

## Objective

Assist King County Metro management team in optimally implementing battery-electric buses in the Seattle area by ranking routes and stops with the highest dwelling times.

#### **Current System**

Serving 400,000 passengers a week on 1500 buses No electric buses yet, plan to implement forty by Fall 2022

#### Scope

Analyze one year of data from March 2019 to February 2020. King County Metro has 197 routes and 7147 stops, during this period.

## Impact

**Environmental**: Reducing carbon emissions

**Economic**: Battery-electric buses are more fuel-efficient

**Customer**: Standardized model to analyze dwelling time for future battery-electric bus replacements

#### Implementation

Allow King County Metro employees to access and update visualizations and code with relevant data. To eventually roll out a fully electric fleet, expanding beyond South base.

Median **Jnique Values** Missing Values





# **Statistical Model of Bus Dwelling Time**

Cleaner Commute Team: Isabel Bernstein, Adam Cheng, Andy Kim, Matthew Shull, Hao Zhu With Special Thanks to Patty Buchanan, Dr. Yi Mi, and Valerie Harris

**King County**