

Transportation Modeler/Engineer

TRANSPORTATION ENGINEER II

JOB RECRUITMENT #18-07

SALARY RANGE	Mid \$50,000s to Low \$60,000s (position level & salary commensurate with education & experience)
LOCATION	Office of Travel Trends and Forecasts
CLOSING DATE	When position is filled
AREAS OF CONSIDERATIONS	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 Travel Trends and Forecasts, we would like to hear from you.

Job Description

The Delaware Valley Regional Planning Commission (DVRPC) seeks a qualified candidate to join the Office of Travel Trends and Forecasts (OTTF). The OTTF develops and maintains DVRPC's regional travel simulation models, including a best-in-class trip-based model and a newly developed activity-based model, and applies the models to 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.

The employee will assist the development, maintenance, and enhancement of DVRPC's regional travel models, and support model applications for various projects undertaken by the agency. Assignments may include programming to support model development and data analysis, conducting and analyzing travel surveys; preparing travel model inputs such as land use, transportation network characteristics, and demographic and employment data; estimating future transportation system demand for long range plans and the design of individual highway and transit facilities; and calculating operational statistics such as travel time, delay, and level-of-service.

The employee will be enthusiastic about all manner of transportation analysis, adaptable enough to support a wide range of project types, and able to both conduct complex technical analysis and clearly tell the story of their findings in writing, graphics, and maps. This position involves working with public and private sector agencies, decision-makers, and the general public. Work is performed in accordance with well-defined objectives and professional standards under the close technical direction of senior engineers and planners. Qualified candidates should possess solid analytical skills, be detailed-oriented and self-motivated, and have the ability to multi-task.

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.
- Assist with 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 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 II/Transportation Engineer, a minimum of three years professional experience in civil engineering, transportation planning, or a related discipline; and a Bachelors' degree from an accredited college or university. Such experience may have been gained from a combination of experience and training. 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/. 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; OR

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