**MOBILITY ANALYSIS AND SYSTEM TRANSPORTATION EFFICIENCY RESEARCH (MASTER)**

**RESEARCH PROJECT**

**Project Summary**

For more than 40 years, the Texas A&M Transportation Institute’s urban transportation research efforts have developed a comprehensive set of performance measures and the tools to monitor mobility conditions. Since 1998, the study has been a pooled fund effort involving a combination of state departments of transportation and the Federal Highway Administration. The analysis procedures and resulting performance measures from this research have been used in multimodal measurement in many U.S. urban areas, at the state level and in other countries.

While the products will remain centered on urban mobility issues, the focus of this pooled fund effort will be research into some emerging topical areas. The goals of the research project include:

* Identify and evaluate new sources and providers of mobility data and information. Many new data collection techniques such as location-based services (LBS) and global positioning systems (GPS) probe data are being used to gather mobility information. There are many unknowns, however, about the quality and usefulness of the data collection techniques and overall quality of the archived data for a variety of applications.
* Develop and test new performance measures that can be used to inform technical and non-technical audiences about attributes of freight mobility, freight throughout, system resiliency, system reliability and others. These new measures are possible because of emerging data sources collected with the latest technologies. Research is needed to develop the measures, perform sensitivity analysis (spatially and temporally across the transportation system) and test the measures across different state DOT, MPO and local transportation agency applications.
* Assist sponsoring agencies in applications of research products in their operations, planning and performance measurement activities. This activity provides immediate practitioner feedback on the research results to refine the measures and methods, and it allows sponsors to identify their future research needs for incorporation into the sponsor-driven MASTER research scope.

The research study will focus on mobility and reliability performance measures, data and issues. The new emphasis areas will include emerging mobility data sources, freight movement (throughput, productivity), system resilience, and system reliability. The research team has been requested to develop applications and aid many transportation agencies for many mobility-related projects that have been developed in individual areas and states.

Products from the research will meet a variety of needs and will include a range of printed and electronically accessible reports, data and information pages, applications, and a generally accessible Internet website. Other resources that will be available to sponsors include assistance with implementation of the research products, access to presentations summarizing the data and study results for specific states or urban areas.

Requested Funding: $35,000 per sponsoring organization for FY2025 and FY2026.

For more information about participating in this pooled-fund study, contact:

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