**Statistics Investigation: Fatal Encounters Dataset**

Fatal Encounters ([fatalencounters.org](http://www.fatalencounters.org)) is a website dedicated to “creating an impartial, comprehensive and searchable national database of people killed during interactions with police”. The creators of the website state that they “try to document all deaths that happen when police are present or that are caused by police: on-duty, off-duty, criminal, life-of-duty, local, federal, intentional, accidental – all of them.” This includes deaths of police officers.

The website provides options to download the entire dataset (which contains over 34,000 entries as of December, 2021) or download a subset of the data using filters. For this investigation you will explore a subset of the data by using a plug-in made for CODAP: <https://codap.concord.org/releases/latest/static/dg/en/cert/index.html?di=https://codap.concord.org/~jsandoe/FatalEncounters>

**Driving question:** Is there a relationship between the age and the race of those killed in fatal encounters with police?

1. **What do you think?** Jot down your thoughts here before you explore your data.

Each person will download a subset of this data from the Fatal Encounters site. On the page link, choose a state to investigate. You may want to choose your home state or another state of interest. You’ll see that the box “downsample if over 1000” is chosen. Some states have very large samples (for instance, CA has 4,969 cases!). Large samples can slow down CODAP. You can unclick this if you’d rather see the whole dataset for the state you choose.

1. Create a graph of the variable Age. Describe the distribution of the data. Is the data symmetric or skewed? Is there a mode or multiple modes?
2. Using this graph describe the center of your dataset. What is the mean and median? Are there any outliers? Do these outliers affect the mean?
3. Create a boxplot of your data. What is the five-number summary? Where does the middle 50% of the data lie?
4. Now we will revisit our driving statistical question, is there a relationship between the age at death and race? In your graph for age, drag the variable race (choose race or inferred race) onto the y-axis. Find the mean and median of the following races.

|  |  |  |
| --- | --- | --- |
| **Race\*** | **Mean** | **Median** |
| Native American/Alaskan |  |  |
| Hispanic/Latino |  |  |
| Asian/Pacific Islander |  |  |
| European-American/White |  |  |
| African-American/Black |  |  |

\*Note: The variable “Race” was determined by the news report where the case was found. If the report explicitly state the race of the person it was recorded. If not, it was left as Race Unspecified. “Inferred Race” is the race of the person based on pictures from the report. This is the race inferred by the person reporting the event.

1. Based on your sample of data, write a conclusion to the following question using your findings to support your answer.

**For the state of \_\_\_\_\_\_\_\_\_\_\_, is there a relationship between the age of death and race of people involved in fatal encounters with police? Provide statistical evidence for your conclusion.**

1. Choose one of the people in your dataset. Find the “Supporting Document Link” and copy and paste the URL into your browser. Give a brief account of what happened to cause the fatality of this person.