**Executive Summary**

**I will be creating a proposal to the Nashville for public transportation. The report will contain a cost to benefit analysis based on Federal Transit Administration’s national database.**

**Motivation**

**It’s time for Nashville and the surrounding areas to have reliable public transportation. The traffic in the surrounding areas is terrible.**

**Data Question**

**What public transportation agencies perform the best financially? Who’s doing the most with the money they have based on population? What best practices can we gain from these organizations?**

**Minimum Viable Product (MVP)**

* **Cost analysis of the most successful agency. \*\*\* Comparison between TN, CA, NY, and CA have been made for cost per mile and trip. This helps to reduce the size of the data set and prevent the colossal amount of data from “watering everything down”.**
* **\*\*\* New direction. I will compare the data between the UZA agencies that I’ve used. I will only be comparing data between the UZA’s because this ensures that this area serves/has 50,000 people. This will allow the data to be normalized across the vast differences in size, cost, scope.**
* **\*\*\* Create analysis showing vehicle revenue miles per capita.**
* **How Nashville could follow this agency’s strategies and what that would cost compared to how much it would improve traffic flow. \*\*\* This will be put on the back burner for now.**

**Schedule (through <date of demo day>)**

1. Get the Data (11/15) DATA GATHERED PENDING REVIEW
2. Clean & Explore the Data (11/22) COMPLETE
3. Create Presentation of your Analysis (12/13) ANALYSIS WILL BE COMPLETE BY 12/9. AFTER THIS THE PRESENTATION WILL BE CREATED.

* Should be a presentation, but could include a Jupyter Notebook or dashboard in Excel, Tableau, or PowerBI

1. Internal demos (12/13)
2. Demo Day!! (<date of demo day>)

**Data Sources**

* **Federal Transit Administration**: <https://www.transit.dot.gov/ntd/national-transit-database-ntd-glossary#D>

**Known Issues and Challenges**

**Challenge**: No major issues at this time. I am on track to finish the analysis and reports above with time to spare. Once this is complete I’ll bring a simple dataset showing age of population to compare what age groups prefer what type of public transportation. This will help to make the case for public transportation in Nashville.

* If we try to sort by population size, you can’t because these multiple agencies serve the same area. Therefore there are repeat numbers. It will be best to trend by state.