

# METRO

## Classification Description

**Titles:** Associate Researcher and Modeler  
**Job Code:** 6015  
**Pay Grades:** 18  
**FLSA Status:** Exempt – Professional, Learned

**Bargaining Unit:** AFSCME 3580  
**Established:** March 2012  
**Revised:**  
**EEO Category:** Professionals

### **DESCRIPTION**

Serve as a travel demand or land use modeler participating in numerous multimodal studies within the Portland region. Locally developed travel or economic, real estate and land use models and analysis tools are used to determine the impacts from potential infrastructure improvements and household/employment growth assumptions.

For transportation modeling, typical tasks may involve the coding of simulation networks, the application of travel demand models, the analysis and interpretation of results and the design of new models. For land use, typical tasks may involve the analysis and development of land use/real estate development databases, collecting and merging complex data sets, statistical research, application of economic and land use/real estate simulation models, interpretation of forecast results, and design of new models.

### **DISTINGUISHING FEATURES**

The Associate Researcher and Modeler classification is distinguished from the Assistant Researcher and Modeler classification by the ability to function more independently and perform more complex planning tasks. The classification is the second level of a three-level career progression series (Assistant, Associate, and Senior). Specific career progression information is listed in the *Advancement Criteria* section of the classification description.

### **DUTIES AND RESPONSIBILITIES**

*Tasks listed are intended to be descriptive and not restrictive. An employee in this classification may perform any of the tasks listed; however, these examples do not include all the tasks which an employee may be expected to perform.*

1. Collects and organizes technical information for use in computer analysis and report generation.
2. Applies travel demand or economic modeling and land use and statistical software to produce estimates of multi-modal travel or regional demand real estate simulation and land use forecasts.
3. Analyzes and summarizes the results obtained from the application of the travel demand model or a broad range of econometric tools and simulation models.
4. Develops technical reports.
5. Assists in research to develop new computer modeling techniques.
6. Represents Metro at meetings regarding the discussion of modeling results.
7. Liaise between Metro technical staff and administrators, consultants, and the public regarding modeling data and information.

## **METRO**

### **Classification Description**

8. Assists in providing innovative research products suitable for reporting in reference journals on economics, geography and planning.
9. Fulfills Metro's employee values of Public Service, Excellence, Teamwork, Respect, Innovation, and Sustainability. These duties include but are not limited to:
  - a. Maintaining positive relationships;
  - b. Respecting diversity of ideas and perspectives of others;
  - c. Demonstrating sustainable practices;
  - d. Assisting the public, public officials and other employees in a professional and courteous manner;
  - e. Developing safe work habits and contributing to the safety of self and co-workers;
  - f. Contributing to a positive team atmosphere; and
  - g. Having regular and punctual attendance.
10. Performs assigned duties during an emergency situation.
11. Other duties as assigned.

#### **JOB SPECIFICATIONS**

*(These are any combination of education and experience that has provided knowledge, skills and abilities to perform the duties of this position. Prior work experience and educational requirements listed are typical ways of obtaining the required qualifications. Other equivalent combinations of education, training and experience will be considered.)*

#### **Job Preparation**

##### **Education and Work Experience:**

- Bachelor's degree in a quantitative science (mathematics, statistics, econometrics, engineering, computer science, economics, geography, etc.) or planning (with a quantitative emphasis) and
- One year of transportation or land use and real estate modeling experience or
- Any combination of education and experience that provides the necessary knowledge, skills and abilities to perform the classification duties and responsibilities

##### **Knowledge, Skills and Abilities:**

1. Extensive knowledge of transportation or urban land use or economic research methods and techniques
2. Extensive knowledge of quantitative analysis and statistics
3. Write technically
4. Use computer software to perform quantitative analysis
5. Organize and conduct transportation or urban land use or regional economic studies
6. Make recommendations using numerical analysis
7. Communicate effectively both orally and in writing
8. Use travel demand or economic or land use allocation models and forecasting

## **METRO**

### **Classification Description**

techniques

9. Apply Federal, State, and local laws and regulations and agency policies and procedures for respective field
10. Use discretion with confidential and sensitive matters
11. Fulfill Metro's employee values of Public Service, Excellence, Teamwork, Respect, Innovation, and Sustainability
12. Work in a safe manner and follow Metro safety policies, practices, and procedures
13. Perform all essential duties of the position

#### **Special Requirements**

Successfully pass the background check and screening requirements of the organization for this particular position

#### **Tools and Equipment Used**

All standard office equipment, including but not limited to computer and printer, fax machine and copy machine, and computer software including MS based word-processing and spreadsheets

#### **Supervision and Lead Work**

Supervision is received from a Manager

As directed by manager, provide lead work, such as assigning and reviewing work, training, and leading projects

#### **Advancement Criteria**

- Department Director must verify that there is a business need for incumbent to perform Senior-level duties. Business need determines the opportunity – advancement is not guaranteed
- Incumbent is required to serve a minimum of one (1) year in the Associate level classification. However, three (3) years represents the typical amount of time needed for incumbent to fully demonstrate the ability to advance from the Associate level classification to the Senior level classification
- Incumbent must demonstrate the ability to perform all of the duties in the Senior level classification, as determined by the direct supervisor with the written approval of the department director
- Incumbent must demonstrate a willingness to lead in their own professional development by taking on new challenges when they are identified and offered
- Incumbent must have completed all mandatory training through the Metro Human Resources Department (*Harassment & Discrimination Awareness*)
- Incumbent must have completed a Metro-approved Project Management course

#### **Work Environment**

The work environment characteristics described here are representative of those an

**METRO**  
**Classification Description**

employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

*The job classification description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.*