

EMPOWERING GREEN MOBILITY - MEMO

Executive Summary

This research investigates disparities in electric vehicle (EV) accessibility in Atlanta, focusing on racial, income, and geographic inequities. While federal EV incentives exist, many underserved communities are structurally excluded from full participation. Spatial gaps in EV charging infrastructure, combined with public transit limitations, further restrict mobility options for marginalized groups. The analysis combines quantitative data on eligibility, income, rent burden, and transit access to identify inequities and highlight areas for targeted policy intervention.

Background / Context

As the U.S. transitions toward electrification of transportation, equitable access to EV incentives and charging infrastructure is critical to avoid exacerbating existing socioeconomic disparities. Federal tax credits currently provide up to \$7,500 for EV purchases, but eligibility is often limited by income, filing status, and vehicle cost caps. Georgia previously offered more accessible state-level incentives but has since phased them out. In metro Atlanta, a rapidly growing urban region with high racial and income diversity, structural inequalities in transportation access remain a challenge. Many lower-income communities are rent-burdened, own older, higher-emitting vehicles, and have limited access to reliable public transit or EV charging infrastructure.

Data Summary

To assess EV accessibility and transportation equity, a multi-source data collection approach was used. Federal EV tax credit eligibility was estimated using IRS income thresholds combined with racial and filing status demographic data from the U.S. Census Bureau. Rent burden analysis was conducted using data from the U.S. Department of Housing and Urban Development and the 2023 American Community Survey, identifying communities where residents spend more than 30% of their income on rent as financially stressed.

EV charging infrastructure data was sourced from the U.S. Department of Energy's Alternative Fuel Data Center, and geographic distribution was mapped to visualize infrastructure availability across income brackets. Public transportation service data, including route density and coverage, was gathered from MARTA to assess transit accessibility in both central and peripheral neighborhoods. Finally, historically underserved neighborhoods were identified through a combination of city planning documents, community assessments, and academic literature, focusing on areas with systemic disinvestment, high poverty, and limited mobility infrastructure.

4. Preliminary Insights

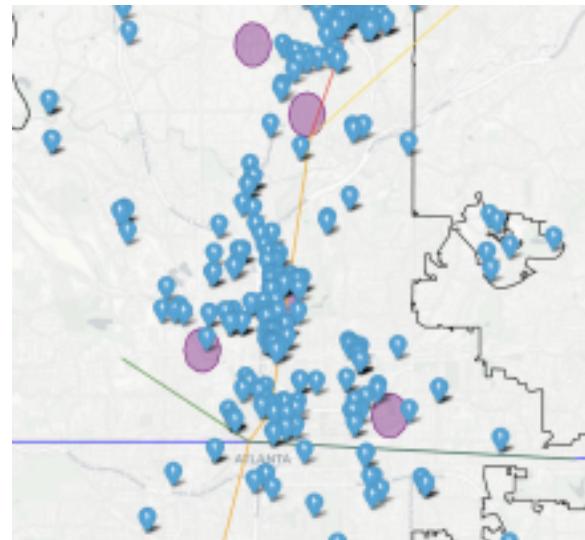
Federal EV incentive disparities show a clear racial and structural bias in Atlanta. Only 20% of

Black households and 29% of Hispanic households qualify for the full federal EV credit, compared to 42% of White households and 57% of Asian households. Filing status also plays a major role: 44% of married households qualify, while only 22% of head-of-household filers typically single-parent households are eligible. These eligibility criteria create barriers that disproportionately impact lower-income and minority residents.

Rent burden data further underscores economic stress in historically marginalized communities. Neighborhoods such as English Avenue & Vine City, Mechanicsville, Lakewood Heights, Hunter Hills, Capitol Manor, and Summerhill exhibit high levels of rent burden, with residents spending more than 30% of their income on housing. These areas have also faced long-standing underinvestment, compounding challenges around mobility and sustainability.

Spatial inequity in EV charging infrastructure is another key issue. High-income areas such as Midtown Atlanta, Garden Hills, South Tuxedo Park, Inman Park, and the Marietta Street Artery are well-served with EV charging stations, correlating with median incomes exceeding \$80,000. In contrast, underserved communities with lower incomes have limited or no access to EV infrastructure, reducing their ability to transition to cleaner transportation options.

Public transit limitations further exacerbate these challenges. Low-density suburban areas often fall outside the effective coverage zones of MARTA, resulting in long commute times and reduced transit reliability. In smaller cities like Albany and Savannah, similar patterns emerge despite high poverty rates and majority-minority populations, transit systems offer limited routes and infrequent service, restricting mobility and opportunity.



This analysis reveals clear inequities in the distribution of EV incentives, charging infrastructure, and public transportation services across Atlanta and comparable cities in Georgia. Structural barriers rooted in income, race, and geography prevent many households from accessing the benefits of clean mobility. Without intentional intervention, the transition to electric vehicles risks reinforcing existing disparities rather than resolving them. Equitable transportation planning must prioritize investment in underserved communities, redesign incentive structures to include the most vulnerable populations, and expand transit systems to ensure fair and sustainable mobility for all.

Next Steps & Questions

Moving forward, deeper spatial modeling is needed to identify optimal locations for new EV

charging stations in underserved communities. This includes incorporating population density, transportation behavior, and existing infrastructure. Additionally, estimating potential emissions reductions from targeted EV adoption can help build a stronger case for equitable investment. Policy alternatives such as income-adjusted or direct rebate EV incentives should be evaluated to address limitations in current federal eligibility structures. Equally important is the engagement of community-based organizations to validate assumptions, uncover on-the-ground barriers, and co-design solutions with residents most affected by mobility inequities.

Key questions remain: How can incentive structures be redesigned to better support single-parent and low-income households? What role can public-private partnerships play in accelerating equitable deployment of EV infrastructure? And how can policies for transit and EVs be better aligned to address both short-term access needs and long-term sustainability goals?

References

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