Who we are:

Transportation is so basic that many of us overlook its overwhelming importance in our daily lives. Practically everything used in our homes, offices, or schools across Tennessee – from furniture to food items to clothing – requires a large and complex transportation network. The Tennessee Department of Transportation provides citizens of Tennessee and travelers with one of the best transportation systems in the country. TDOT is a multimodal agency with responsibilities in building and maintaining roads, aviation, public transit, waterways, railroads, cycling and walking. Our involvement ranges from airport improvements to funding transit buses to planning for river ports. The Department of Transportation has approximately 3,500 employees with four statewide region facilities in Knoxville, Chattanooga, Nashville, and Jackson. TDOT Aeronautics is located near the John C. Tune Airport in Nashville, TN.

Forecasting Technical Specialist
Planning Division – Forecasting and Visualization Section
$60,600 - $70,680 annually

Job Overview

The Forecasting Technical Specialist supports the development, application, and maintenance of travel demand models and travel forecasting tools that inform project planning, environmental documentation, and transportation system investment decisions across the state. This position works collaboratively with internal TDOT teams and external stakeholders, including Metropolitan Planning Organizations (MPOs), Rural Planning Organizations (RPOs), and other local, state, and federal partners, to deliver timely and accurate forecasting data for multimodal planning efforts.

This role is central to ensuring TDOT and its partners are equipped with the technical information needed to analyze current and future travel patterns, manage growth, and make informed, data-driven decisions that contribute to sustainable and resilient transportation networks.

Essential Job duties of Technical Specialist I, II, and III include:

Assist in the application and maintenance of the Tennessee Statewide Travel Demand Model (TSM), including compiling and organizing socioeconomic and travel behavior data for modeling use.

Support the development of regional and MPO travel demand models, including TN-Town models, and ensure consistency with statewide modeling efforts.

Provide project-level travel forecasting, including current and future traffic volumes, levels of service, capacity analysis, and travel time data, to support environmental documentation and preliminary design phases.

Assist with the preparation of air quality modeling inputs and ensure compliance with federal and state air quality requirements.

Perform data analysis using modeling outputs, GIS tools, and analytics software such as Power BI to support corridor studies, long-range plans, and statewide strategic initiatives.

Support efforts to maintain and update modeling standards, procedures, and documentation, ensuring consistency and transparency in modeling practices statewide and assist with consultant coordination, data requests, and quality assurance for modeling and forecasting deliverables.

Participate in ongoing training and technical development activities, including training sessions for TDOT staff, local partners, and consultants and provide technical support and participate in collaboration with TDOT Regions, MPOs, and other stakeholders on travel forecasting-related questions and processes.

Contribute to the development of data visualizations and maps that communicate travel demand patterns and analysis results to technical and non-technical audiences.

Provide exceptional customer service to both internal and external customers by exercising effective listening skills and providing prompt responses.

Additional Job duties for the Technical Specialist II and III include:

Contribute to maintaining performance records for use in quarterly and annual consultant service evaluations.

Assist with RFP development and the development of consultant scoring criteria, participate in the consultant acquisition process, attend project-specific meetings and assist with project information sessions.

Additional Job Duties for the Technical Specialist III include:
Assist with facilitating the recruitment of future staff and provide incentives to learn and grow in the area of planning by developing and implementing a Work Force Development plan, including training for new hires and methods to promote employee retention.

Assist with utilizing the partnership with the Procurement Division to review the consultant services quarterly and annual performance evaluations to develop overall evaluations and rankings for continuous contracts and to determine qualifications for consultant applications.

Qualifications

TDOT Technical Specialist I

- Bachelor's Degree in a related field

TDOT Technical Specialist II

- Bachelor's Degree in a related field
- 1 year of demonstrated competency in State and Regional Transportation Planning, Geographic Information Systems, Statistics or Mathematics, Data or Computer Science, or a related field.

TDOT Technical Specialist III

- Bachelor's Degree in a related field
- 2 years of demonstrated competency in State and Regional Transportation Planning, Geographic Information Systems, Statistics or Mathematics, Data or Computer Science, or a related field.

The Tennessee Department of Transportation reserves the sole right in determining the level of position based on the applicant's work experience, education, skill level, and all other appropriate factors, including business needs. Within 6 months of hire, employees must demonstrate successful mastery of corresponding work competencies and skill blocks of the Technical Specialist Competency Program for the level of worker for which they were hired. If skills and competencies are not met during that period, the employee can be demoted to the level of worker for which he/she is qualified.

Ideal Candidate

The Forecasting Technical Specialist I, II or III is detail-oriented and eager to grow their expertise in transportation modeling and forecasting. They are collaborative, inquisitive, and possess foundational technical skills in data analysis, modeling software, and GIS. They are motivated by solving real-world problems and enjoy working in a team-oriented, mission-driven environment. The Forecasting Technical Specialist I, II or III has strong communication skills, is able to learn quickly, and values both technical precision and the importance of translating data into actionable insights.