

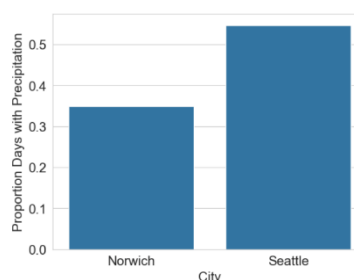
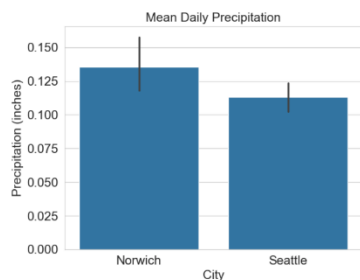
Weather Project

The purpose of this project is to compare the amount of rain in Seattle, WA to that in Norwich, CT. The belief is that it rains more in Seattle than it does in Norwich. However, I've experienced many summers with droughts in Seattle. I don't remember ever having a drought in Norwich. I also remember heavier rain in Norwich. Norwich sometimes experienced hurricanes. I plan to explore different ways of measuring whether it rains more in Seattle or in Norwich, but the main question I want to answer is whether over the period from 2018 to 2022 Norwich had more average rainfall than Seattle.

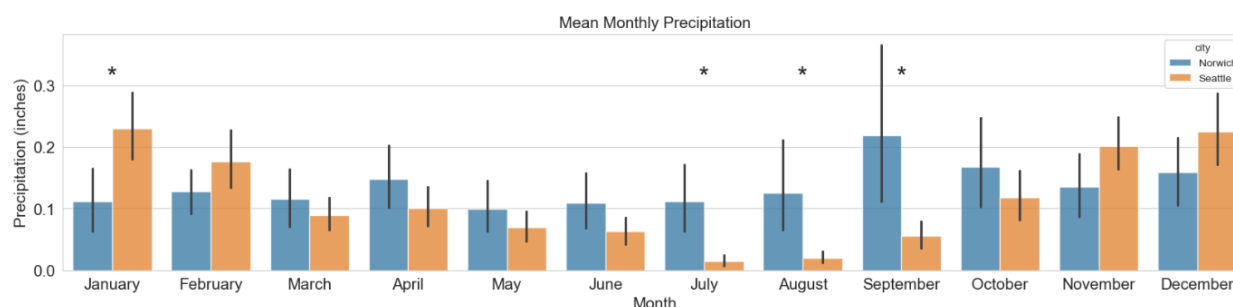
The data used in this project was originally obtained from the National Centers for Environmental Information Climate Data Online Search tool. It included the precipitation amount in Norwich, CT and Seattle, WA from January 1, 2018 through December 31, 2022.

To analyze the data, I used Python, a programming language, to compare the data from Norwich to the data from Seattle. I began by comparing the average daily precipitation in Norwich to that in Seattle. I compared the average precipitation by month in Norwich to that in Seattle. I compared the proportion of days that had any amount of rainfall in Norwich to the proportion of days that had any amount of rainfall in Seattle. I did this over all five years. I also did this comparison by month.

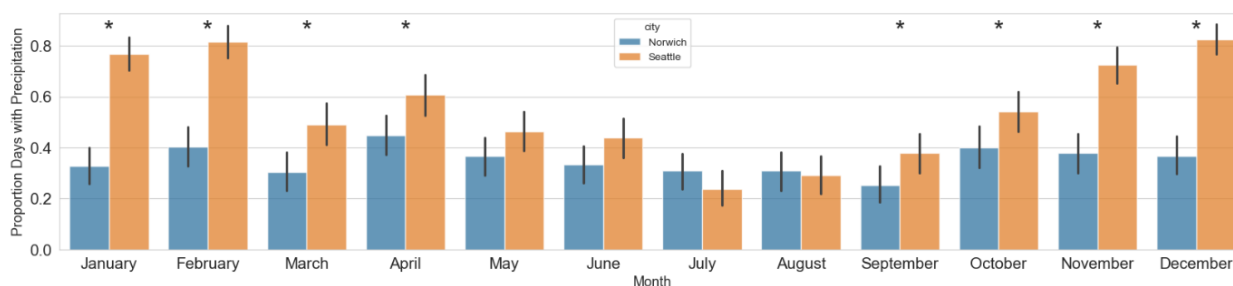
I found that while Seattle has a larger proportion of days with any amount of rainfall (over 50% of days in Seattle versus over 30% of days in Norwich), Norwich has a greater daily average rainfall, as shown in the following graphs.



I considered statistically whether there is a significant difference between the average precipitation in Norwich and Seattle each month. In the starred months (January, July, August, and September), I found that there was a significant difference.



I also considered statistically whether there is a significant difference between Norwich and Seattle in the proportional number of days there is any rainfall each month. I found a significant difference in every month except May, June, July, and August. The only months in which there was proportionally more rainfall in Norwich than in Seattle were in months when there was no significant difference.



From this analysis, I concluded that while there are more days that it rains in Seattle, there is more average rainfall in Norwich. Thus, it rains more in Norwich than in Seattle.