VEHICLES AND LARGE ANIMALS

## MaineDOT

IN COOPERATION WITH  
DEPARTMENT OF INLAND FISHERIES & WILDLIFE  
OFFICE OF SECRETARY OF STATE  
DEPARTMENT OF PUBLIC SAFETY  
MAINE TURNPIKE AUTHORITY

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**MOOSE**  
CRASHES PER  
100 MILLION MILES  
TRAVELED



**MOOSE**  
TOTAL CRASHES  
2005-2007  
**1,969**

FMI: [www.mainedot.gov](http://www.mainedot.gov)  
Call: 207-624-3100  
to order this poster or the  
*Danger: Moose Ahead* brochure

**Wildlife crashes happen anywhere, anytime - but be especially alert:**

- From dusk till dawn. Slow down at night
  - Driving through forested or rural areas
  - When you see one deer or moose...they tend to travel in a group so there are often more animals nearby
- If a crash is unavoidable...**
- Apply the brakes
  - Let up on the brake just before impact
  - Aim to hit the tail end of the animal
  - If possible duck to minimize injury

**MOOSE AND DEER CRASH LOCATIONS FOR THE YEARS 2005-2007**

- 1 CRASH
- 2 CRASHES
- 3 CRASHES
- 4+ CRASHES

