Client Report - [Project 1: What is in a name?]

Course DS 250

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Elevator pitch

An analysis of commom and not so common names used over time in the United States. This is uncludes my personal name, Brittany, Biblical names, and the name Anakin from the Star Wars prequel movies. This gives data, graphs, and tables showing the popularity of these names over time and how they have declined and grown over time.

GRAND QUESTION 1

How does your name at your birth year compare to its use historically?

The name Joshua hit a peak around the year 1990 with around 33,000 babies born with thre name in the U.S.; however, when I was born in 2002, the name was in decline but still with a good amount of babies born with that name. The year I was born there was about 23,000 babies born with the name Joshua.

TECHNICAL DETAILS

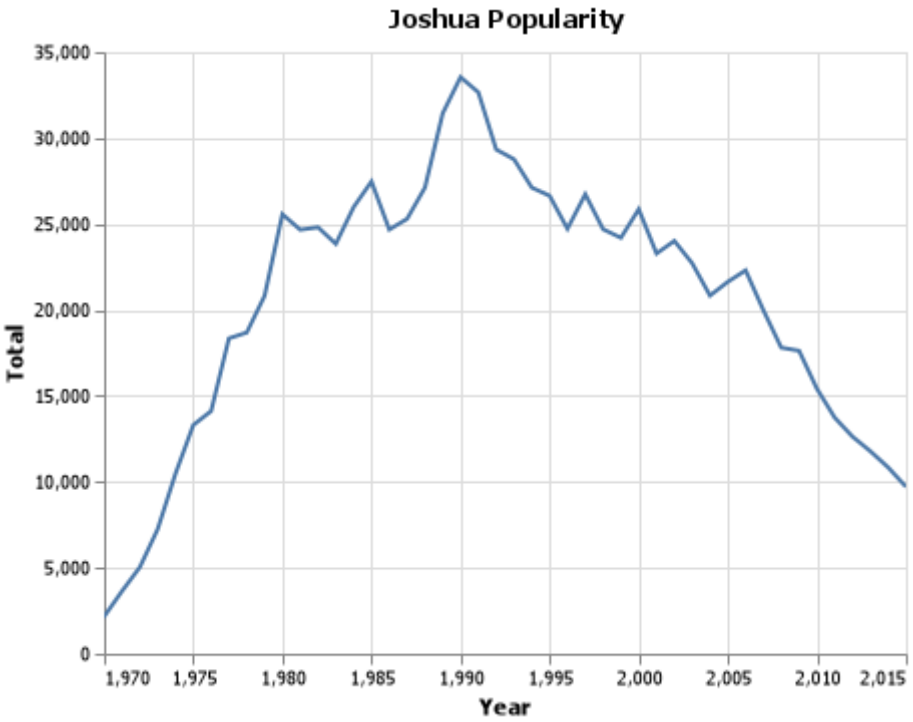
```
#%% Joshua Names

joshuaChart = alt.Chart(Joshua, title="Joshua Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1950, 2015))),
    alt.Y("Total", title="Total")
).properties(width=400, height=300)

joshuaChart

# %% Save Joshua Chart

joshuaChart.save("joshua_chart.png")
```




```
table = Joshua.head(83)
print(table.to_markdown())
```

	name	year	Total
196610	Joshua	1910	5
196611	Joshua	1911	12
196612	Joshua	1912	17
196613	Joshua	1913	54
196614	Joshua	1914	55
196615	Joshua	1915	87
196616	Joshua	1916	54
196617	Joshua	1917	90
196618	Joshua	1918	89
196689	Joshua	1989	31443
196690	Joshua	1990	33545
196691	Joshua	1991	32659.5

	name	year	Total
196692	Joshua	1992	29337.5

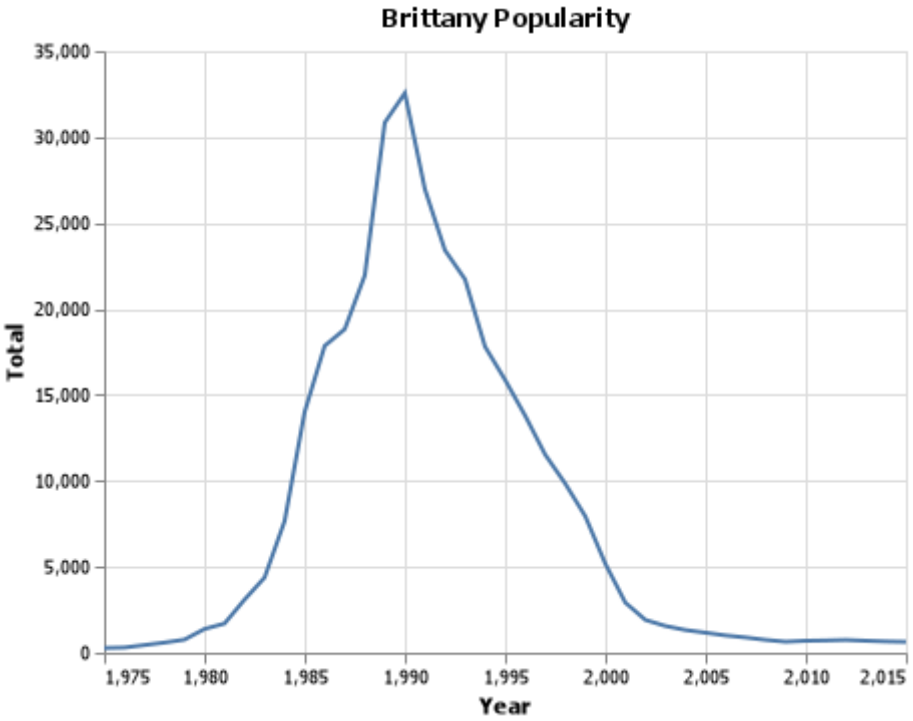
GRAND QUESTION 2

If you talked to someone named Brittany on the phone, what is your guess of their age? What ages would you not guess?

From the chart, I would guess that someone named Brittany would have been born in around the 1990s therefore their age would be about 30. I would not guess there age is more than 37 or less than 22.

TECHNICAL DETAILS

```
brittanyChart = alt.Chart(Brittany, title="Brittany Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1975, 2015))),
    alt.Y("Total", title="Total")
).properties(width=400, height=300)
```




```
#%% Brittany Table code
table = Brittany.head(31)
print(table.to_markdown())
```

	name	year	Total

	name	year	Total
53222	Brittany	1985	14010
53223	Brittany	1986	17856.5
53224	Brittany	1987	18825.5
53225	Brittany	1988	21952
53226	Brittany	1989	30848
53227	Brittany	1990	32562.5
53228	Brittany	1991	26963.5
53229	Brittany	1992	23416.5
53230	Brittany	1993	21728
53231	Brittany	1994	17808.5
53232	Brittany	1995	15875.5
53233	Brittany	1996	13796
53234	Brittany	1997	11527
53235	Brittany	1998	9843

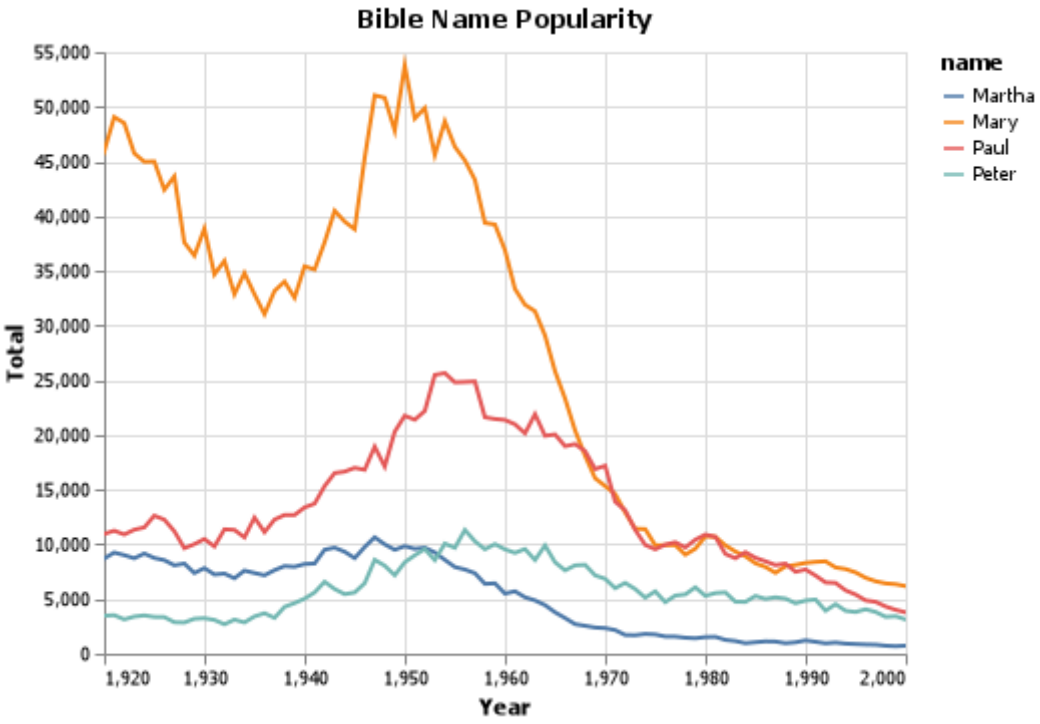
GRAND QUESTION 3

Mary, Martha, Peter, and Paul are all Christian names. From 1920 - 2000, compare the name usage of each of the four names.

These Bible names were most popular from around the 1920s to the 1920s where there was a massive drg in these Bible names. The name Mary was most popular out of the four with the names hitting a peak in the 1950s. Martha and Paul were easily the least popular names out of the four.

TECHNICAL DETAILS

```
#%% Bible Names
bibleChart = alt.Chart(Bible, title="Bible Name Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1920, 2000))),
    alt.Y("Total", title="Total"),
    color = 'name')
```




```
#%% Bible Table code
table = Bible.head(42)
print(table.to_markdown())
```

	name	year	Total
264145	Martha	1941	8250.5
264146	Martha	1942	9514
264147	Martha	1943	9700
264148	Martha	1944	9329
303636	Peter	1941	5608
303637	Peter	1942	6582
303638	Peter	1943	5920
303639	Peter	1944	5450
264917	Mary	1948	50828
264918	Mary	1949	47835
264919	Mary	1950	53791

	name	year	Total
264920	Mary	1951	48928.5
301491	Paul	1952	22197.5
301492	Paul	1953	25497
301493	Paul	1954	25662.5
301494	Paul	1955	24818.5

GRAND QUESTION 4

Think of a unique name from a famous movie. Plot that name and see how increases line up with the movie release.

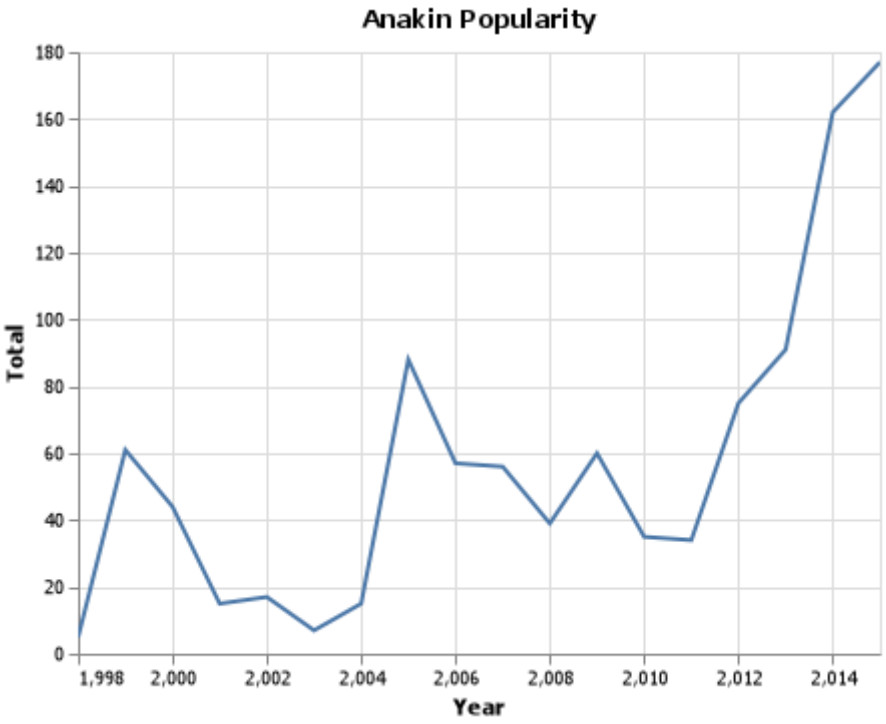
The name Anakin from the Star Wars prequel movies was the name of the main character --Anakin Skywalker. This was not a name before Star Wars: The Phantom Menace therefore it did not exist until 1998 --one year before the release of the movie. The name hit a local peak in 2005 when the last prequel Star Wars movie released. Afterwards the name declined in use, until around 2011 when it started gaining popularity when it hit its peak in 2015.

TECHNICAL DETAILS

```
#%% Anakin Names

anakinChart = alt.Chart(Anakin, title="Anakin Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1998, 2015))),
    alt.Y("Total", title="Total")
).properties(width=400, height=300)

anakinChart
```




```
#%% Anakin Table code
table = Anakin.head(42)
print(table.to_markdown())
```

	name	year	Total
19325	Anakin	1998	5
19326	Anakin	1999	61
19327	Anakin	2000	44
19328	Anakin	2001	15
19329	Anakin	2002	17
19330	Anakin	2003	7
19331	Anakin	2004	15
19332	Anakin	2005	88
19333	Anakin	2006	57
19334	Anakin	2007	56
19335	Anakin	2008	39

	name	year	Total
19336	Anakin	2009	60
19337	Anakin	2010	35
19338	Anakin	2011	34
19339	Anakin	2012	75
19340	Anakin	2013	91
19341	Anakin	2014	162
19342	Anakin	2015	177

APPENDIX A (PYTHON CODE)

```
#%%
import pandas as pd
import altair as alt
import numpy as np


#%%
names = pd.read_csv("names_year.csv")




# GRAND QUESTION 1
# %% Joshua query
Joshua = names.query("name == 'Joshua'")[["name", "year", 'Total']]
print(Joshua)

#%% Joshua Names

joshuaChart = alt.Chart(Joshua, title="Joshua Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1970, 2015))),
    alt.Y("Total", title="Total")
).properties(width=400, height=300)

joshuaChart

# %% Save Joshua Chart

joshuaChart.save("joshua_chart.png")

#%% Joshua Table code
table = Joshua.head(83)
print(table.to_markdown())




# GRAND QUESTION 2
# %% Create Brittany query

Brittany = names.query("name == 'Brittany'")[["name", "year", 'Total']]
print(Brittany)

#%% Brittany Names

brittanyChart = alt.Chart(Brittany, title="Brittany Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1975, 2015))),
    alt.Y("Total", title="Total")
).properties(width=400, height=300)
```

```
brittanyChart
# %% Save Brittany Chart

brittanyChart.save("brittany_chart.png")

#%% Brittany Table code
table = Brittany.head(31)
print(table.to_markdown())




# GRAND QUESTION 3
# %% Create Mary, Martha, Peter, and Paul From 1920 - 2000
# allBilble = ["Mary", "Martha", "Peter", "Paul"]
Bible =  names.query('name in ["Mary", "Martha", "Peter", "Paul"]')[["name", "year", 'Total']]
print(Bible)
#%% Bible Names

bibleChart = alt.Chart(Bible, title="Bible Name Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1920, 2000))),
    alt.Y("Total", title="Total"),
    color = 'name')

    # .transform_filter(
    # alt.FieldOneOfPredicate(field='name', oneOf=['Mary', 'Martha', 'Peter'])


bibleChart
#%% Save bible Chart

bibleChart.save("bible_chart.png")

#%% Bible Table code
table = Bible.head(42)
print(table.to_markdown())



# GRAND QUESTION 4
# %%# Anakin query
Anakin = names.query("name == 'Anakin'")[["name", "year", 'Total']]
print(Anakin)

#%% Anakin Names

anakinChart = alt.Chart(Anakin, title="Anakin Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1998, 2015))),
    alt.Y("Total", title="Total")
).properties(width=400, height=300)
```

```
anakinChart
# %% Save Harry Chart

anakinChart.save("anakin_chart.png")

#%% Anakin Table code
table = Anakin.head(42)
print(table.to_markdown())




# %% Create Mary, Martha, Peter, and Paul From 1920 - 2000
# allBilble = ["Mary", 'Martha', 'Peter', 'Paul']
State1 = "TX"
State2 = "MD"
State3 = "IL"
grand = State1 + State2 + State3
friends =  names.query('name in ["Luke", "Joshua", "Nathalie"]')[["name", "year",State1, State2,
print(friends)
#%% Bible Names

friendChart = alt.Chart(friends, title="Bible Name Popularity").mark_line(clip=True).encode(
    alt.X("year", title="Year",scale=alt.Scale(domain=(1970, 2015))),
    alt.Y("Total", title="Total"),
    color = 'name')

    # .transform_filter(
    # alt.FieldOneOfPredicate(field='name', oneOf=['Mary', 'Martha', 'Peter']))


friendChart

# %%
```