CAR CRASH ANALYSIS

In 2012, there were more than 34,000 motor vehicle deaths - about 93 people per day. The federal highway administration (FHWA) has the responsibility of providing support to state and local agencies to increase highway and roadway safety. In response, the FHWA created the Fatality Analysis Reporting System (FARS) that collects information on all fatal injuries that are vehicle-related. The FARS database serves as the primary source of information to Congress, FHWA and the National Highway Traffic Safety Administration (NHTSA) on vehicle related statistics. The FHWA seeks to use FARS data to understand the relationship between independent variables such as road conditions, speed limits, driving habits, seat belt types, etc. and the probability of a fatality in a vehicle-related accident. Understanding these relationships will, ideally, lead to policies that will save lives and create safer driving conditions.

The `Crash` dataset represents a subset of the FARS database for vehicle-related fatalities that occurred in 2012. To be included in the FARS database, each accident had to involve a fatality. The `Fatal` variable is an indicator if at least one person in a vehicle died in the accident. That is, if `Fatal`$= 0$ then no one in a vehicle died in the accident (the fatality was a pedestrian). The remaining variables are described as follows:

Variable	Description
Year	Year of accident
DOW	Day of the week (1 =Sunday)
Hour	Hour at the time of accident
Mod_year	Model year of vehicle involved in accident
Height	Driver height
Weight	Driver weight
DWI	Number of previous DWIs of drier
Age	Age of driver
Car.Type	Type of vehicle
Day	Day of the month
Drugs	Were drugs involved?
Drink	Had the driver been drinking?
Light	Light condition at time of accident
Month	Month of accident
Belt	Type of restraint used
Route	Type of highway
Sex	Gender of driver
Speed.Related	Was the accident speed related?
Speed.Limit	Posted speed limit
Road.Conditions	Condition of road at time of accident
Road.Type	Road type
Distracted	Was the driver distracted?