Effect of harmful weather conditions on human life and property

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Saturday, July 19, 2014

Synopsis

This study was done to analyse the NOAA storm database to anser two questions: 1. Across the United States, which types of weather events are most harmful with respect to population health? 2. Across the United States, which types of events have the greatest economic consequences? The U.S. National Oceanic and Atmospheric Administration's (NOAA) storm database tracks characteristics of major storms and weather events in the United States, including when and where they occur, as well as estimates of any fatalities, injuries, and property damage. For the purpose of this study, the effect of weather events on population health is measured by number of fatalities and the economic consequences are measured by total property and crop damage in USD. The study finds that the out of al the weather events, the heat wave is the most drastic of them causing on an average of 70 fatalities and injuries to humans. Also, the study showed that heavy rains/severe weather was the most drastic to cause maximum on average damage to property, damaging approx. 1.25 bn US dollar of property and crops.

Loading Data

After loading the data we will keep only those columns needed for the analysis

```
storm <- read.csv("storm.csv")
str(storm)
```

```
## 'data.frame':    902297 obs. of  37 variables:
##  $ STATE__    : num  1 1 1 1 1 1 1 1 1 1 ...
##  $ BGN_DATE   : Factor w/ 16335 levels "1/1/1966 0:00:00",..: 6523 6523 4242 11116 2224
2224 2260 383 3980 3980 ...
##  $ BGN_TIME   : Factor w/ 3608 levels "00:00:00 AM",..: 272 287 2705 1683 2584 3186 242
1683 3186 3186 ...
##  $ TIME_ZONE : Factor w/ 22 levels "ADT","AKS","AST",..: 7 7 7 7 7 7 7 7 7 7 ...
##  $ COUNTY     : num  97 3 57 89 43 77 9 123 125 57 ...
##  $ COUNTYNAME: Factor w/ 29601 levels "","5NM E OF MACKINAC BRIDGE TO PRESQUE ISLE LT M
I",..: 13513 1873 4598 10592 4372 10094 1973 23873 24418 4598 ...
```