**General Target: 40,000 words | 80 pages**

1. **Introduction (1,500 words | 3 pages)**

## Brief history of how car culture in the US came to be. **(500 words | 1 page)**

## Brief overview of climate crisis and need for electrification**. (500 words | 1 page)**

* Introduce questions this thesis seeks to address: **(500 words | 1 page)**

1. Who should pay for EV charging infrastructure to minimize inequities in access associated with electric vehicles?
   1. Who are EV owners and what limitations exist for EV ownership today?
   2. Where are EV charging stations and what limitations exist for access to charging today?
   3. Where are free, publicly accessible charging stations and what does their location mean for who is able to access them?
   4. Who is bearing the cost of EV charging infrastructure development and what are the implications of these cost burdens for EV ownership and charging access?
2. **Background/Literature Review (14,000 words | 28 pages)**

* State of EV Ownership and EV Infrastructure **(5,000 words | 10 pages)**
  + EVs on the market *(500 words | 1 page)*
    - Cost of production and price for consumers *(500 words | 1 page)*
    - Brief discussion of barriers to EV ownership *(500 words | 1 page)*
  + Descriptive Statistics about EV Owners *(1,000 words | 2 pages)*
  + Ownership projections for the future *(500 words | 1 page)*
  + Types of EV Charging levels *(500 words | 1 page)*
  + Descriptive Statistics about EVCS *(1,000 words | 2 pages)*
    - Publicly accessible vs. privately accessible *(250 words | ½ page)*
    - Free vs. pay for *(250 words | ½ page)*
* Transportation Infrastructure Finance including EVCS **(4,000 words | 8 pages)**
  + Costs *(500 words | 1 page)*
  + financial tools *(1,000 words | 2 pages)*
  + financiers *(500 words | 1 page)*
* Different financing tools, promoting equitable Access & Equity **(5,000 words | 10 pages)**
  + Direct User Fees
    - Roads & Bridges: Toll roads (1,000 words | 2 pages)
  + Public Financing
    - Public Transit: Fair free transit (1,000 words | 2 pages)
  + Private Financing
    - Micro mobility: User fees and public vs. private investment (1,000 words | 2 pages)

1. **Methods (5,000 words | 10 pages)**

* Methodology for household level regression model (1,500 words | 3 pages)
* Methodology for neighborhood level regression model (1,500 words | 3 pages)
* Methodology for station level regression model (1,500 words | 3 pages)

1. **Results (6,000 words | 12 pages)**

* Predictors for EV ownership (2,000 words | 4 pages)
  + what sociodemographic characteristics predict the likelihood that a car owner owns and electric vehicle?
* Predictors for presence of an EV charging station (2,000 words | 4 pages)
  + what sociodemographic characteristics predict the likelihood that a neighborhood has an electric vehicle charging station?
* Predictors for station level regression model (2,000 words | 4 pages)
  + what sociodemographic characteristics predict the likelihood that an electric vehicle charging station is free and publicly available?

1. **Discussion (10,000 words | 20 pages)**
2. **Conclusion (3,000 words | 6 pages)**

## Financing a Equitable, Decarbonized Future

* 1. What financial tools, through which entities (public, private) should be used to pay each cost (real estate, capital costs, operational costs) associated with future EV charging station development?

What financial tools should be used to pay for EV charging station development?

Who should pay for equitable development of EV charging stations in the US?