In [1]:
```
#Data Analysis on Police Shooting data is from Kaggle.com
#Data set is from fatal police shootings in the United States
#link to dataset https://www.kaggle.com/mrmorj/data-police-shootings/data
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
p_data = pd.read_csv("/Applications/datasets_723010_1257097_fatal-police-shootings-data.csv"
)

#Number of deaths per year are recorded with a body camera
cam_col = p_data["body_camera"]
#print(cam_col)
cam_bool = cam_col == True
body_cam_num = cam_col[cam_bool].shape[0]
print(body_cam_num)
#618 shootings happened with body cameras active
body_cam_percent = (body_cam_num / cam_col.shape[0]) * 100
print(body_cam_percent)
#11.41 percent of shootings happened with body cameras active
```

```
618
11.410635155096012
```

In [2]:
```
#Percentage of black people involved in police shooting
race = p_data["race"]
b_bool = race == "B"
b = race[b_bool]
b_num = b.shape[0]
b_percent = (b_num / race.shape[0]) * 100
print(b_percent)
#23.966 of police shootings involve black people


#Percentage of black people shot are men
b1 = p_data[p_data["race"].isin(["B"])]
b_percent_men = (b1[b1["gender"] == "M"]["gender"].count() / b1.shape[0]) * 100
print(b_percent_men)
#96.37 percent of black people shot are men

#Percentage of people involved in police shooting that are minorities
minority_bool = p_data[p_data["race"].isin(["B", "H", "A", "O"])]
print((minority_bool.shape[0] / race.shape[0]) * 100)
#43.22 percent of police shooting involve minorites

#Conclusions made based on the data, African Americans are over represented
#because they only make up 13.4% of the American population. Also, minorities
#as a whole are over-represented because the white population makes up 60.1% of America
```

```
23.96602658788774
96.37904468412944
43.223781388478585
```

In [3]:
```
#Percent of fatal US shootings that involve men
men = p_data[p_data["gender"].isin(["M"])]
men_percent = (men.shape[0] / p_data["gender"].shape[0]) * 100
print(men_percent)
#95.57 of police shootings involve men, meaning only 4.43% involve women

#Percentage of Men involved in shootings that have history of mental illness

men_mental_ill_percent = (men[men["signs_of_mental_illness"] == True]
["signs_of_mental_illness"].count() / men.shape[0]) * 100
print(men_mental_ill_percent)
#22 percent of men involved in shootings had signs of mental illness


#Conclusions from the data, men are massively overrepresented in the data.
#Furthermore according to the National Institute of Mental Illness, 1 in 5
#men suffer from mental illness so this dataset is representative of this.
```

```
95.56868537666175
22.082689335394125
```

In [4]:
```
#Percentage of people involved in shootings were not armed with guns or knives
unarmed = p_data[~p_data["armed"].isin(["gun", "knife"])]
unarmed_percent = (unarmed.shape[0]/p_data.shape[0]) * 100
print(unarmed_percent)
#28.87% were not armed with a gun or knife

#This suggests that police need to be retrained to use non-lethal force
#when people are not armed with a weapon
```

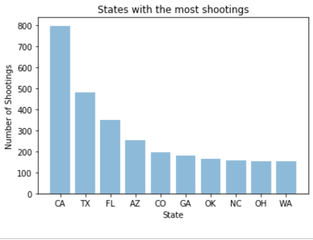
```
28.877400295420973
```

In [5]:
```
#States filtered by highest amount of shootings
state_vals = p_data["state"].value_counts()
print(state_vals)
print(state_vals.dtypes)
```

```
CA    799
TX    481
FL    350
AZ    254
CO    195
GA    182
OK    164
NC    156
OH    155
WA    152
MO    141
TN    139
LA    109
PA    108
NM    106
AL    104
IL    104
NY    101
NV     96
KY     95
VA     95
IN     95
WI     91
OR     88
SC     88
AR     83
MD     79
MI     78
NJ     68
MS     65
MN     61
UT     60
WV     54
KS     50
ID     42
AK     39
MA     35
IA     32
MT     31
HI     30
NE     24
ME     22
CT     21
SD     17
WY     14
NH     13
DC     13
DE     13
ND     11
VT      9
RI      4
Name: state, dtype: int64
int64
```

In [6]:
```
#Makes a Bar graph of the states with top 10 most shootings
x_pos = (state_vals[:10])
print(state_vals[:10])
plt.bar(x_pos.index, x_pos.values, align="center", alpha=0.5)
plt.xlabel("State")
plt.ylabel("Number of Shootings")
plt.title("States with the most shootings")
plt.show()
```

```
CA    799
TX    481
FL    350
AZ    254
CO    195
GA    182
OK    164
NC    156
OH    155
WA    152
Name: state, dtype: int64
```



In [ ]: