Brewery by Year - Final Project (UCSD DSE200x)

February 18, 2019

In [1]:
```
# Import
import pandas as pd
import numpy as np
import plotly.plotly as py
import plotly.graph_objs as go
```

In [2]:
```
df = pd.read_csv("brewery_count_transposed.csv", header=0)
df
```

Out[2]:

	Year	AK	AL	AR	AZ	CA	CO	CT	DC	DE	...	SD	TN	TX	UT	VA	\
0	1984	0	0	0	0	9	0	0	0	0	...	0	0	4	0	0	
1	1985	0	0	0	0	12	0	0	0	0	...	0	0	4	0	0	
2	1986	0	0	0	0	15	0	0	0	0	...	0	0	4	0	0	
3	1987	0	0	0	0	23	0	0	0	0	...	0	0	4	0	0	
4	1988	0	0	0	0	39	3	0	0	0	...	0	0	5	0	0	
5	1989	0	0	0	6	50	7	0	0	0	...	0	0	7	0	0	
6	1990	0	0	0	8	67	11	0	0	0	...	0	0	8	0	4	
7	1991	3	0	0	8	76	22	0	0	0	...	0	0	7	3	5	
8	1992	4	0	0	7	93	27	0	0	0	...	0	3	8	4	7	
9	1993	3	0	0	7	115	38	0	0	0	...	0	5	11	4	12	
10	1994	3	0	3	11	127	51	0	0	0	...	0	9	27	8	9	
11	1995	5	5	3	11	167	74	0	0	4	...	0	13	48	13	12	
12	1996	11	8	3	17	218	92	12	3	5	...	5	15	63	15	17	
13	1997	16	8	4	34	259	112	22	5	6	...	5	21	71	17	23	
14	1998	14	9	5	40	273	105	25	5	8	...	5	25	65	17	27	
15	1999	19	9	4	48	289	102	26	4	9	...	7	23	66	20	29	
16	2000	17	7	5	45	281	102	27	4	8	...	7	23	59	20	31	
17	2001	17	4	5	45	266	102	22	5	8	...	6	23	47	16	29	
18	2002	19	3	4	39	270	102	17	5	8	...	7	22	42	17	30	
19	2003	15	3	4	36	278	99	17	4	9	...	7	22	41	15	30	
20	2004	13	5	4	31	282	99	20	5	9	...	6	24	40	16	31	
21	2005	15	5	4	31	278	104	19	4	8	...	6	19	45	15	34	
22	2006	14	4	4	33	293	102	18	4	9	...	7	19	47	17	35	
23	2007	15	5	4	33	310	112	19	3	10	...	8	22	45	15	35	
24	2008	16	5	4	33	333	117	21	3	9	...	7	23	47	15	43	
25	2009	18	5	5	34	340	116	19	3	11	...	7	23	47	18	42	
26	2010	20	7	5	37	358	129	21	4	11	...	8	26	59	18	44	

27	2011	23	9	7	45	401	149	20	6	12	...	9	31	84	18	54
28	2012	25	15	13	55	472	185	24	5	13	...	12	45	107	22	67
29	2013	25	23	18	59	528	234	39	11	13	...	12	51	128	24	85
30	2014	28	25	23	77	654	300	50	12	15	...	15	69	170	27	117
31	2015	35	30	29	91	788	352	59	13	21	...	19	88	220	29	155
32	2016	36	37	34	110	927	386	76	13	25	...	21	101	266	34	209
33	2017	45	52	44	130	1,106	448	103	13	33	...	28	120	333	39	287
34	2018	51	55	53	146	1,236	500	124	13	38	...	35	140	387	46	328

	VT	WA	WI	WV	WY
0	0	4	5	0	0
1	0	4	6	0	0
2	0	4	7	0	0
3	0	4	10	0	0
4	0	7	12	0	0
5	3	8	14	0	0
6	4	10	17	0	0
7	6	13	18	0	0
8	6	15	19	0	0
9	7	21	23	0	0
10	10	28	29	3	0
11	12	48	35	0	8
12	20	79	50	4	10
13	24	109	57	4	14
14	27	115	65	5	15
15	24	118	77	5	13
16	23	113	91	6	13
17	19	94	82	4	11
18	25	94	90	5	11
19	25	91	90	5	11
20	26	93	97	4	13
21	24	100	98	4	14
22	24	108	103	6	14
23	22	110	105	6	14
24	24	121	110	6	14
25	27	138	108	8	13
26	32	157	119	8	16
27	34	188	126	8	15
28	39	230	146	8	19
29	45	266	146	9	25
30	51	314	168	13	28
31	66	383	189	17	32
32	73	424	217	24	33
33	84	499	261	27	39
34	90	540	303	32	44

[35 rows x 52 columns]

In [3]:
```
# 51 tracers decause of D.C

trace1 = go.Scatter(x=df['Year'], y=df['AK'], mode='lines', name='AK' )
trace2 = go.Scatter(x=df['Year'], y=df['AL'], mode='lines', name='AL' )
trace3 = go.Scatter(x=df['Year'], y=df['AR'], mode='lines', name='AR' )
trace4 = go.Scatter(x=df['Year'], y=df['AL'], mode='lines', name='AL' )
trace5 = go.Scatter(x=df['Year'], y=df['AZ'], mode='lines', name='AZ' )
trace6 = go.Scatter(x=df['Year'], y=df['CA'], mode='lines', name='CA' )
trace7 = go.Scatter(x=df['Year'], y=df['CO'], mode='lines', name='CO' )
trace8 = go.Scatter(x=df['Year'], y=df['CT'], mode='lines', name='CT' )
trace9 = go.Scatter(x=df['Year'], y=df['DC'], mode='lines', name='DC' )
trace10 = go.Scatter(x=df['Year'], y=df['DE'], mode='lines', name='DE' )

trace11 = go.Scatter(x=df['Year'], y=df['FL'], mode='lines', name='FL' )
trace12 = go.Scatter(x=df['Year'], y=df['GA'], mode='lines', name='GA' )
trace13 = go.Scatter(x=df['Year'], y=df['HI'], mode='lines', name='HI' )
trace14 = go.Scatter(x=df['Year'], y=df['IA'], mode='lines', name='IA' )
trace15 = go.Scatter(x=df['Year'], y=df['ID'], mode='lines', name='ID' )
trace16 = go.Scatter(x=df['Year'], y=df['IL'], mode='lines', name='IL' )
trace17 = go.Scatter(x=df['Year'], y=df['IN'], mode='lines', name='IN' )
trace18 = go.Scatter(x=df['Year'], y=df['KS'], mode='lines', name='KS' )
trace19 = go.Scatter(x=df['Year'], y=df['KY'], mode='lines', name='KY' )
trace20 = go.Scatter(x=df['Year'], y=df['LA'], mode='lines', name='LA' )

trace21 = go.Scatter(x=df['Year'], y=df['MA'], mode='lines', name='MA' )
trace22 = go.Scatter(x=df['Year'], y=df['MD'], mode='lines', name='MD' )
trace23 = go.Scatter(x=df['Year'], y=df['ME'], mode='lines', name='ME' )
trace24 = go.Scatter(x=df['Year'], y=df['MI'], mode='lines', name='MI' )
trace25 = go.Scatter(x=df['Year'], y=df['MN'], mode='lines', name='MN' )
trace26 = go.Scatter(x=df['Year'], y=df['MO'], mode='lines', name='MO' )
trace27 = go.Scatter(x=df['Year'], y=df['MS'], mode='lines', name='MS' )
trace28 = go.Scatter(x=df['Year'], y=df['MT'], mode='lines', name='MT' )
trace29 = go.Scatter(x=df['Year'], y=df['NC'], mode='lines', name='NC' )
trace30 = go.Scatter(x=df['Year'], y=df['ND'], mode='lines', name='ND' )

trace31 = go.Scatter(x=df['Year'], y=df['NE'], mode='lines', name='NE' )
trace32 = go.Scatter(x=df['Year'], y=df['NH'], mode='lines', name='NH' )
trace33 = go.Scatter(x=df['Year'], y=df['NJ'], mode='lines', name='NJ' )
trace34 = go.Scatter(x=df['Year'], y=df['NM'], mode='lines', name='NM' )
trace35 = go.Scatter(x=df['Year'], y=df['NV'], mode='lines', name='NV' )
trace36 = go.Scatter(x=df['Year'], y=df['NY'], mode='lines', name='NY' )
trace37 = go.Scatter(x=df['Year'], y=df['OH'], mode='lines', name='OH' )
trace38 = go.Scatter(x=df['Year'], y=df['OK'], mode='lines', name='OK' )
trace39 = go.Scatter(x=df['Year'], y=df['OR'], mode='lines', name='OR' )
trace40 = go.Scatter(x=df['Year'], y=df['PA'], mode='lines', name='PA' )

trace41 = go.Scatter(x=df['Year'], y=df['RI'], mode='lines', name='RI' )
trace42 = go.Scatter(x=df['Year'], y=df['SC'], mode='lines', name='SC' )
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trace43 = go.Scatter(x=df['Year'], y=df['SD'], mode='lines', name='SD' )
trace44 = go.Scatter(x=df['Year'], y=df['TN'], mode='lines', name='TN' )
trace45 = go.Scatter(x=df['Year'], y=df['TX'], mode='lines', name='TX' )
trace46 = go.Scatter(x=df['Year'], y=df['UT'], mode='lines', name='UT' )
trace47 = go.Scatter(x=df['Year'], y=df['VA'], mode='lines', name='VA' )
trace48 = go.Scatter(x=df['Year'], y=df['VT'], mode='lines', name='VT' )
trace49 = go.Scatter(x=df['Year'], y=df['WA'], mode='lines', name='WA' )
trace50 = go.Scatter(x=df['Year'], y=df['WV'], mode='lines', name='WV' )

trace51 = go.Scatter(x=df['Year'], y=df['WY'], mode='lines', name='WY' )
```

```
layout = go.Layout(title='Breweries Opened by Year',
                   plot_bgcolor='rgb(230, 230,230)',
                      xaxis=dict(
        title='Years',
        titlefont=dict(
            #family='Courier New, monospace',
            size=18,
            #color='#7f7f7f'
        )
    ),
    yaxis=dict(
        title='Breweries Opened',
        titlefont=dict(
            #family='Courier New, monospace',
            size=18,
            #color='#000000'
        )))
```

```
data = [trace1, trace2, trace3, trace4, trace5, trace6, trace7, trace8, trace9, trace1(
fig = go.Figure(data, layout=layout)

# Plot data in the notebook
py.iplot(fig, filename='simple-plot-from-csv')
```

Out[3]: <plotly.tools.PlotlyDisplay object>