Program Objectives

- **Model Development Support:** To assist various agencies in the development and calibration of travel forecasting models for specific urban areas and assist with development of long-term model improvement programs. Support also includes assistance in the update and enhancement of travel models and model components to allow more rigorous analysis of travel behavior, travel demand markets and modal choices such as transit, carpooling, toll facilities and non-motorized travel.

- **Model Application Support:** To offer technical assistance and support in the application and maintenance of travel forecasting models and techniques.

- **Practical Implementation of New Modeling Techniques:** To assist with moving state-of-the-art modeling concepts into practice.

- **Development of New Modeling Techniques:** To participate in the development of new or improved modeling techniques.

- **Training and Technology Transfer:** To offer training and one-on-one assistance to support development of sponsor staff's transportation modeling capabilities and support travel forecasting technology transfer.

- **Software Development:** To develop needed software, provide for implementation of travel forecasting techniques, improve data summaries for analyses, assist in data preparation and interface the travel models with geographic information systems (GIS).

- **Software Application Support:** To serve as a focal point for assistance and support for the application software used for travel forecasting.

TRAVEL FORECASTING PROGRAM

Solving Future Transportation Needs

The Travel Forecasting Program at the Texas A&M Transportation Institute (TTI) supports and assists public agencies in the development, implementation and application of current and emerging technologies in travel demand forecasting. The purpose of travel forecasting is to help transportation decision makers, at the local and state levels, improve the overall function of the transportation system. Program staff members accomplish this by developing travel models that predict future transportation patterns based on many variables. The variables used by program staff include comprehensive travel survey data, U.S. Census data, current and projected socio-demographic data, existing and projected transportation system data, and current traffic data.

Who We Work For

The Travel Forecasting Program's two primary sponsors are the Texas Department of Transportation's Transportation Planning and Programming Division and the Houston-Galveston Area Council. The longevity of each relationship has facilitated and enhanced TTI's ability to assist both agencies in developing the institutional capacity to perform travel-related technical analyses. The program also provides technical assistance to federal, state and local agencies, and can assist developed and developing countries as well.

What We Can Do for You

From model development to analysis of model results, TTI's Travel Forecasting Program offers a wide range of services:

Technical guidance in model development

- Developing, maintaining and applying travel forecasting models.
- Developing long-term model improvement programs and supporting the implementation process.
- Assisting in updating and enhancing travel models and model components to allow more rigorous analysis of travel behavior, travel demand markets and modal choices.

Independent assessments of model performance

- Advising sponsors on the use and interpretation of model results.
- Assisting sponsors in assessing the behavioral implications of model results through independent review of travel model results.

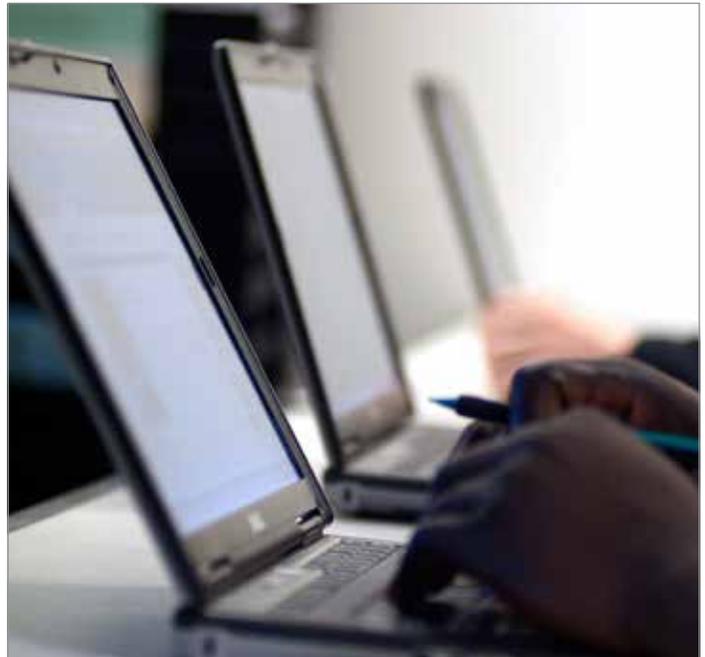### Use of interface application software

- Providing interface application software designed to improve data preparation and interface between travel models and GIS.
- Enabling measurement and testing of model performance through the use of extensive and comprehensive travel model output reports.
- Promoting standardized documentation, reporting and storage of model results.

Technical training in model development

- Offering training and one-on-one technical assistance to support development of sponsor transportation modeling capabilities. Topics include software application, model development, alternatives analysis and use of models for estimating regional source emissions.

Technical guidance in advanced model development

- Offering technical assistance to regional entities such as Metropolitan planning organizations and cities in the development, application, validation and evaluation of advanced travel demand modeling frameworks, including activity-based and tour-based approaches.
- Developing advanced econometric and statistical modeling frameworks, which are useful in understanding the factors influencing individuals' activity-travel behavior and predicting how individuals would react to different transportation, land use and public health policies.

Technical Training Seminars

The Travel Forecasting Program offers training seminars to assist sponsors with their transportation modeling capabilities. Example training topics include:

- Travel demand modeling software application (TransCAD)
- Travel demand model (TDM) development and application
- Alternatives analysis using TransCAD
- Introduction to TDMs
- TDM and estimating regional source emissions

TTI's Mission

To solve transportation problems through research, to transfer technology and to develop diverse human resources to meet the transportation challenges of tomorrow.

Contact

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