

JOB TITLE: STATISTICIAN 2
JOB CODE: 05673

SERIES NATURE OF WORK: The Statistician job series describes work in the collection and statistical analysis of quantified data.

DEFINITION: This is professional statistical work in the collection, analysis, summarization, interpretation, and presentation of quantified data and statistics.

An employee in this job is responsible for conducting statistical projects, studies, or surveys to support agency decision making or for the production of statistical reports and products to comply with government reporting requirements or to provide meaningful information for customers. Work involves evaluating reporting requirements, information needs, or data requests or meeting with program staff to determine how to meet project, study, or survey objectives and the levels of statistical reliability and significance needed; selecting and applying mathematical and statistical methods to acquire, validate, organize, classify, analyze, and interpret data; evaluating data for accuracy, relevance, and reliability and making corrections; analyzing and resolving data problems; making inferences about the data; determining effective methods to format and present data; and producing statistical reports and products. The results of statistical projects, studies, and surveys should include narrative reports of findings, bias, statistical significance, and confidence levels which would impact on the use of the data for decision making. Work also involves providing guidance regarding the use of statistical reports, products, and findings. Work may involve developing databases or coordinating their development with information technology (IT) or contract staff. Work is assigned in the form of objectives and scope, performed with considerable independence, and reviewed by the supervisor for quality and attainment of objectives.

DISTINGUISHING CHARACTERISTICS:

- Work is distinguished from the lower level job by the responsibility for independently evaluating data needs, determining appropriate mathematical and statistical methods to achieve objectives, and resolving statistical problems.
- Work may include lead work responsibilities for Statisticians 1.
- At the Department of Labor and Industry, work may include leading projects, studies, surveys, or data collection and production involving multiple employees of whom at least one is a Statistician 1 or equivalent. This includes assigning tasks and reviewing work of the involved employees for the duration of the projects.

EXAMPLES OF WORK: (NOTE: The examples of work are representative of the work, but every position classified to this job may not perform all examples of work listed. Conversely, this is not an all-inclusive list of work examples.):

- Meets with program staff to evaluate their data needs, identifies potential data sources, and advises on study or survey design.
- Determines tasks necessary to accomplish project, study, or survey objectives.
- Designs forms and questionnaires to obtain required baseline data, extracts data from enterprise systems, or contacts other sources to request data.

- Determines sampling techniques and statistical methods applicable to studies and surveys including the determination of confidence limits.
- Applies various mathematical and statistical techniques to analyze and interpret data, adapts techniques as needed, and identifies and investigates new data relationships.
- Analyzes data using various statistical methods such as frequency distributions, least squares, correlation and regression analyses, and analysis of variance.
- Prepares comprehensive narrative and statistical reports to explain data collection methods, analytical processes, and conclusions and findings that can be drawn from data.
- Evaluates data requests, communicates with customers to understand their requirements, and produces statistical reports or products to fulfill requests.
- Plans and develops data collection schedules and instructions, coordinates data collection to ensure deadlines are met, reviews data for completeness and accuracy, and submits contractual data deliverables to the federal government.
- Develops estimates and projections and resolves discrepancies between expected and actual outcomes.
- Explains the appropriate uses of data and its limitations to various data users.
- Develops or coordinates with IT or contract staff to develop databases to store, retrieve, link, and manipulate data.
- Coordinates system upgrades with IT and federal government staff.
- Utilizes database, spreadsheet, and statistical software, including developing custom statistical software queries, to process, manipulate, and statistically analyze data.
- Analyzes data collection, organization, and processing methods and recommends revisions to improve data validity, reliability, and relevance.
- Performs statistical analyses to evaluate potential impacts of proposed program, policy, or legislative changes.
- Authors a variety of statistically oriented press releases or other documents for publication.
- Coordinates efforts to define and revise terms and codes to ensure uniformity of data classification.
- Organizes the activities of and directs lower level statisticians, statistical assistants, and clerical employees in the preparation of a variety of statistical products, reports, and special studies.
- Functions as a lead worker for statistical work by assigning and reviewing work, training employees, and performing quality control functions for the work.

- Performs related work as required.

ENTRY LEVEL KNOWLEDGES, SKILLS, AND ABILITIES:

- Knowledge of the principles and practices utilized in the collection, editing, analysis, summarization, and presentation of quantified data and statistics.
- Knowledge of statistical software programs and their application.
- Knowledge of the application of computerized data processing to perform the collection, organization, classification, processing, and presentation of quantified data.
- Knowledge of the use and functionality of standard computer software including spreadsheet and database programs.
- Knowledge of coding practices for the classification of data.
- Ability to effectively present findings and conclusions in tabular, graphic and narrative form.
- Ability to read, interpret, and analyze numerical information.
- Ability to read and interpret policies.
- Ability to communicate effectively in writing.
- Ability to communicate effectively orally.
- Ability to establish and maintain effective working relationships.

MINIMUM EXPERIENCE AND TRAINING: (NOTE: Based on the Entry Level Knowledges, Skills, and Abilities):

- One year as a Statistician 1;
or
- One year of professional experience in the collection, compilation, editing, and statistical analysis of quantified data and a bachelor's degree;
or
- An equivalent combination of experience and training.