Urban Connectivity Summary

We decided that one of the major influences on which city we wanted to move to and live in going forward would be urban connectivity. This is roughly defined as how well people can move or interact with the city in which they live. We decided to use a data file from Kaggle.com called urban connectivity. This file lists 101 major US cities. This is a very large data set that breaks urban connectivity down into several dozen subcategories. The data set includes categories like park area for and walkability for different demographics, number of pickleball courts, basketball courts, beaches in the city, etc. We decided to focus on the three categories that we felt impacted the everyday life of most individuals. These categories are the bike score, walk score and transit score for the cities that we chose to live in. The large data file was cut down from 101 cities to the 10 cities we predetermined we were choosing between, and a final data frame was made to include the walk, bike and transit scores for each city. The data frame also includes a ranking based on each of these subcategories for each city. Finally based on the rankings we created a column that summed the total rankings for each subcategory to formulate a “Total Urban Score.” The total urban score ranking would be used as one third of our decision as to which city to live in.

Analysis:

Our urban connectivity scores were used against the 2024 city population (also generated from a Kaggle dataset). We wanted to determine if cities with bigger populations were easier or more difficult to get around in and interact with. Pearsons R correlation was the main statistic we used to determine these factors. Our results for our three different categories came in mixed. Our transit score came in with the highest R value of .74. This is a very good indication that more populated cities have better public transportation systems. Conversely our bike score r vale came in quite low at only .36. This is a relatively weak correlation meaning that population size is not a great indicator of how well a city ranks for biking. One reason for this may be the more populated a city the less room there is for things that may be considered luxury or non-essential perks such as bike lanes and bike paths. The walk score correlation was closet to our total urban score calculation. The walk score came in at .65 and the total urban score r value came in at .61. These values are both moderately strong indications that more populated cities are easier to get around on foot and overall are better for moving around and interacting with a particular city. From an urban connectivity standpoint, the more populated cities are more desirable.