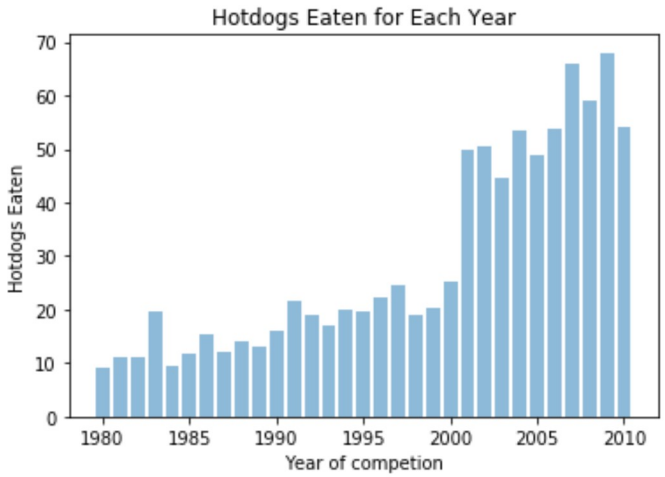
In [1]:
```
# Import libraries
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np

hotdogs_df = pd.read_excel(r"C:\\Users\\Gabe\\Documents\\Bellevue University\\Data Visualizations\\Week 1 & 2\\hotdog-contest-winners.xlsm")
hotdogs_df.head()
```

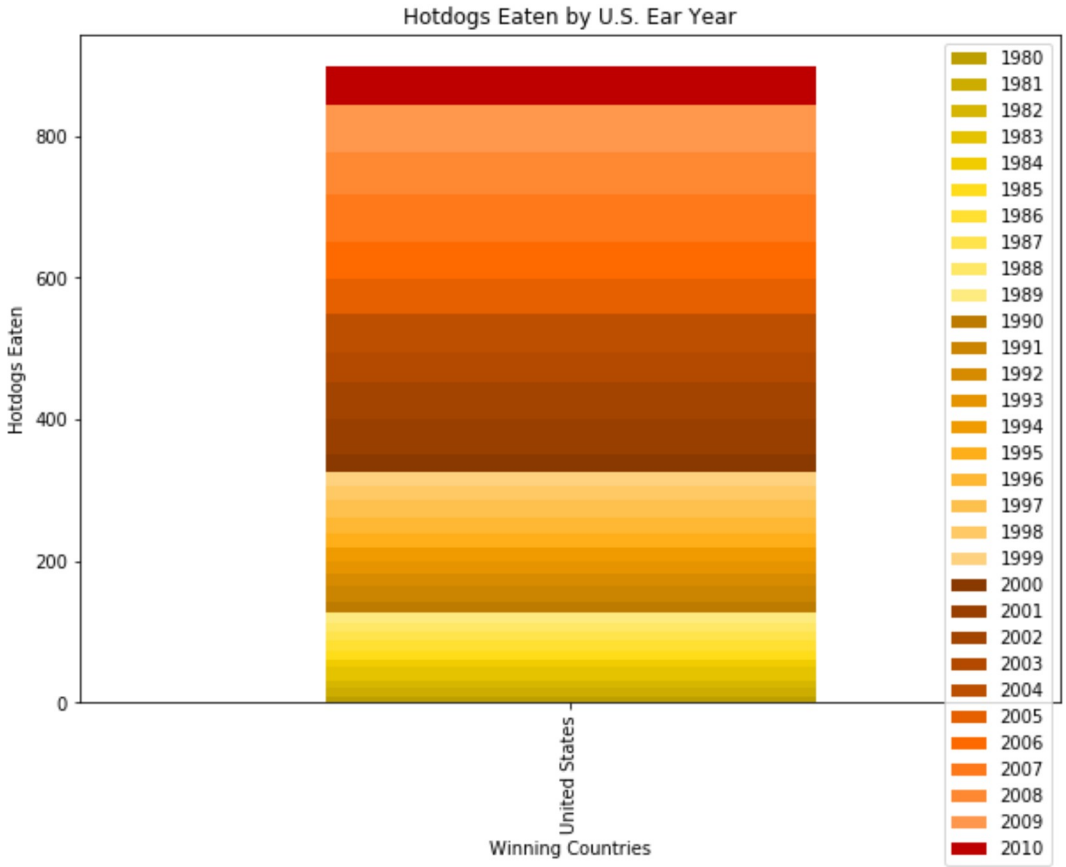
Out[1]:

	Year	Winner	Dogs eaten	Country	New record
0	1980	Paul Siederman & Joe Baldini	9.1	United States	0
1	1981	Thomas DeBerry	11.0	United States	0
2	1982	Steven Abrams	11.0	United States	0
3	1983	Luis Llamas	19.5	Mexico	0
4	1984	Birgit Felden	9.5	Germany	0

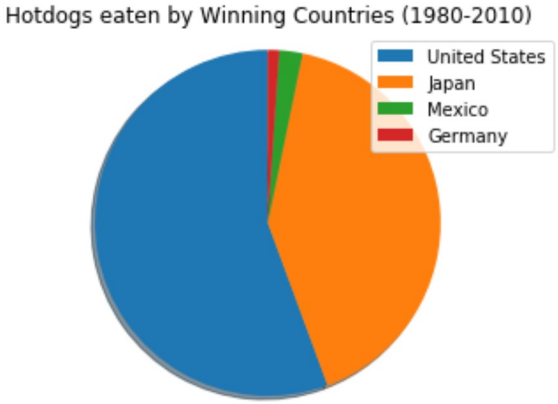
In [2]:
```
# Bar chart

plt.bar(hotdogs_df['Year'], hotdogs_df['Dogs eaten'], align='center', alpha = 0.5)
plt.xlabel('Year of competion')
plt.ylabel('Hotdogs Eaten')
plt.title('Hotdogs Eaten for Each Year')
plt.show()
```



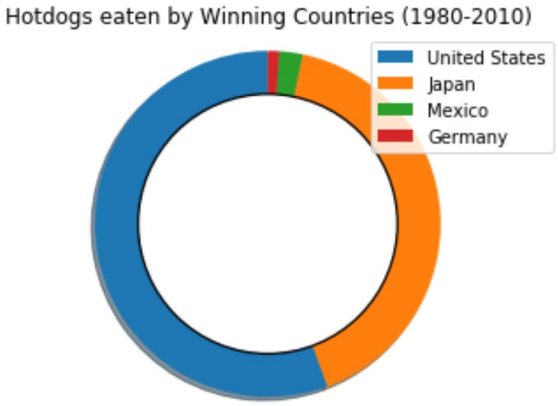
In [3]:
```
# Stacked Bar Chart

fig, ax = plt.subplots(figsize=(10,7))
years = hotdogs_df['Year']
margin_bottom = np.zeros(len(hotdogs_df['Country'].drop_duplicates()))
colors = ["#bda000","#ccad00","#d6b600","#e6c300","#f0cc00","#ffdd1a","#ffe033","#ffe44d","#ffe866","#ffec80","#bd7b00","#cc8500","#d68b00","#e69500","#f09c00","#ffaf1a","#ffb833","#ffc14d","#ffc966","#ffd280","#8a3900","#994000","#a34400","#b34a00","#bd4f00","#e66000","#ff6a00","#ff791a","#ff8833","#ff974d", "#bd0000"]

for num, year in enumerate(years):

    values = list(hotdogs_df[hotdogs_df['Year'] == year].loc[:, 'Dogs eaten'])

    hotdogs_df[hotdogs_df['Year'] == year].plot.bar(x='Country', y='Dogs eaten', ax=ax, stacked=True, bottom = margin_bottom, color = colors[num], label = year)

    margin_bottom += values


plt.ylabel('Hotdogs Eaten')
plt.xlabel('Winning Countries')
plt.title("Hotdogs Eaten by U.S. Ear Year")
plt.show()



#us_hotdogs = hotdogs_df[hotdogs_df['Country']=='United States']
#jpn_hotdogs = hotdogs_df[hotdogs_df['Country']=='Japan']
#mx_hotdogs = hotdogs_df[hotdogs_df['Country']=='Mexico']
#grm_hotdogs = hotdogs_df[hotdogs_df['Country']=='Germany']

#plt.bar(us_hotdogs['Year'], us_hotdogs['Dogs eaten'])
#plt.bar(jpn_hotdogs['Year'], jpn_hotdogs['Dogs eaten'], bottom=us_hotdogs)
#plt.bar(mx_hotdogs['Year'], mx_hotdogs['Dogs eaten'], bottom=jpn_hotdogs)
#plt.bar(grm_hotdogs['Year'], grm_hotdogs['Dogs eaten'], bottom=mx_hotdogs)


#plt.xticks(countries, fontwieght='bold')
#plt.xlabel('Winning Countries')

#plt.show()
```



In [4]:
```
# Pie Chart

# Determine how many hotdogs were eaten per country
#print(hotdogs_df.groupby(['Country']).sum())

labels = 'United States', 'Japan', 'Mexico', 'Germany'
sizes = [499.85, 369.88, 19.50, 9.50]
explode = (0.1, 0, 0, 0)

plt.pie(sizes,shadow=True, startangle=90)
plt.legend(labels, loc='best')
plt.axis('equal')
plt.title("Hotdogs eaten by Winning Countries (1980-2010)")
plt.show()
```



In [5]:
```
# Donut Chart

labels = 'United States', 'Japan', 'Mexico', 'Germany'
sizes = [499.85, 369.88, 19.50, 9.50]
explode = (0.1, 0, 0, 0)

plt.pie(sizes,shadow=True, startangle=90)
plt.legend(labels, loc='best')


centre_circle = plt.Circle((0,0),0.75,color='black', fc='white',linewidth=1.25)
fig = plt.gcf()
fig.gca().add_artist(centre_circle)

plt.axis('equal')
plt.title("Hotdogs eaten by Winning Countries (1980-2010)")
plt.show()
```



In [6]:
```
# Line Chart

plt.plot(hotdogs_df['Year'], hotdogs_df['Dogs eaten'])
plt.xlabel('Year of competion')
plt.ylabel('Hotdogs Eaten')
plt.title('Hotdogs Eaten for Each Year')
plt.show()
```