



UTC Project Information – Cooperative Mobility for Competitive Megaregions (CM²)

Project Title	Evaluating the Effect of Heat Vulnerability on Emergency Medical Service (EMS) Incidents in Austin, Texas
University	The University of Texas at Austin
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Funding Source(s) and Amounts Provided (by each agency or organization)	U.S. Department of Transportation:
Total Project Cost	\$34,000
Agency ID or Contract Number	US DOT Grant Number: 69A3551747135
Start and End Dates	9/1/2022 – 8/31/2023
Brief Description of Research Project	<p>Climate change has exacerbated Texas's characteristically hot climate, with hotter days and less reprieve from high temperatures. Urban heat exposure and sensitivity have been a growing concern in urban regions since the effect of urban heat is often considerably greater than that of surrounding rural environments, posing a threat to public health, water supply, and infrastructure (Bixler, 2021). This study investigates the spatial distribution of heat vulnerability in the Austin-Travis County area of Texas, specifically in terms of urban heat exposure, sensitivity, and adaptive capacity. Then, using normalized quantitative indicators and geospatial bivariate maps, we identify neighborhoods with a high degree of heat vulnerability and limited EMS accessibility from transportation perspectives – in terms of heat-related EMS incidents and response time – to establish risk reduction priority areas. Finally, we investigate the effect of heat vulnerability on heat-related EMS incidents to identify spatial disparities in vulnerable neighborhoods.</p>
Describe Implementation of Research Outcomes (or why not implemented)	Project has not begun yet, so no outcomes have been realized.
Impacts/Benefits of Implementation (actual, not anticipated)	Project has not begun yet, so no impacts have been realized.
Web Links (to reports, project website, etc.)	N/A