## **EX Squared Solutions**

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# US Census Data Analysis

#### Overview

We want to better understand the demographics of the US population. Hence, we've used US Census data to analyze the population and generate insights that can help inform business decisions.

### Variables used for the entire US Census Data Analysis

We've used Census Data API, to retrieve the data variables based on the codes:

- 1. Total population (B01003\_001E)
- 2. Median age (B01002\_001E)
- 3. Average household size (B11016\_001E)
- 4. Per capita income (B19301\_001E)

#### BASED ON THE INSIGHTS FOLLOWING DATA IS OBTAINED:

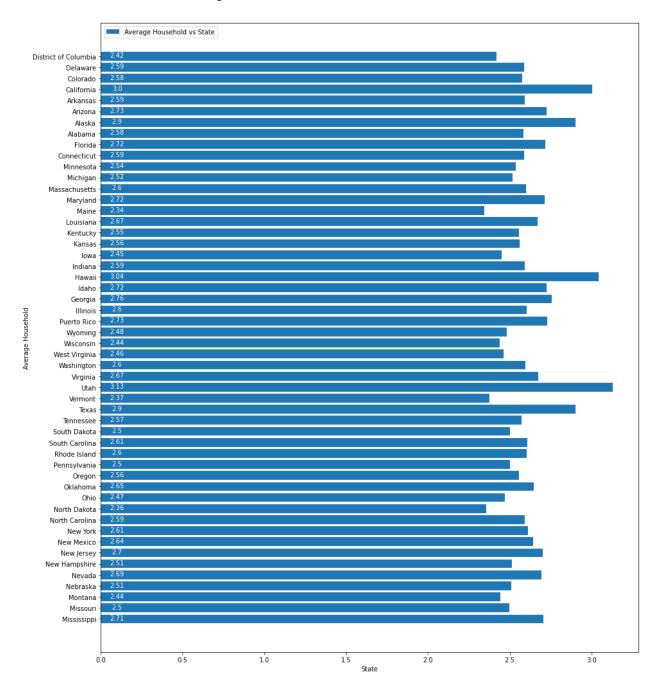
1. Total population and median age of the US in 2019

2. Average household size and per capita income of the US in 2019

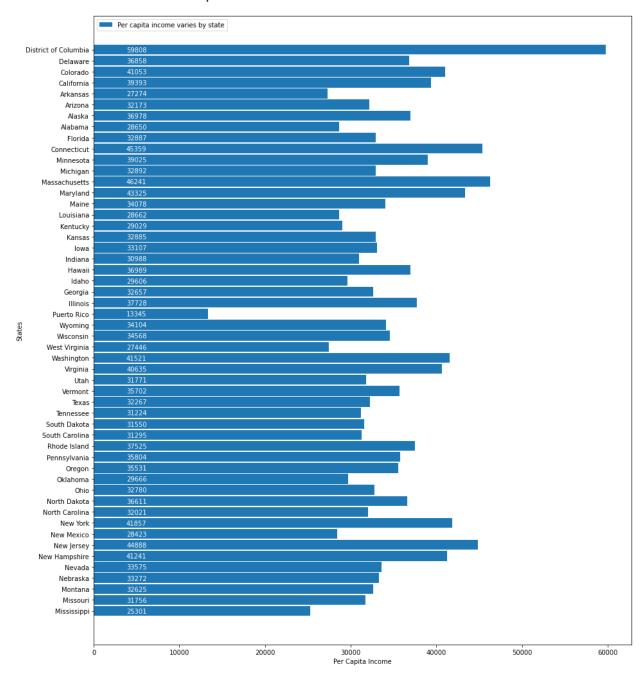
Average House Hold Size in USA: 2.6129346755345315

Per Capita Income in USA: 34729.78846153846

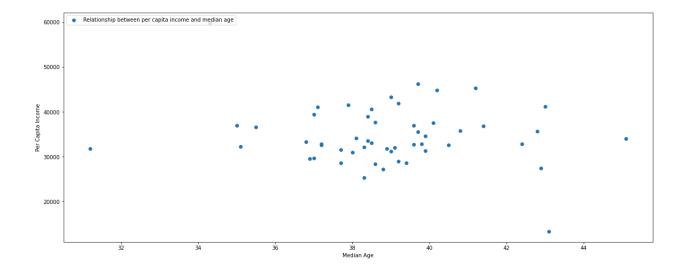
#### 3 Variations between Average Household Size and States



#### 4. Variation between Per Capita Income and States



## 5. Relationship between median age and per capita income in the US in 2019



## **Findings**

- 1. Total Population 33,14,33,217
- 2. Age of USA 38.8499999999999
- 3. Average HouseHold Size in USA 2.6129346755345315
- 4. Per Capita Income in USA 34729.78846153846
- 5. Per capita income based on states

MAX - District of Columbia MIN - Puerto Rico

6. Average household size based on states

MAX - Utah MIN - Maine

- 7. Relationship between median age and per capita income
  - Median age is inversely proportional to per capita income

```
corrr = df[["MedianAge", 'PerCapitaIncome']].corr()
print(corrr)

MedianAge PerCapitaIncome
MedianAge 1.000000 -0.153498
PerCapitaIncome -0.153498 1.000000
```

#### Recommendations

- Based on the data analyzed, the company should be more active in the states where the per capita income is higher.
- The company should be more active among the age group [36-42] where the per capita income is higher.
- The company should be active in the area with higher average household size for their rapid growth.