**Project 1: Exploratory Data Analysis Summary of Findings**

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Our initial research question sought to identify the location of electric vehicle (EV) charging stations in the Western United States. From this broad geographical question, we discussed whether there was any correlation to the location of the charging stations and income distribution. We hypothesized that the EV stations would be located close to major metropolitan areas. We also hypothesized that there would be a positive correlation between EV stations and household income. We expected to see more EV stations within higher income zip codes and fewer stations in zip codes where poverty counts were higher.

1. **Geographically, where are EV stations located within the Western United States?**

Sorting our data by zip code we were able to determine the location of EV charging stations in the Western United States. California ranks first, among the eleven states we included in our study. Plotting the location of the individual stations, by latitude and longitude, yields the heatmap below. We can see from the heatmap that EV stations tend to be more concentrated around major metropolitan areas.

**Map

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1. **Economically, is there a correlation to the location of EV stations and household income? If there is a positive correlation to household income or a negative correlation to the poverty count, does this suggest a public policy opportunity to make EV charging stations and thereby electric vehicles more accessible to low-income populations?**

Our analysis showed that there was no correlation between the number of EV stations by zip code and household income. We also found no correlation between the number of EV stations by zip code and poverty count. The correlation between EV station counts and household income was 0.19. The correlation between EV station counts and poverty count was 0.09.

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