

# 2001-2019 Taiwanese Travel Statistics

\*This time, I'm gonna make several pictures since 2001 to 2019.

```
In [1]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn ; seaborn.set()

In [2]: data_report = pd.read_csv('https://gist.githubusercontent.com/ji394python/679a156b429829b9f1a4ff87c7f5b995/raw/7c297cfe89495e8185254ee82b25e1d99c8f7743/dataset.csv')

data_report['country'] = data_report['country'].str.replace('香港', 'HongKong')
data_report['country'] = data_report['country'].str.replace('義大利', 'Italy')
data_report['country'] = data_report['country'].str.replace('德國', 'Germany')
data_report['country'] = data_report['country'].str.replace('法國', 'France')
data_report['country'] = data_report['country'].str.replace('美國', 'USA')
data_report['country'] = data_report['country'].str.replace('加拿大', 'Canada')
data_report['country'] = data_report['country'].str.replace('紐西蘭', 'New Zealand')
data_report['country'] = data_report['country'].str.replace('英國', 'English')
data_report['country'] = data_report['country'].str.replace('澳門', 'Macao')
data_report['country'] = data_report['country'].str.replace('荷蘭', 'Netherlands')
data_report['country'] = data_report['country'].str.replace('越南', 'Vietnam')
data_report['country'] = data_report['country'].str.replace('泰國', 'Thailand')
data_report['country'] = data_report['country'].str.replace('菲律賓', 'Philippines')
data_report['country'] = data_report['country'].str.replace('中國大陸', 'China')
data_report['country'] = data_report['country'].str.replace('印尼', 'Indonesia')
data_report['country'] = data_report['country'].str.replace('澳大利亞', 'Australia')
data_report['country'] = data_report['country'].str.replace('新加坡', 'Singapro')
data_report['country'] = data_report['country'].str.replace('馬來西亞', 'Malaysia')
data_report['country'] = data_report['country'].str.replace('南韓', 'South Korea')
data_report['country'] = data_report['country'].str.replace('南非', 'South Africa')
data_report['country'] = data_report['country'].str.replace('瑞士', 'Switzerland')
data_report['country'] = data_report['country'].str.replace('日本', 'Japan')

first_year = data_report[data_report['date'].str.contains('2001')][['date', 'country', 'value']]
second_year = data_report[data_report['date'].str.contains('2002')][['date', 'country', 'value']]
third_year = data_report[data_report['date'].str.contains('2003')][['date', 'country', 'value']]
forth_year = data_report[data_report['date'].str.contains('2004')][['date', 'country', 'value']]
fifth_year = data_report[data_report['date'].str.contains('2005')][['date', 'country', 'value']]
sixth_year = data_report[data_report['date'].str.contains('2006')][['date', 'country', 'value']]
seventh_year = data_report[data_report['date'].str.contains('2007')][['date', 'country', 'value']]
eighth_year = data_report[data_report['date'].str.contains('2008')][['date', 'country', 'value']]
ninth_year = data_report[data_report['date'].str.contains('2009')][['date', 'country', 'value']]
tenth_year = data_report[data_report['date'].str.contains('2010')][['date', 'country', 'value']]
elevenst_year = data_report[data_report['date'].str.contains('2011')][['date', 'country', 'value']]
twelthrd_year = data_report[data_report['date'].str.contains('2012')][['date', 'country', 'value']]
thirteenth_year = data_report[data_report['date'].str.contains('2013')][['date', 'country', 'value']]
fourth_year = data_report[data_report['date'].str.contains('2014')][['date', 'country', 'value']]
fifth_year = data_report[data_report['date'].str.contains('2015')][['date', 'country', 'value']]
sixteenth_year = data_report[data_report['date'].str.contains('2016')][['date', 'country', 'value']]
seventeenth_year = data_report[data_report['date'].str.contains('2017')][['date', 'country', 'value']]
eighteenth_year = data_report[data_report['date'].str.contains('2018')][['date', 'country', 'value']]
nineteenth_year = data_report[data_report['date'].str.contains('2019')][['date', 'country', 'value']]

In [3]: # Made a dictionary, one country has one color. It is more convenient to understand.
colors = {
    'HongKong': 'orange',
    'Italy': 'green',
    'Germany': 'chocolate',
    'France': 'royalblue',
    'USA': 'coral',
    'Canada': 'dodgerblue',
    'New Zealand': 'blue',
    'English': 'gold',
    'Macao': 'lightgreen',
    'Netherlands': 'deeppink',
    'Vietnam': 'burlywood',
    'Thailand': 'goldenrod',
    'Philippines': 'peru',
    'China': 'red',
    'Indonesia': 'sandybrown',
    'Australia': 'forestgreen',
    'Singapro': 'crimson',
    'Malaysia': 'tomato',
    'South Korea': 'mediumslateblue',
    'South Africa': 'darkgoldenrod',
    'Switzerland': 'deepskyblue',
    'Japan': 'lightpink'
}
```

- 1. Using FOR to set up colors
- 2. Using FOR to set up numbers on each bar. Don't have to check the ylabel to understand how many is now.

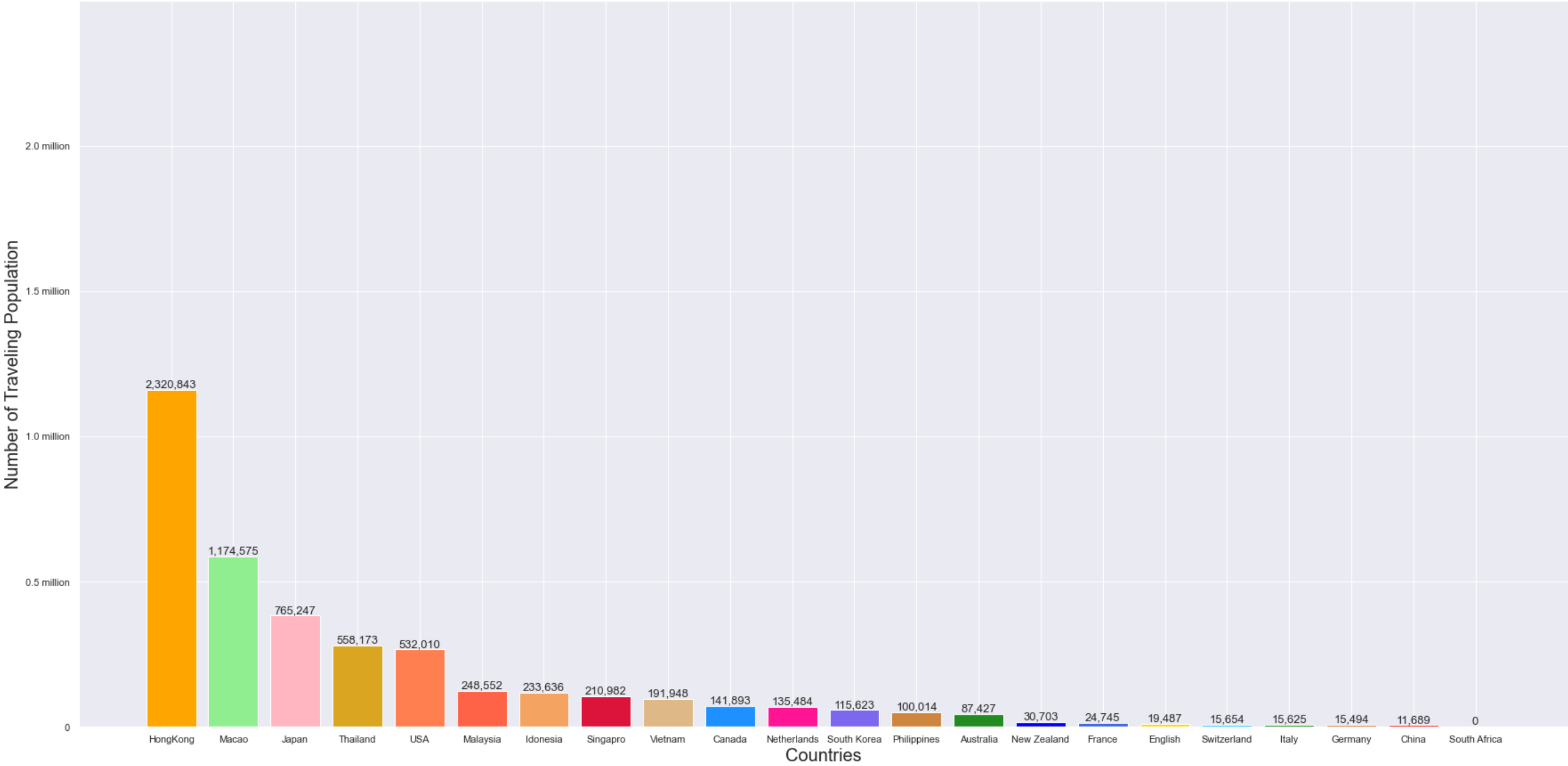
```
In [4]: first_year = first_year.groupby('country')['value'].sum()
first_year = pd.DataFrame(first_year).reset_index()
first_year = first_year.sort_values('value', ascending=False)
first_year = first_year.reset_index(drop=True)

x = first_year['country'].values
y = first_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in first_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

2001-2019 Taiwanese Travel Statistics



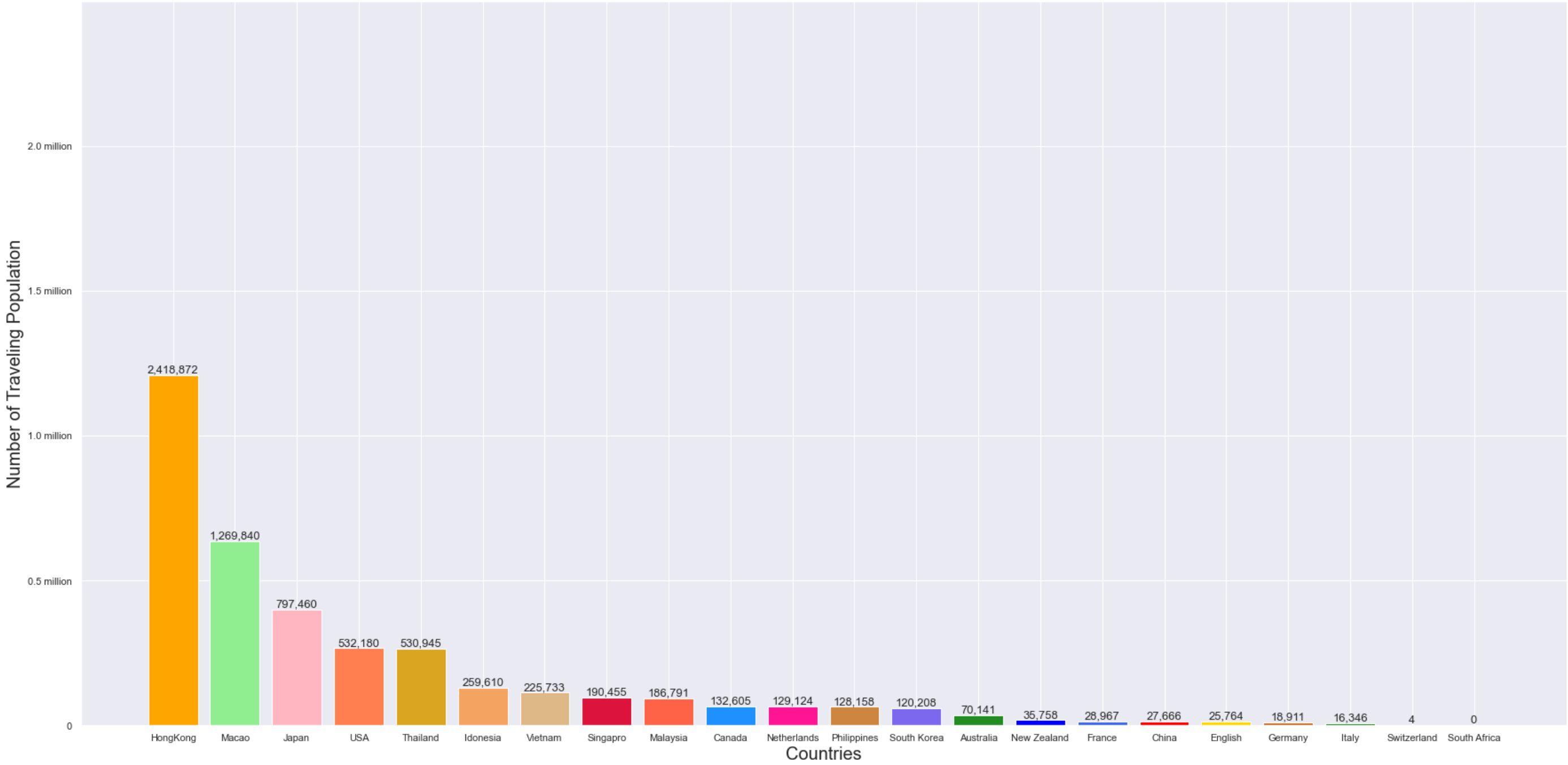
```
In [5]: second_year = second_year.groupby('country')['value'].sum()
second_year = pd.DataFrame(second_year).reset_index()
second_year = second_year.sort_values('value', ascending=False)
second_year = second_year.reset_index(drop=True)

x = second_year['country'].values
y = second_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in second_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



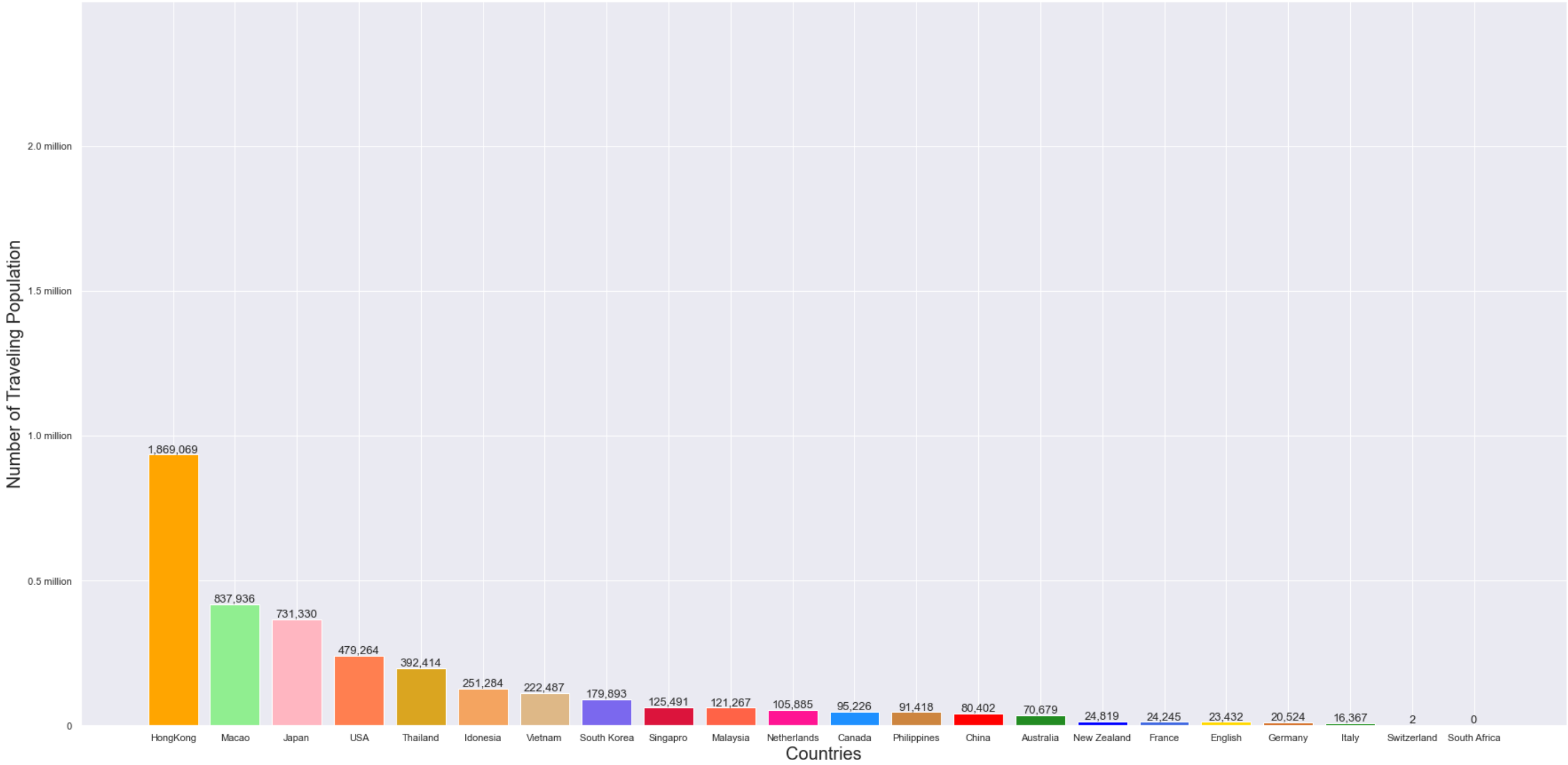
```
In [6]: third_year = third_year.groupby('country')['value'].sum()
third_year = pd.DataFrame(third_year).reset_index()
third_year = third_year.sort_values('value', ascending=False)
third_year = third_year.reset_index(drop=True)

x = third_year['country'].values
y = third_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in third_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



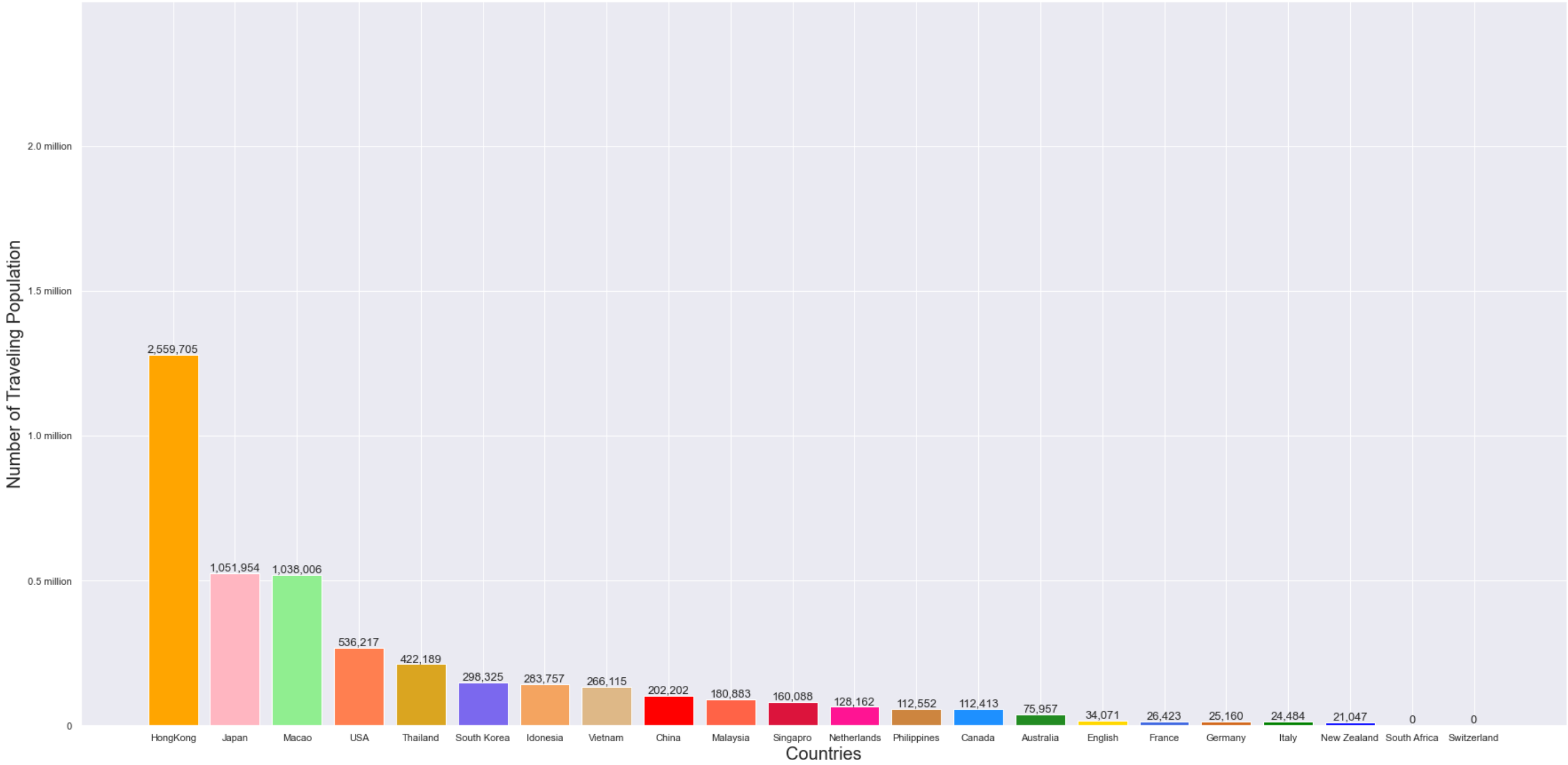
```
In [7]: forth_year = forth_year.groupby('country')['value'].sum()
forth_year = pd.DataFrame(forth_year).reset_index()
forth_year = forth_year.sort_values('value', ascending=False)
forth_year = forth_year.reset_index(drop=True)

x = forth_year['country'].values
y = forth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in forth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



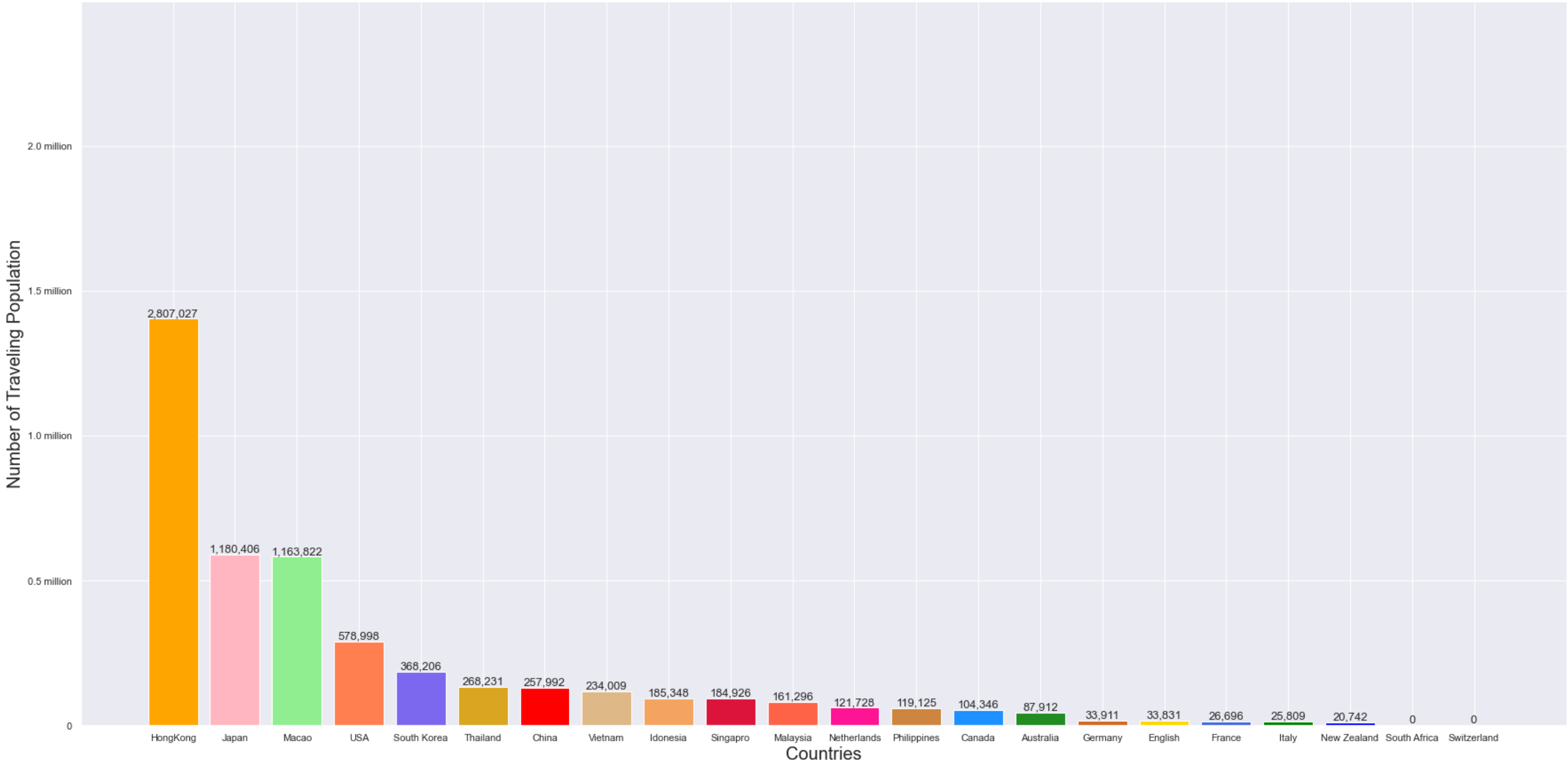
```
In [8]: fifth_year = fifth_year.groupby('country')['value'].sum()
fifth_year = pd.DataFrame(fifth_year).reset_index()
fifth_year = fifth_year.sort_values('value', ascending=False)
fifth_year = fifth_year.reset_index(drop=True)

x = fifth_year['country'].values
y = fifth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in fifth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



```
In [9]: sixth_year = sixth_year.groupby('country')['value'].sum()
        sixth_year = pd.DataFrame(sixth_year).reset_index()
        sixth_year = sixth_year.sort_values('value', ascending=False)
        sixth_year = sixth_year.reset_index(drop=True)

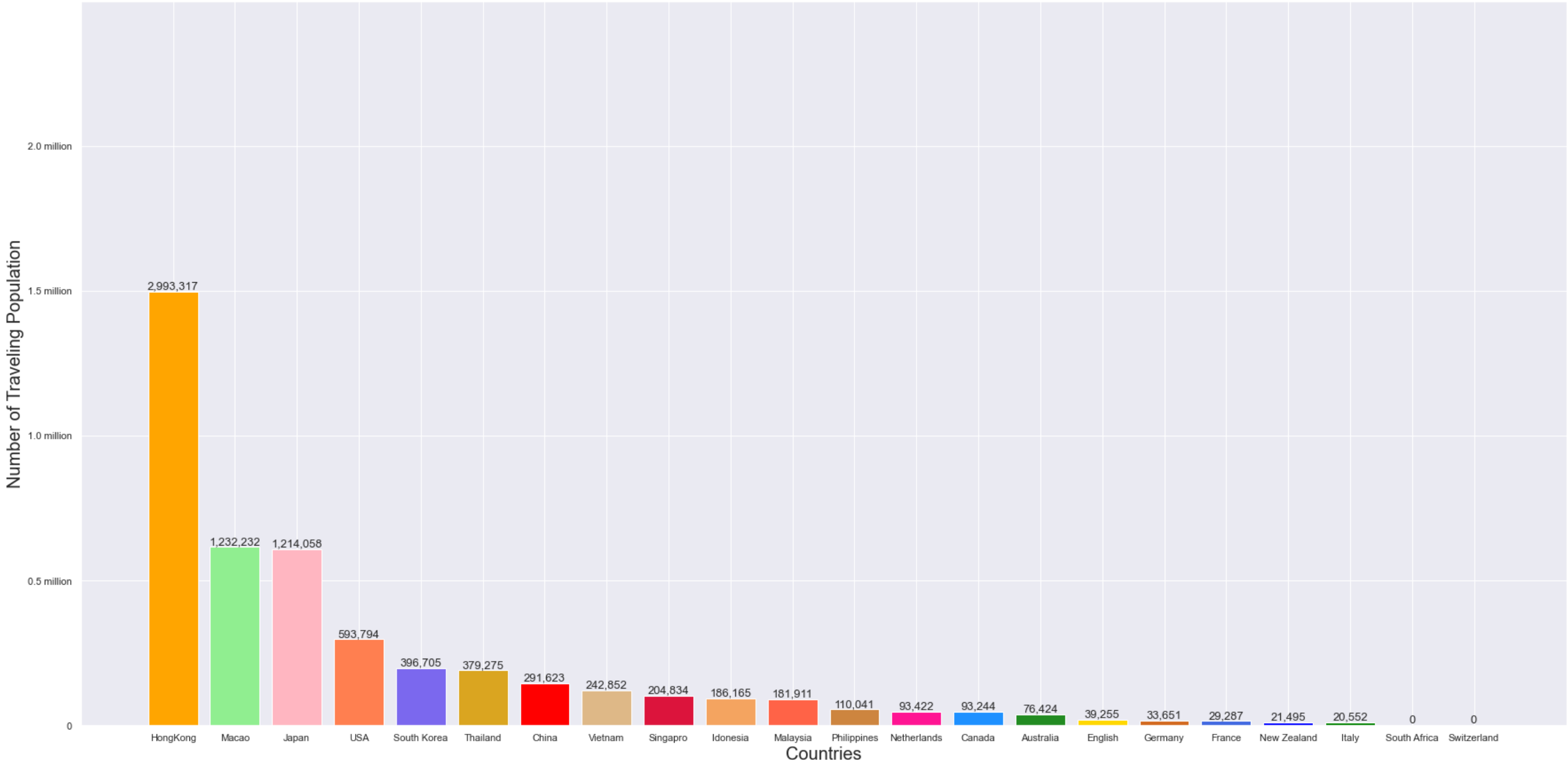
        x = sixth_year['country'].values
        y = sixth_year['value'].values

        fig, axes = plt.subplots(figsize=(30, 15))
        axes = plt.axes()
        axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
        axes.set_xlabel('Countries', fontsize=20)

        axes.set_ylabel('Number of Traveling Population', fontsize=20)
        axes.set_yticks(np.arange(0, 5000000, 1000000))
        axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
        axes.set_ylim(0, 5000000)
        axes.bar(x, y, color=[colors[x] for x in sixth_year['country']])
        for xx, yy in enumerate(y):
            axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
        plt.show()
```



# 2001-2019 Taiwanese Travel Statistics



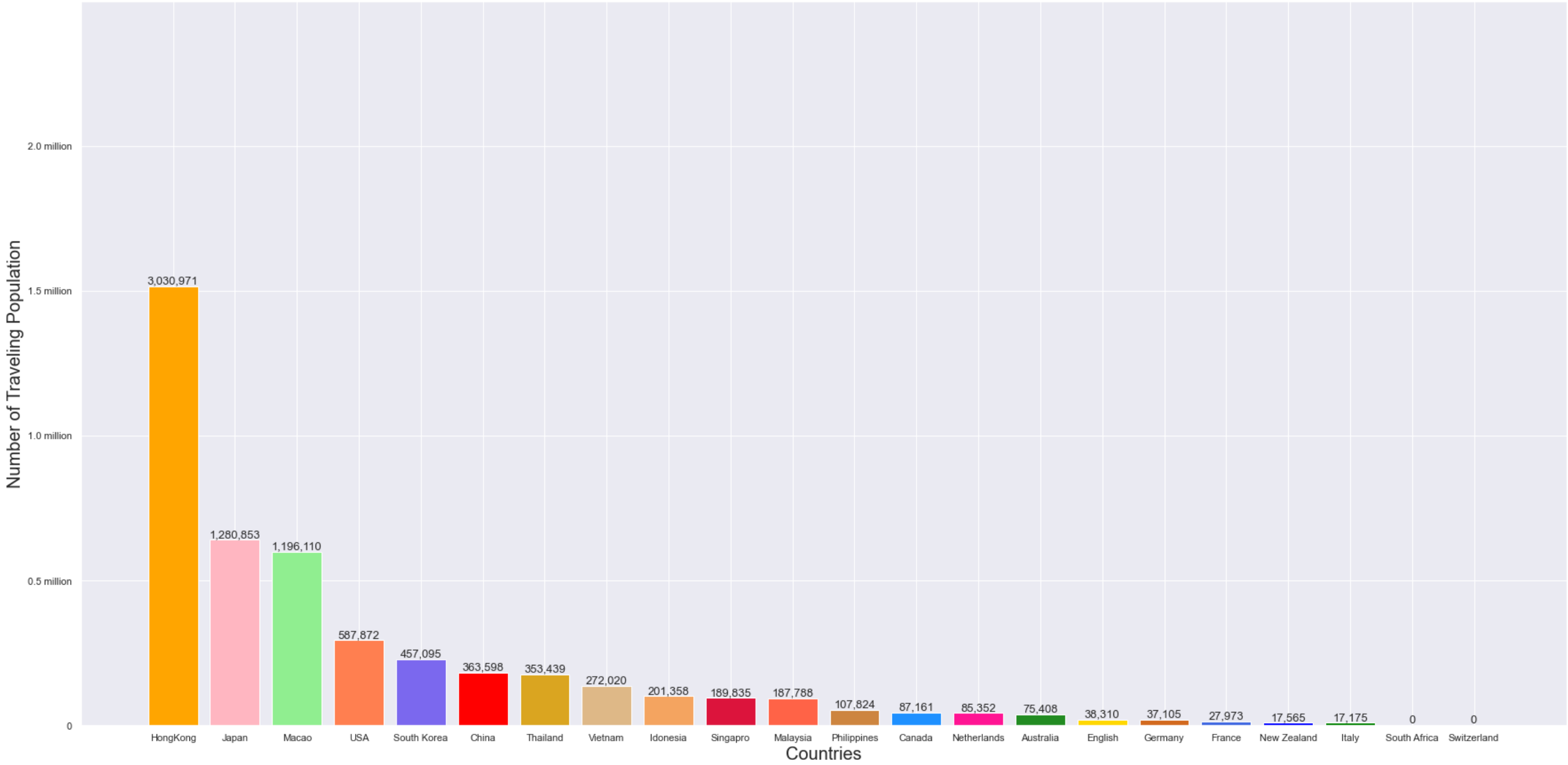
```
In [10]: seventh_year = seventh_year.groupby('country')['value'].sum()
seventh_year = pd.DataFrame(seventh_year).reset_index()
seventh_year = seventh_year.sort_values('value', ascending=False)
seventh_year = seventh_year.reset_index(drop=True)

x = seventh_year['country'].values
y = seventh_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in seventh_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



```
In [11]: eighth_year = eighth_year.groupby('country')['value'].sum()
eighth_year = pd.DataFrame(eighth_year).reset_index()
eighth_year = eighth_year.sort_values('value', ascending=False)
eighth_year = eighth_year.reset_index(drop=True)

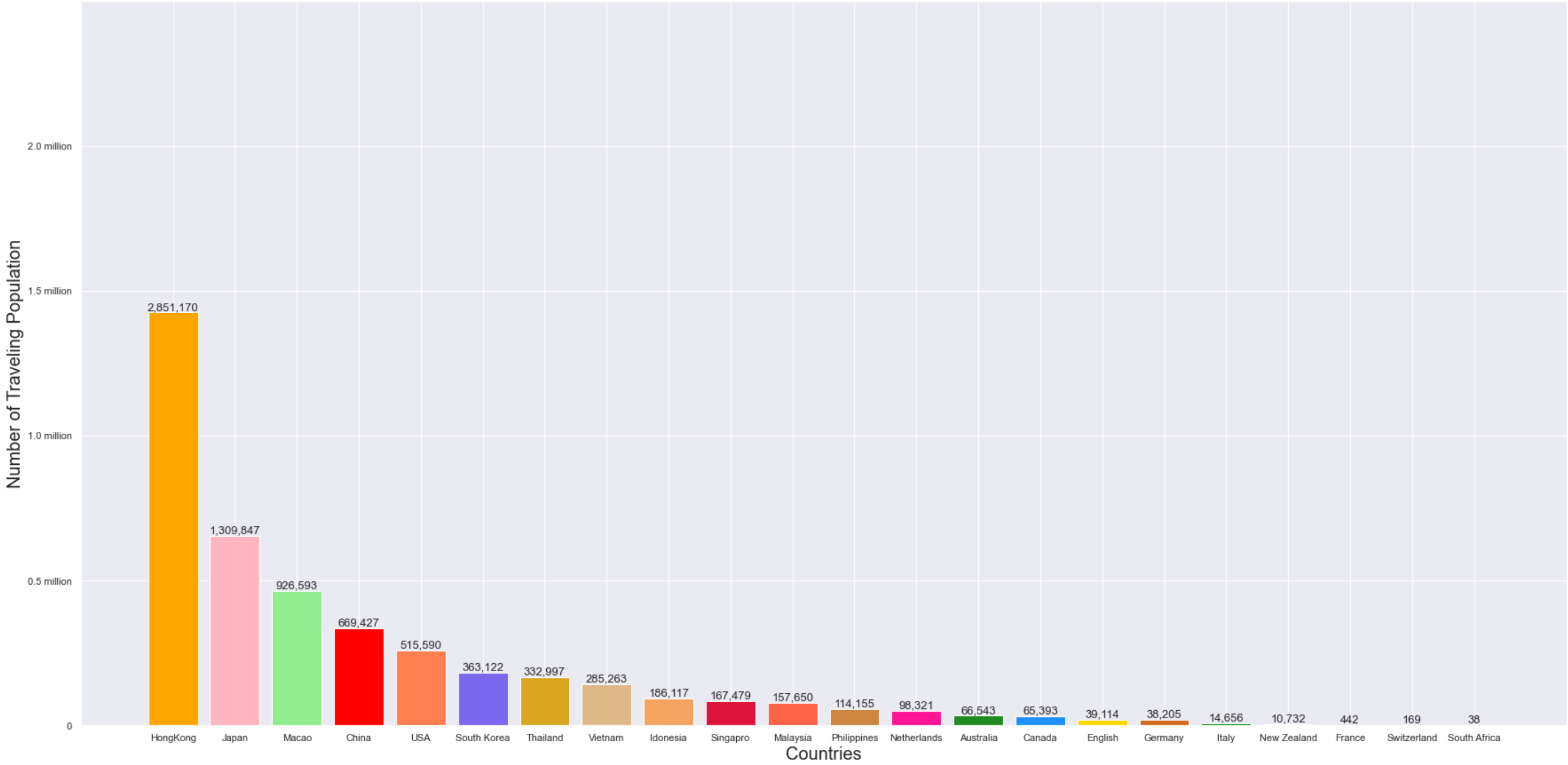
x = eighth_year['country'].values
y = eighth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in eighth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```



# 2001-2019 Taiwanese Travel Statistics



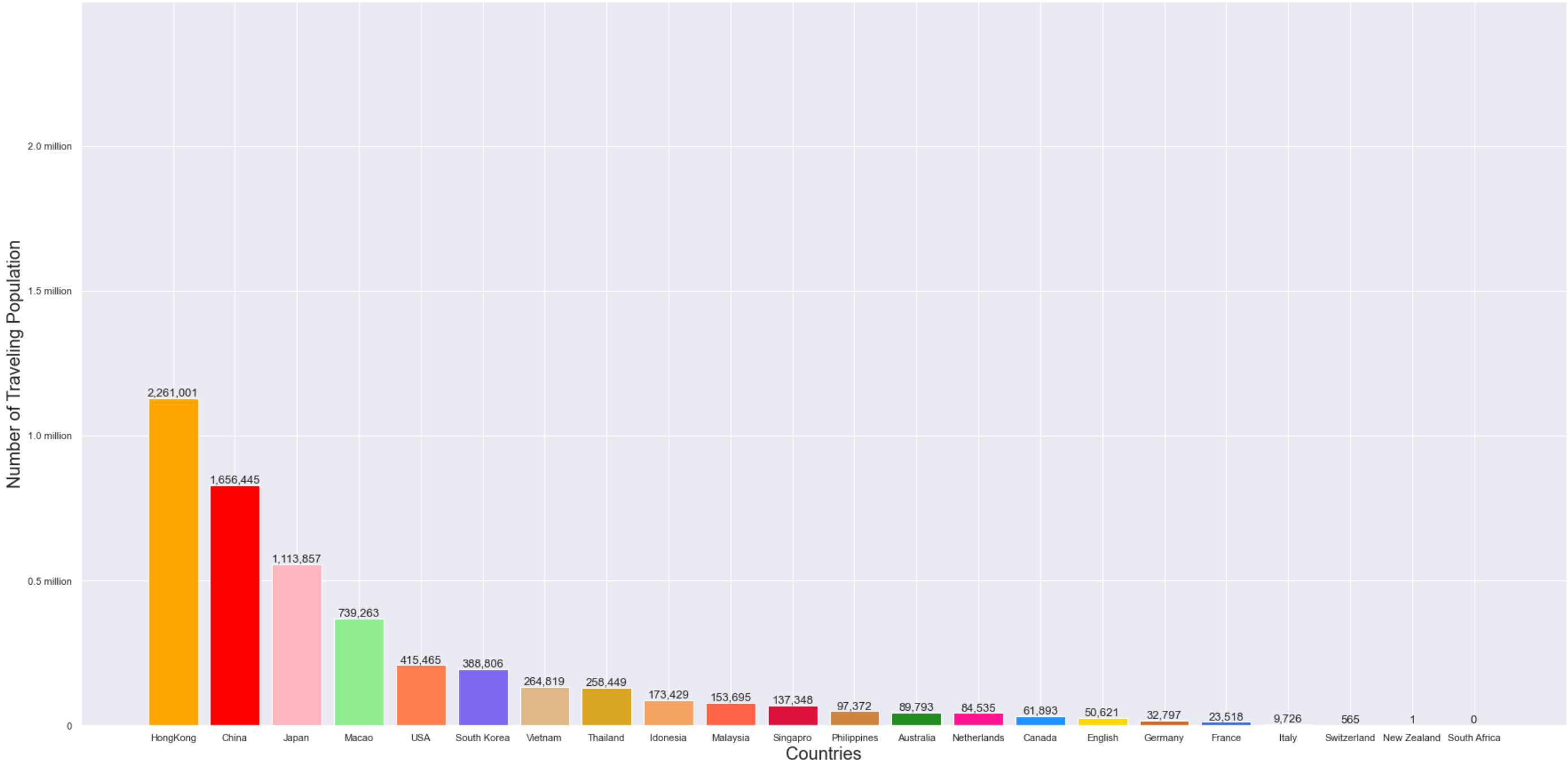
```
In [12]: ninth_year = ninth_year.groupby('country')['value'].sum()
ninth_year = pd.DataFrame(ninth_year).reset_index()
ninth_year = ninth_year.sort_values('value', ascending=False)
ninth_year = ninth_year.reset_index(drop=True)

x = ninth_year['country'].values
y = ninth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in ninth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



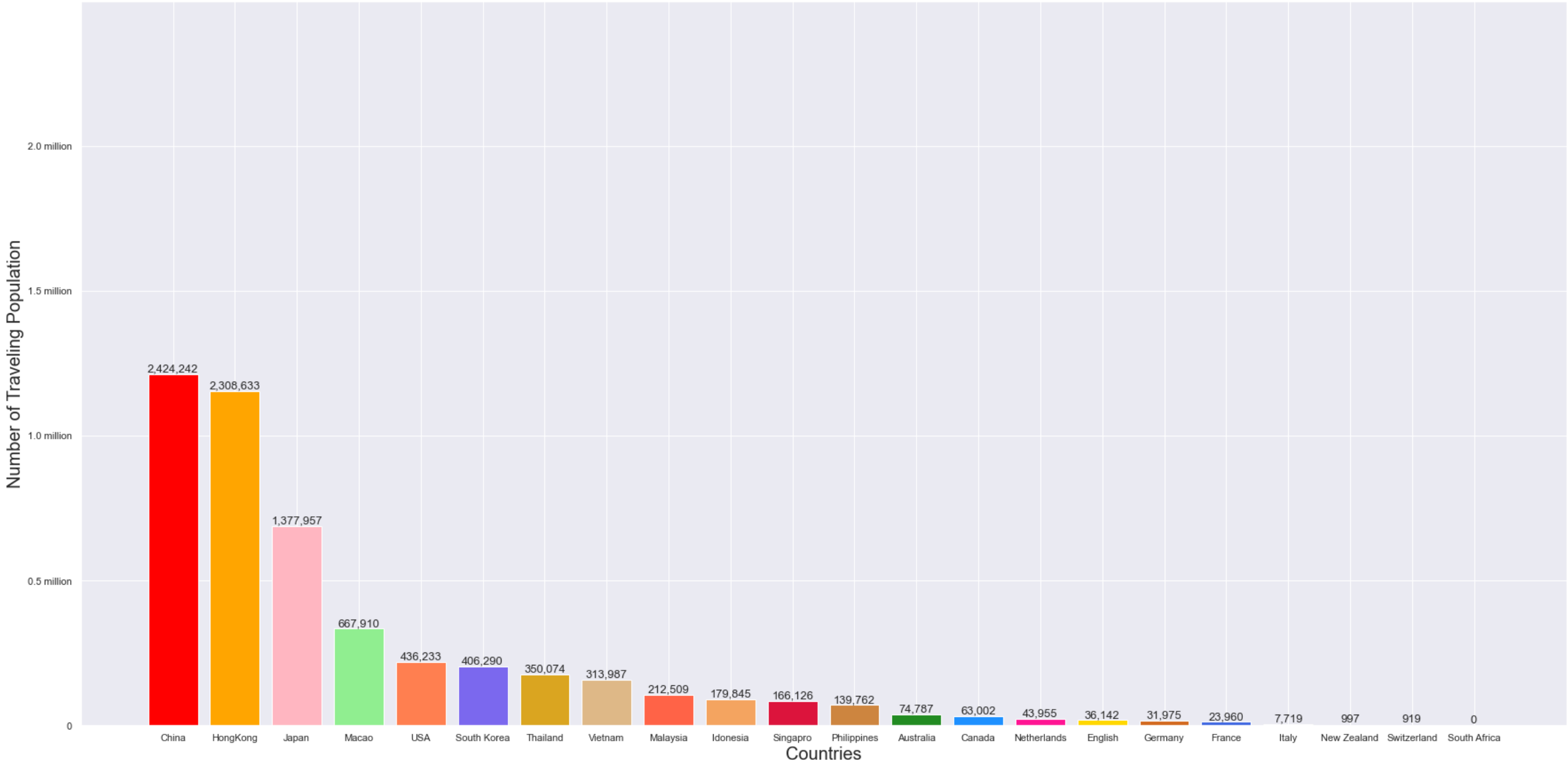
```
In [13]: tenth_year = tenth_year.groupby('country')['value'].sum()
tenth_year = pd.DataFrame(tenth_year).reset_index()
tenth_year = tenth_year.sort_values('value', ascending=False)
tenth_year = tenth_year.reset_index(drop=True)

x = tenth_year['country'].values
y = tenth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in tenth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



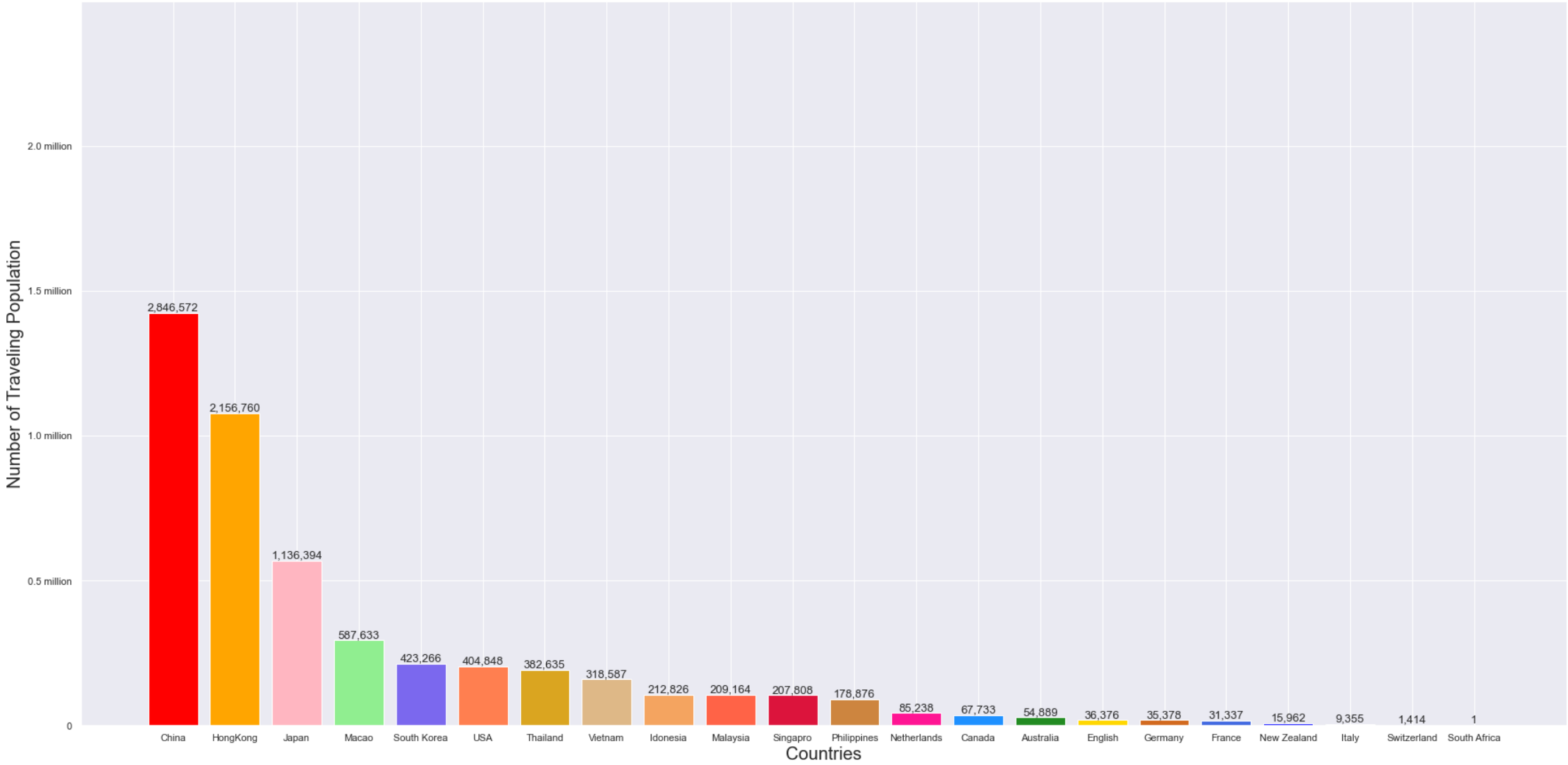
```
In [14]: elevenst_year = elevenst_year.groupby('country')['value'].sum()
elevenst_year = pd.DataFrame(elevenst_year).reset_index()
elevenst_year = elevenst_year.sort_values('value', ascending=False)
elevenst_year = elevenst_year.reset_index(drop=True)

x = elevenst_year['country'].values
y = elevenst_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in elevenst_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



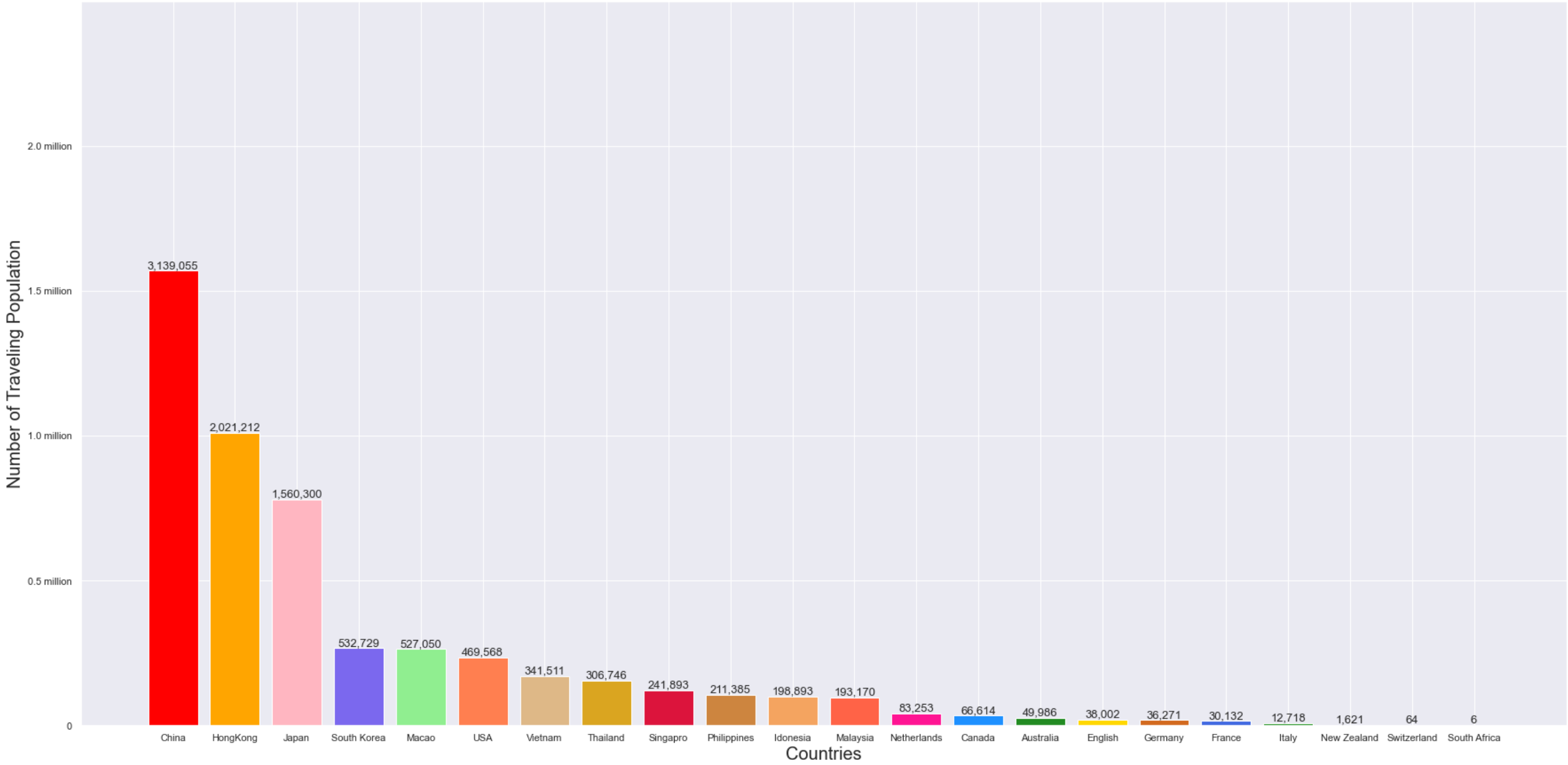
```
In [15]: twelthrd_year = twelthrd_year.groupby('country')['value'].sum()
twelthrd_year = pd.DataFrame(twelthrd_year).reset_index()
twelthrd_year = twelthrd_year.sort_values('value', ascending=False)
twelthrd_year = twelthrd_year.reset_index(drop=True)

x = twelthrd_year['country'].values
y = twelthrd_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in twelthrd_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



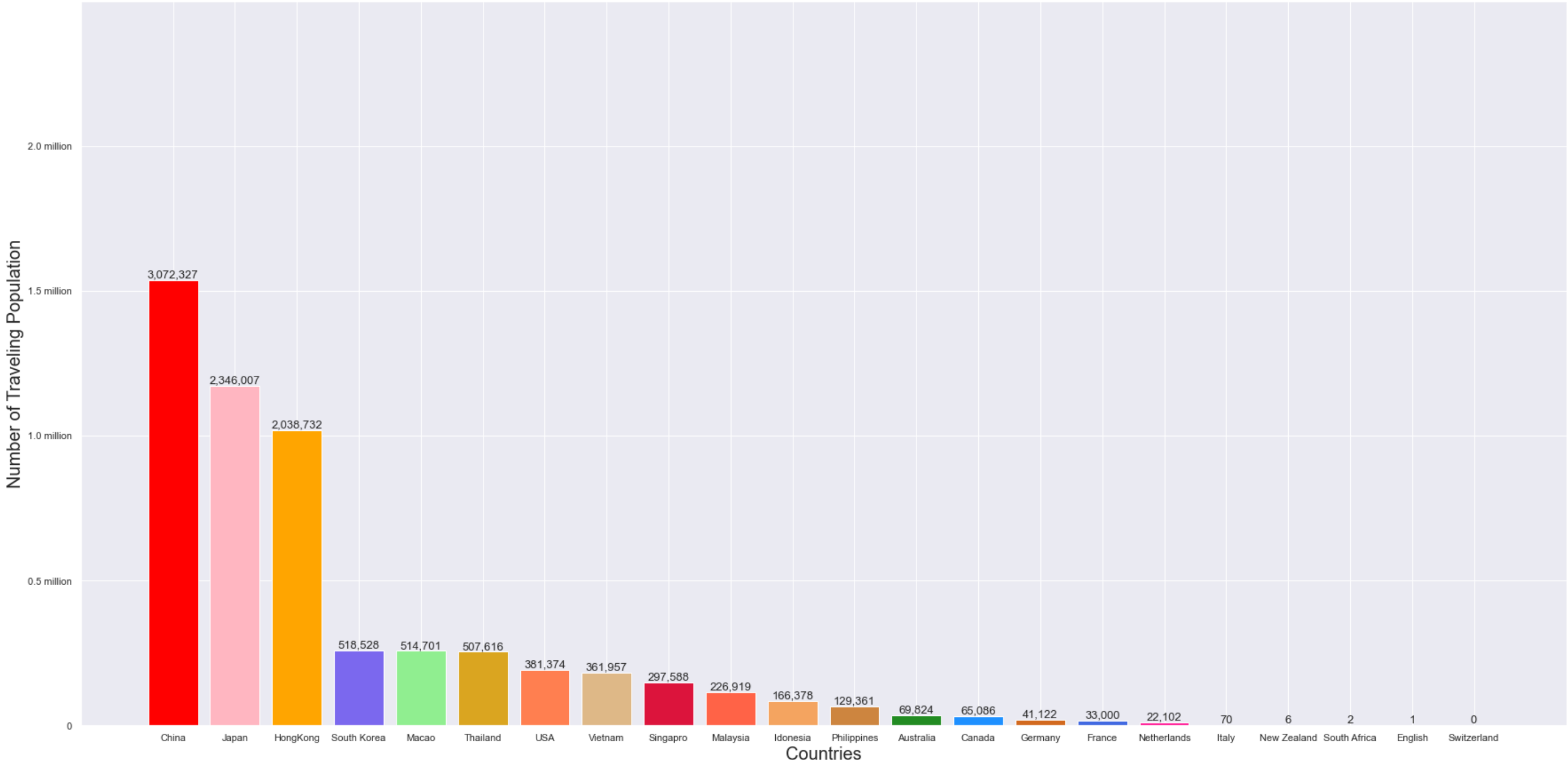
```
In [16]: thirteenth_year = thirteenth_year.groupby('country')['value'].sum()
thirteenth_year = pd.DataFrame(thirteenth_year).reset_index()
thirteenth_year = thirteenth_year.sort_values('value', ascending=False)
thirteenth_year = thirteenth_year.reset_index(drop=True)

x = thirteenth_year['country'].values
y = thirteenth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in thirteenth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



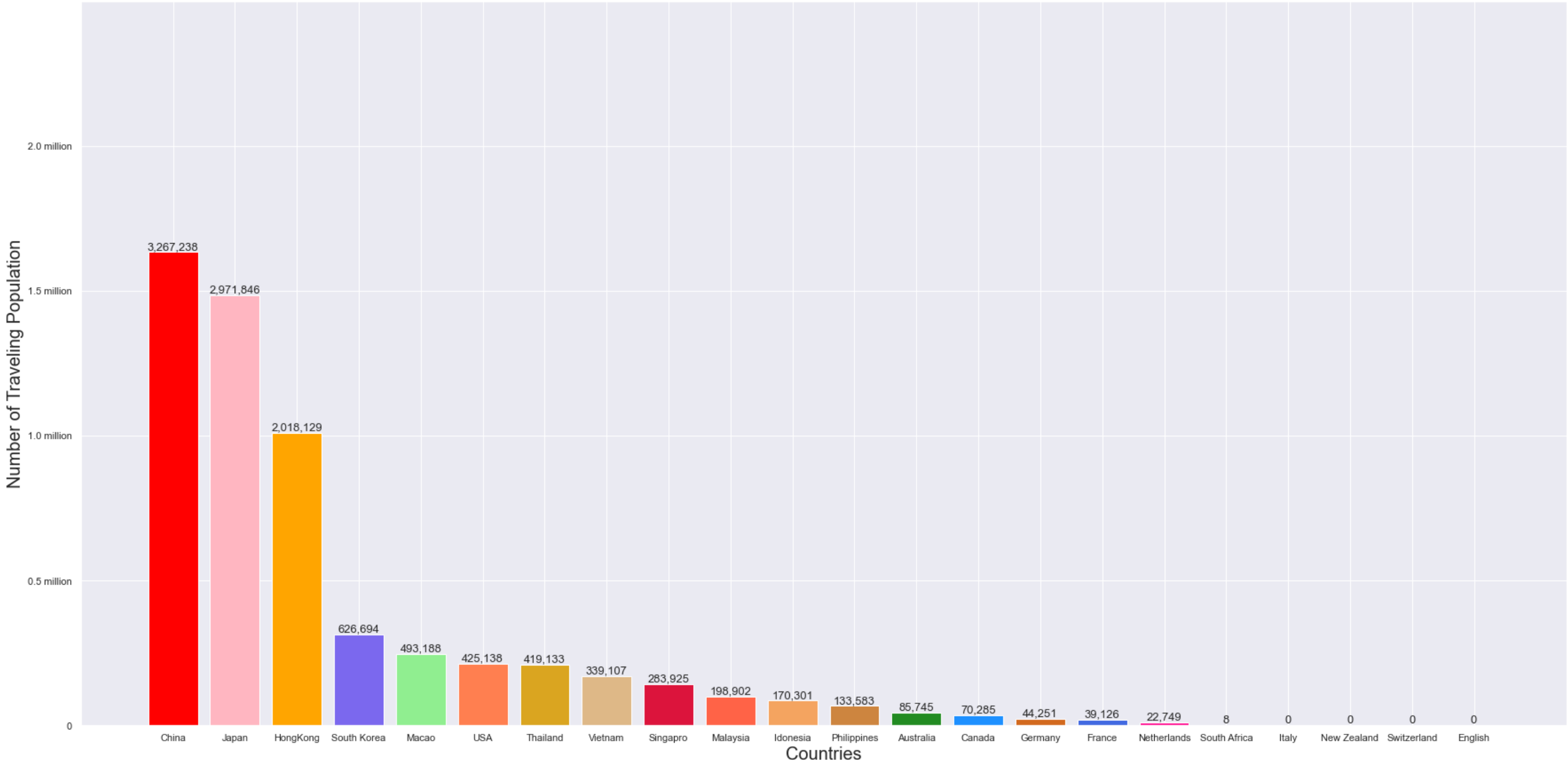
```
In [17]: forthinth_year = forthinth_year.groupby('country')['value'].sum()
forthinth_year = pd.DataFrame(forthinth_year).reset_index()
forthinth_year = forthinth_year.sort_values('value', ascending=False)
forthinth_year = forthinth_year.reset_index(drop=True)

x = forthinth_year['country'].values
y = forthinth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in forthinth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



```
In [18]: fifthinth_year = fifthinth_year.groupby('country')['value'].sum()
fifthinth_year = pd.DataFrame(fifthinth_year).reset_index()
fifthinth_year = fifthinth_year.sort_values('value', ascending=False)
fifthinth_year = fifthinth_year.reset_index(drop=True)

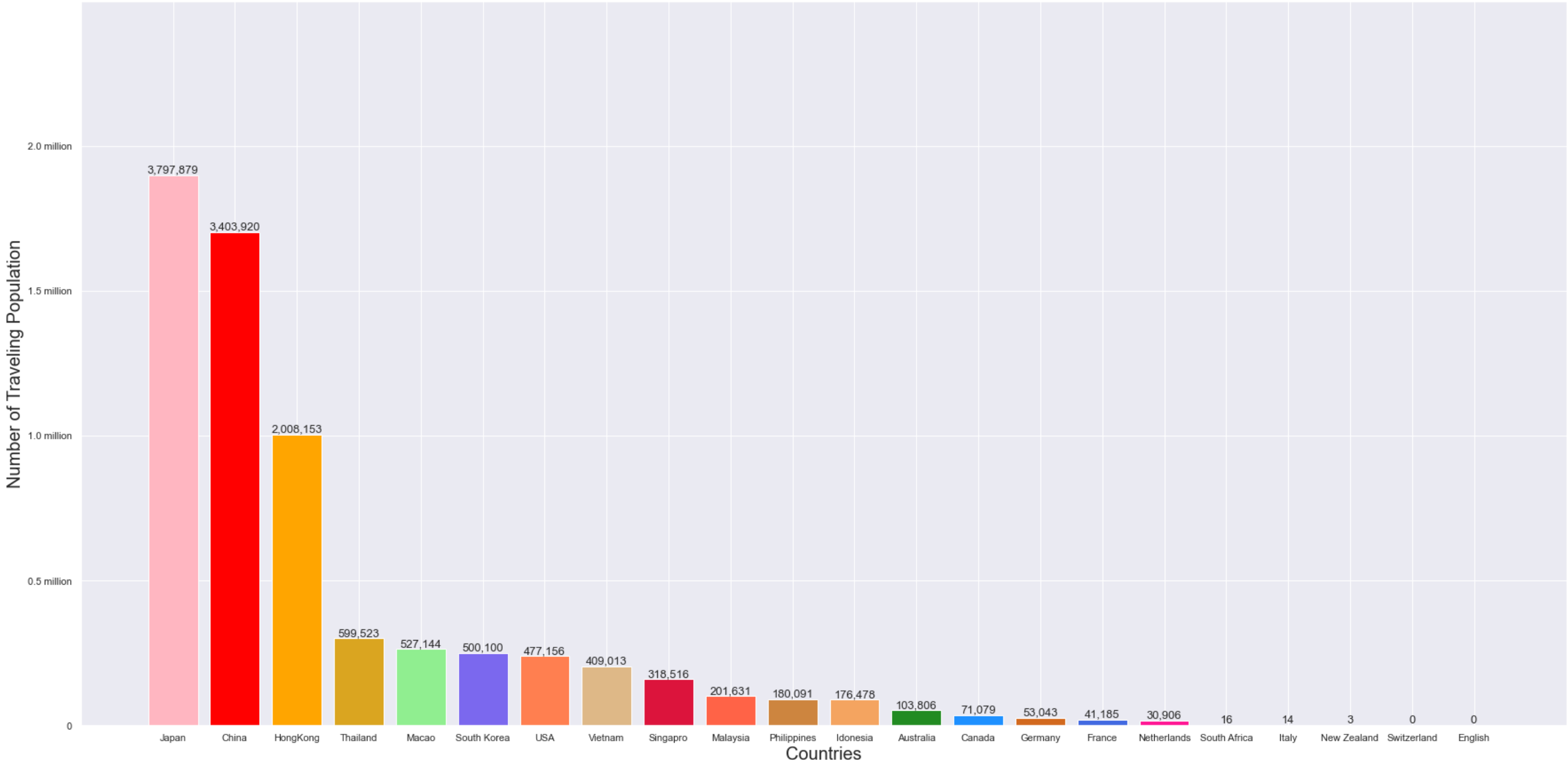
x = fifthinth_year['country'].values
y = fifthinth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in fifthinth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```



# 2001-2019 Taiwanese Travel Statistics



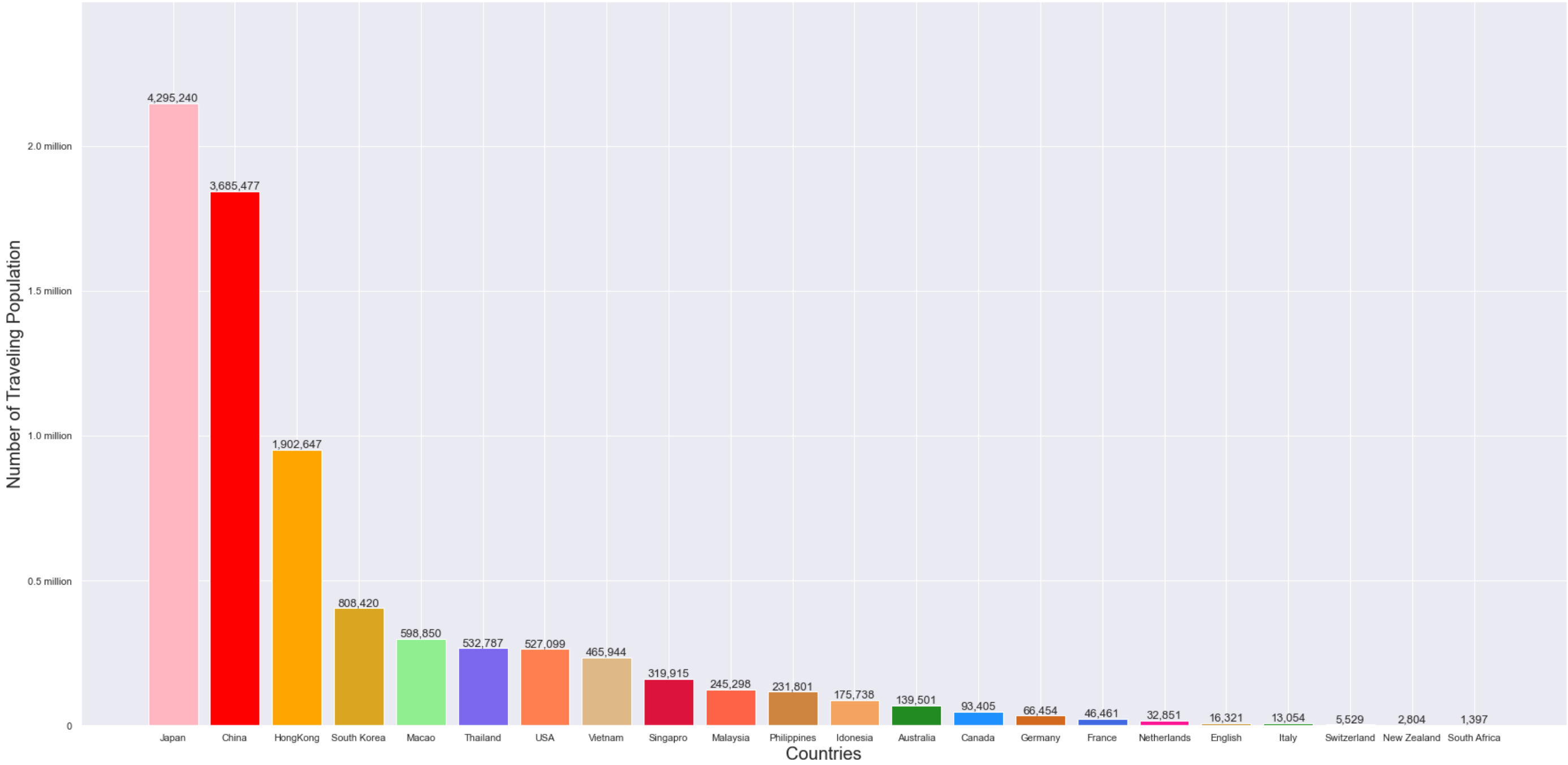
```
In [19]: sixteenth_year = sixteenth_year.groupby('country')['value'].sum()
sixteenth_year = pd.DataFrame(sixteenth_year).reset_index()
sixteenth_year = sixteenth_year.sort_values('value', ascending=False)
sixteenth_year = sixteenth_year.reset_index(drop=True)

x = sixteenth_year['country'].values
y = sixteenth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in fifthinth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



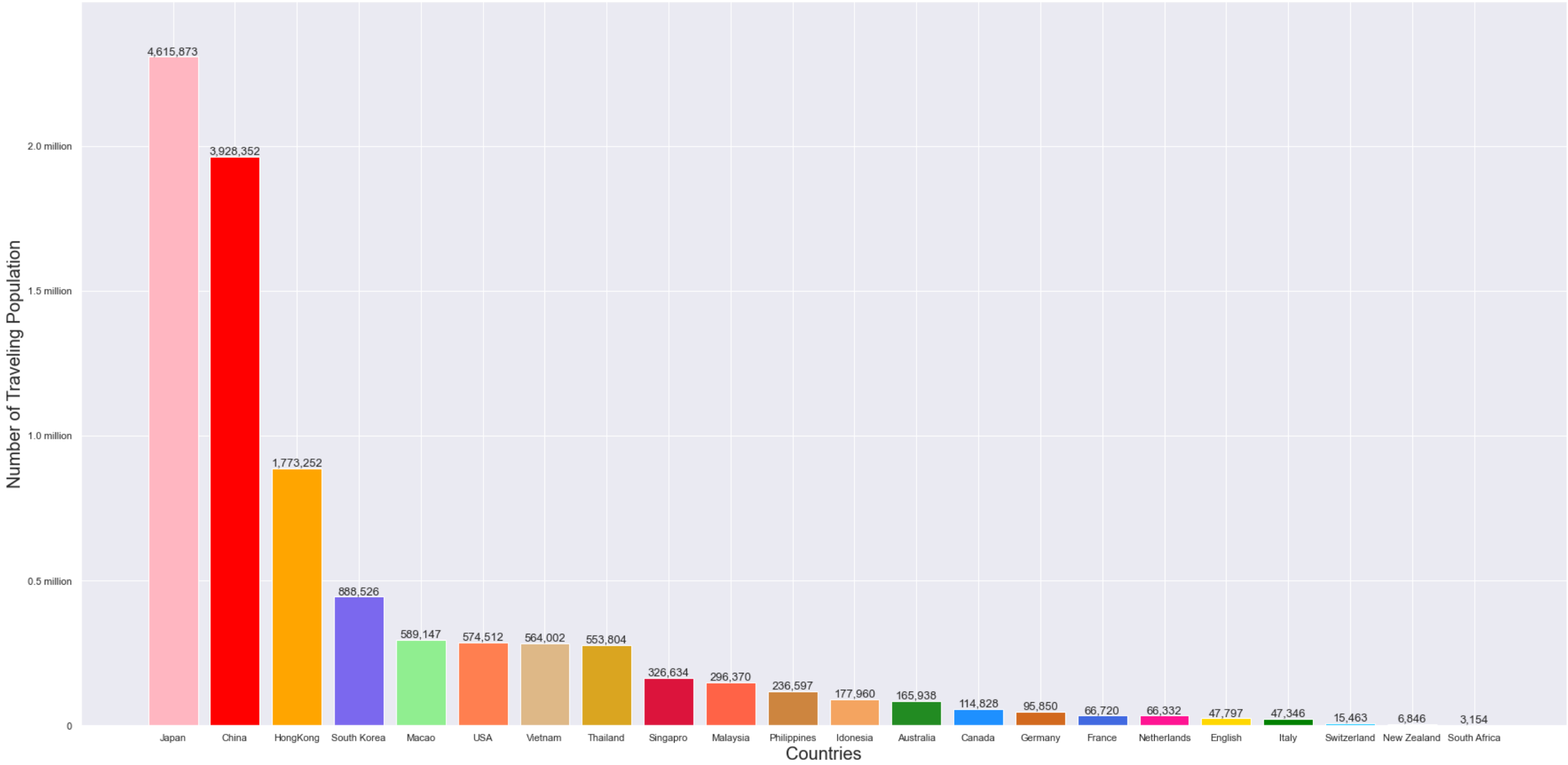
```
In [20]: seventinth_year = seventinth_year.groupby('country')['value'].sum()
seventinth_year = pd.DataFrame(seventinth_year).reset_index()
seventinth_year = seventinth_year.sort_values('value', ascending=False)
seventinth_year = seventinth_year.reset_index(drop=True)

x = seventinth_year['country'].values
y = seventinth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in seventinth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



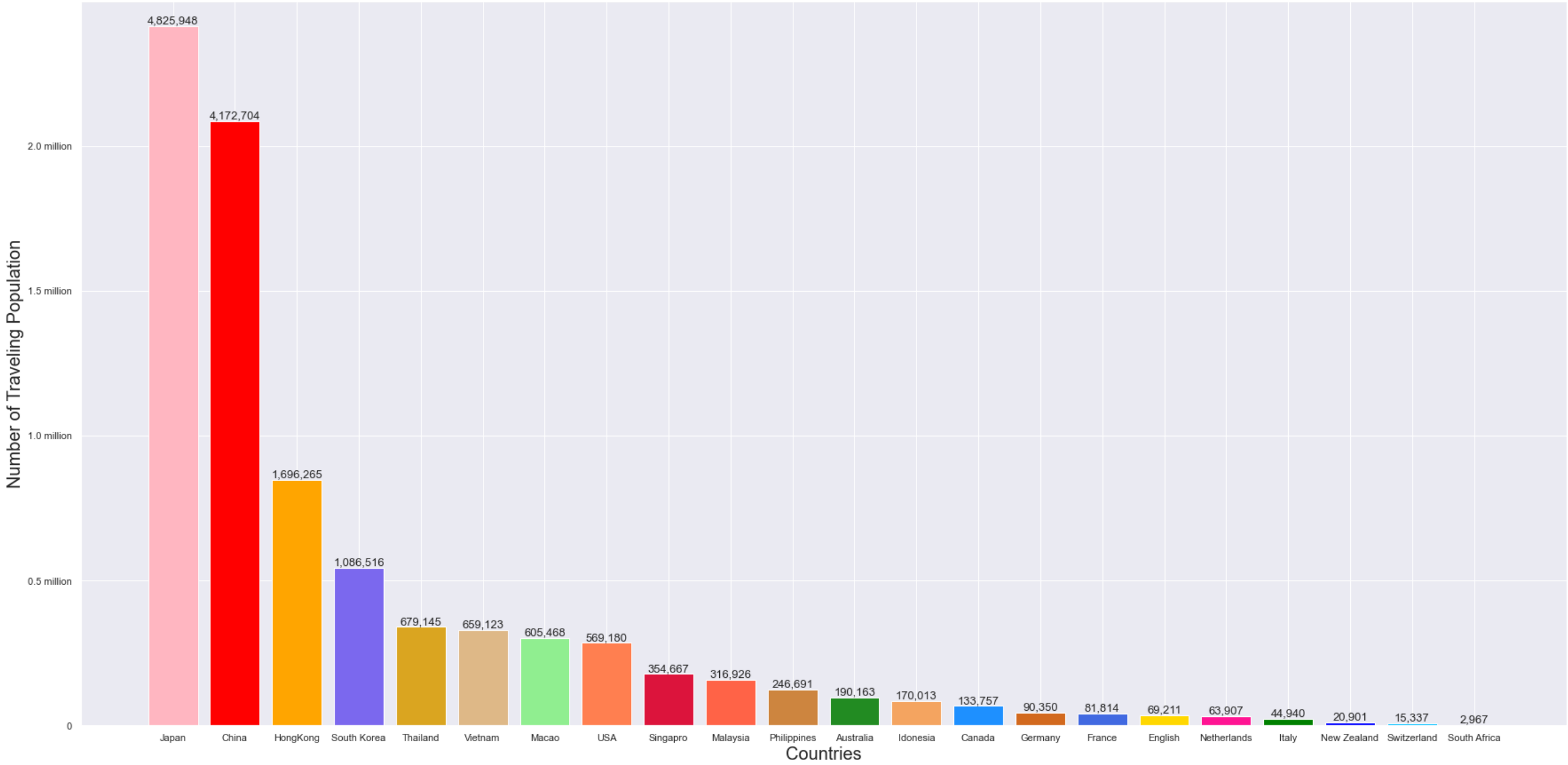
```
In [21]: eighthinth_year = eighthinth_year.groupby('country')['value'].sum()
eighthinth_year = pd.DataFrame(eighthinth_year).reset_index()
eighthinth_year = eighthinth_year.sort_values('value', ascending=False)
eighthinth_year = eighthinth_year.reset_index(drop=True)

x = eighthinth_year['country'].values
y = eighthinth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in eighthinth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



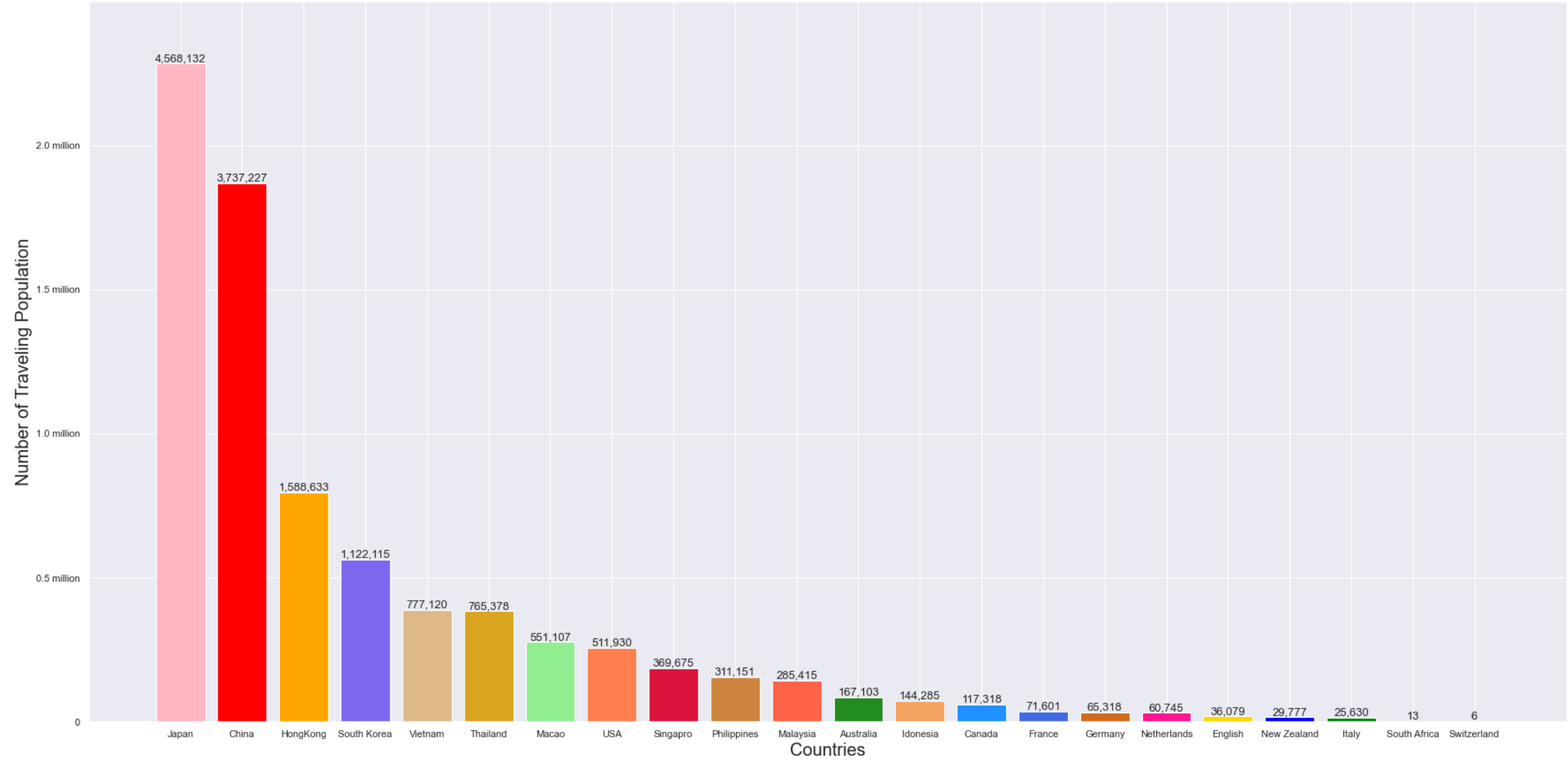
```
In [22]: nintinth_year = nintinth_year.groupby('country')['value'].sum()
nintinth_year = pd.DataFrame(nintinth_year).reset_index()
nintinth_year = nintinth_year.sort_values('value', ascending=False)
nintinth_year = nintinth_year.reset_index(drop=True)

x = nintinth_year['country'].values
y = nintinth_year['value'].values

fig, axes = plt.subplots(figsize=(30, 15))
axes = plt.axes()
axes.set_title('2001-2019 Taiwanese Travel Statistics', fontsize=40)
axes.set_xlabel('Countries', fontsize=20)

axes.set_ylabel('Number of Traveling Population', fontsize=20)
axes.set_yticks(np.arange(0, 5000000, 1000000))
axes.set_yticklabels(['0', '0.5 million', '1.0 million', '1.5 million', '2.0 million'])
axes.set_ylim(0, 5000000)
axes.bar(x, y, color=[colors[x] for x in nintinth_year['country']])
for xx, yy in enumerate(y):
    axes.text(xx, yy, '{:,}'.format(int(yy)), ha='center', va='bottom', fontsize=13)
plt.show()
```

# 2001-2019 Taiwanese Travel Statistics



Download all picture, we can make a flash to observe Taiwanese Travel conditions.