The datasets used for the analysis consist of two primary sources: one detailing Air Quality Index (AQI) values, representing levels of air pollution across different regions, and another capturing the adoption of electric vehicles (EVs) by model year, make, type, and geographic location. The merging of these datasets allows for a unique exploration of the relationship between air quality and the prevalence of electric vehicles, potentially offering insights into environmental and economic trends.

A graph of a graph with colored dots

Description automatically generated

This scatter plot shows the count of electric vehicles against average AQI levels for different counties. There's a noticeable concentration of EVs in counties with lower AQI values. This could imply that regions with better air quality have higher electric vehicle adoption, which is an intriguing observation that could point towards a positive environmental trend.

A graph of a graph showing the number of vehicles

Description automatically generated with medium confidence

The time series chart illustrates the trends in AQI and the count of electric vehicles over several years. There's a dramatic increase in EV count from 2012 to 2013, which contrasts with the relatively stable AQI levels. This surge in EV adoption could reflect changes in consumer preferences, technological advancements, or policy incentives that have occurred over this period.A graph adoption

Description automatically generated

The bar chart shows electric vehicle adoption by county. King County leads significantly, which could be due to various factors such as higher population density, greater environmental awareness, or economic factors that enable the adoption of EVs. This disparity in adoption rates may highlight the importance of localized approaches to encourage EV uptake.A graph with numbers and a line

Description automatically generated

The histogram of AQI values reveals that the majority of AQI measurements are at the lower end of the scale, suggesting good air quality overall. This distribution is skewed to the right, with very few high AQI values, which is reassuring from an environmental standpoint.A graph with numbers and points

Description automatically generated

This plot combines geographic and air quality data, correlating the total number of EVs with the average AQI per county. It seems that the highest number of EVs does not necessarily correlate with the worst AQI, indicating that factors other than air quality might influence EV adoption.

A graph with black dots

Description automatically generated with medium confidence

The boxplot categorizes electric vehicles by their base Manufacturer's Suggested Retail Price (MSRP) across different AQI categories. It's interesting to note that there is a wide range of EV prices even within the 'Good' AQI category. This suggests that consumers in areas with good air quality are purchasing a diverse range of EVs, from more economical to luxury models. The absence of data points in other AQI categories might indicate limited data or that most of the AQI values fall within the 'Good' category for this dataset.