In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

In [2]:
```
df=pd.read_excel("hotdog-contest-winners.xlsm")
df
##Creates df with first data
```

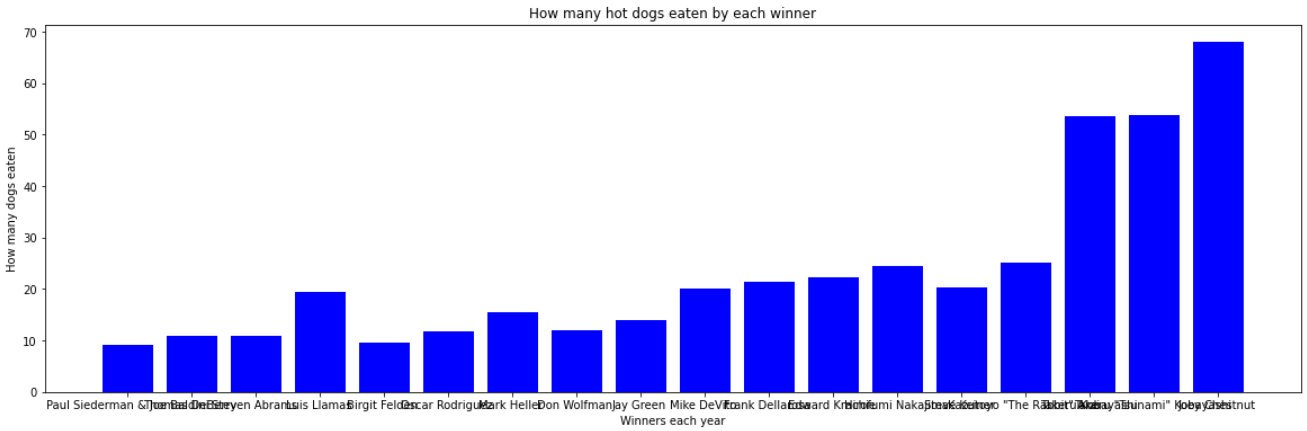
Out[2]:

	Year	Winner	Dogs eaten	Country	New record
0	1980	Paul Siederman & Joe Baldini	9.10	United States	0
1	1981	Thomas DeBerry	11.00	United States	0
2	1982	Steven Abrams	11.00	United States	0
3	1983	Luis Llamas	19.50	Mexico	0
4	1984	Birgit Felden	9.50	Germany	0
5	1985	Oscar Rodriguez	11.75	United States	0
6	1986	Mark Heller	15.50	United States	0
7	1987	Don Wolfman	12.00	United States	0
8	1988	Jay Green	14.00	United States	0
9	1989	Jay Green	13.00	United States	0
10	1990	Mike DeVito	16.00	United States	0
11	1991	Frank Dellarosa	21.50	United States	1
12	1992	Frank Dellarosa	19.00	United States	0
13	1993	Mike DeVito	17.00	United States	0
14	1994	Mike DeVito	20.00	United States	0
15	1995	Edward Krachie	19.50	United States	0
16	1996	Edward Krachie	22.25	United States	1
17	1997	Hirofumi Nakajima	24.50	Japan	1
18	1998	Hirofumi Nakajima	19.00	Japan	0
19	1999	Steve Keiner	20.25	United States	0
20	2000	Kazutoyo "The Rabbit" Arai	25.13	Japan	1
21	2001	Takeru Kobayashi	50.00	Japan	1
22	2002	Takeru Kobayashi	50.50	Japan	1
23	2003	Takeru Kobayashi	44.50	Japan	0

24	2004	Takeru Kobayashi	53.50	Japan	1
25	2005	Takeru Kobayashi	49.00	Japan	0
26	2006	Takeru "Tsunami" Kobayashi	53.75	Japan	1
27	2007	Joey Chestnut	66.00	United States	1
28	2008	Joey Chestnut	59.00	United States	0
29	2009	Joey Chestnut	68.00	United States	1
30	2010	Joey Chestnut	54.00	United States	0

In [3]:
```
winner= df['Winner']
eat = df['Dogs eaten']
```

In [15]:
```
plt.figure(figsize=(20, 6))
plt.bar(winner, eat, color='blue')
plt.xlabel("Winners each year")
plt.ylabel("How many dogs eaten")
plt.title("How many hot dogs eaten by each winner")
plt.show()
```



In [5]:
```
df1=pd.read_excel("obama-approval-ratings.xls")
df1
```

Out[5]:

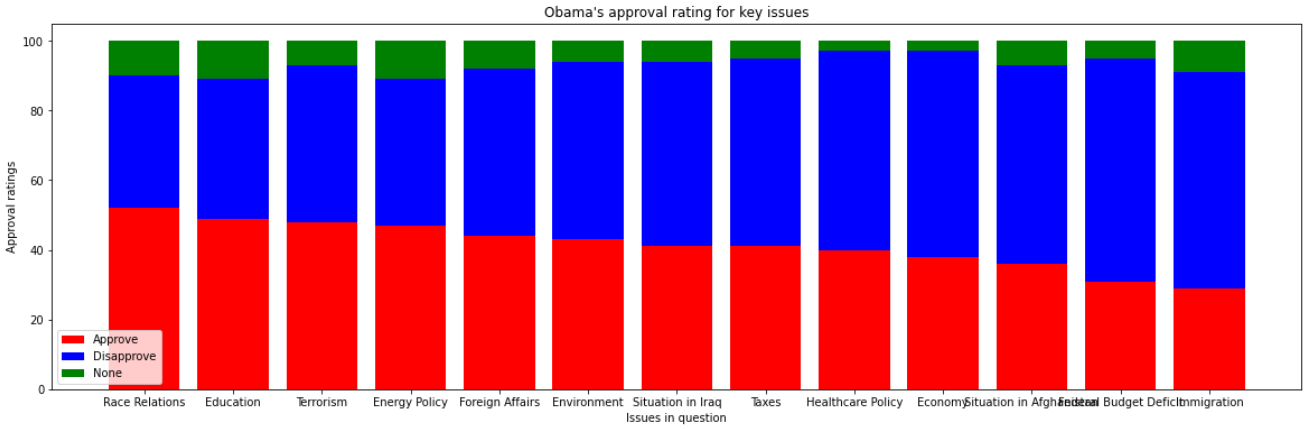
	Issue	Approve	Disapprove	None
0	Race Relations	52	38	10
1	Education	49	40	11
2	Terrorism	48	45	7
3	Energy Policy	47	42	11
4	Foreign Affairs	44	48	8
5	Environment	43	51	6
6	Situation in Iraq	41	53	6
7	Taxes	41	54	5
8	Healthcare Policy	40	57	3
9	Economy	38	59	3
10	Situation in Afghanistan	36	57	7
11	Federal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

In [7]:

```
issue=df1['Issue']
ap=df1['Approve']
dap=df1['Disapprove']
nn=df1['None']
```

In [14]:

```
plt.figure(figsize=(20, 6))
plt.bar(issue, ap, color='r', label="Approve")
plt.bar(issue, dap, bottom=ap, color='b',label="Disapprove")
plt.bar(issue, nn, bottom=np.array(ap)+np.array(dap), color='g',label="None")
plt.xlabel("Issues in question")
plt.ylabel("Approval ratings")
plt.title("Obama's approval rating for key issues")
plt.legend()
plt.show()
```



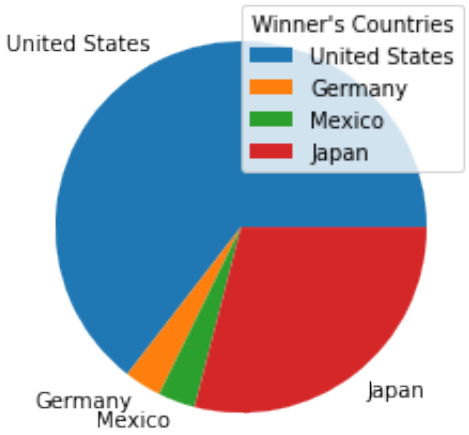
In [17]:

```
us=0
ger=0
mex=0
jap=0
arr= df['Country']
for i in arr:
    if i== "United States":
        us=us+1
    elif i=="Germany":
        ger=ger+1
    elif i=="Mexico":
        mex=mex+1
    elif i== "Japan":
        jap=jap+1
print(us)
print(ger)
print(mex)
print(jap)
```

```
20
1
1
9
```

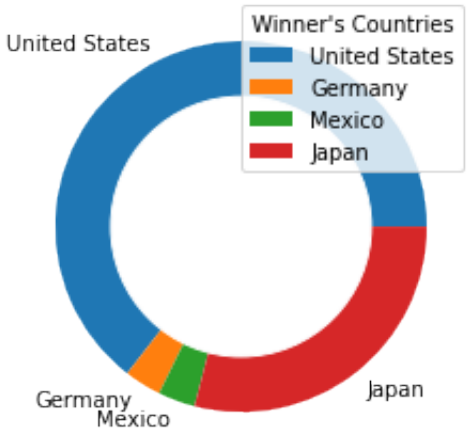
In [18]:

```
country=["United States","Germany","Mexico","Japan"]
count=[us,ger,mex,jap]
plt.pie(count, labels = country)
plt.legend(title = "Winner's Countries")
plt.show()
```



In [19]:

```
# Create a circle at the center of the plot
my_circle = plt.Circle( (0,0), 0.7, color='white')
#Plot pie chart
plt.pie(count, labels = country)
plt.legend(title = "Winner's Countries")
#Add circle in center
p = plt.gcf()
p.gca().add_artist(my_circle)
# Show the graph
plt.show()
```



In [20]:

```
df.to_csv("Winners_HD")
df1.to_csv("Obama_approval")
```

In [ ]: