

RESEARCH ANALYSIS SPECIALIST, SENIOR

KIND OF WORK

Advanced professional statistical and data analysis work.

NATURE AND PURPOSE

Under administrative direction, as the recognized statistical expert in an area with statewide impact, develops and executes complex and highly technical statistical studies for new programs and/or for areas with little or no procedural precedent; builds statistical models and forecasts trends which have major departmental and/or statewide policy implications to provide management with information necessary for decision making and long-range planning; performs audit and quality assurance functions by providing leadwork direction and review to high-level professional staff; performs related work as required.

EXAMPLES OF WORK (A position may not include all the work examples given, nor does the list include all that may be assigned.)

Builds statistical models for new programs and/or for areas with little or no procedural precedent to provide information to management which is used in the formulation of departmental and/or statewide policy and to forecast trends by using computers, packaged software, mathematics, and analytical procedures [such as hypotheses testing, analysis of variance, multiple regression, and factor analysis]; and by developing original computer programs and state-of-the art methods which provide model structures, hypotheses, mathematic equations forecasts and policy simulations.

Serves as the departmental expert on statistical information and statistical techniques to provide advice and interpretation of highly technical data by representing the department at hearings, conferences, etc. and by responding to requests for information and providing expert testimony on study findings.

Writes and/or evaluates research reports for multiple projects/programs to provide information to management and other staff by determining and/or approving the statistical techniques and procedures used to gather, summarize, and analyze the information; by using departmental and outside data sources, academic journals, libraries, data and reference materials, computers, computer software, interviews; by designing and/or approving the surveys and questionnaires; and by documenting methodology and interpreting and explaining statistical results.

Creates and maintains computerized data bases for new programs/projects with statewide impact so that others can locate, retrieve, or manipulate large volumes of reliable data quickly and at low cost by working with tabulating and computer personnel and planning reporting activities within the capabilities of machine operations; by conferring with operating unit supervisors to discuss possible computer applications; and by using all available data sources, appropriate editing procedures, various computer hardware and software to create the data base and the statistical reporting systems.

Consults/advises the Director, the Commissioner, or others on events or program conditions to communicate significant developments and issues by performing a complete analysis and inventory of reports; by recommending changes in reporting techniques and maintaining a reports control program; and by using pertinent newsletters, journals and commercial services, newspapers, internal memoranda and professional contacts within and outside of government.

Monitors and reports on the work performance of co-workers to determine overall conformity to established timetable and quality standards and to document and communicate employee production levels and training needs by assembling resources and evaluating and improving data published or reported by the unit; by using department management and supervision guidelines and directives, appropriate union contract provisions, rules and regulations and interpersonal relations skills.

Schedules, distributes/balances and guides the work assignments of co-workers in accordance with established workflow/assignment requirements, to assist supervisory staff in the timely accomplishment of the assigned workload by consulting with the section director in the overall management of the section and directing the activities of a statistical research and reporting unit engaged in reporting data of major importance in planning the programs of a large department.

#### KNOWLEDGE, SKILLS AND ABILITIES REQUIRED

##### Knowledge of:

Statistical methods especially regression and econometric methods, hypothesis testing and other special forecasting techniques sufficient to develop and execute complex and highly technical statistical studies for new programs and/or for areas with little or no procedural precedent.

EDP principles, data processing software and hardware and state computer facilities sufficient to develop original computer programs and state-of-the-art methods which provide model structures, hypotheses, mathematical equations forecasts and policy simulations.

State and federal laws, other governing documents and their interrelationships sufficient to identify significant developments and issues and consult and advise management in policy formulation.

##### Ability to:

Translate complex computational or manipulative procedures into a set of executable computer statements and to communicate instructions to others orally and in writing.

Research Analysis Specialist, Senior

Class Specification

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Write formal research papers and technical memos and documentation on modeling results and development and prepare other written information in clear, concise and understandable form useful to policymakers.

Organize thoughts, conceptualize problems and reconcile interrelated reports.

Coordinate and direct work of others and monitor and report on work performance.

Est.: 07/41

Rev.: 06/47, 05/56, 07/69, 07/73, 04/84

Ckd.: 06/91

T.C.: 05/56, 07/67, 07/81

Former Title(s): Research Analyst, Sr.

Research Analyst III

Statistician III