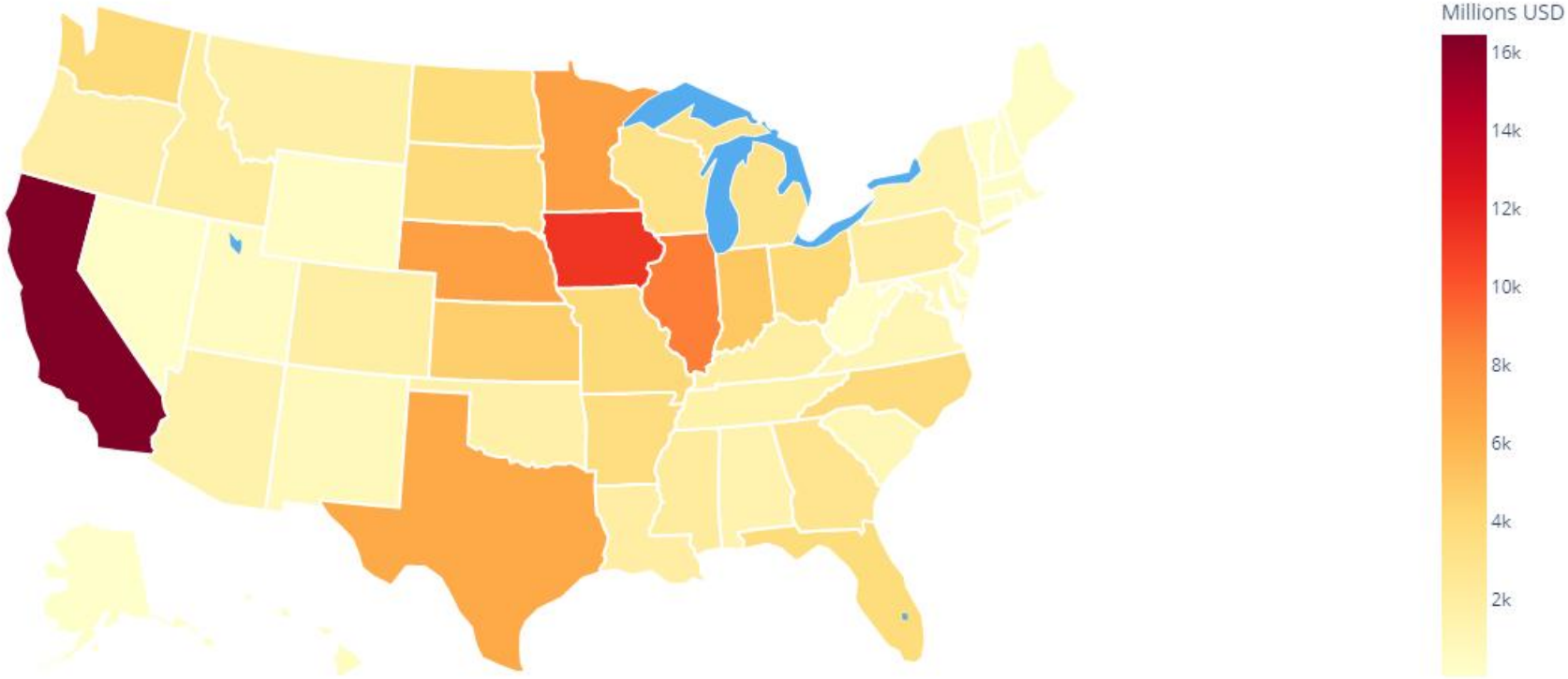
2011 US Agriculture Exports by State



[58]
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import cv2
import plotly.graph_objs as go
%matplotlib inline
```

[59]
```
from chart_studio import plotly as py
```

[60]
```
from plotly.offline import download_plotlyjs, init_notebook_mode,plot,iplot
```

[61]
```
init_notebook_mode(connected=True)
```

...

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```
[62]
data = dict(type            = 'choropleth',
            locations       = ['AZ','CA','NY'],
            locationmode    = 'USA-states',
            colorscale      = 'portland',
            text            = ['Arizona','Cali','New York'],
            z               = [1.0,2.0,3.0],
            colorbar        = {'title': 'Colorbar Title Here'})
```

```
[63]
data
```

```
{'type': 'choropleth',
 'locations': ['AZ', 'CA', 'NY'],
 'locationmode': 'USA-states',
 'colorscale': 'portland',
 'text': ['Arizona', 'Cali', 'New York'],
 'z': [1.0, 2.0, 3.0],
 'colorbar': {'title': 'Colorbar Title Here'}}
```

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```
[64]
layout = dict(geo={'scope':'usa'})
```

```
[65]
choromap = go.Figure(data = [data], layout = layout)
```

```
[66]
iplot(choromap) # use just plot for better view html file
```

...

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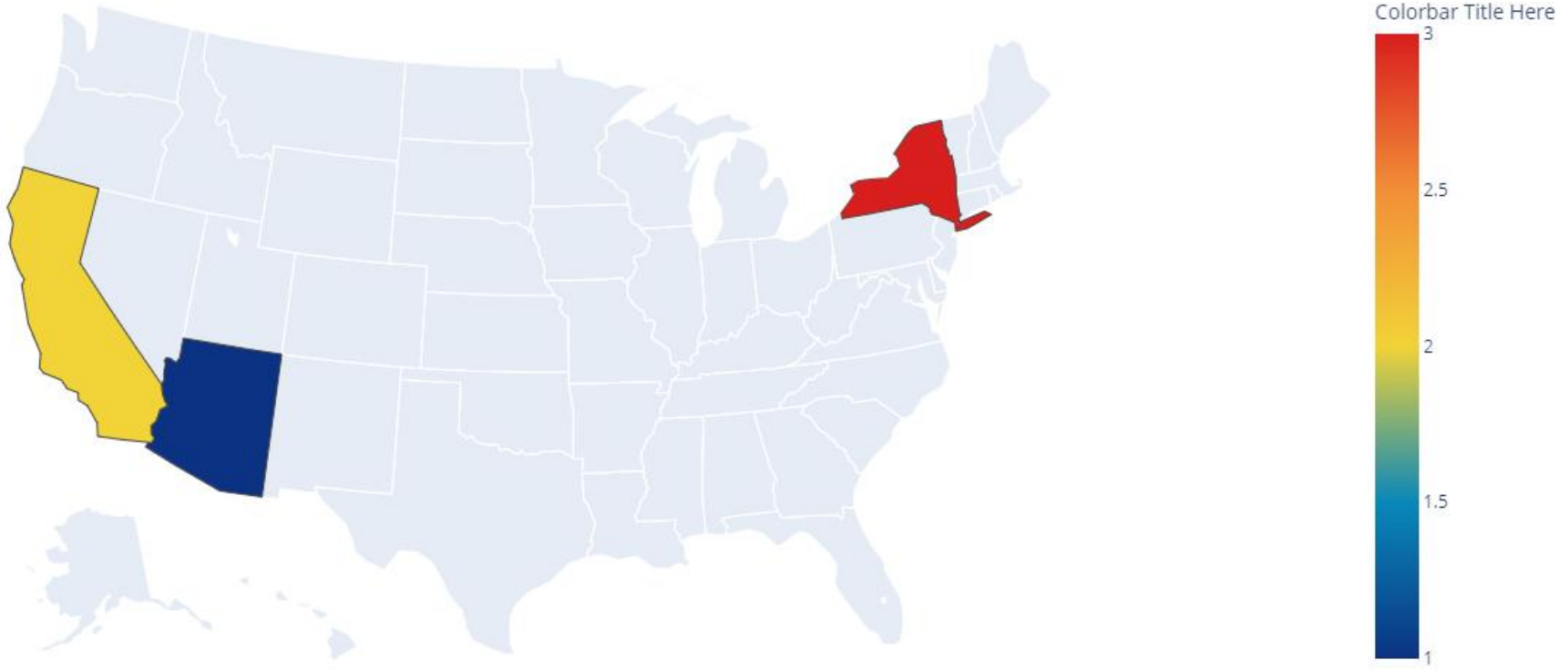
94°F Haze


Colorbar Title Here
3
2.5
2
1.5
1

```
df = pd.read_csv(".\\data\\2011_us_ag_exports.csv")
```

[67] Python

```
df.head()
```

[68] Python

	code	state	category	total exports	beef	pork	poultry	dairy	fruits fresh	fruits proc	total fruits	veggies fresh	veggies proc	total veggies	corn	wheat	co
0	AL	Alabama	state	1390.63	34.4	10.6	481.0	4.06	8.0	17.1	25.11	5.5	8.9	14.33	34.9	70.0	3
1	AK	Alaska	state	13.31	0.2	0.1	0.0	0.19	0.0	0.0	0.00	0.6	1.0	1.56	0.0	0.0	
2	AZ	Arizona	state	1463.17	71.3	17.9	0.0	105.48	19.3	41.0	60.27	147.5	239.4	386.91	7.3	48.7	4
3	AR	Arkansas	state	3586.02	53.2	29.4	562.9	3.53	2.2	4.7	6.88	4.4	7.1	11.45	69.5	114.5	6
4	CA	California	state	16472.88	228.7	11.1	225.4	929.95	2791.8	5944.6	8736.40	803.2	1303.5	2106.79	34.6	249.3	10

```
# Create data using dictionary for the Choropleth arguments
data = dict(type='choropleth',
            colorscale = 'YlOrRd',
            locations = df['code'],
            z = df['total exports'],
```

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```
# Create data using dictionary for the Choropleth arguments
data = dict(type='choropleth',
            colorscale = 'YlOrRd',
            locations = df['code'],
            z = df['total exports'],
            locationmode = 'USA-states',
            text = df['state'],
            marker = dict(line = dict(color = 'rgb(255,255,255)',width = 2)),
            colorbar = {'title':"Millions USD"}
            )
```

[69] Python

```
#Make layout using dictionary with the arguments
layout = dict(title = '2011 US Agriculture Exports by State',
              geo = dict(scope='usa',
                         showlakes = True,
                         lakecolor = 'rgb(85,173,240)')
             )
```

[70] Python

```
layout
```

```
layout
```

[71] Python

```
{'title': '2011 US Agriculture Exports by State',
 'geo': {'scope': 'usa', 'showlakes': True, 'lakecolor': 'rgb(85,173,240)'}}
```

```
#Create choromap using data and layout
choromap2 = go.Figure(data = [data],layout = layout)
```

[72] Python

```
# Displaying the Result Choropleth Map using iplot
# Each state with the total exports in millions in USD of the agricultural products
iplot(choromap2)
```

[73] Python