

## Declaration on Plagiarism

<b>Name:</b>	Yashaswi Verma
<b>Student Number:</b>	19211007
<b>Programme:</b>	MCM in Computing(Data Analytics)
<b>Module Code:</b>	CA682
<b>Assignment Title:</b>	Data Visualisation
<b>Submission Date:</b>	13 Dec 2019
<b>Module Coordinator:</b>	Dr Suzanne Little

I declare that this material, which I now submit for assessment, is entirely my own work and has not been taken from the work of others, save and to the extent that such work has been cited and acknowledged within the text of my work. I understand that plagiarism, collusion, and copying are grave and serious offences in the university and accept the penalties that would be imposed should I engage in plagiarism, collusion or copying. I have read and understood the Assignment Regulations. I have identified and included the source of all facts, ideas, opinions, and viewpoints of others in the assignment references. Direct quotations from books, journal articles, internet sources, module text, or any other source whatsoever are acknowledged and the source cited are identified in the assignment references. This assignment, or any part of it, has not been previously submitted by me or any other person for assessment on this or any other course of study.

I have read and understood the referencing guidelines found at <http://www.dcu.ie/info/regulations/plagiarism.shtml>, <https://www4.dcu.ie/students/az/plagiarism> and/or recommended in the assignment guidelines

Name: Yashaswi Verma

Date: 13/12/2019

# Alcohol Consumption U.S

## Abstract

Alcohol Consumption data based on different types of alcohol consumption per capita or per person over the Years in USA is used to categorize what people prefer and how the trend is changing over the year of drinking different types of alcohol( Beer,Spirit,Wine).After analyzing and visualizing the data It can be shown that the consumption of spirit decreases as the consumption of wine increases over the year having some ups and down in middle phase .Also the consumption of beer is constant over time having some variation in the between. The Visualization will also help businesses that deal with the trading of alcohols. Also this visualization can be compared with other data that is related will alcohol consumption.

## Dataset

The Dataset is Taken From <https://app.datastock.shop/>

Total records in the dataset contains 2041 Rows and 7 Columns.It is a CSV format file.

The Dataset has information about Alcohol Consumption in different states of U.S from 1997 till 2016.The data set contains per capita consumption according to the type of alcohol . Data present has different types of data like Nominal (Eg.Country), Interval (Eg.Year) etc.

The total size of the CSV file is 77 KB. The reason behind choosing this data set is the amount of information that can be gained from a small data set.

## Data Processing and Cleaning

Pre Processing of data is done in Tableau as the data does not contain measure which I needed to visualize. I created a PARAMETER using Tableau, which included data from different measures in the table (Beer (Per capita consumption), Wine (Per capita consumption), Spirits (Per capita consumption), All beverages (Per capita consumption)). By adding this parameter, I aggregated the drinking measure according to the US states, which is Filtered by year.

Sheet 1

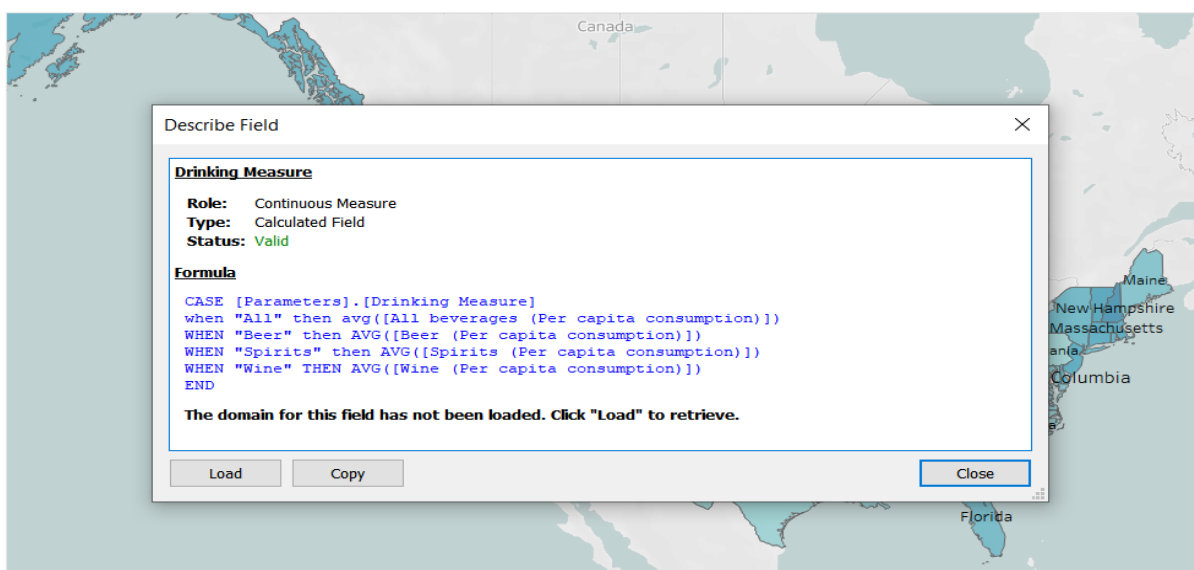


Figure:1

## Visualization

### World Map

The first choice of Visualization is a geographical map.

As my data is about the consumption of categorized alcohol per capita in the United States of America, which is categorized by states, I used the map to show the consumption using basic color, which fades as the avg goes down. There is also the option to select the year and drinking measure (Parameter) according to which data is presented.

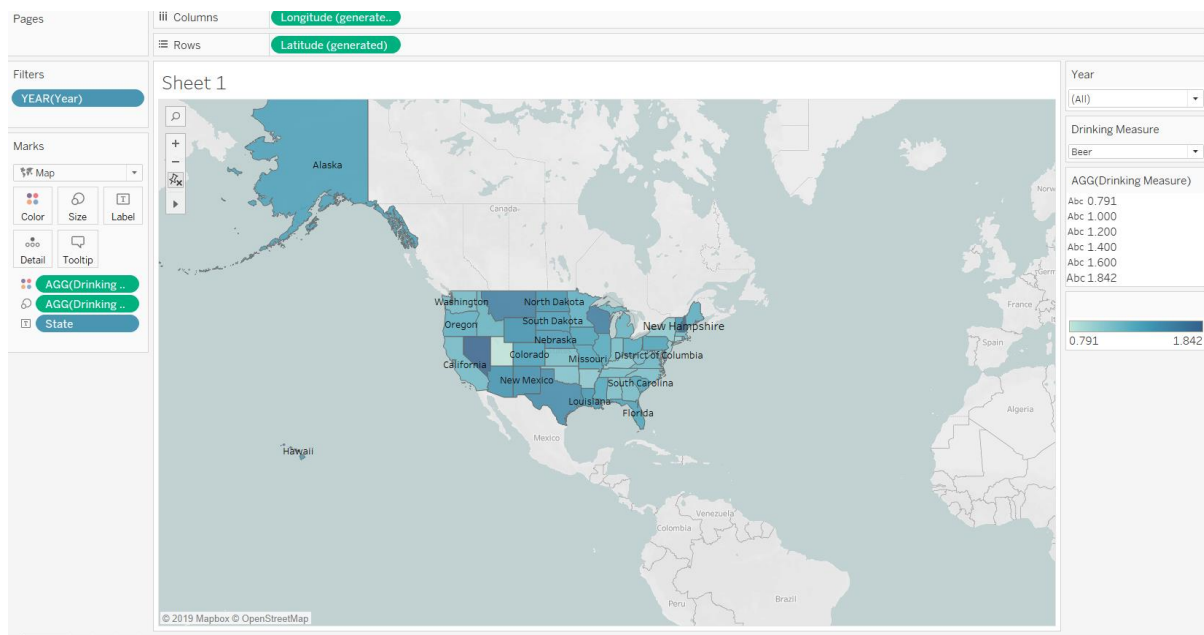


Figure:2

### Tree Map

The second choice of Visualization is a TreeMap. As it shows the top 10, most states having per capita consumption of any alcohol type according to the year selected. As it clearly shows the value and state names on the rectangular area, we can easily get information about the state.

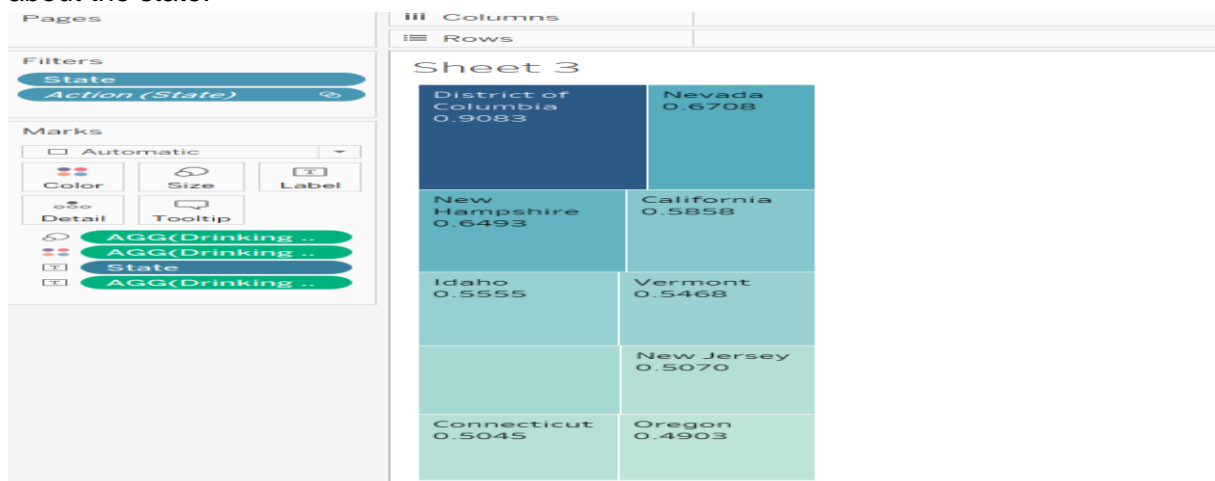


Figure:3

### Bar Chart

The third choice of Visualization is a Bar Chart, which shows the relation between a year and the consumption of alcohol type on X-axis we have the years and on the Y-axis, we have the values of per capita Consumption. The chart at the end has the highest value represented by a small square box every year. I also used the forecast value provided by Tableau to predict the values (of alcohol consumption per capita) for the next seven years, which is shown in the chart with the top value having a yellow square. There is also an average line that shows the average value over the bar chart.

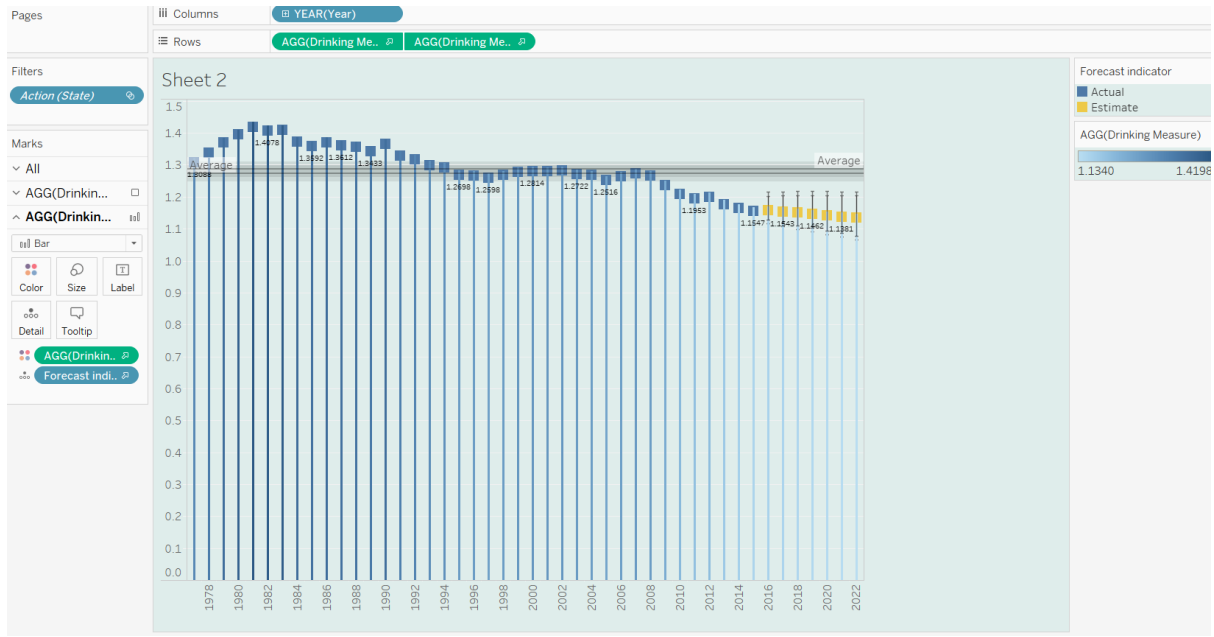


Figure:4

### DASHBOARD

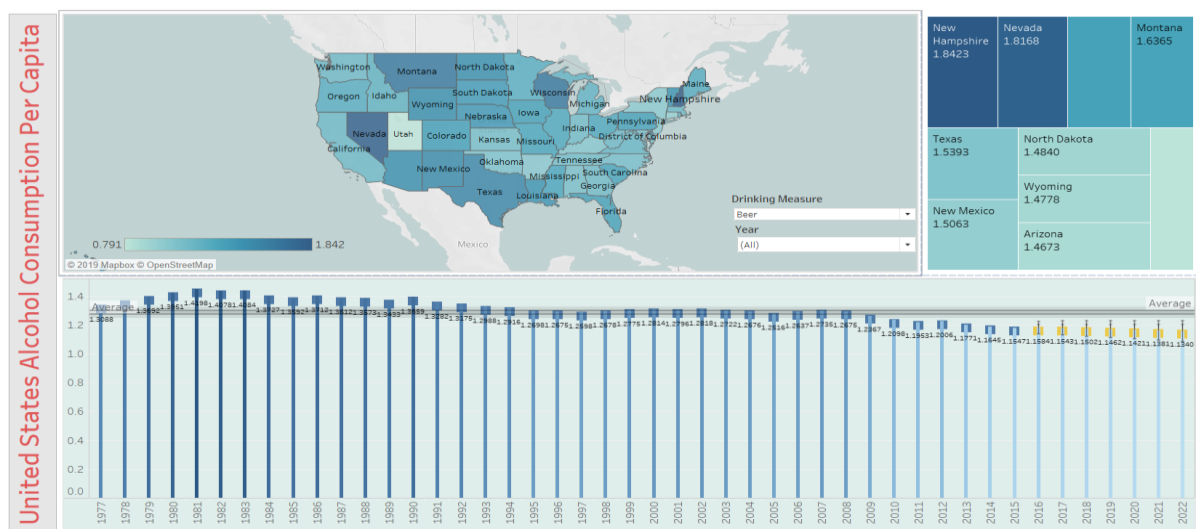


Figure:5

## Conclusion

The data which I visualized is not a vast dataset having so many columns but have used small data that can infer the trend of consumption of different types of alcohol in the United States of America.

The improvement which should I have done is to animate the graphs comparing the values of the drinking measures over the years, which should help to get an instant insight only by looking at it. That would help to see that consumption of beer has increased over time while of Spirit is decreased. Also, I tried to integrate two data sets. One is the present, and the other is about the death caused by Alcohol consumption in US states. That would have helped to show the relationship between the consumption and the death caused by it.

Overall the Tableau Dashboard having 3 sheets, each sheet showing different Insight of the data .The visualization shows the information perfectly which can be seen clearly and efficiently, also forecast values are displayed in the Dash0board which is based on the previous data.

## References

1. <https://app.datastock.shop/>
2. [https://help.tableau.com/current/pro/desktop/en-us/forecast\\_how\\_it\\_works.htm](https://help.tableau.com/current/pro/desktop/en-us/forecast_how_it_works.htm)
3. [https://help.tableau.com/current/pro/desktop/en-us/parameters\\_create.htm](https://help.tableau.com/current/pro/desktop/en-us/parameters_create.htm)
4. <https://ourworldindata.org/alcohol-consumption>