



TORNADO INJURIES & FATALITIES (2000-2013)

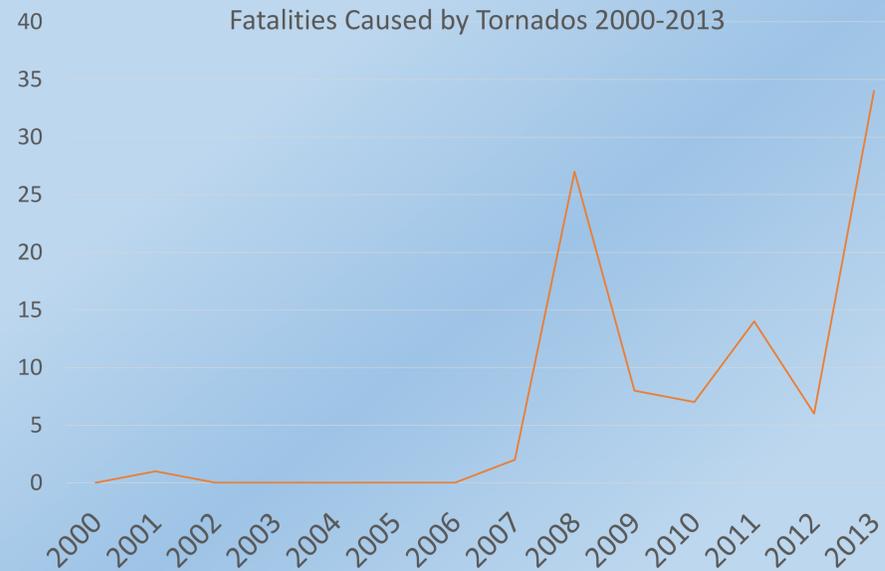
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Abstract

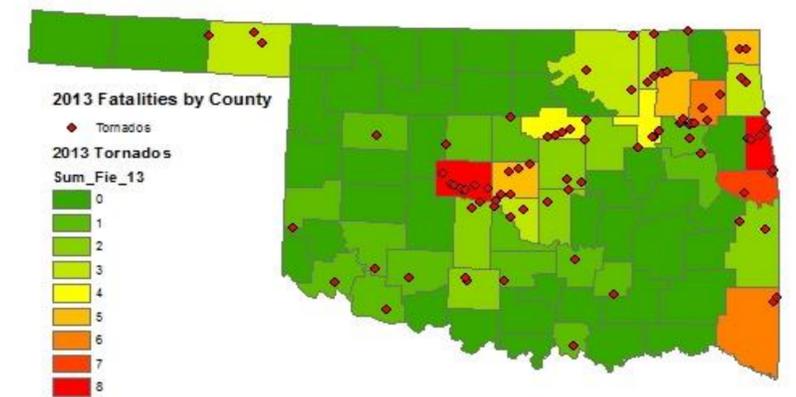
- Oklahoma experiences a high amount of severe weather and tornados.
- We have had many scientific advancements in technology and the field of meteorology that have focused on getting watches and warnings to people that may be in the paths of these dangerous storms.
- Our study is a look at the injuries and fatalities caused by these storms and if the advanced warning system is working.
- We have gathered data from the database at the Storm Prediction Center and focused our search on Oklahoma.
- We have used ArcGIS to overlay the positions of tornado touchdowns with injuries and fatalities by county over a ten year period from 2000 to 2013.
- Initially we hoped to find a decline in injuries and fatalities. Unfortunately this is not the case for all counties.
- The May tornados from 2013 were not only very powerful, but the El Reno tornado is the largest ever recorded.
- These tornados have higher than normal casualties and deaths but we do feel that this is more of an outlier to the overall trend. Years where we have more powerful tornados spike the trend.

Fatalities (2000-2013)



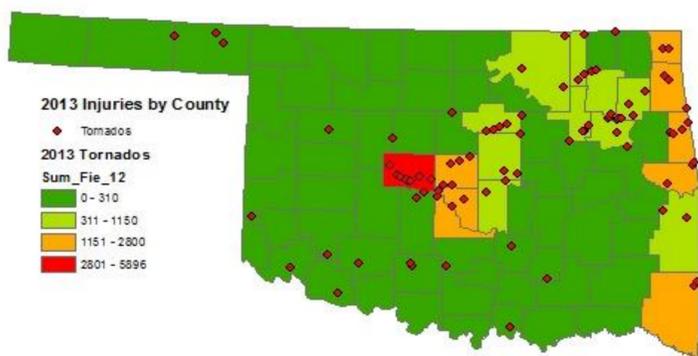
Graph 2. 2013 Fatalities
This graph shows the number of fatalities that occurred from tornados in Oklahoma from 2000-2013.

2013 Fatalities by County



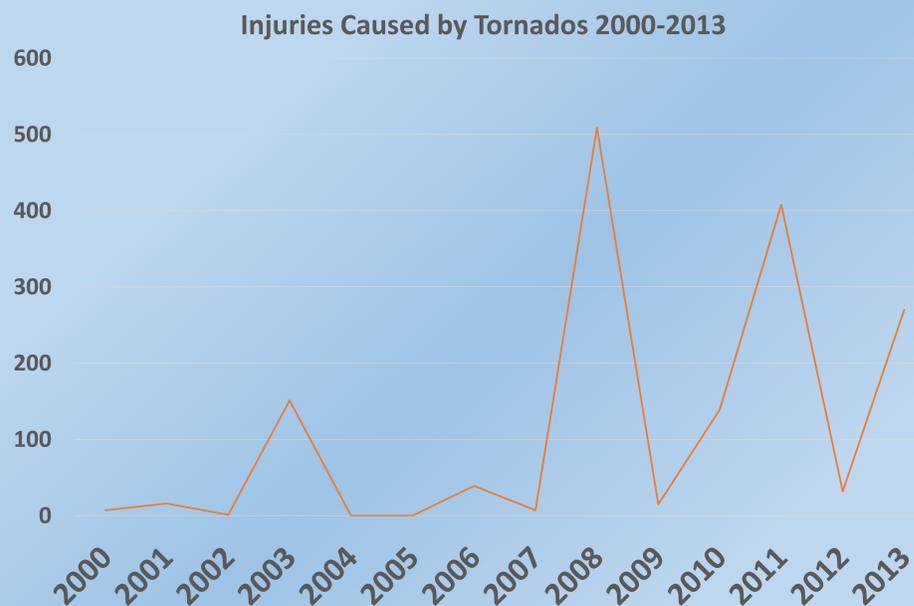
Map 2. 2013 Fatalities by County
This map shows the concentration of Fatalities that occurred from Oklahoma tornados in the year 2013. The red markers signify each tornado recorded in 2013.

2013 Injuries by County



Map 1. 2013 Injuries by County
This map shows the concentration of injuries that occurred from Oklahoma tornados in the year 2013. The red markers signify each tornado recorded in 2013.

Injuries (2000-2013)



Graph 1. 2013 Injuries (2000-2013)
This graph shows the number of injuries that occurred from tornados in Oklahoma from 2000-2013.

Conclusions

- Our research showed a drastic increase in the amount, and intensity of tornados from 2000 to 2013.
- Fatalities, and injuries followed a trend of increasing, in congruency with an increasing amount of total tornados.
- What we originally were looking for was a decrease in the amount of tornados and injuries, but once we studied the data, it proved to be the opposite.
- We were hoping that with increases in technology, and warning time people would be able to react better. Our findings have shown that the intensity, and frequency have had a large impact on the increase in injuries and fatalities.