Execution by United States Government - Analysis
Jodi Kim

Executive Summary

This dataset represents capital punishment or also called the death penalty in the United States from 1977-2023. This is a state sanctioned practice of killing a person for a crime committed or supposed.

I'm using this dataset because I'm passionate about social justice, particularly in the United States. Exploring this dataset can bring awareness and hopefully change to such causes.

Data Source

Open-source data downloaded from Kaggle, found from the Death Penalty Information Center (DPIC).

Limitations and Ethics

The data has personal information: these columns have been removed for data privacy
- first name
- last name
- middle name(s)
- suffix

The column name ' execution volunteer' is vague and lends itself to misinterpretation. It could be interpreted as the following:
- Did the person volunteer to be executed early? Before their execution date?
- Did the person volunteer to be executed but they were not on death row / sentenced to be executed?

More research is needed to determine the meaning of this column. I will find out more from the data source: Death Penalty Information Center (DPIC).

Here are variables that would lend itself to a deeper analysis:
- age of person executed
- what kind of crime committed?
- how long between a person's sentence to death and execution?
- what country are the foreign nationals from?
- each state's status on legality of death penalty
- did the victim's family want the death penalty for executed person?

Data Cleaning and Data Consistency Checks
- no duplicates
- no missing data
- check for mixed data type

- all column names have been changed to lowercase for consistency
- added underscore (_) to columns with multiple names
- shortened column names by removing 'number'
- new column names:
  - 'id', 'execution_volunteer', 'number_of_victims', 'juvenile', 'race',
  - 'sex', 'region', 'country', 'state', 'foreign_national',
  - 'execution_date', 'white_male_victims',
  - 'black_male_victims', 'latino_male_victims',
  - 'asian_male_victims', 'native_amer_male_victims',
  - 'other_race_male_victims', 'white_female_victims',
  - 'black_female_victims', 'latino_female_victims',
  - 'asian_female_victims',
  - 'amerindian_nativealask_female_victims',
  - 'other_race_female_victims', 'victims_races'

Data Profile
1561 rows, 28 columns
1561 rows, 24 columns (after cleaning)

Column Details

Column	Description	Time Variant / Invariant	Data Type
id	unique number assigned to each person executed	invariant	quantitative, discrete
execution_volunteer	whether a person volunteered to be executed or not (yes/no)	invariant	binary
number_victims	the number of victims that the executed person victimized	invariant	quantitative, continuous
juvenile	is the executed person a juvenile (under 18)? (yes/no)	invariant	binary
race	race of executed person	invariant	nominal
sex	gender of person executed	invariant	binary
region	region of where person was executed	invariant	nominal, ordinal
country	country where person was executed	invariant	nominal, ordinal
state	state where person was executed	invariant	nominal, ordinal
foreign_national	whether person exectuted was a foreigner / had US citzenship	invariant	binary
execution_date	date person was executed	variant	quantitative, continuous
white_male_victims	number of victims white male caused by executed person	variant	quantitative, continuous
black_male_victims	number of victims black male caused by executed person	variant	quantitative, continuous
latino_male_victims	number of victims latino male caused by executed person	variant	quantitative, continuous
asian_male_victims	number of victims asian male caused by executed person	variant	quantitative, continuous
native_amer_male_victims	number of native american male victims caused by executed person	variant	quantitative, continuous
other_race_male_victims	number of other races male victims caused by executed person	variant	quantitative, continuous
white_female_victims	number of white female victims caused by executed person	variant	quantitative, continuous
black_female_victims	number of black female victims caused by executed person	variant	quantitative, continuous
latino_female_victims	number of latino femaile victims caused by executed person	variant	quantitative, continuous
asian_female_victims	number of asian female victims caused by executed person	variant	quantitative, continuous
amerind_ nativealask_female_victims	number of american indian and native alaskan female victims caused by executed person	variant	quantitative, continuous
other_race_female_victims	number of other races female victims caused by executed person	variant	quantitative, continuous
victims_races	race of victim	invariant	nominal

Questions to Explore
What state is executing people the most? least?
Is there a correlation between number of victims and execution?
Has the frequency of executions increased over time? Is there a correlation with crime rates?
Are people of color being executed at higher rates?
Are Black people executed at higher rates for victims that are white?