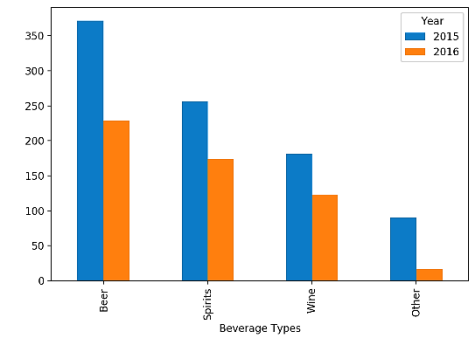
World alcohol consumption analysis with Python

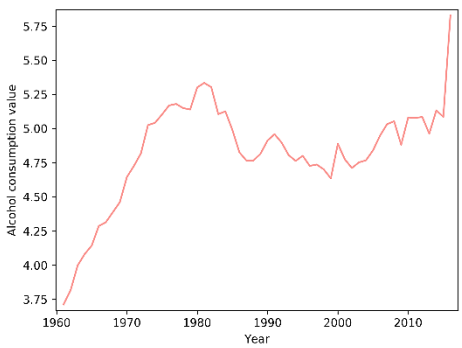
The World Bank's data from 1960 to 2016 was used to investigate alcohol consumption in different countries. A user can determine the statistical significance of observed variations in worldwide alcohol consumption over any two years by using statistical tests, and the data can be visualized for any single country by using the data visualization tool. Then, choose two years from the 1960s to 2016 that you want to compare and you will see a visual comparison of alcohol consumption in these periods next to each other, in addition to the findings of hypothesis statistical tests that determine whether or not there was a statistically significant difference between these two years.

This graph displays descriptive statistics such as median and mode, as well as the standard deviation and minimum and maximum alcohol intake for the data. It also displays a bar chart showing the minimum and maximum alcohol intake for the data.

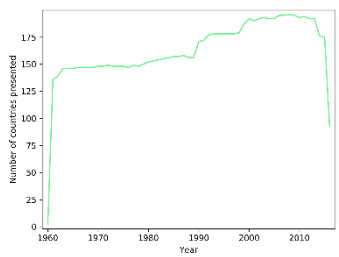


It visualizes data per each type of alcohol in comparison between the years of observation (the alcohol value for each type is the sum of the values of all countries):

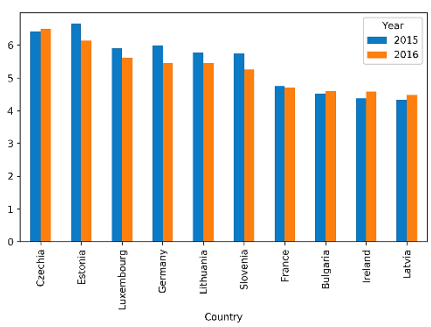
It illustrates how the general worldwide consumption of alcohol has changed over time by taking the mean of all country's alcohol consumption figures for each year.):



Because there are variations in the amount of data available in different years for each year, even though we calculate the mean values for each year, the findings can be misinterpreted. Through the usage of this script, the number of nations included in the data set for each calendar year is also presented, which is a useful feature (so we can see how many missing data there in some years are, sometimes it can be twice less than in others):

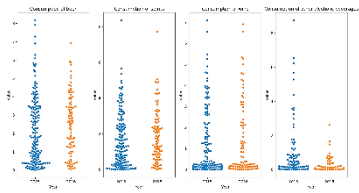


If you notice a significant shift in the graph between two years, I will compare the two years. This is accomplished by executing the script main.py with the command python main. For the two years that were chosen, it counts the number of countries whose alcohol consumption increased, declined, or remained the same throughout that period.



It is possible to compare two years' worth of data from the top ten highest consuming countries throughout the world in this article.:

Each type of alcoholic beverage was subjected to an ECDF (Empirical Cumulative Distribution Function) analysis over two years, which resulted in a single graph showing the distribution of ECDFs. As the alcohol value of a dataset is shown on the graph, the ECDFs depict the full feature as if it were evenly dispersed over the data set.):country-wide trends in the consumption of



alcoholic beverages visualize consumption of different types of alcohol through years in this country in comparison:

1. plots ECDF of the general alcohol consumption in the country:

REFERENCES: -

- Kruman II, Henderson GI, Bergeson SE. DNA damage and neurotoxicity of chronic alcohol abuse. Exp Biol Med (Maywood). 2012 Jul;237(7):740-7. doi: 10.1258/ebm.2012.011421. Epub 2012 Jul 24. PMID: 22829701; PMCID: PMC3685494
- ^ *American Heritage Dictionaries (2006). The American Heritage dictionary of the English language (4 ed.). Boston: Houghton Mifflin. ISBN 978-0-618-70172-8. To use wrongly or improperly; misuse: abuse alcohol*