

CIS 4400 Final Report

Police Violence Analysis

Project Idea: Analyzing police shooting statistics over the last 5 years.

Datasets:

- <https://www.kaggle.com/kwulum/fatal-police-shootings-in-the-us>
- <https://www.kaggle.com/jpmiller/police-violence-in-the-us>

Key Performance Indicators:

- Number of police shootings/police violence cases per state
- Number of police shootings/police violence cases per year
- Breakdown of shootings in terms of victim's race
- Average age of victims killed by police.
- Number of police shootings per state in relation to that state's poverty level.
- Comparison between police shootings and police officers killed on duty.
- Police departments with the highest amount of shootings.
- Most common manner of death for victim deaths. (i.e. gun, taser, etc.)

Introduction Section:

The datasets analyze police shooting statistics over the last 5 years
Since Jan. 1, 2015.

This data is not the most reliable as police killings haven't been
comprehensively documented and the statistics on police brutality are
much less available.

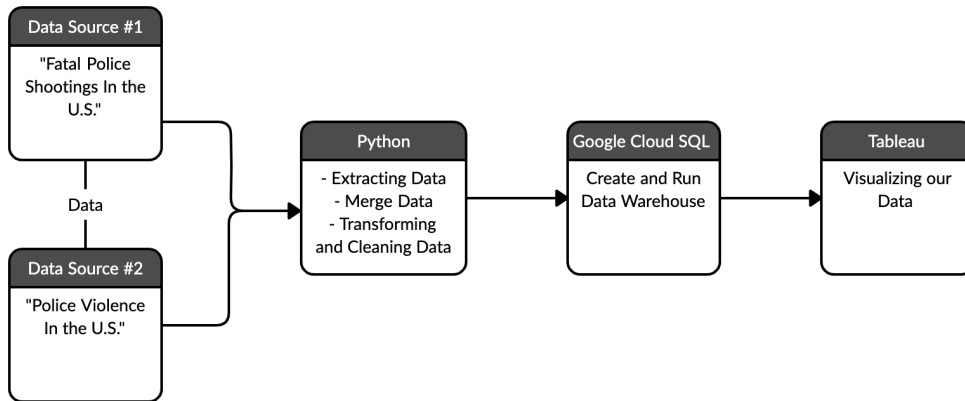
There are different columns:

Our first dataset contains descriptive details about the crimes including:
race, age, gender, whether the person was armed etc.

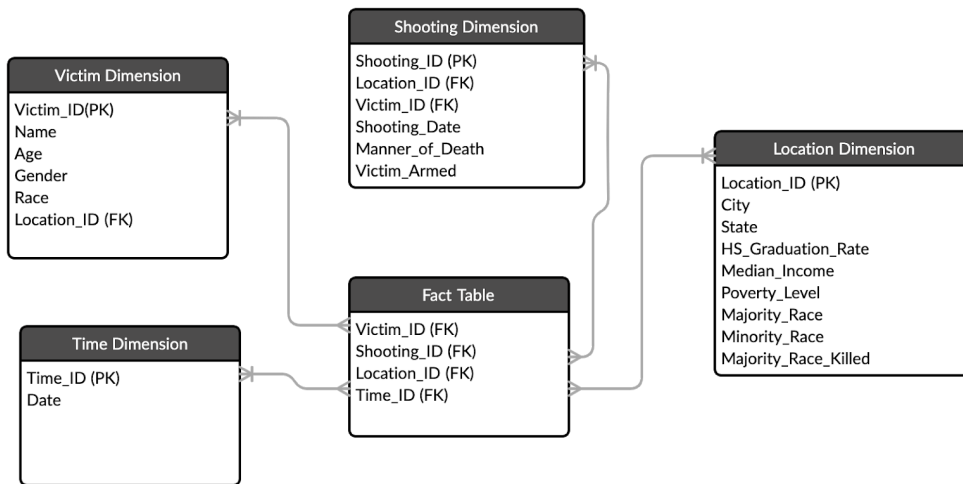
Our second dataset includes geographic information for cities in the U.S,
such as: poverty level and race demographic.

Dimensional Model Diagram:

Architecture Diagram



Logical Data Model



ETL: github.com/shanekatwaroo/CIS4400Final

Tables/Datasets

```

+-----+
| Tables_in_project |
+-----+
| PovertyLevel      |
| ShareRace         |
| Shootings         |
+-----+
  
```

Three tables are: PovertyLevel, ShareRace, Shootings

PovertyLevel Table

state	city	poverty_rate
AL	Abanda CDP	78.8
AL	Abbeville city	29.1
AL	Adamsville city	25.5
AL	Addison town	30.7
AL	Akron town	42

These rows show the poverty rate in Alabama and different cities.

ShareRace Table

state	city	share_white	share_black	share_native_american	share_asian	share_hispanic
AL	Abanda CDP	67.2	30.2	0	0	1.6
AL	Abbeville city	54.4	41.4	0.1	1	3.1
AL	Adamsville city	52.3	44.9	0.5	0.3	2.3
AL	Addison town	99.1	0.1	0	0.1	0.4
AL	Akron town	13.2	86.5	0	0	0.3

These rows show the percentage of race in different cities,state,share_white,share_black,share_native_american,share_asian and share_hispanic.

id	name	date	manner_of_death	armed	age	gender	race	city	state	mental_illness	threat_level	flee	body_camera
3	Tim Elliot	2015-01-02	shot	gun	53	M	A	Shelton	WA	True	attack	Not fleeing	False
4	Lewis Lee Lembke	2015-01-02	shot	gun	47	M	W	Aloha	OR	False	attack	Not fleeing	False
5	John Paul Quintero	2015-01-03	shot and Tasered	unarmed	23	M	H	Wichita	KS	False	other	Not fleeing	False
8	Matthew Hoffman	2015-01-04	shot	toy weapon	32	M	W	San Francisco	CA	True	attack	Not fleeing	False
9	Michael Rodriguez	2015-01-04	shot	nail gun	39	M	H	Evans	CO	False	attack	Not fleeing	False

Shootings Table

The table shows each person's characteristics.

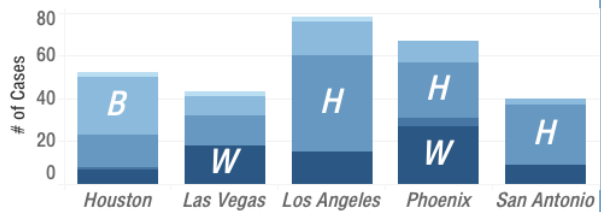
Police Violence Analysis Dashboard

Yearly Statistics



The number of police violence cases has been on a constant rise since 2016.

Cities with Highest # of Cases



Distribution of Race in Cities with Highest Rates

Houston



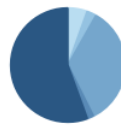
Las Vegas



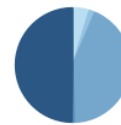
Los Angeles



Phoenix



San Antonio



Race
 Black
 Asian
 Hispanic
 Native American
 White

As you can see, it is clear that **minorities** are the main victims of police violence.

THE AVERAGE POVERTY RATE
IN U.S. CITIES IS

16.44%

Poverty Rates for Cities

Houston

22.5%

Las Vegas

17.5%

Los Angeles

22.1%

Phoenix

23.1%

San Antonio

19.8%

Cities with Highest # of Cases



Poverty Rates for Cities

Houston

22.5%

Las Vegas

17.5%

Los Angeles

22.1%

Phoenix

23.1%

San Antonio

19.8%

