



UTC Project Information – Center for Transportation, Environment, and Community Health	
<i>Project Title</i>	EQU ity Driven Data Analysis for Public Transportation Planning (EQUIP)
<i>University</i>	The University of Texas at El Paso
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<i>Funding Sources and Amount Provided (by each agency or organization)</i>	USDOT: \$80,427 UTEP: \$40,749
<i>Total Project Cost</i>	\$121,176
<i>Agency ID or Contract Number</i>	Sponsor Source: Federal Government CFDA #: 20.701 Agreement ID: 69A3551747119
<i>Start and End Dates</i>	10/01/2021 – 03/31/2023
<i>Brief Description of Research Project</i>	<p>Low-income families tend to have access-related inequities for transit services. More research is needed to understand accessibility to essential services that are important to household well-being using public transportation.</p> <p>This research will examine data for better visualization and analysis to model the impact of accessibility or inaccessibility of transit for minority and low-income communities. Through spatial analysis, the ease of accessing transit stops or routes from either a trip origin or a trip destination will be measured and its relationship with other related attributes established.</p> <p>The following tasks will be performed over the 12-month period: Task 1 –Literature review and data collection (General Transit Feed Specification - GTFS) and related data through local public transportation provider) (Months 1-4). Task 2- Selection of appropriate indicators associated with the built environment and location efficiency (Months 3-4). Task 3 – Identification of service areas and population served (based on the area ratio) through the development of GIS-based transit-specific network analysis (Months 4-6). Task 4- Calculation of accessibility indices and identify areas of the city that have both disadvantaged population and poor transit access (Months 6-8). Task 5 – Identification of underserved areas and integrate transit-specific network analysis to facilitate multimodal transit options for a selected low-</p>

	<p>income neighborhood (through consultation with local public transportation provider) in the city (Months 8-12)</p> <p>The research will have the following outputs: 1) GIS-based impact visualization including hotspots for poor transit accessibility in El Paso (through accessibility index); and 2) Micro-scale accessibility analysis methodology and a case study based on quantitative and qualitative metrics.</p> <p>The outputs will be disseminated through journal and conference publications.</p> <p>The research team aims to assist the local agency to establish smart and equitable transport planning strategies and policies in the future. This will allow for a deeper understanding of the needs of low-income communities within a multi-layered and complex City landscape.</p> <p>With growing concerns about the social exclusion of low-income neighborhoods, the result of this study will present a comprehensive analysis to establish investment priorities to address and positively impact equitable transportation options and minimize social disadvantages. This will in turn create an interlocking network for opportunities for innovative and clean mobility adoption within such communities. Moreover, better transparency can be realized in decision-making processes through effective data presentation to the public.</p>
<p><i>Describe Implementation of Research Outcomes (or why not implemented)</i></p> <p><i>Place Any Photos Here</i></p>	
<p><i>Impacts/Benefits of Implementation (actual, not anticipated)</i></p>	
<p><i>Web Links</i></p> <ul style="list-style-type: none"> • <i>Reports</i> • <i>Project website</i> 	<p>https://ctech.cee.cornell.edu/final-project-reports/</p>