DATA ANALYST, PRINCIPAL (TRAVEL DEMAND MODELING)

Salary Range $62,120-$105,605

POSITION SUMMARY:

The Atlanta Regional Commission (ARC) is the regional planning and intergovernmental coordination agency that focuses on issues critical to the region's success, including growth and development, transportation, water resources, services for older adults and workforce solutions. ARC is dedicated to unifying the region's collective resources to prepare the metropolitan area for a prosperous future. This is done through professional planning initiatives, the provision of objective information, and the involvement of the community in collaborative partnerships.

The Data Analysis, Principal (Travel Demand Modeling Principal) within the Transportation Access and Mobility Section is responsible for serving as a designated subject matter expert, performing complex analyses and data project management. Decision-making includes providing input into management objectives, establishing work goals and objectives to carry out management direction, and selecting the method to address a problem or issue, subject to the constraints established by management objectives and direction. As assigned, work may include planning and implementing data collection initiatives and surveys; developing models; collecting and analyzing performance measures; coordinating socio-economic research and studies; and performing software programming including building and maintaining websites.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Participate in RFP process for consultant selection; participate in consultant selection committee; review scope of work and contractual deliverables;
- Work with large datasets; analyze data; summarize data and use software and other techniques to present findings;
- Conduct needs assessments; support training on models and use of statistics;
- Provide technical guidance and support to users; develop and update data and analytics; respond to data requests, and thoroughly document ARC's travel demand modeling technical procedures;
- Identify new technology products; provide recommendations to managers and/or decision-makers;
- Provide guidance in staff workforce development, knowledge sharing and model documentation;
- Run and trouble-shoot the ARC regional activity-based travel demand forecasting model and participate in roadway and transit network coding;
- Perform other duties as assigned to support agency goals and objectives.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND COMPETENCIES:

- Knowledge of model integration with land use model (such as PECAS and UrbanSim), air quality model (EPA – MOVES3), toll optimization, dynamic traffic assignment, freight modeling, and other peripheral / ancillary models such as externals model, air passenger model, as well as other ones such as FTA-STOPS model and REMI – TranSight model;

- Knowledge of Regional Activity-Based Travel Demand Forecasting Model Development & Applications, including ActivitySim, as well as model calibration & validation;
- Knowledge of modeling including travel demand modeling software such as CUBE, TransCAD, Visum, Emme, and map development in GIS, including the use of geo-database for roadway and transit network coding;
- Skill in project management, systems administration, and the software development cycle, including the GitHub open-source software tracking and coordination platform;
- Skill in data analysis, including "Big Data" manipulation, probe data analytics (such as NPMRDS), travel survey data, Census data (ACS / CTPP), R and RStudio, Jupyter Notebook, etc.;
- Skill in database development and administration, including the manipulation of large matrices;
- Skill in data gathering and analysis, including data visualization, and methods of qualitative and quantitative research;
- Ability to manage and prioritize complex competing priorities;
- Ability to multi-task with attention to detail;
- Ability to work independently with general instructions;
- Expertise in analysis, critical decision making, project management, and process improvement;
- Proficiency with Microsoft Office and programming language such as Java and Python.

MINIMUM QUALIFICATIONS:

- Master's degree in business, economics, statistics, urban planning, computer science, information technology or related field
- Three (3) years of experience in data collection and analysis and associated technical support, which may include programming based on assignment.

An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above, unless otherwise subject