



Case Study

 Privacy, Technology, and School Shootings: https://www.scu.edu/ethics/privacy/case-study-on-online-privacy/

Introduction

The recent school shootings has prompted drastic measures to be taken by school administrators in curbing these actions. However, ethical issues surrounding this measures are called to question.

By analysing the data on school shootings among campuses in the US, we seek to find out if this measures are worth keeping irrespective of the ethical issues surrounding it.

Data provided will be used to seek out the trend of shooting types in relation to the effectiveness of the use of monitoring tools to address them.

5W 1H Analysis 1 – Who

#	Question	Answer							
Q1.1	Who is involved?	Students, School teachers, Administrators, Shooter							
Q1.2	Who is affected?	tudents, School teachers, Administrators and parents							
Q1.3	Who will benefit?	Public and private schools							
Q1.4	Who will be harmed?	Students, Teachers							

5W 1H Analysis 2 – What

#	Question	Answer
Q2.1	What is your topic narrowed down in a simple phrase/sentence?	Effectiveness of measures in curbing School shootings among Public and Private Schools in the US.
Q2.2	What does your topic involve? (i.e. What are the different parts to it?)	Measures of curbing school shootings Effectiveness of these measures Ethical concerns surrounding these measures
Q2.3	What is it similar to / different from?	NA
Q2.4	What might be affected/changed by your topic?	NA

5W 1H Analysis 3 –When

#	Question	Answer
Q3.1	When does this take place? When did this take place? When will it take place? When should this take place?	This had taken place already
Q3.2	Does when this takes place affect the topic?	NO

5W 1H Analysis 4 – Where

#	Question	Answer
Q4.1	Where does this take place? (Where did it Where will it Where should it?)	Public and private schools
Q4.2	Does it matter where it takes place? Is it affected by location?	Yes, the analysis is based on school shootings and it's enviroments

5W 1H Analysis 5 – Why

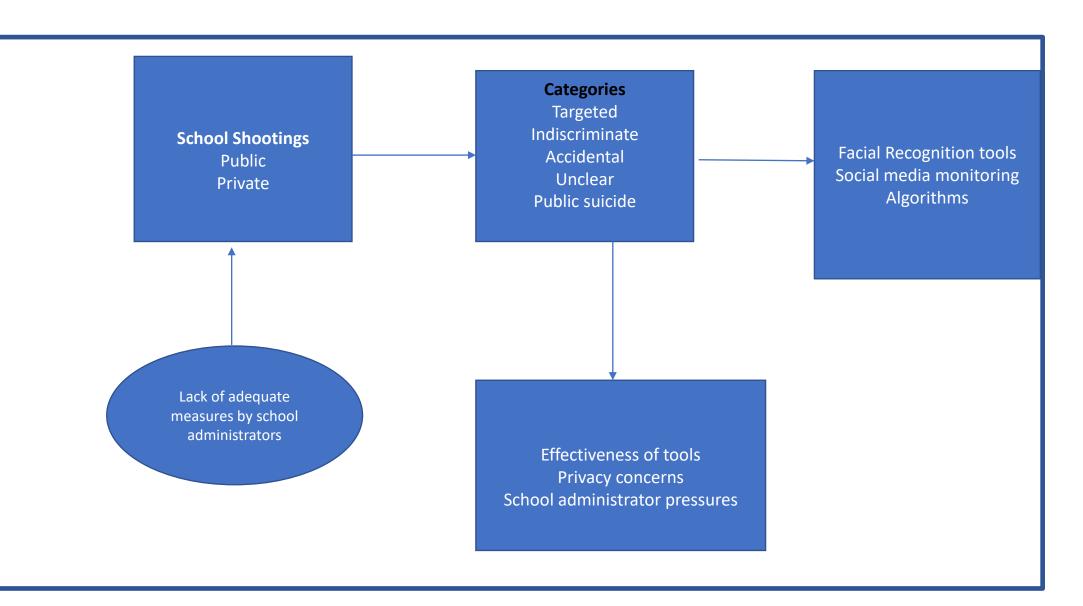
#	Question	Answer
Q5.1	Why is this topic important? Why does it matter?	Due to the frequent amount of school shootings, and the need for protection of students and teachers, analysis of effective and ethical measures are of utmost importance.
Q5.2	Why do certain things happen? (What are some causes and effects within the topic?)	School shootings are caused by the lack of measures put in place by school administrators around school environs.

5W 1H Analysis 6 – How

#	Question	Answer
Q6.1	How does this topic work? How does it function? How does it do what it does?	NA
Q6.2	How did it come to be?	Lack of adequate measures put in place by school administrators
Q6.3	How are those involved affected?	Adequate analysis of the measures can help secure student and teacher safety and in addition bring assurances to parents who send their children to schools.



Data Modeling – Conceptual Model



Data Dictionary

No	Topic	Definition
1	School Enrolment	Amount of students enrolled into the school
2	Amount Killed	Amount of students killed in school shootings
3	Amount injured	Amount of students injured in school shootings
4	Causalities	Amount of student casualties in school shooting
5	School name	Name of public and private schools involved with school shootings
6		
7		
8		
9		
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Business Question

- ☐ What ethnic race is the most targeted?
- ☐ What state has the highest rate of school shootings?

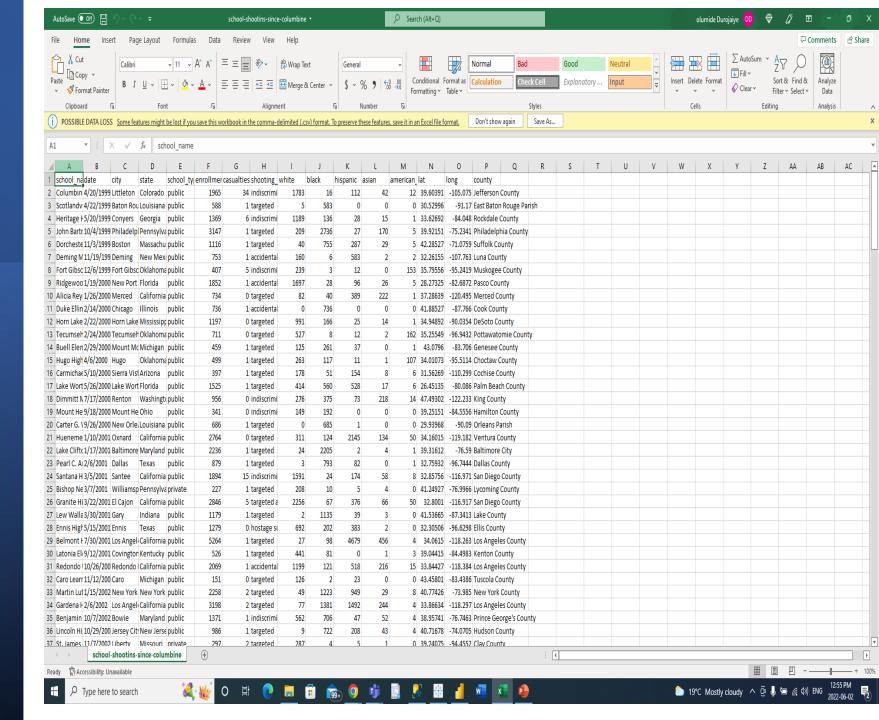


Data Set(s)

• school-shootins-since-columbine.csv



Data Preparation – Data cleansing



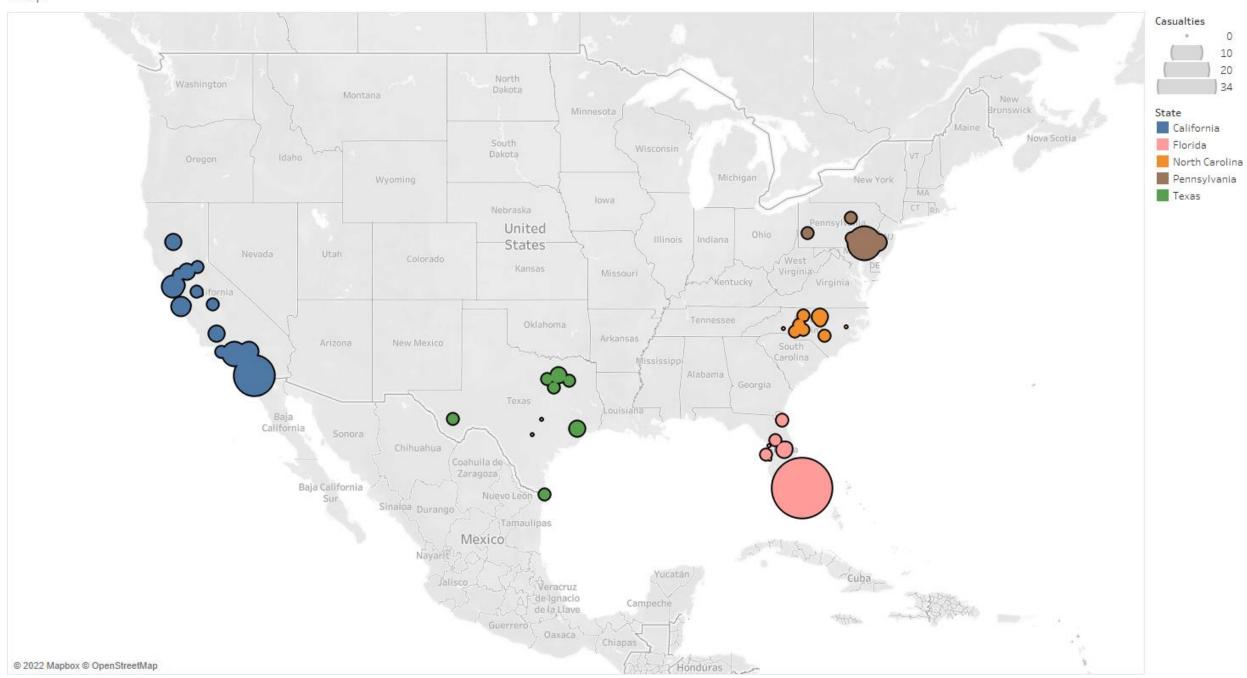


School shootings dataset queries.sql

```
select [school_name]
• ,[date]
• ,[city]
,[state]
• ,[school_type]
• ,[enrollment]
• ,[casualties]
,[shooting type]
,[white]
• ,[black]
• ,[hispanic]
• ,[asian]
,[american_indian_alaska_native]
• ,[lat]
• ,[long]
• ,[county]
• from [dbo].[school-shootins-since-columbine]
```

System Databases	$\overline{}$																
	100 %	% ▼															
⊕ AdventureWorksDW2019		Results Messages															
⊕ 🔒 Glo temp		school_name	date	city	state	school_type	enrollment	casualties	shooting_type	white	black	hispanic	asian	american_indian_alaska_native	lat	long	county
☐ School shooting	4	John Bartram High School	1999-10-04	Philadelphia	Pennsylvania	public	3147	1	targeted	209	2736	27	170	5	39.921509	-75.234108	Philadelphia County
🗓 📒 Database Diagrams	5	Dorchester High School	1999-11-03	Boston	Massachusetts	public	1116	1	targeted	40	755	287	29	5	42.285268	-71.075901	Suffolk County
☐ Tables	6	Deming Middle School	1999-11-19	Deming	New Mexico	public	753	1	accidental or targeted	160	6	583	2	2	32.261547	-107.762986	Luna County
⊕ 🗐 System Tables	7	Fort Gibson Middle School	1999-12-06	Fort Gibson	Oklahoma	public	407	5	indiscriminate	239	3	12	0	153	35.795556	-95.241921	Muskogee County
⊕ FileTables	8	Ridgewood High School	2000-01-19	New Port Richey	Florida	public	1852	1	accidental	1697	28	96	26	5	28.273253	-82.687231	Pasco County
⊕ External Tables	9	Alicia Reyes Elementary School	2000-01-26	Merced	California	public	734	0	targeted	82	40	389	222	1	37.286387	-120.494808	Merced County
⊕ Graph Tables	10	Duke Ellington Elementary School	2000-02-14	Chicago	Illinois	public	736	1	accidental	0	736	0	0	0	41.885272	-87.766042	Cook County
dbo.school-shootins-since-columbi	11	Hom Lake High School	2000-02-22	Hom Lake	Mississippi	public	1197	0	targeted	991	166	25	14	1	34.948919	-90.035423	DeSoto County
□ Columns	12	Tecumseh High School	2000-02-24	Tecumseh	Oklahoma	public	711	0	targeted	527	8	12	2	162	35.255494	-96.943184	Pottawatomie County
school_name (varchar(500), r	13	Buell Elementary School	2000-02-29	Mount Morris Township	Michigan	public	459	1	targeted	125	261	37	0	1	43.079604	-83.706037	Genesee County
date (date, null)	14	Hugo High School	2000-04-06	Hugo	Oklahoma	public	499	1	targeted	263	117	11	1	107	34.010732	-95.511435	Choctaw County
city (varchar(500), null)	15	Camichael Elementary School	2000-05-10	Sierra Vista	Arizona	public	397	1	targeted	178	51	154	8	6	31.56269	-110.29924	Cochise County
目 state (varchar(500), null) 目 school_type (varchar(500), nu	16	Lake Worth Middle School	2000-05-26	Lake Worth	Florida	public	1525	1	targeted	414	560	528	17	6	26.451351	-80.085968	Palm Beach County
enrollment (numeric(18,0), ni	17	Dimmitt Middle School	2000-07-17	Renton	Washington	public	956	0	indiscriminate	276	375	73	218	14	47.493015	-122.233115	King County
acasualties (numeric(18,0), nul	18	Mount Healthy North Junior High	2000-09-18	Mount Healthy	Ohio	public	341	0	indiscriminate	149	192	0	0	0	39.251506	-84.555558	Hamilton County
shooting_type (varchar(500),	19		2000-09-26	New Orleans	Louisiana	public	686	1	targeted	0	685	1	0	0		-90.090046	Orleans Parish
white (numeric(18,0), null)	20	Hueneme High School	2001-01-10		California	public	2764	0	targeted	311	124	2145	134	50		-119.1822	Ventura County
black (numeric(18,0), null)	21	Lake Clifton Eastern High School	2001-01-17	Baltimore	Maryland	public	2236	1	targeted	24		2	4	1		-76.590038	Baltimore City
hispanic (numeric(18,0), null)	22	-		Dallas	Texas	public	879	1	targeted	3	793	82	0	1	32.759323	-96.744389	Dallas County
asian (numeric(18,0), null)	23		2001-03-05	Santee	California	public	1894	15	indiscriminate	1591	24	174	58	8	32.85756	-116.971045	San Diego County
american_indian_alaska_nativ	24	-	2001-03-07	Williamsport	Pennsylvania	private	227	1	targeted	208	10	5	4	0	41.249266	-76.996564	Lycoming County
lat (varchar(500), null)	25	·		El Cajon	California	public	2846	5	targeted and indiscri	2256	67	376	66	50	32.800101	-116.916889	San Diego County
long (varchar(500), null)	26	Lew Wallace High School	2001-03-30		Indiana	public	1179	1	targeted	2	1135	39	3	0	41.536645	-87.34132	Lake County
county (varchar(500), null)	27	Ennis High School	2001-05-15		Texas	public	1279	0	hostage suicide	692	202	383	2	0	32.305062	-96.629758	Ellis County
⊕ 🖷 Keys	28	Belmont High School	2001-07-30		California	public	5264	1	targeted	27	98	4679	456	4		-118.263286	Los Angeles County
	29	Latonia Elementary School	2001-09-12		Kentucky	public	526	1	targeted	441	81	0	1	3	39.044149	-84.49833	Kenton County
	30	Redondo Union High School		Redondo Beach	California	public	2069	1	accidental	1199	121	518	216	15	33.844274	-118.384456	Los Angeles County
	31	Caro Learning Center	2001-11-12		Michigan	public	151	0	targeted	126	2	23	0	0	43.458011	-83.438553	Tuscola County
	32	Martin Luther King Jr. High School		New York City	New York	public	2258	2	targeted	49	1223	949	29	8	40.774262	-73.985021	New York County
⊕ 📁 Views	33	Gardena High School		Los Angeles	California	public	3198	2	targeted	77	1381	1492	244	Δ	33.866342	-118.296704	Los Angeles County
	34	Benjamin Tasker Middle School	2002-02-08	Bowie	Maryland	public	1371	1	indiscriminate	562	706	47	52	4	38.957407	-76.746341	Prince George's County
⊕ 🗐 Synonyms	35	Lincoln High School		Jersey City	New Jersey	public	986	1	targeted	9	722	208	43	4 A		-74.070502	Hudson County
⊕ Programmability	36	St. James Catholic School	2002-10-23		Missouri		297	2	_	287	144	5		0		-94.45515	Clay County
⊕ ■ Service Broker	37		2002-11-07		Rhode Island	private	1641	0	targeted	247	200	831	•		41.837981		Providence County
⊕ <u> </u>	20	Mount Pleasant High School				public		0	targeted		396			12			•
⊕ <u>≡</u> Security	30	Ranum High School	2003-02-05		Colorado	public	1434	1	targeted	539	18	748	112			-105.015495	
Security Security	39	Cardozo High School	2003-04-01	_	District of Col	public	749	1	targeted	6	530	183		2		-77.029756	District of Columbia
⊕ Server Objects	40	John McDonogh High School	2003-04-14	New Orleans	Louisiana	public	1260	4	targeted	10	1241	9	0	0			Orleans Parish
>	00	Query executed successfully.												DESKTOP-NSU0G7U (15.0 RTI	M) DESK10	P-NSU0G7U\D	ell (59) School shooting
Ready										Ln 1		Col 29		Ch 29 INS			

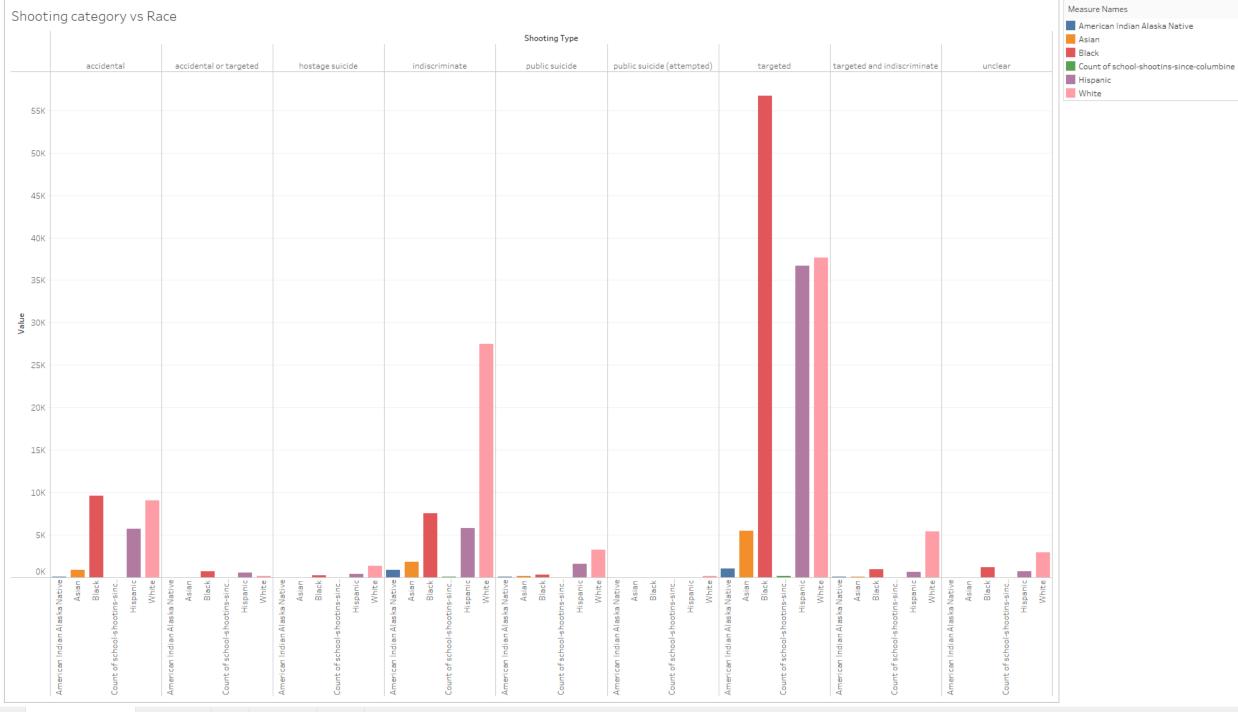




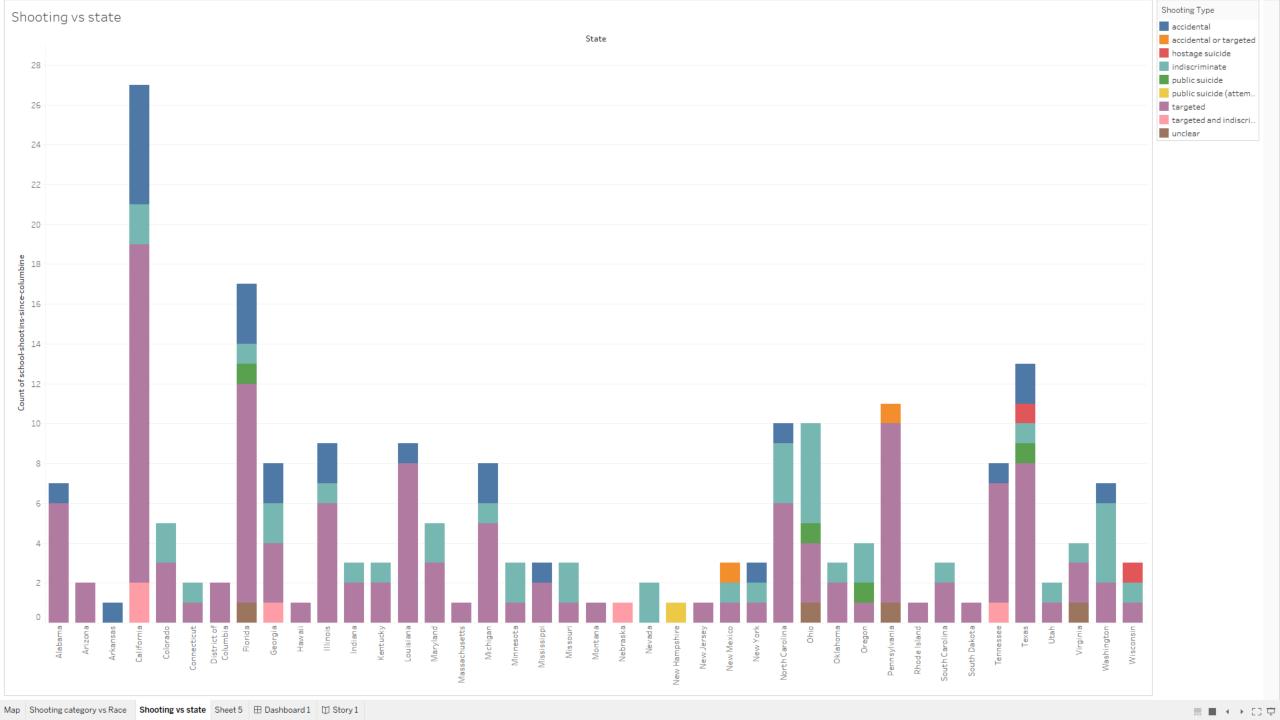
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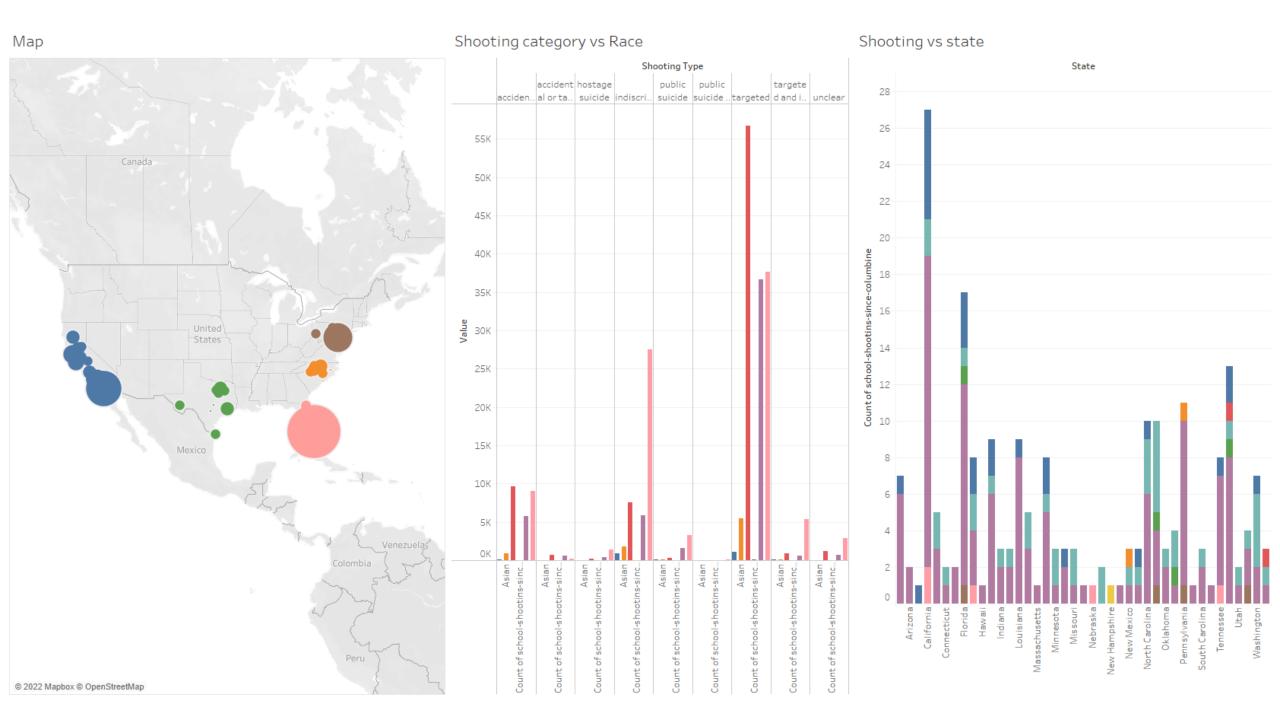
34

Map based on Longitude and Latitude. Color shows details about State. Size shows sum of Casualties. The view is filtered on State, which keeps California, Florida, North Carolina, Pennsylvania and Texas.



Man Shooting category vs Race Shooting vs state Sheet 5 P Dashboard 1 M Story 1







Conclusion – Answer to Question

With regards to the visuals on slide 24-27;

- The black ethnic race is the most affected in terms of the shooting categories.
- California has the highest amount of school shootings.