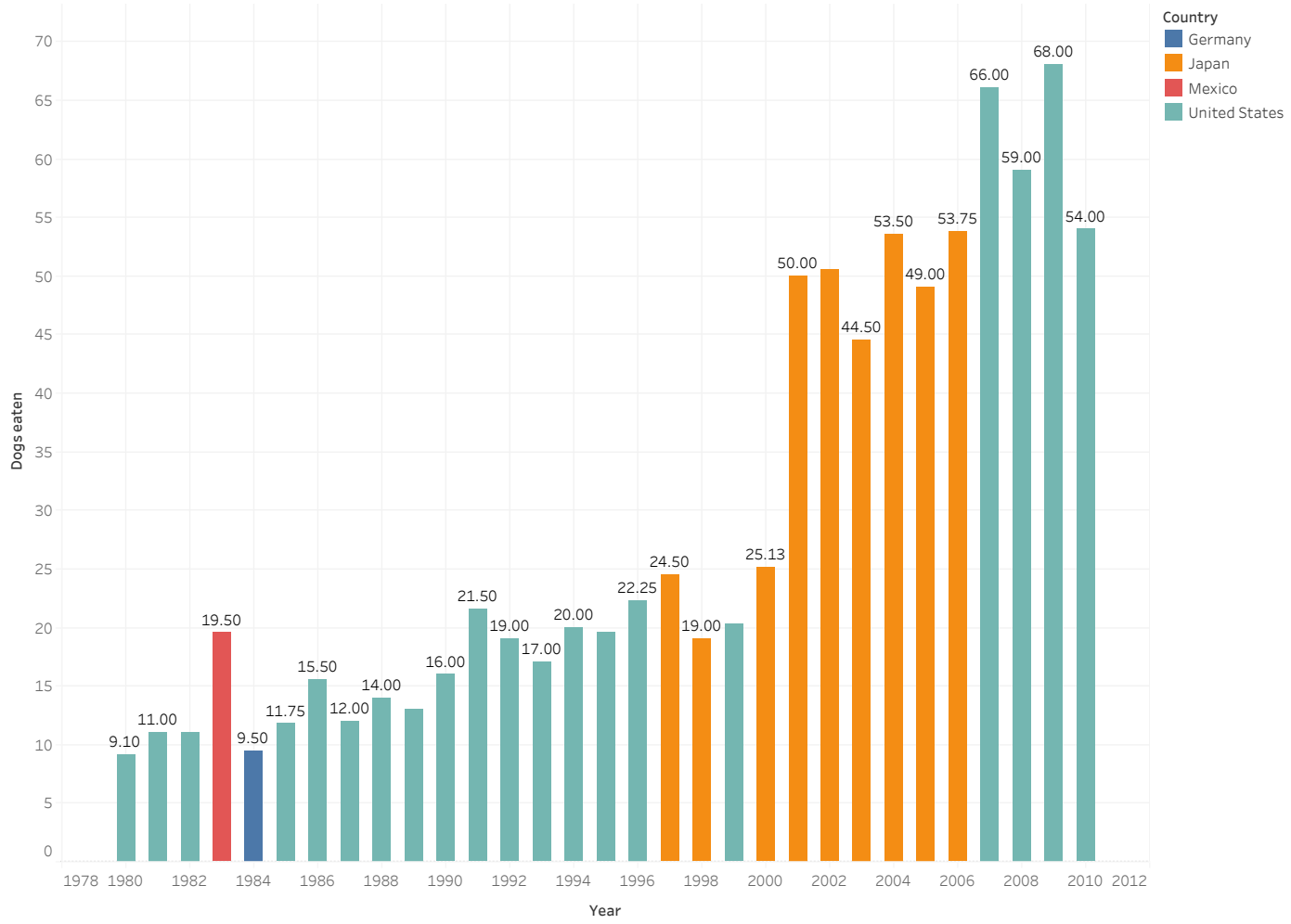
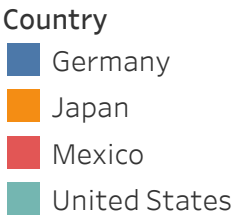
Bar Chart - Hot Dog Winners trend



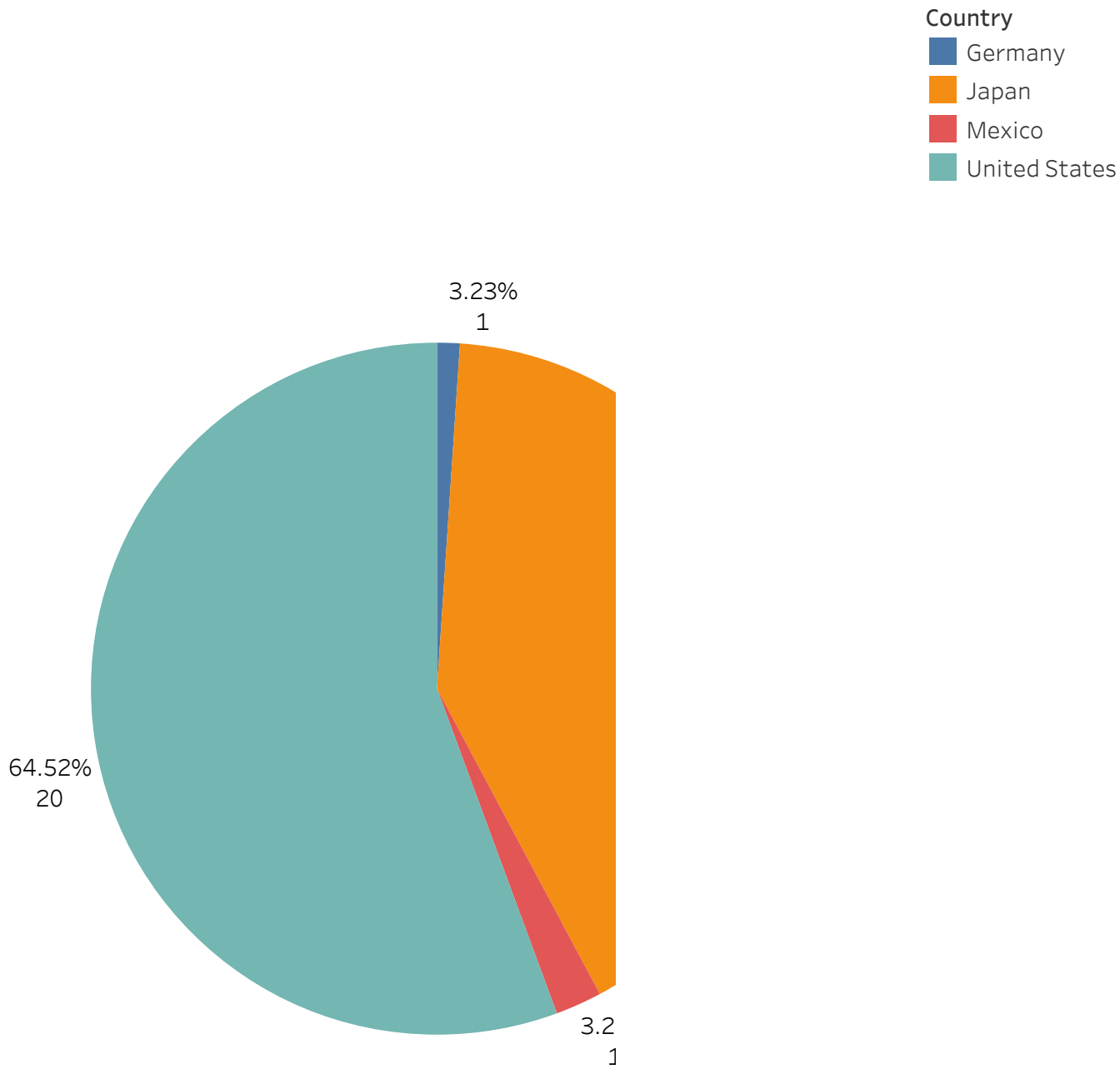
The plot of sum of Dogs eaten for Year. Color shows details about Country. The marks are labeled by sum of Dogs eaten.

Pie Chart - Hot Dog Contest Winners by Country



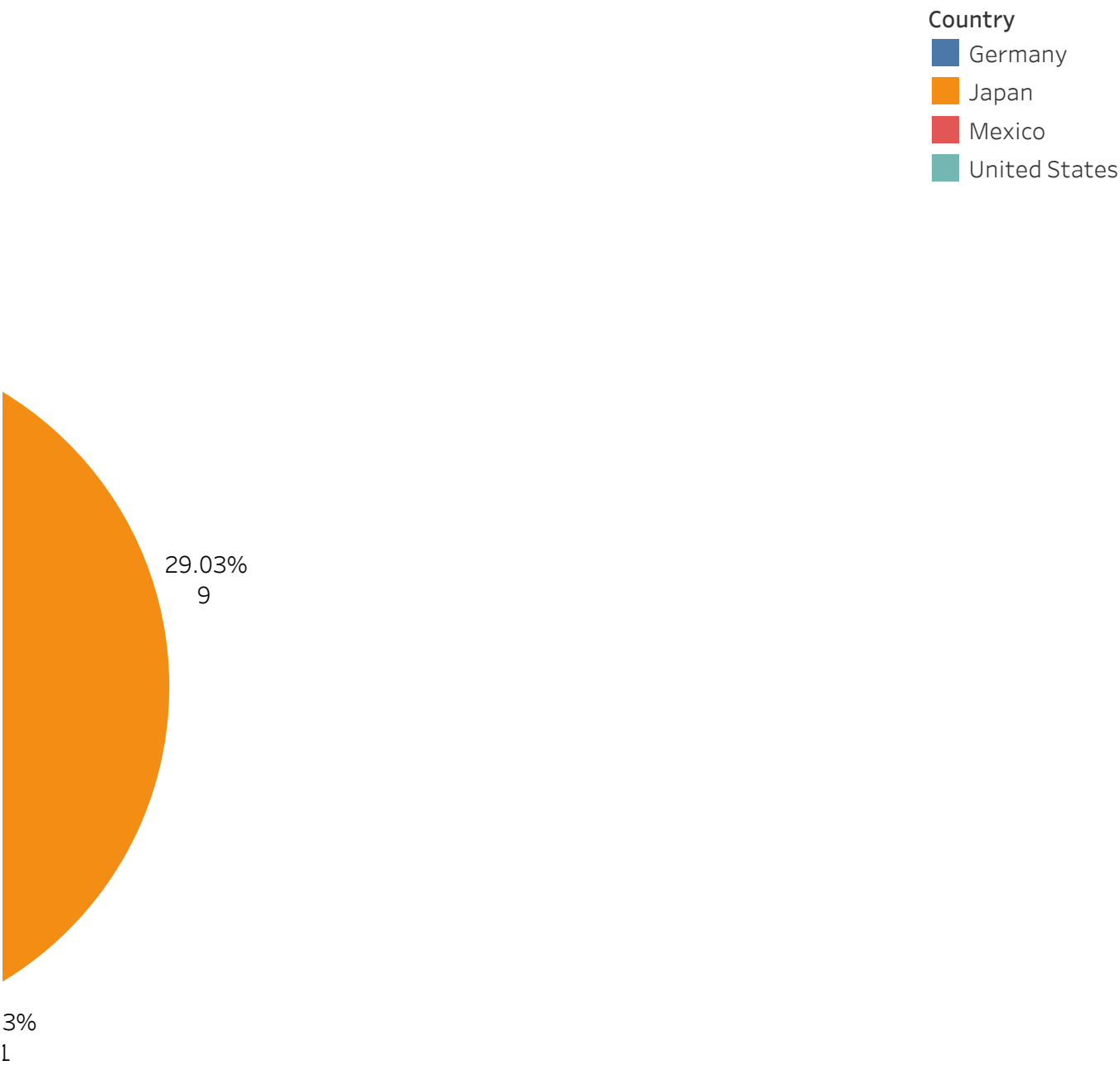
% of Total Count of hot-dog-contest-winners and count of hot-dog-contest-winners. Color shows details about Country. The marks are labeled by % of Total Count of hot-dog-contest-winners and count of hot-dog-contest-winners.

Pie Chart - Hot Dog Contest Winners by Country



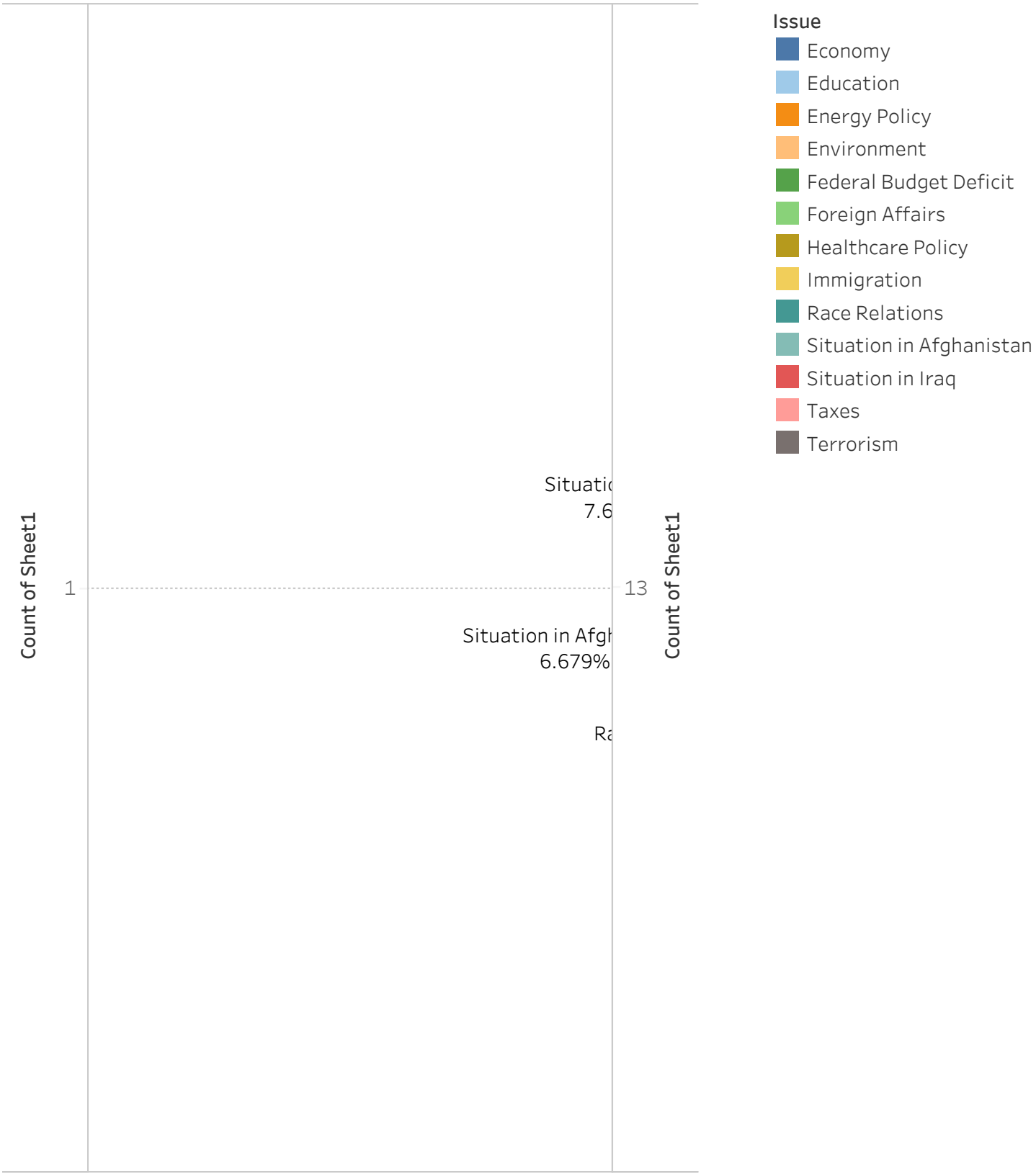
% of Total Count of hot-dog-contest-winners and count of hot-dog-contest-winners. Color shows details about Country. The marks are labeled by % of Total Count of hot-dog-contest-winners and count of hot-dog-contest-winners.

Pie Chart - Hot Dog Contest Winners by Country



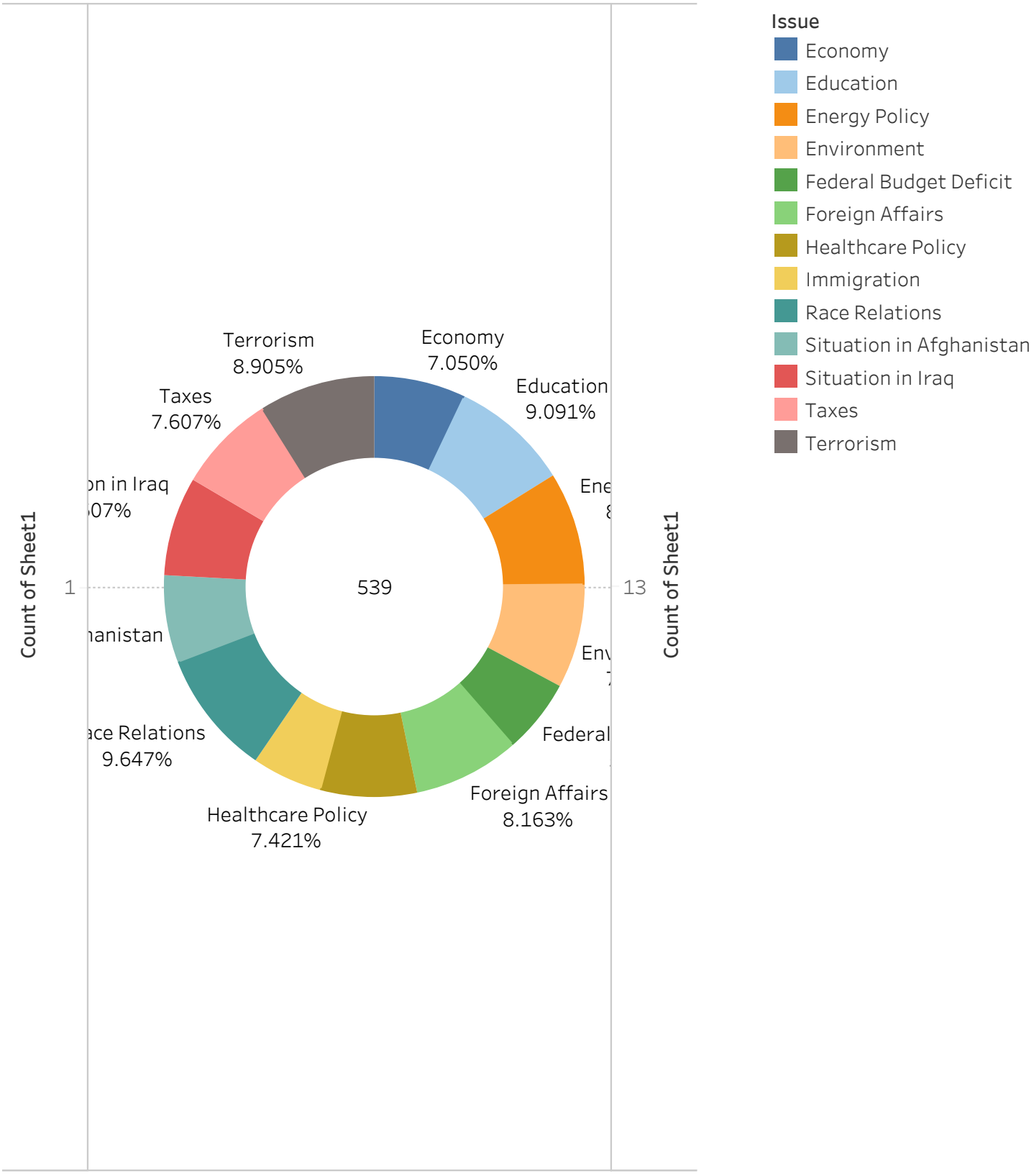
% of Total Count of hot-dog-contest-winners and count of hot-dog-contest-winners. Color shows details about Country. The marks are labeled by % of Total Count of hot-dog-contest-winners and count of hot-dog-contest-winners.

Donut Chart - % of Approval ratings for diff issues.



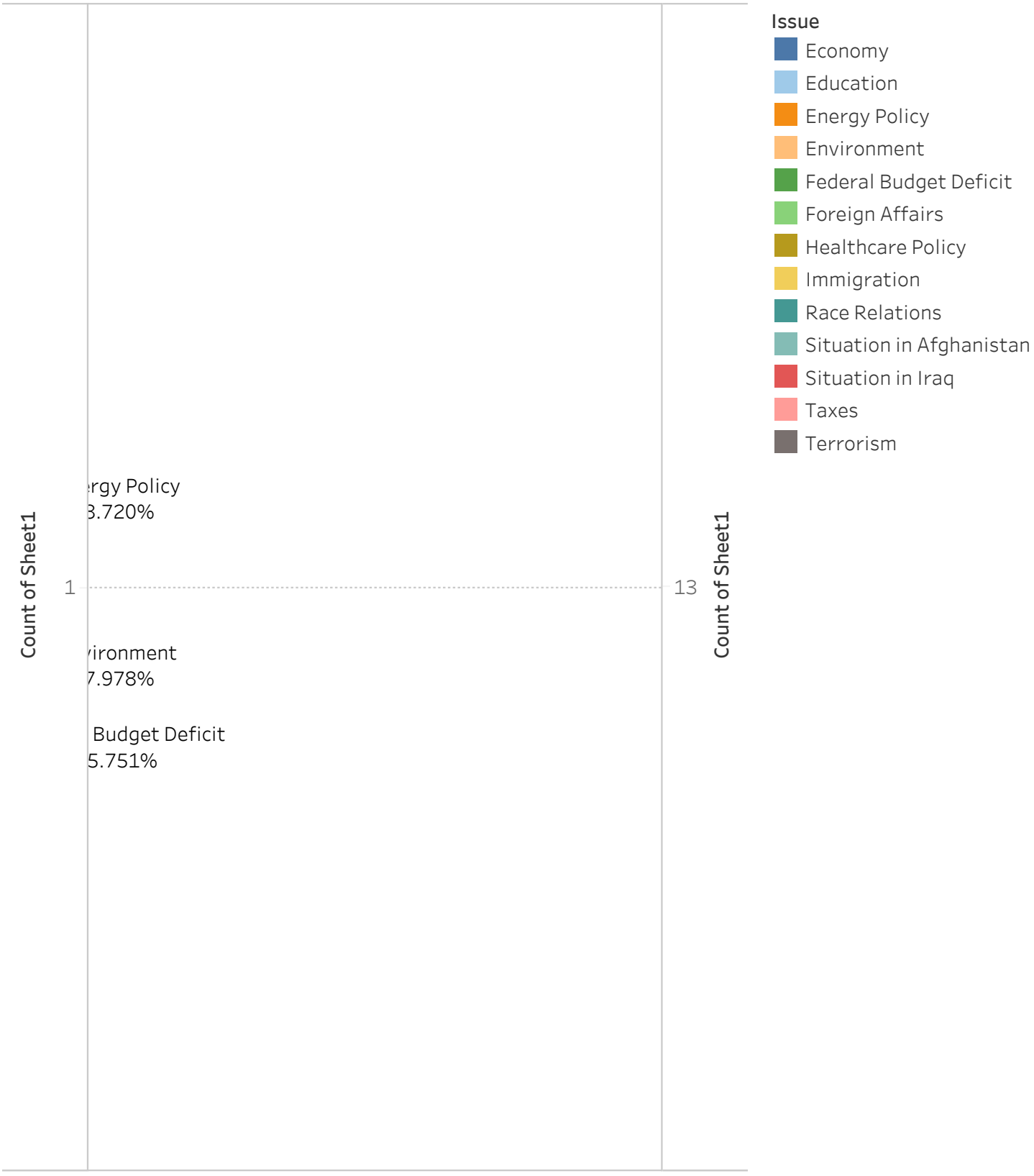
Count of Sheet1 and count of Sheet1. For pane Count of Sheet1: Color shows details about Issue. The marks are labeled by Issue and % of Total Approve. For pane Count of Sheet1 (2): The marks are labeled by sum of Approve.

Donut Chart - % of Approval ratings for diff issues.



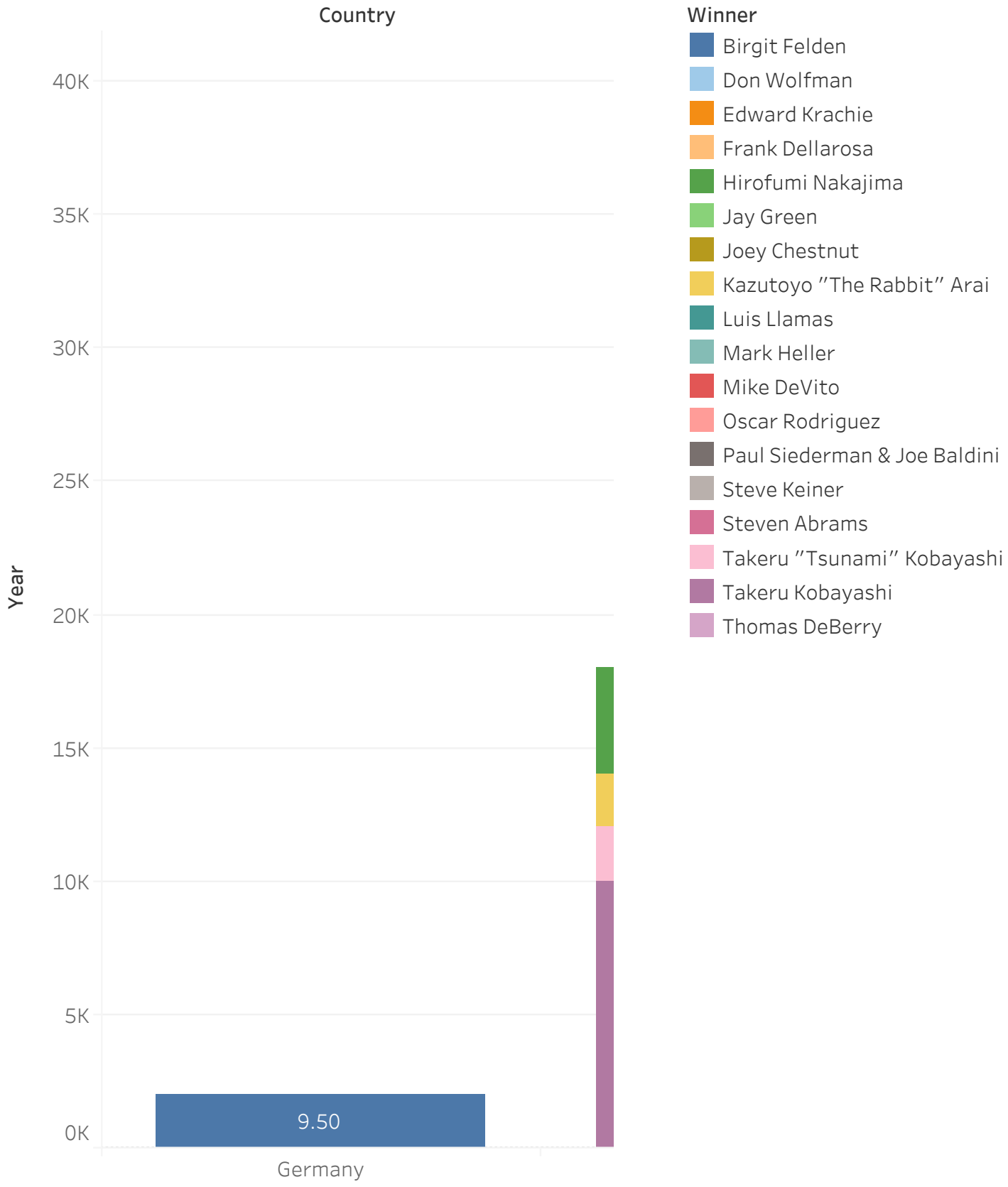
Count of Sheet1 and count of Sheet1. For pane Count of Sheet1: Color shows details about Issue. The marks are labeled by Issue and % of Total Approve. For pane Count of Sheet1 (2): The marks are labeled by sum of Approve.

Donut Chart - % of Approval ratings for diff issues.



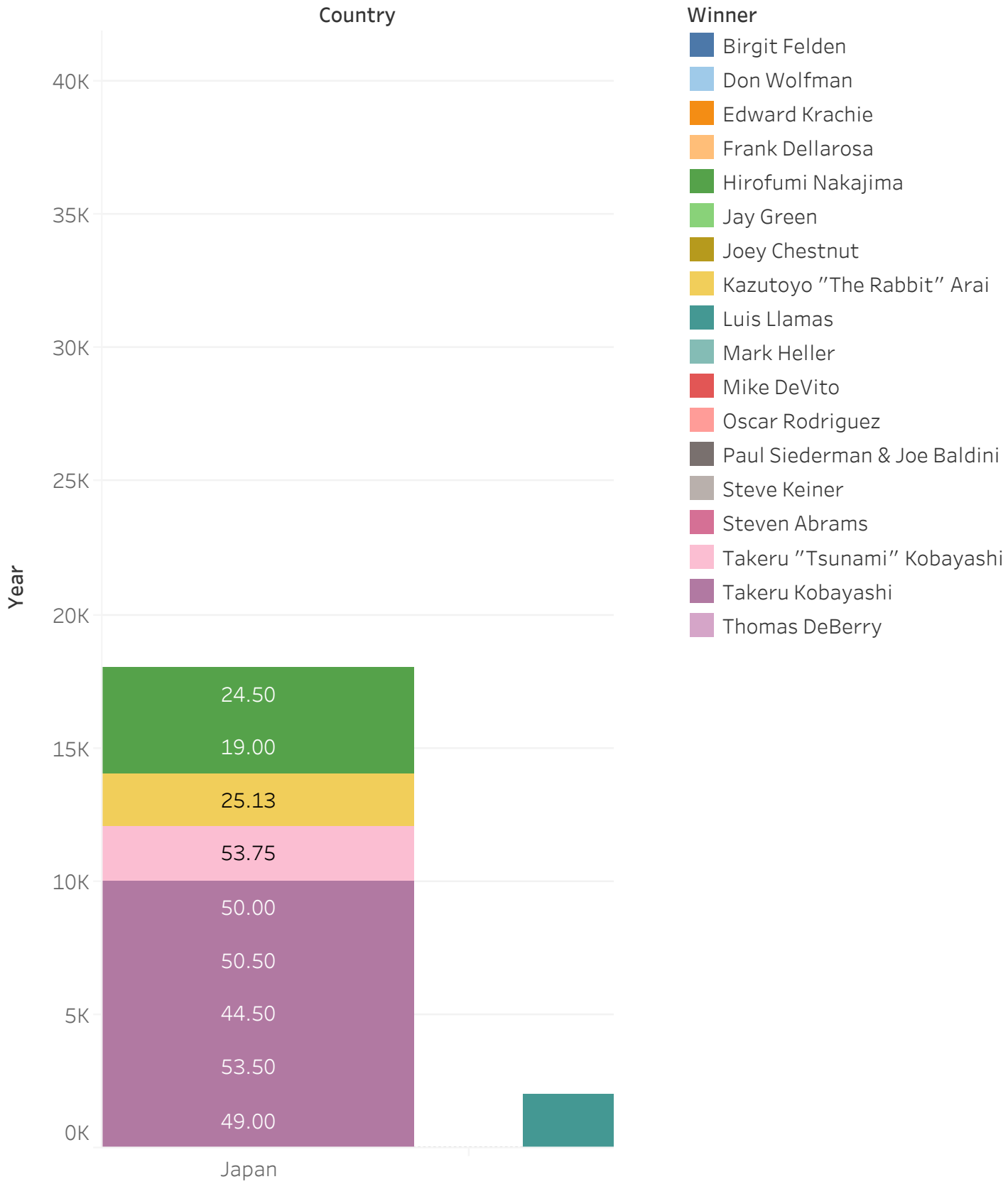
Count of Sheet1 and count of Sheet1. For pane Count of Sheet1: Color shows details about Issue. The marks are labeled by Issue and % of Total Approve. For pane Count of Sheet1 (2): The marks are labeled by sum of Approve.

Stacked Bar Chart



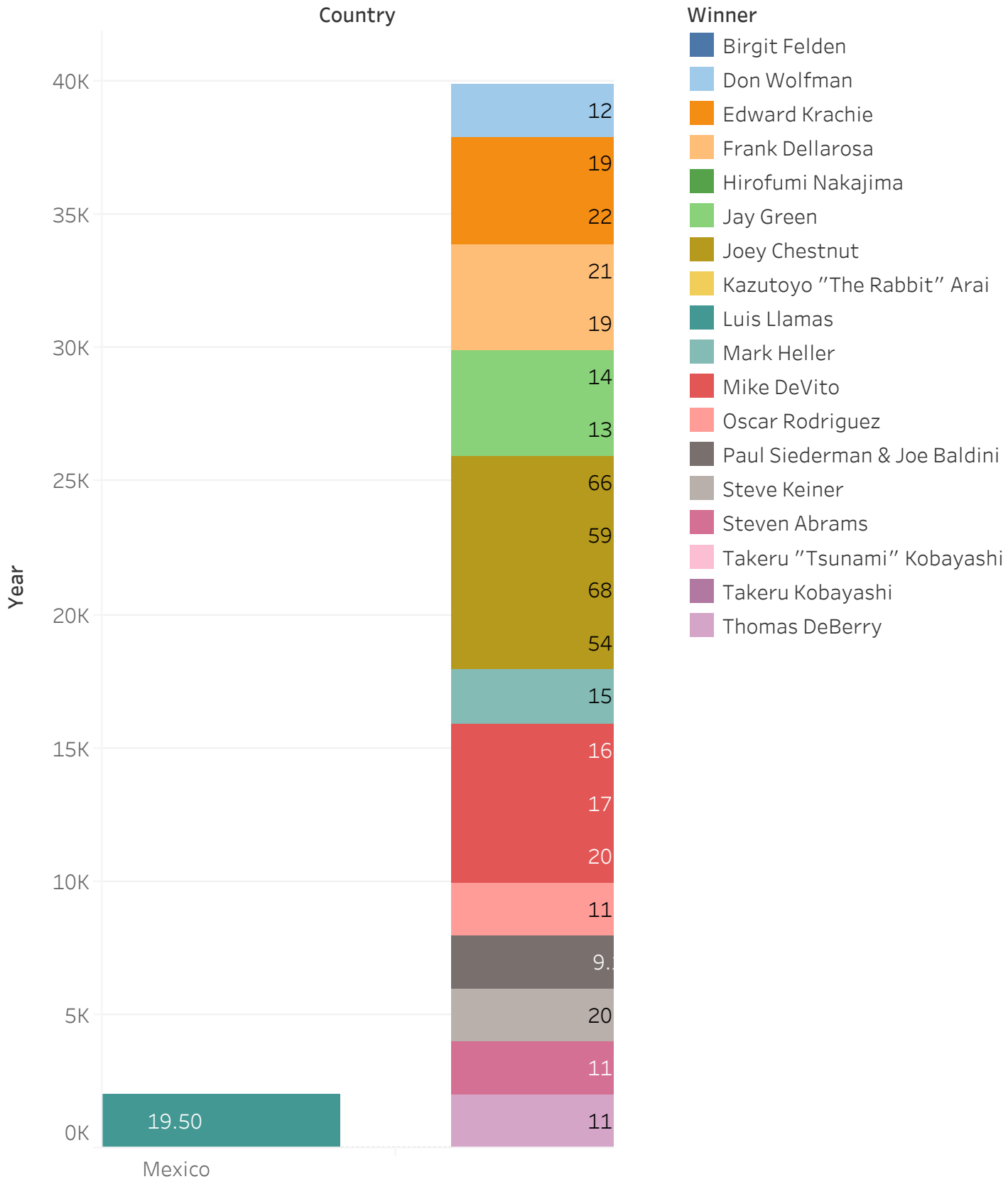
Year for each Country. Color shows details about Winner. The marks are labeled by sum of Dogs eaten.

Stacked Bar Chart



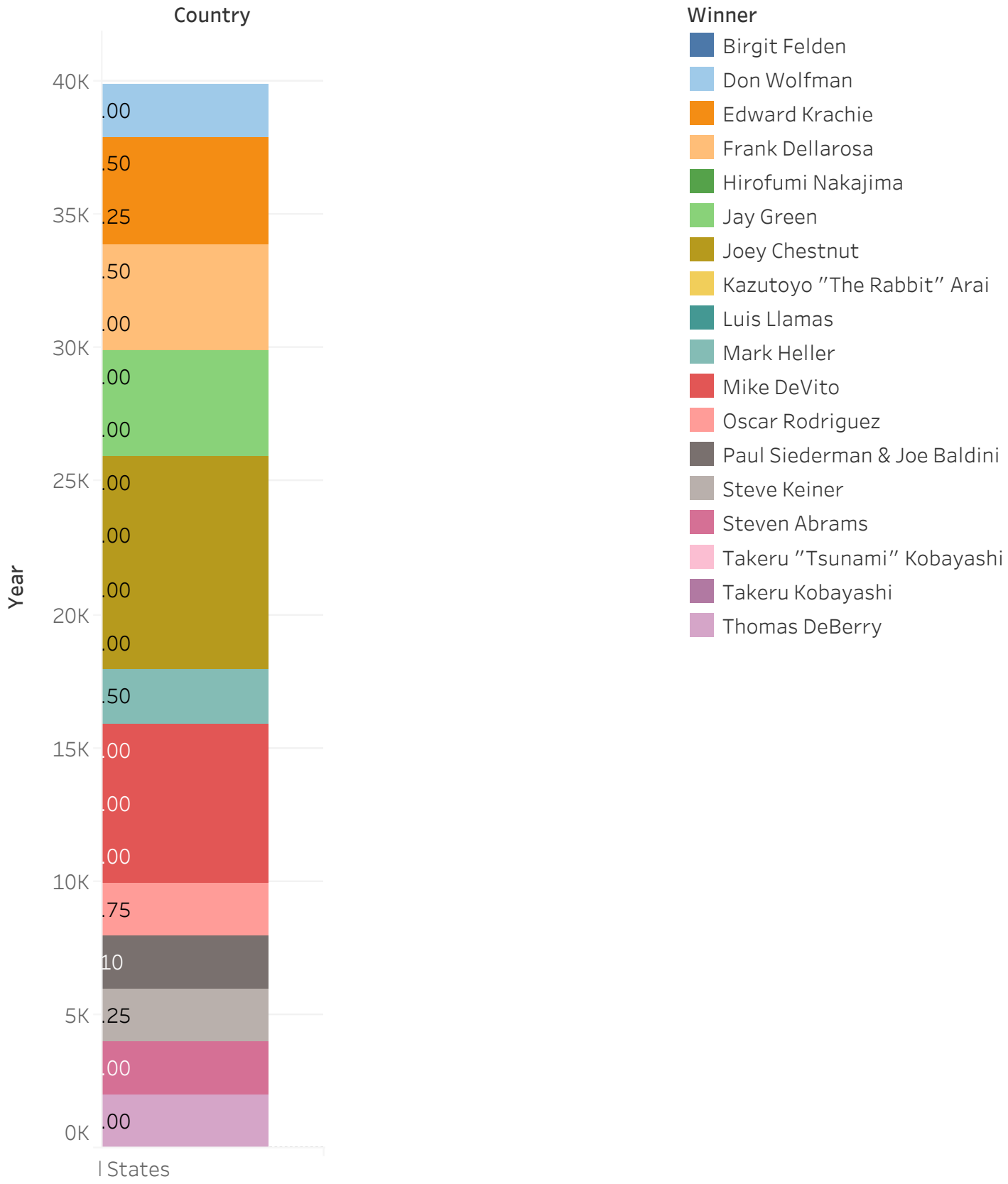
Year for each Country. Color shows details about Winner. The marks are labeled by sum of Dogs eaten.

Stacked Bar Chart



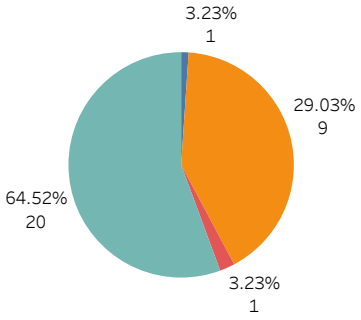
Year for each Country. Color shows details about Winner. The marks are labeled by sum of Dogs eaten.

Stacked Bar Chart

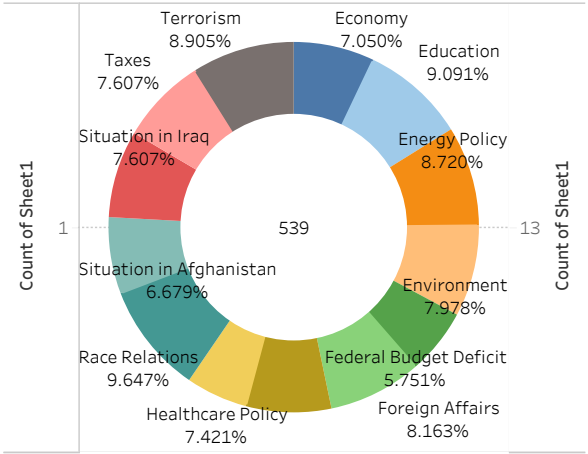


Year for each Country. Color shows details about Winner. The marks are labeled by sum of Dogs eaten.

Pie Chart - Hot Dog Contest Winners by Country



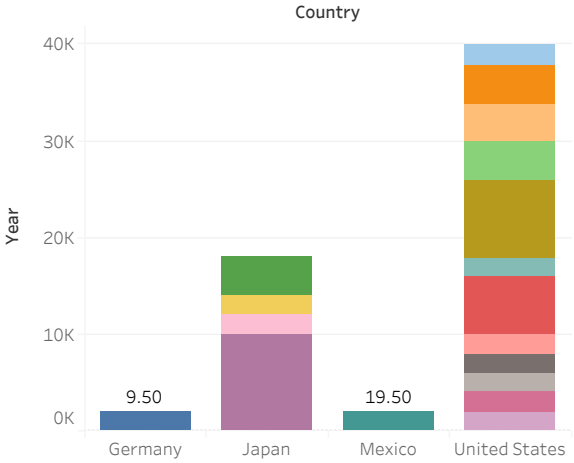
Donut Chart - % of Approval ratings for diff issues.



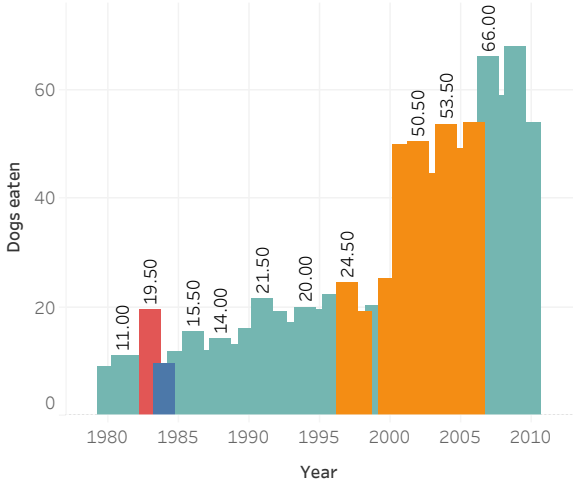
Country
- Germany
- Japan
- Mexico
- United States

Issue
- Economy
- Education
- Energy Policy
- Environment
- Federal Budget Deficit
- Foreign Affairs
- Healthcare Policy
- Immigration
- Race Relations
- Situation in Afghanis..
- Situation in Iraq
- Taxes
- Terrorism

Stacked Bar Chart



Bar Chart - Hot Dog Winners trend



Winner
- Birgit Felden
- Don Wolfman
- Edward Krachie
- Frank Dellarosa
- Hirofumi Nakajima
- Jay Green
- Joey Chestnut
- Kazutoyo "The Rabbi..
- Luis Llamas
- Mark Heller
- Mike DeVito
- Oscar Rodriguez
- Paul Siederman & Joe..
- Steve Keiner
- Steven Abrams
- Takeru "Tsunami" Ko..
- Takeru Kobayashi
- Thomas DeBerry

Assignment1.2 - Python

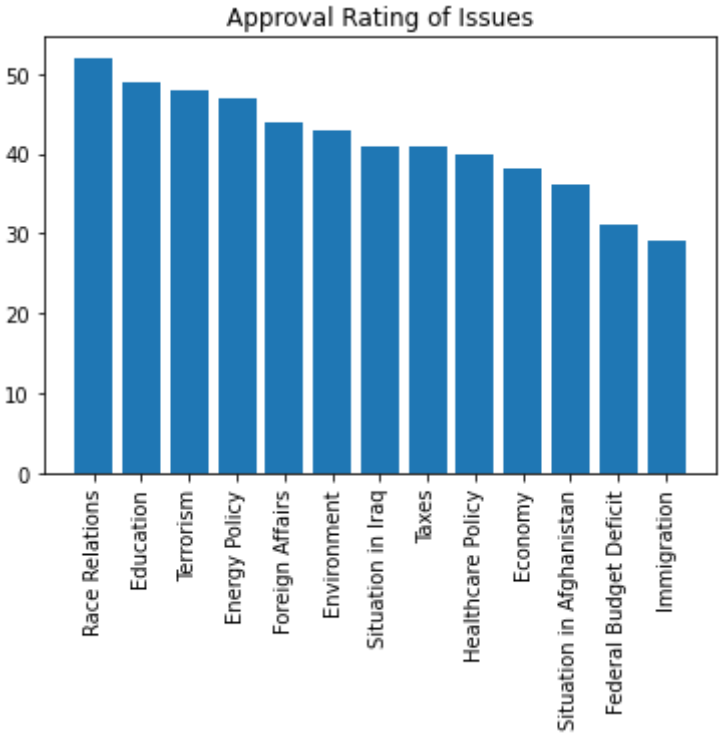
In [1]:
```
import pandas as pd
from pandas import ExcelWriter
from pandas import ExcelFile
import matplotlib.pyplot as plt

# Import data to be used for visualization
obama = pd.read_excel('ex1-2/obama-approval-ratings.xls')

# Examine data
print(obama)
```

```
                       Issue  Approve  Disapprove  None
0             Race Relations       52          38    10
1                  Education       49          40    11
2                  Terrorism       48          45     7
3               Energy Policy       47          42    11
4             Foreign Affairs       44          48     8
5                 Environment       43          51     6
6           Situation in Iraq       41          53     6
7                       Taxes       41          54     5
8           Healthcare Policy       40          57     3
9                     Economy       38          59     3
10  Situation in Afghanistan       36          57     7
11    Federal Budget Deficit       31          64     5
12                Immigration       29          62     9
```

Plot Bar Chart

Plot the issue in x-axis and any of the corresponding ratings in the y-axis with approval ratings as the measure.

In [2]:
```
plt.bar(obama.Issue, obama.Approve)
plt.title('Approval Rating of Issues')
plt.xticks(rotation=90)
plt.show()
```

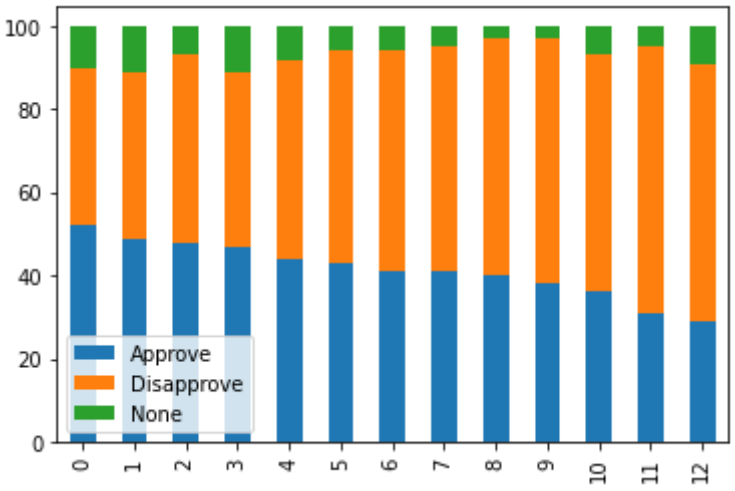


Plot Stacked Bar Chart

Plot each issue with their respective Approval, Disapproval and Neutral counts.

In [3]:
```
obama.plot.bar(stacked=True)
```

Out[3]:
```
<AxesSubplot:>
```

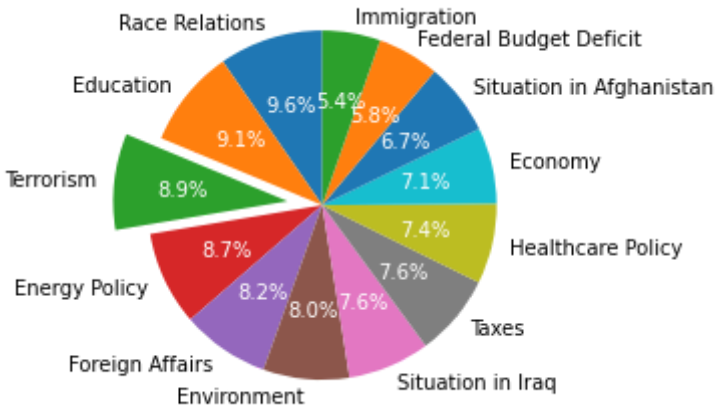


Plot Pie Chart

For pie chart demonstration, I would like to plot percentages for each issue of Obama dataset. I would also like to explode the third issue, i.e. Terrorism.

In [4]:
```
# Create custom theme for graph
csfont = {'fontname':'Century Gothic MS'}
plt.rcParams['font.size'] = 10
```

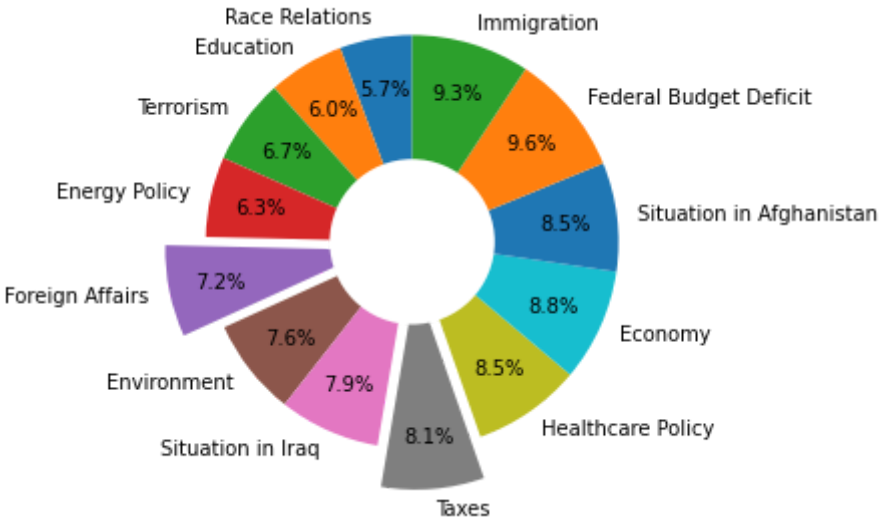
```
plt.rcParams['font.weight'] = 'normal'

# Create pie chart with custom explode
_, _, autotexts = plt.pie(obama.Approve, labels = obama.Issue,
                          startangle=90, explode=(0,0,0.2,0,0,0,0,0,0,0,0,0,0),
                          autopct = '%1.1f%%')
for autotext in autotexts:
    autotext.set_color('white')
```



Plot Donut Chart

Plot the disapproval percentages for each issue and explode the Foreign Affairs and Taxes issue.

In [5]:
```
# Create donut chart
plt.pie(obama.Disapprove  , labels = obama.Issue, startangle=90,
        explode=(0,0,0,0,0.2,0,0,0.2,0,0,0,0,0), autopct = '%1.1f%%', pctdistar
centre_circle = plt.Circle((0,0), 0.40, fc = 'white')
fig = plt.gcf()
fig.gca().add_artist(centre_circle)

# Show compact plot
plt.tight_layout()
plt.show()
```



In [ ]:

Assignment 1.2

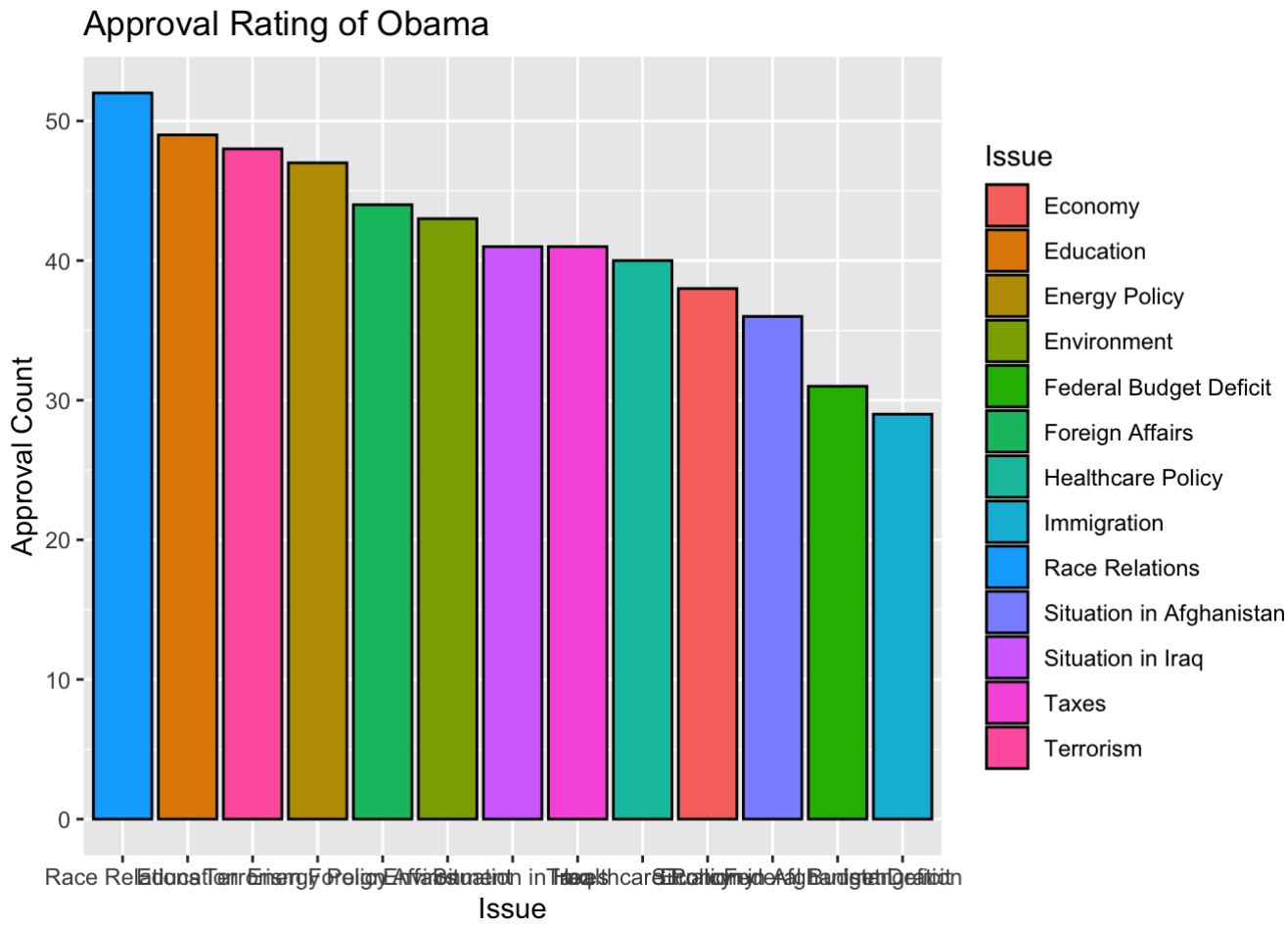
Anjani Bonda

12/10/2022

```
##                       Issue Approve Disapprove None
## 1            Race Relations      52         38   10
## 2                 Education      49         40   11
## 3                 Terrorism      48         45    7
## 4              Energy Policy      47         42   11
## 5            Foreign Affairs      44         48    8
## 6                Environment      43         51    6
## 7          Situation in Iraq      41         53    6
## 8                      Taxes      41         54    5
## 9          Healthcare Policy      40         57    3
## 10                   Economy      38         59    3
## 11 Situation in Afghanistan      36         57    7
## 12   Federal Budget Deficit      31         64    5
## 13               Immigration      29         62    9
```

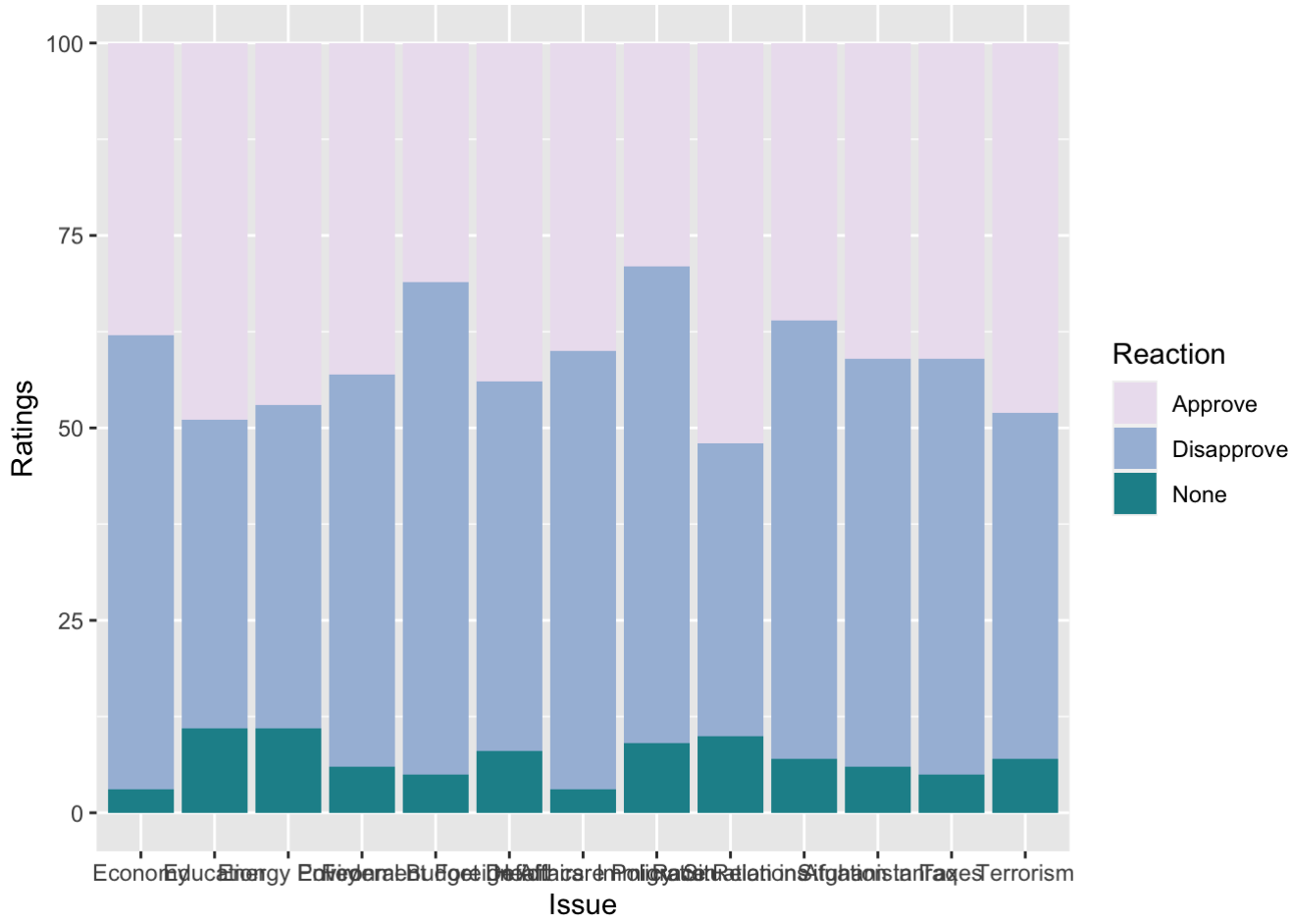
Bar chart

Plot the issue in x-axis and any of the corresponding ratings in y-axis with approval ratings as the measure.



Stacked Bar Chart

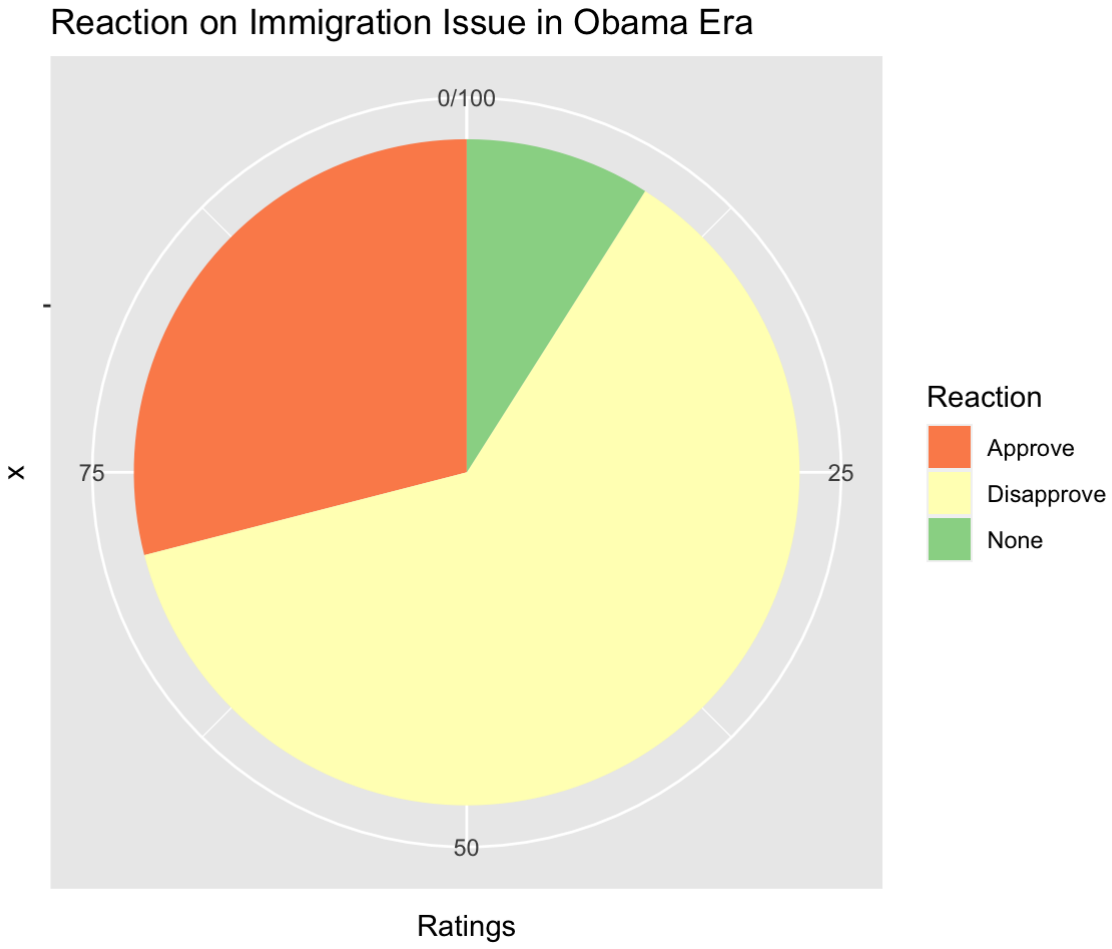
Plot each issue with their respective Approval, Disapproval and Neutral counts.



Pie Chart

For pie chart, Plot Immigration issue and plot the different ratings in a pie.

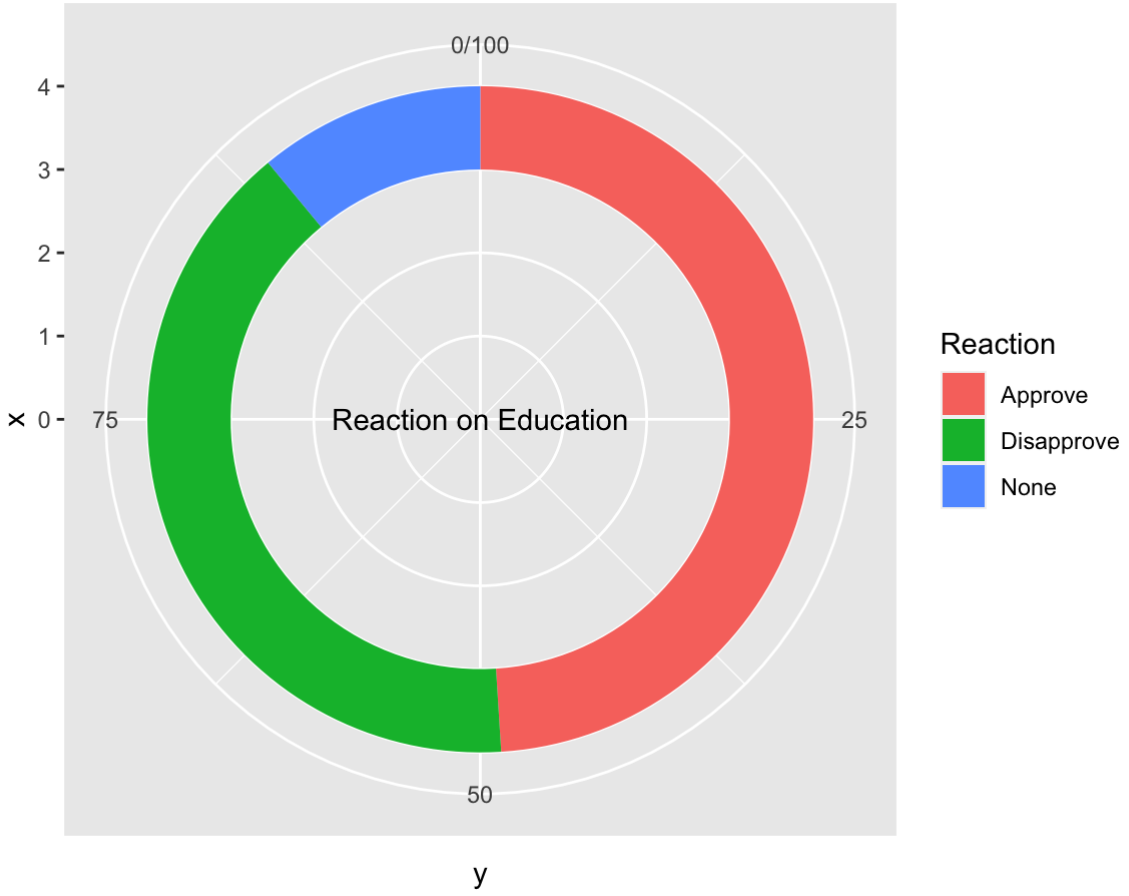
```
obama_long %>%
    dplyr::filter(Issue=='Immigration') %>%
    ggplot2::ggplot(ggplot2::aes(x="", y=Ratings, fill=Reaction))+
        ggplot2::geom_bar(width = 1, stat = 'identity') +
        ggplot2::coord_polar('y', start=0)  +
        ggplot2::ggtitle(label = 'Reaction on Immigration Issue in Obama Era') +
        ggplot2::scale_fill_brewer(palette='Spectral')
```



Donut Chart

For donut chart, Plot Education issue and plot different ratings in the shape of a donut.

```
obama_long %>%
    dplyr::filter(Issue=='Education') %>%
    dplyr::mutate(ymax=cumsum(Ratings),
                  ymin=c(0,ymax[1:length(ymax)-1])) %>%
    ggplot2::ggplot(ggplot2::aes(fill=Reaction, ymax=ymax, ymin=ymin, xmax=4, xmin=3)) +
         ggplot2::geom_rect() +
         ggplot2::coord_polar(theta='y') +
         ggplot2::xlim(c(0, 4)) +
         ggplot2::annotate('text', x = 0, y = 0, label = 'Reaction on Education') +
         ggplot2::labs(title='')
```


0/100
25
50
75
Reaction on Education
x
y
0
1
2
3
4
Reaction
Approve
Disapprove
None