

Programming Final Coding Challenge

For my Final Coding Challenge, I analyzed data from the Yosemite Search and Rescue (YOSAR) program. In this data there was approximately 2,000 incidents described by factors such as incident year, date initiated, day of week, notification method, medical or injury type, contributing factors, incident type, rescue disposition, victim activity, victim gender, victim age, search type, and georeferenced locality. In order to better understand this data, I used Python 3 to analyze the data and answer various questions.

The first question I asked was how many of the reported incidents resulted in fatalities. In this dataset there was 69 fatalities. Of this data more males than females got into incidents. The most common type of incident was categorized as “Other”, but the second most common accident was “Heat Illness and Dehydration”. The most common contributing factor to these incidents was unknown, and the second most common contributing factor is ground level fall. Most accidents occurred while the victim(s) were engaging in “Hiking – day walking”. Most incidents in this dataset occurred on a Sunday. As for the reports themselves the most common method of notifying YOSAR something is up is through Cell. Most searches were executed by land, and the most common rescue method employed by YOSAR is hiking. The place with the most incidents in this dataset is Vernal Falls Footbridge. The most common victim age was 0 years old. The oldest victim was 86 years old.

I was also interested in the year that had the most accidents. I found 2008 was the year that reported the most incidents. There were 233 incidents in 2008. The most common type of incident in this year was the Carry Out. The season that saw the most accidents in 2008 was the summer (June, July, August) with 142 accidents. Specifically, the month with the most incidents was July with 52 accidents.

Questions that were of considerable interest to me were about 21-year olds and climbers. I was curious as to what the most common type of accident for 21-year olds was. After analysis I found that most 21-year olds suffered minor or extremity trauma. As someone interested in climbing, I knew Yosemite is considered *the* mecca for big wall climbing. Therefore, I was interested in seeing what kinds of climbing accidents have occurred in Yosemite in this dataset. I found that roped climbing resulted in 128 accidents from 2001 to 2011. Unroped climbing also resulted in 13 accidents in this period.