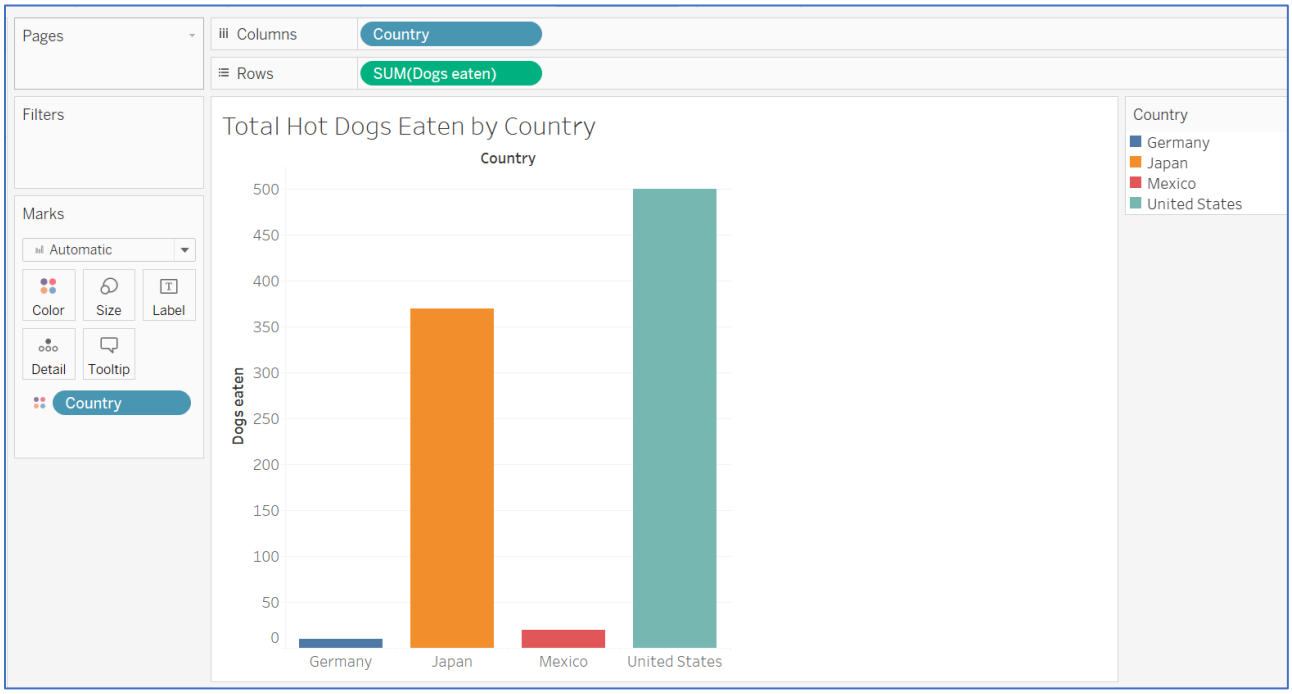
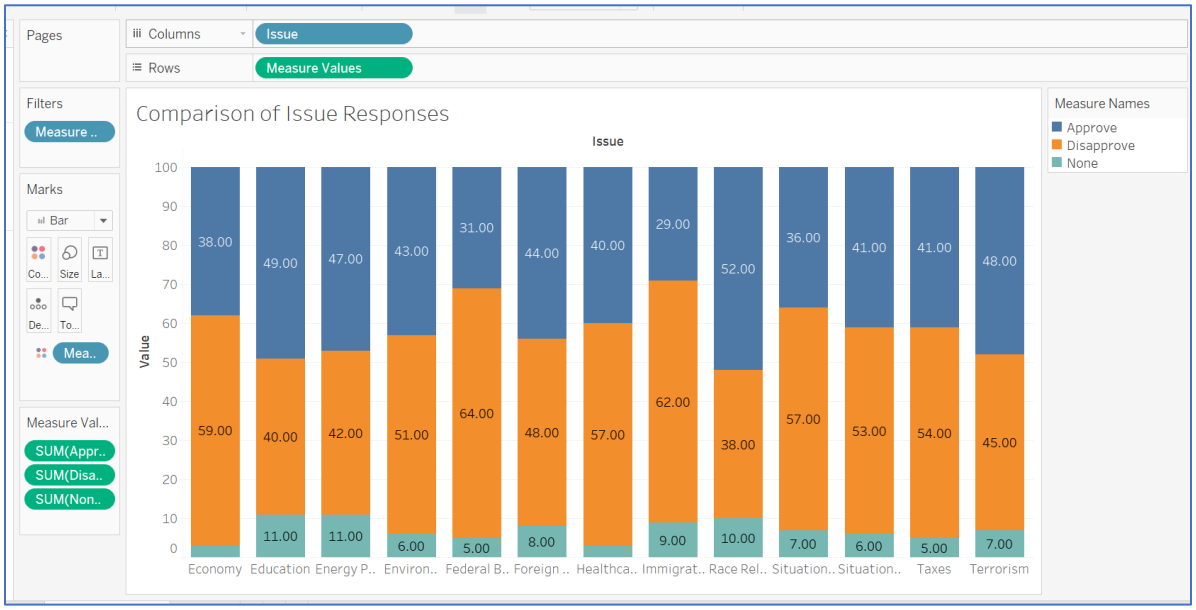
Tableau

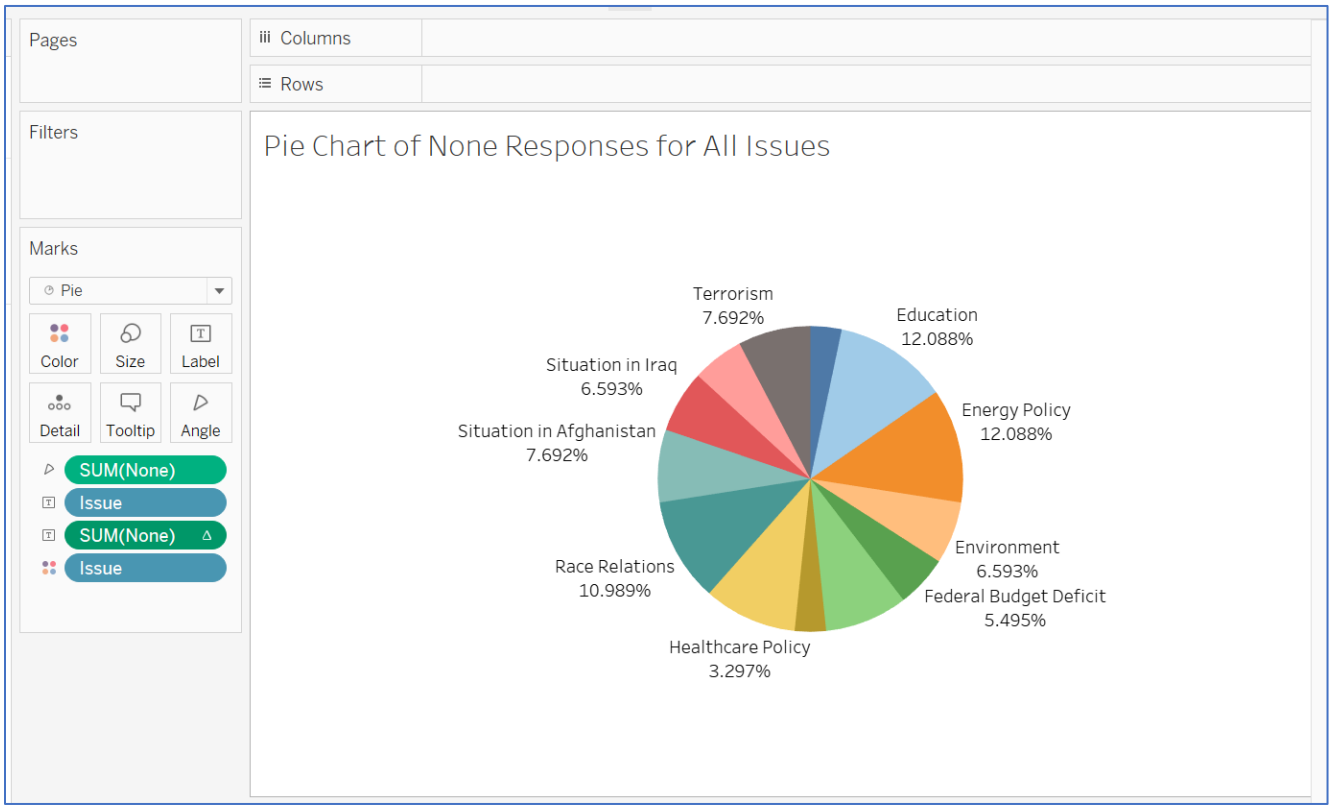
A. Bar Chart – Tableau



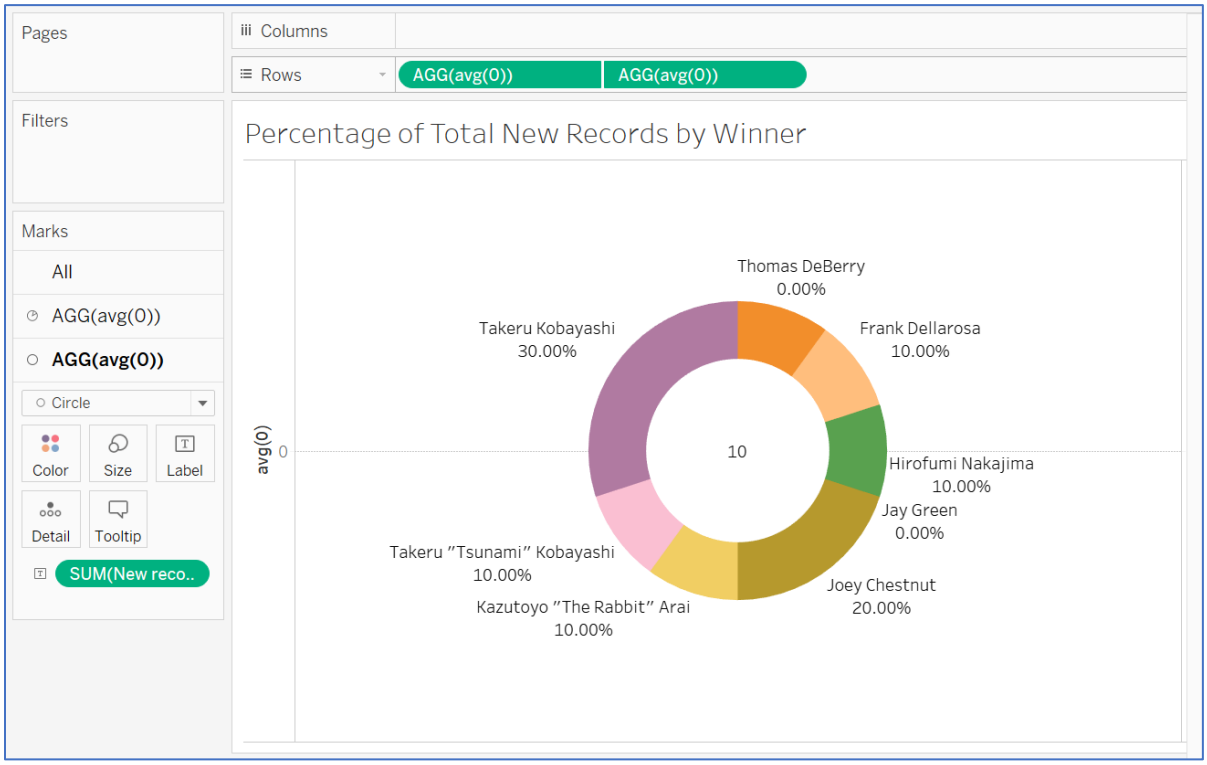
B. Stacked Bar Chart – Tableau



C. Pie Chart – Tableau



D. Donut Chart – Tableau



Python

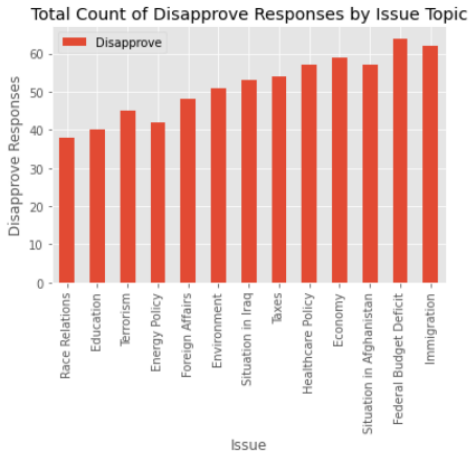
E. Bar Chart – Python

Bar Chart

```
In [20]: %matplotlib inline
plt.style.use('ggplot')

#plotting issue on x-axis and disapprove counts on y-axis
obama_rate.plot(x="Issue",y="Disapprove",kind="bar")
plt.xlabel("Issue")
plt.ylabel("Disapprove Responses")
plt.title("Total Count of Disapprove Responses by Issue Topic")
```

```
Out[20]: Text(0.5, 1.0, 'Total Count of Disapprove Responses by Issue Topic')
```



F. Stacked Bar Chart – Python

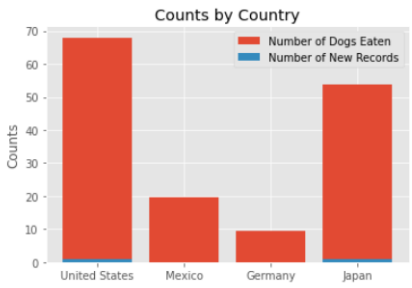
Stacked Bar Chart

```
In [29]: #creating figure and axes
fig, ax = plt.subplots()

#bar plot for dogs eaten on y-axis
ax.bar(hotdog_win['Country'],hotdog_win['Dogs eaten'],label='Number of Dogs Eaten')
#other bar plot for new records on y-axis
ax.bar(hotdog_win['Country'],hotdog_win['New record'],label='Number of New Records')

#labels and legend
ax.set_ylabel('Counts')
ax.set_title('Counts by Country')
ax.legend()

plt.show()
```



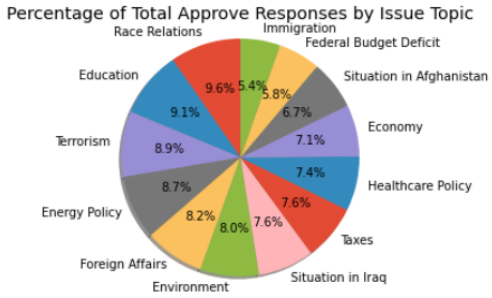
G. Pie Chart – Python

Pie Chart

In [24]:
```
#creating figure and axes
fig1,ax1 = plt.subplots()

#pie chart of approval counts by issue as per percentage of the whole
ax1.pie(obama_rate['Approve'],labels=obama_rate['Issue'],autopct='%1.1f%%',shadow=True,startangle=90)
ax1.axis('equal')

plt.title("Percentage of Total Approve Responses by Issue Topic")
plt.show()
```



H. Donut Chart – Python

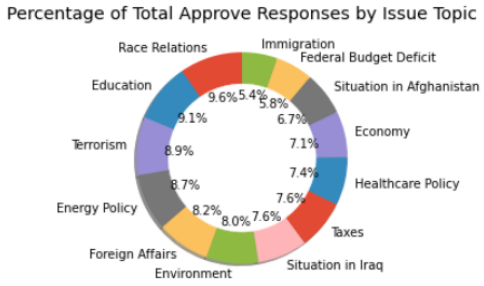
Donut Chart ¶

In [25]:
```
#same pie chart but with circle as center --> showing difference
#creating figure and axes
fig1,ax1 = plt.subplots()

#pie chart of approval counts by issue as per percentage of the whole
ax1.pie(obama_rate['Approve'],labels=obama_rate['Issue'],autopct='%1.1f%%',shadow=True,startangle=90)

#add circle at center of plot
donut_circle = plt.Circle((0,0),0.7, color='white')
p = plt.gcf()
p.gca().add_artist(donut_circle)

plt.title("Percentage of Total Approve Responses by Issue Topic")
plt.show()
```

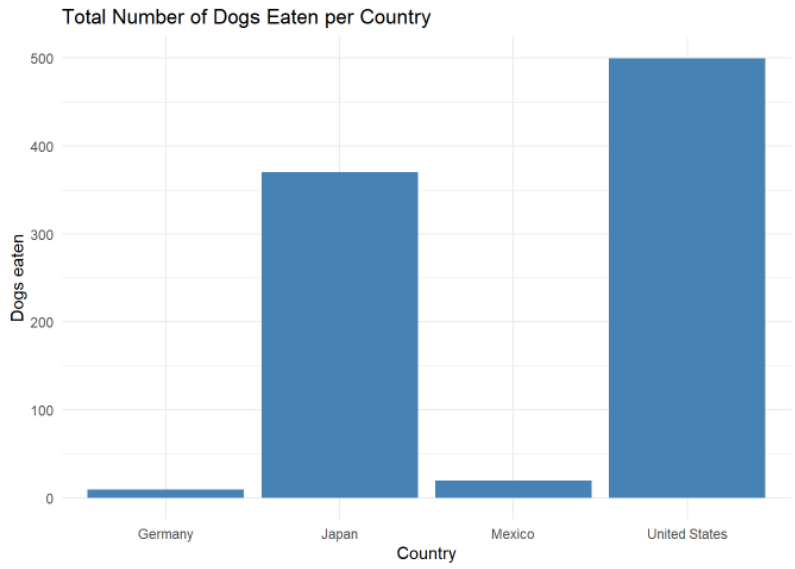


R

I. Bar Chart – R

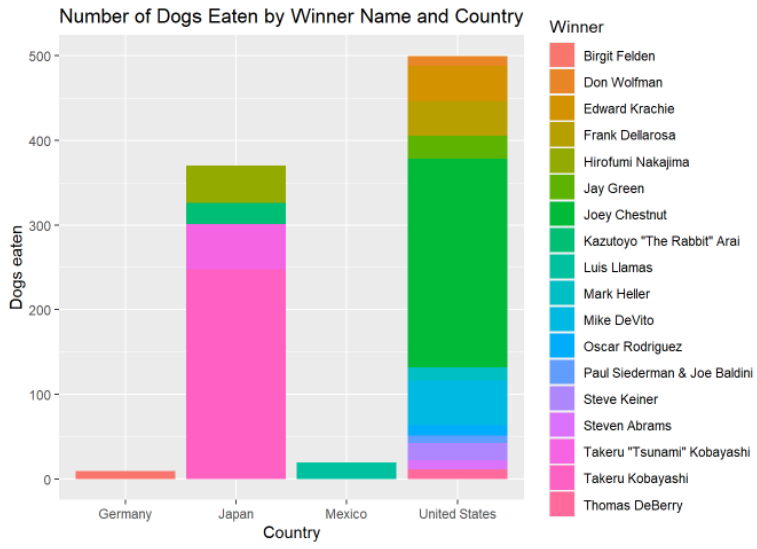
```
library(ggplot2)

#making the plot using hotdog_win
ggplot(data=hotdog_win,aes(x=Country,y=`Dogs eaten`)) + geom_bar(stat="identity",fill="steelblue")+theme_minimal
() + ggtitle("Total Number of Dogs Eaten per Country")
```



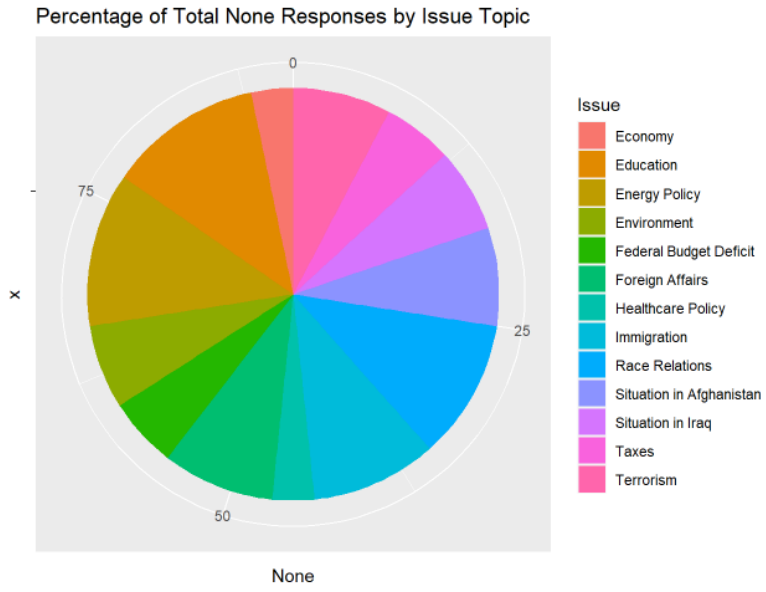
J. Stacked Bar Chart – R

```
#grouping by winner to show total number of dogs eaten in each country by each winner
ggplot(data=hotdog_win,aes(fill=Winner,y=`Dogs eaten`,x=Country)) + geom_bar(position="stack",stat="identity") +
 ggtitle("Number of Dogs Eaten by Winner Name and Country")
```



K. Pie Chart – R

```
pie <- bp + coord_polar("y",start=0)
pie
```



L . Donut Chart – R

```
library(dplyr)
#setting size to allocate space for hole/circle
hsize <- 4

#adding new variable to hotdog_win 'x'
hotdog_win <- hotdog_win %>% mutate(x=hsize)

#plot donut chart
ggplot(hotdog_win,aes(x=hsize,y=`Dogs eaten`,fill=Country))+geom_col()+coord_polar(theta="y")+xlim(c(0.2,hsize+0.5)) + ggtitle("Percentage of Total Dogs Eaten by Country")
```