Flood Related Fatalities in the United States (AL and CA)

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Research Area

This research details flood related fatalities in Alabama from January 1963 to December 2017 and California from January 1959 to December 2017. The data records fatalities due to Coastal Flood, Flash Flood, Flood, Heavy Rain, Hurricane, and Tropical Storms. This data was researched from the National Oceanic And Atmospheric Administration (NOAA.gov, 7/25/2019).

Motivation or Background

The purpose of this research is to obtain a complete updated analysis of flood related fatalities in order to update an article written by Dr. Hatim Sharif on the Analysis of Flood Related Deaths in Texas which shows flooding to be the leading cause of natural disaster related fatalities in Texas. Considering the updated information, fatalities related to flooding remained the main cause of death during natural disasters. Additionally, a large percentage of these drownings are due to flash flooding and general undermining the power of moving water. Flood related damages vary from thousands to millions of dollars in property losses per incidence. With this research, engineering students are enriched with a better understanding of the effect of flooding and where flooding mostly occurs**.**

Objectives

- Collecting data in the form of fatalities for Alabama and California related to flooding and then recording the unfortunate casualties.
- Increase knowledge on how to perform research, record data effectively, and the general devastation of natural disasters.

Methodology

- Collecting data form the National Center for Environmental Information
  - Manually examine data month by month, specifically, flood fatalities in each State.
  - Record year, date, gender, age group, vehicle involvement, location, and a brief summery of each fatality.

Results

The amount of flood related fatalities vary throughout the states. Many of the recorded fatalities from 1960 to1970 lack specification in age and gender labeled 00. Research shows that the number of deaths decreases through the years, most likely due to technology advancements and increase knowledge of flooding prevention methods.

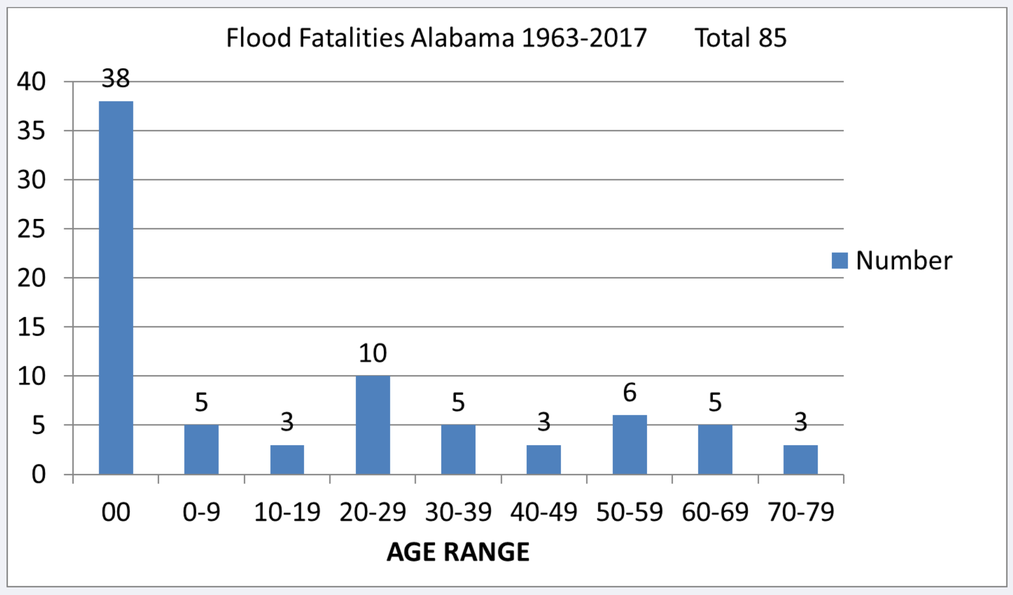

Fig. 1. Flood fatalities in Alabama

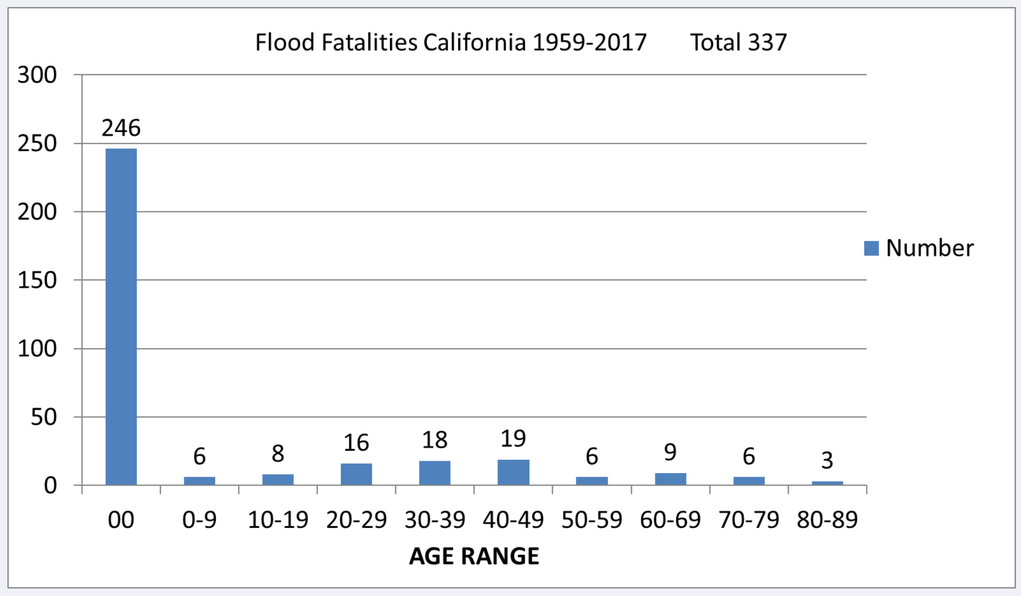

Fig. 2. Flood Fatalities in California

Skills and Experience

- Data collecting
- Data analysis
- Data organization and graphing in Excel

What I Learned

- I learned that the University of Texas at San Antonio Library has numerous resources available for students to be successful in their research.
- I learned time management skills and to analyze large amounts of data efficiently.
- I learned about flooding its damaging effects.
- I learned ways to prevent flood fatalities by analyzing those recorded in the past.

Future Plans

- The research of flooding and natural disasters may be the best way to prevent future fatalities through investigation of our past. Ultimately, the goal would be to find a way to diminish fatalities to a minimum.

Acknowledgments

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References

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