

City of Portland

## CLASS SPECIFICATION

### STATISTICIAN

[**CLASS CODE**]

[**ESTABLISHED DATE**]

#### **CLASSIFICATION SUMMARY**

Reports to a Supervisor, Manager, or other supervisor- or management-level position. Under minimal supervision, performs complex statistical analyses, utilizes various research and data collection methods, and compiles statistical reports in support of City and Bureau/Office activities.

Responsibilities include: performing advanced statistical analyses; designing and implementing research projects; performing study design research; statistical and data analysis reporting; preparing written and verbal recommendations to leadership. This includes critical analysis utilizing principles, concepts, and practices applicable to one or more fields of statistical analyses.

#### **DISTINGUISHING CHARACTERISTICS**

Statistician is a distinct classification that performs the full range of complex statistical analyses.

Statistician is distinguished from the Analyst series in that the former is responsible for utilizing rigorous and complex scientific techniques to a diverse range of subjects, requiring significantly more advanced analytical and statistical skills.

#### **ESSENTIAL FUNCTIONS**

Depending on the assignment, the incumbent may perform a combination of some or all of the following duties, and perform related duties as assigned.

General Duties:

1. Design complex statistical studies and analyses to answer specific research questions, including statistical survey design, experimental design, and observational design.
2. Plan, develop, and implement the collection of data used for specific research questions; coordinate with Bureau/Office staff to collect data; ensure appropriate data collection procedures are followed.
3. Identify statistical models and variable selection; identify software to be utilized in analysis; implement chosen analysis through appropriate software.
4. Develop, maintain, and update long- and short-term forecasting models following statistical and econometric practices.
5. Draft and present objective analyses, observations, findings, and conclusions to supervisors, managers, directors, and City Council via written reports, oral presentations, and public forums.
6. Develop recommendations on the allocation of resources based on analyses; conduct analyses to identify issues and opportunities; make recommendations to improve effectiveness and efficiency.
7. Develop and direct staff in implementing quality assurance and data management procedures for Bureau/Office; ensure all data is reliable, accurate, and relevant.
8. Review, identify, and provide relevant feedback on statistical and scientific content of current reports that impact Bureau/Office activities or business.
9. Utilize best practice statistical methodologies to provide sound conclusions.

## **SUPERVISION RECEIVED AND EXERCISED**

The work of this classification is performed under minimal supervision by a Supervisor, Manager, or other supervisor- or management-level position; review of work may also be performed by project managers for which the statistical analyses has been conducted. This classification has significant discretion in carrying out duties.

This classification has no supervisory responsibilities.

## **KNOWLEDGE/SKILLS/ABILITIES REQUIRED**

1. Knowledge of principles, practices, and methods of advanced statistical analysis, financial analysis, forecasting, and modeling, and economic theory and econometrics.
2. Knowledge of Bayesian models, hierarchical models, time series analysis, and other specialized models.
3. Knowledge of and ability to use statistical programming languages to perform data analysis.
4. Knowledge of Structured Query Language (SQL) and SQL Server.
5. Knowledge of database management strategies and techniques.
6. Ability to work under limited supervision and independently determine methodologies, assumptions, data parameters, report formatting, and methods for resolving issues.
7. Ability to design surveys and utilize appropriate statistical analysis methods, such as linear models and censored data models.
8. Ability to establish and maintain effective working relationships with Bureau/Office managers and staff, representatives of other governmental agencies, the public, and others encountered in the course of work.
9. Ability to provide relevant information to Bureau/Office staff for decision making.
10. Ability to communicate logically and persuasively, both verbally and in writing; ability to prepare clear, concise, and comprehensive reports, correspondence, and other documents involving administrative, organizational, technical, budgetary, and financial data; and to communicate complex analytical topics to audiences unfamiliar with or untrained in such topics.
11. Ability to exercise independent judgment, problem-solve, and take initiative within established procedures and guidelines.

## **MINIMUM QUALIFICATIONS REQUIRED**

Any combination of education and experience that is equivalent to the following minimum qualifications is acceptable.

**Education/Training:** Bachelor's degree from an accredited college or university in mathematics, statistics, or applied economics;

AND

**Experience:** Two (2) years of progressively responsible experience performing public agency statistical analysis or related work.

### **Special Requirements and/or Qualifications:**

Specific licensure, certification or training in the appropriate field may be required for certain positions.

A valid state driver's license may be required for certain positions.

### **Preferred Qualifications:**

Additional experience in public agency statistical analysis for certain positions.

Advanced degree in mathematics, statistics, or applied economics for certain positions.

Minimum Salary: xxxxx per [pay period, month, annual]

Maximum Salary: yyyyy per [pay period, month, annual]

Bargaining Unit: Non-represented

FLSA Status: Exempt

HISTORY

Revision Dates: