November 2009 Hot Topic

Subject: Inclement Weather

With winter approaching, crashes during inclement weather is this month's hot (or should it be cold) topic. For this report inclement weather is defined as either: 1) weather conditions of rain, snow, sleet, hail, severe winds, or fog; or 2) roadway surface conditions of wet, snow, slush, or ice. What does Utah crash data show in regards to inclement weather?

How big a problem is inclement weather for crashes?
Approximately 19% of crashes in Utah are during inclement weather. In 2007 there were 11,342 crashes in Utah during inclement weather.

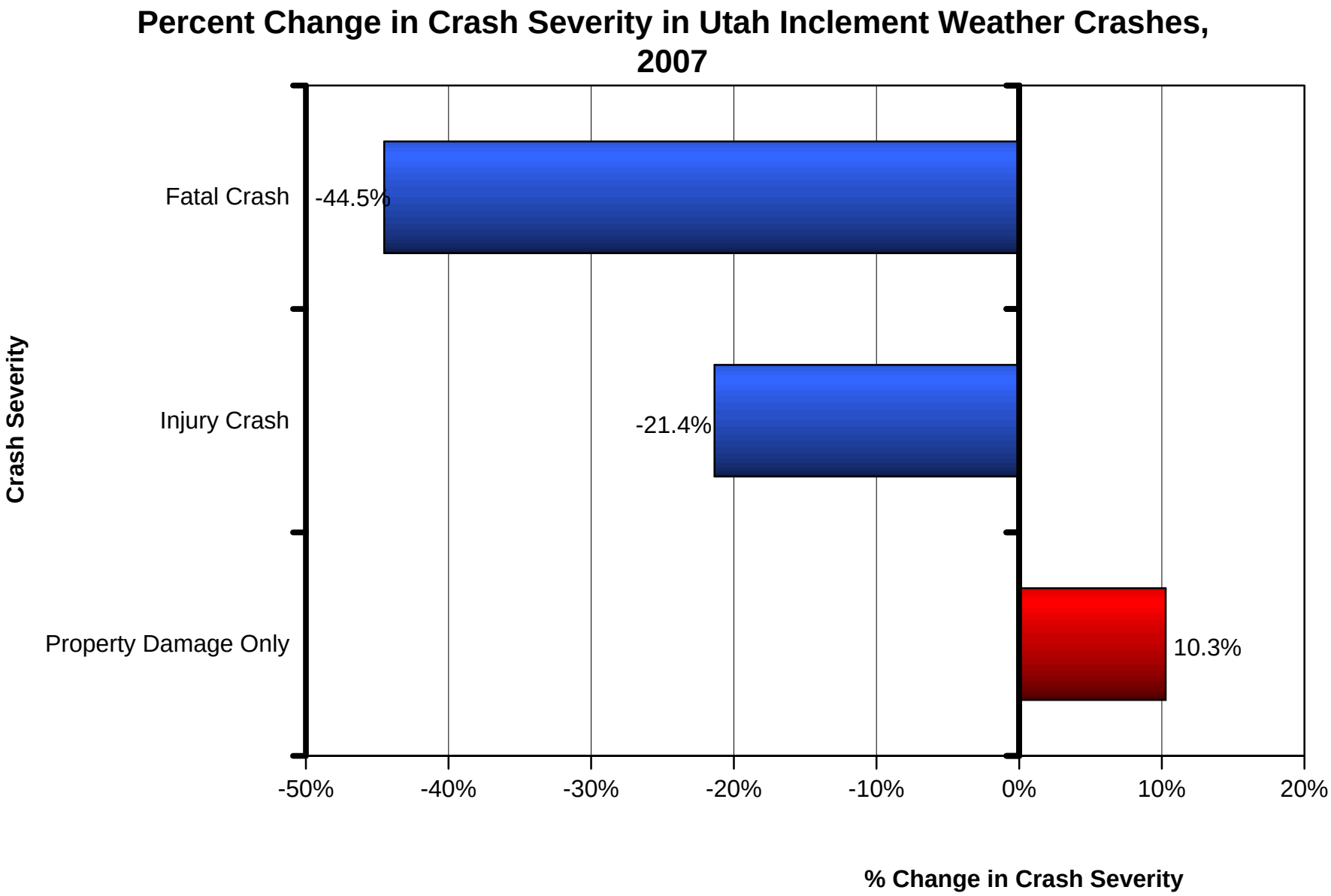
What impact does inclement weather have on crash severity?
Generally speaking inclement weather increases nonfatal crashes yet decreases fatal crashes (see page 2). Over the past 10 years, most (87%) fatal crashes occurred when roads were dry. This compares with 7% of fatal crashes occurring on wet roads, 3% on snow/slush roads, and 3% on icy roads (see charts on page 3). Crashes on dry roads were twice as likely to be fatal. Three-fourths (75%) of crashes occurring during inclement weather were property damage only crashes. Crashes during inclement weather were 41% more likely to be property damage only compared to crashes during non-inclement weather.

What days have the highest number of crashes in Utah?
An average day in Utah has around 160 crashes. Inclement weather mixed with driver incompetence can lead to a high number of crashes. For example, on Wednesday, February 15, 2006, there were 884 crashes statewide. This day had more crashes than any other day in the last few years. This day had the perfect mix of conditions for a high number of crashes. Drivers used to dry roads caught off guard on a weekday by a cold front moving statewide with heavy snow warnings impacting travel throughout the day.

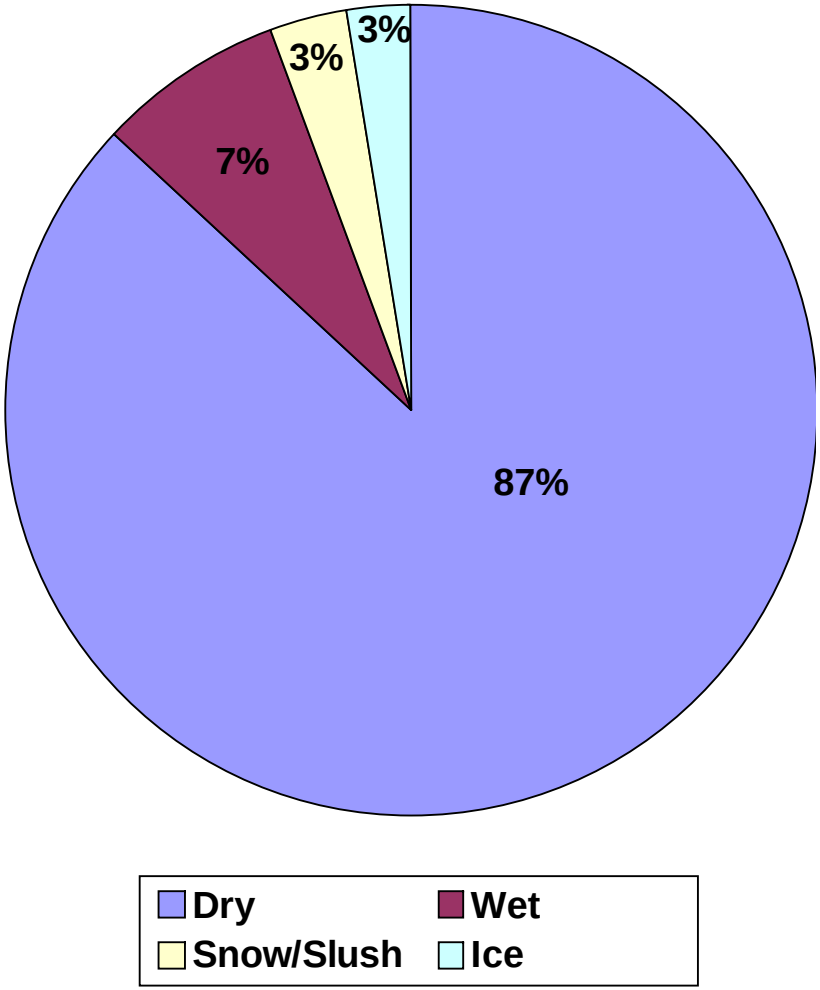
December is the highest month for inclement weather crashes. One-third of inclement weather crashes occur during December, 19% occur in January, and 13% in February. Another interesting note is that the morning hours of 5:00-10:59 a.m. had higher rates of crashes during inclement weather than during non-inclement weather, whereas rates the rest of the day were the same or lower for implement weather crashes.

Who are the drivers crashing during inclement weather?
One-half of drivers in crashes during inclement weather were under the age of 30 years. The older the driver the less likely they were to crash during inclement weather. Drivers of SUVs and pickup trucks were 15% more likely to get in a crash during inclement weather than during non-inclement weather (see page 4). Seatbelt use remained the same during inclement weather crashes compared to non-inclement weather crashes.

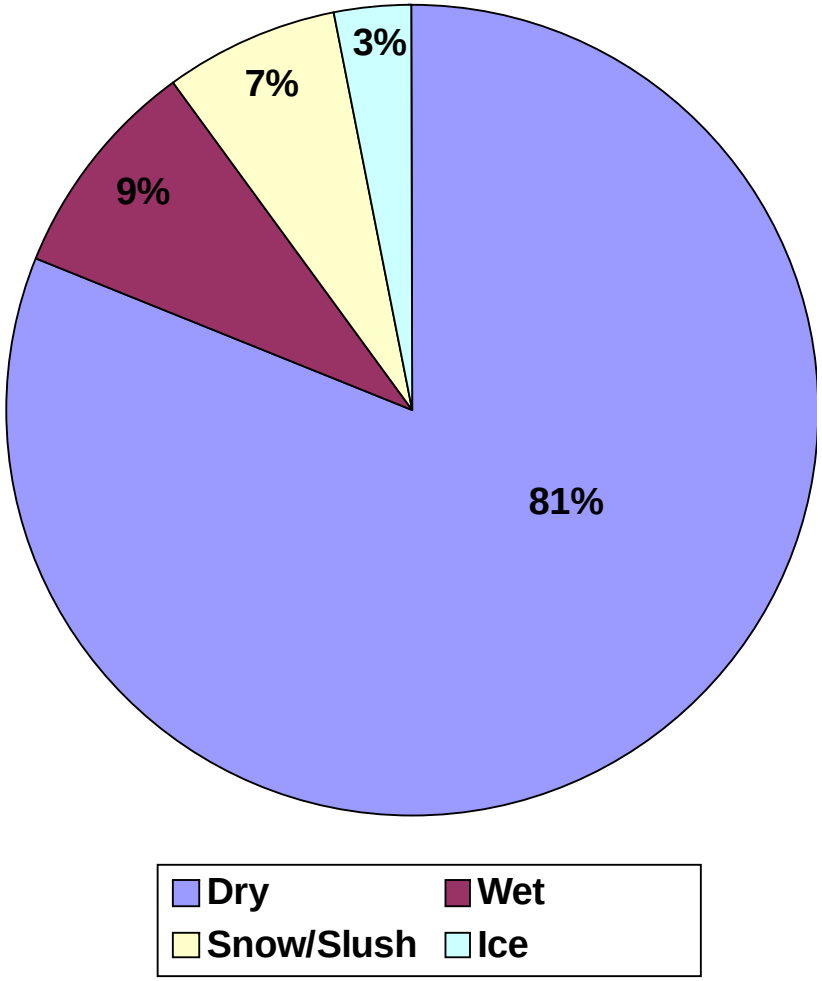
What can be done?
Inclement weather generally is not a cause of crashes. Most inclement weather crashes can be prevented by a few simple steps, such as avoiding driving when road conditions are severe, giving yourself extra time to reach your destination, decreasing speed, and increasing following distance.


Percent Change in Crash Severity in Utah Inclement Weather Crashes, 2007
Crash Severity
Fatal Crash
Injury Crash
Property Damage Only
-44.5%
-21.4%
10.3%
-50%
-40%
-30%
-20%
-10%
0%
10%
20%
% Change in Crash Severity

Road Condition in Utah Fatal Crashes, 1999-2008



Road Condition in Utah Non-fatal Crashes, 2007



Percent Change in Vehicle Type in Utah Inclement Weather Crashes, 2007