

## Transportation Modeler/Analyst

TRANSPORTATION ENGINEER I OR II / RESEARCH ANALYST I or II

JOB RECRUITMENT #17-10

<b>SALARY RANGE</b>	High \$40,000s to High \$50,000s (position level & salary commensurate with education & experience)
<b>LOCATION</b>	Office of Modeling and Analysis
<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 our Office of Modeling & Analysis, we would like to hear from you.

### Job Description

The Office of Modeling and Analysis develops and maintains DVRPC's regional travel simulation models, including a trip-based model and a newly developed activity-based model. These models support a wide range of studies, from traditional highway and transit alternatives analysis to emerging economic impact and resilience analysis. The Office is also actively engaged in integrating open-source and big data for model development and analysis.

Our objectives are to work with all manner of transportation analysis, all types of stakeholders, adapt to a wide range of project types, conduct technical analysis, and clearly state our findings through writing, graphics and maps, in order to fulfill DVRPC's mission of making a great region even greater.

The position will assist the development, maintenance, and enhancement of DVRPC's regional travel models, and support model applications for various projects. Based on the employee's experience and desire to learn, assignments may include programming for model development and data analysis; conducting and analyzing travel surveys; preparing travel model inputs such as land use, transportation, demographic and employment data; estimating future demand for the design of individual highway and transit facilities; and calculating travel time, delay, and level-of-service. Work is performed in accordance with well-defined objectives and professional standards under the close technical direction of senior engineers and planners.

### Responsibilities

- Assist in the development, calibration, validation, and documentation of transportation and land use forecasting models.
- Write computer programs and scripts needed for travel simulations and data analysis.
- Design and conduct various types of travel surveys and data collection for model updates and individual highway and transit studies.
- Support model applications, analyze and summarize model outputs, and present findings and recommendations to technical committees and the public.
- Collect transportation systems data, including speeds; auto, truck, bicycle, and pedestrian traffic volumes and travel times; and transit ridership. This may include field work.
- Prepare traffic flow and travel desire diagrams and maps; including traffic volume counts, estimates, and forecasts.
- Calculate travel time, delay, level-of-service, volume/capacity ratio, and other operational measures of effectiveness for highway, transit, and non-motorized modes.
- Provide other technical assistance, as required.

### Qualifications

- Solid analytical, quantitative, and problem solving skills.
- Hands-on experience with Python, C#, or other programming languages.
- Knowledge of the principles of traffic engineering, econometrics, statistics, or computer science that is applicable to transportation system modeling and analysis.
- Knowledge of Microsoft Access, SQL, or other database programs is desired.
- Knowledge of geographic information systems (GIS) is desired.
- Knowledge of major travel demand modeling software, such as VISUM, CUBE, TransCAD, DaySim, and/or EMME. Knowledge of microscopic or mesoscopic simulation software, such as VISSIM, is a bonus.
- Ability to be detailed, self-motivated, and work on multiple tasks.
- Ability to effectively present results of research and technical analyses in oral, written and graphic form.
- Ability to establish and maintain effective working relationships with associates, planning officials, and the general public.

### Experience & Training

To classify as a Level TE/RA 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/RA 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.

To learn more about our work culture and benefits, visit our website: [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, AND VETERANS CANDIDATES ARE ENCOURAGED TO APPLY. NOTE: MUST HAVE PERMANENT RESIDENCY STATUS AND WORKING PAPERS.

TO APPLY, SEND RESUME / CV WITH COVER LETTER TO HUMAN RESOURCES VIA:

EMAIL: [RESUMES@DVRPC.ORG](mailto:RESUMES@DVRPC.ORG); OR

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