

# Transportation Modeler / Analyst

TRANSPORTATION ENGINEER I/II (TE I/II)

JOB RECRUITMENT #21-11

<b>SALARY RANGE</b>	Mid \$60,000s to Mid \$70,000s (position level & salary commensurate with education & experience)
<b>LOCATION</b>	Travel Trends and Forecasts
<b>CLOSING DATE</b>	When position is filled
<b>AREAS OF CONSIDERATIONS</b>	All sources

The Delaware Valley Regional Planning Commission (DVRPC) is the Philadelphia region's Metropolitan Planning Organization. We believe DVRPC is a place to work, learn, and create a career in a professional and stimulating environment that values diversity, innovation, and bringing your best self to work. If your background and experience match the following vacancy in the Office of Travel Modeling, we would like to hear from you.

## Job Description

DVRPC is seeking a Transportation Modeler/Analyst to join a vibrant modeling and research team in the Office of Travel Modeling. The Office of Travel Modeling maintains DVRPC's regional travel simulation models, including a highly sophisticated activity-based model, a best-in-class trip-based model, and a tour-based truck model, and supports model applications to evaluate the impacts of transportation investments, new transportation technologies, long-range plans, and air quality improvement initiatives. DVRPC's travel models are highly customized, relying on numerous Python scripts to implement specific model functions, interact with different model programs, and process model outputs. The Office of Travel Modeling is also active in research and use of emerging and big data for model development and transportation studies.

The Transportation Modeler/Analyst will assist the development and enhancement of DVRPC's regional travel models, and support model applications and data analysis for planning studies. Programming and data analytics skills are required for this position to debug model programs, add new model features, prepare data for model development, and summarize aggregated and disaggregated model outputs for various needs. Work is performed in accordance with well-defined objectives and professional standards under the close technical direction of senior engineers and planners.

## Responsibilities

- Maintain, update, calibrate, and validate the regional travel simulation models.
- Develop tools and scripts to enhance and customize the regional models and their applications.
- Develop tools and scripts to process and visualize various model inputs, validation data, and model outputs.
- Design, process, and analyze various travel surveys and emerging data for travel behavior analysis.
- Conduct research for developing new modeling features and tools to meet emerging modeling needs.
- Support model applications, debug model programs, develop forecasts at the regional, corridor, and project level, and present findings and recommendations to technical committees and planning partners as needed.
- Provide technical assistance to internal and external partners, and respond to requests of data and information.

## Qualifications

- Strong self-learning, quantitative analysis, and problem-solving skills.
- Knowledge of the principles of transportation engineering, econometrics, statistical methods, or computer science that is applicable to transportation modeling and travel forecasting.
- Experience with Python, C#, or other object-oriented programming languages.
- Experience with SQL or other relational databases.
- Experience with GIS software.
- Experience with prevailing travel demand modeling software, such as VISUM, TransCAD, CUBE, or EMME is a plus.
- Ability to conduct research and evaluate information and data.
- Ability to effectively present analysis results in oral, written and graphic forms.
- Ability to establish and maintain effective working relationships with associates and planning partners.

## Experience & Training

To classify as a Level TE I, a minimum of one year of professional experience in civil engineering, transportation planning, or a related discipline is required. To classify as a Level TE II, a minimum of three years is required. Such experience may have been gained from a combination of experience and training. Training may have been gained through graduation from an accredited college or university. A Master's degree or a full year of intern or co-operative education experience can be substituted for one year of experience.

LEARN ABOUT DVRPC'S WORK CULTURE & BENEFITS: [WWW.DVRPC.ORG/HUMANRESOURCES](http://WWW.DVRPC.ORG/HUMANRESOURCES).

DVRPC IS AN EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER. FULL CONSIDERATION WILL BE GIVEN TO ALL ELIGIBLE, QUALIFIED APPLICANTS WITHOUT REGARD TO AGE, ANCESTRY, COLOR, DISABILITY, DOMESTIC OR SEXUAL VIOLENCE VICTIM STATUS, ETHNICITY, FAMILIAL STATUS, GENDER IDENTITY OR EXPRESSION, GENETIC INFORMATION, MARITAL STATUS, MEDICAL CONDITION (INCLUDING PREGNANCY), NATIONAL ORIGIN, RACE, RELIGION, SEX, OR SEXUAL ORIENTATION, MINORITY, DISABLED, & VETERANS CANDIDATES ARE ENCOURAGED TO APPLY. NOTE: YOU MUST BE LEGALLY ELIGIBLE TO WORK IN THE US.

TO APPLY, SEND RESUME WITH A COVER LETTER TO HUMAN RESOURCES VIA: [RESUMES@DVRPC.ORG](mailto:RESUMES@DVRPC.ORG).

OR MAIL: 190 N. INDEPENDENCE MALL WEST / 8TH FLOOR / PHILADELPHIA, PA 19106-1520; OR FAX: 215-592-9125.