

DUTY STATEMENT

CALIFORNIA PUBLIC UTILITIES COMMISSION



DIVISION Communications Division		EFFECTIVE DATE
BRANCH/SECTION Broadband, Video and Market Branch/California Advanced Services Fund & Broadband Access Section		CLASS TITLE Research Data Specialist III (RDS III)
WORKING DAYS AND WORKING HOURS Monday through Friday 8:00 a.m. to 5:00 p.m.		PHYSICAL WORK LOCATION Sacramento, San Francisco, or Los Angeles
INCUMBENT (If known)		CURRENT POSITION NUMBER (Agency - Unit - Class - Serial) 680-331-5770-002
YOU ARE A VALUED MEMBER OF THE DEPARTMENT'S TEAM. YOU ARE EXPECTED TO WORK COOPERATIVELY WITH TEAM MEMBERS AND OTHERS TO ENABLE THE DEPARTMENT TO PROVIDE THE HIGHEST LEVEL OF SERVICE POSSIBLE. YOUR CREATIVITY AND PRODUCTIVITY ARE ENCOURAGED. YOUR EFFORTS TO TREAT OTHERS FAIRLY, HONESTLY AND WITH RESPECT ARE IMPORTANT TO EVERYONE WHO WORKS WITH YOU.		
BRIEFLY (1 or 2 sentences) DESCRIBE THE POSITION'S ORGANIZATIONAL SETTING AND MAJOR FUNCTIONS: Under the general direction of the Program and Project Supervisor, the Research Data Specialist III serves as a principal technical resource to collect statewide Broadband mapping data and perform geographic analysis. The position is located within the California Advanced Services Fund and Broadband Access section.		
% of time performing duties	Indicate the duties and responsibilities assigned to the position and the percentage of time spent on each. Group related tasks under the same percentage with the highest percentage first. <i>(Use additional sheet if necessary)</i>	
35%	<u>ESSENTIAL FUNCTIONS:</u> Collect and analyze broadband availability data and other types of data to update, improve and maintain the California Interactive Broadband Map. Develop strategies and methods to safeguard confidential broadband data submitted to the CPUC. Determine software and hardware requirements and administer needs for data collection and processing for consumer and ISP data to maintain the California Interactive Broadband Map. Advise decision-makers on data collection regarding new rulemaking(s) necessary to implement Assembly Bill (AB 286). Conduct quality assurance/quality control with regard to consumer and ISP data submitted by utilizing commercial data analysis tools.	
30%	Develop the scope of research for data collection and analysis and perform complex research and statistical analysis related to the implementation of AB 286 and other relevant requirements, such as collecting more granular consumer data at the address level. Develop and adopt advanced analytical and statistical methodologies, including Geographic Information Systems (GIS) methods, for collecting, compiling, and analyzing data. Conduct and lead complex research activities (both quantitative and qualitative) and develop complex queries utilizing multiple tools, including Esri GIS, SQL, Python R, Microsoft Excel, Tableau and other commercial data analysis. Coordinate the work of and collaborate with outside contractors performing or assisting tasks to which you are assigned.	
30%	Develop sensitive reports related to research findings, which include but not limited to maps and reports as needed to support evaluation of maps to visualize geospatial information related to the implementation of AB 286, and other relevant requirements. Develop, publish, and maintain analysis using multiple platforms including ArcMap, ArcGIS Pro, ArcGIS online, Tableau, and others and present research results in written and oral form to management and other stakeholders. Attend meetings and participate in various internal and external user/GIS related groups.	
5%	<u>MARGINAL FUNCTIONS:</u> Other job-related duties as assigned.	

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	<p><u>KNOWLEDGE AND ABILITIES</u> <i>[From Class Specs]</i></p> <p>Knowledge of: Data analysis methods and techniques including gathering and collection of structured and unstructured data, as well as general principles, concepts and terminology used in research; planning studies and investigations; trend analysis procedures; time management techniques to provide for efficient prioritization and completion of projects and assignments; software to prepare spreadsheet summaries, reports, charts, and tables; basic arithmetic and statistical techniques to analyze numerical data; and departmental policies and procedures and design and implement research-related projects; practices required to ensure and maintain data security, including securely transmitting confidential data; experimental design procedures; problem-solving techniques and processes to identify and resolve issues related to the completion of work assignments; and advanced mathematical techniques and descriptive statistical analysis techniques and methods and principles and concepts applied in research and statistical settings; principles and concepts appropriate to data and research techniques and methodologies; operations research methods; current data analytics processes, including the utilization of business intelligence software programs; broad principles of algorithms, data structures, and data management; application of computerized models to research data, statistical and other methods used in the analysis; survey methods and analytical techniques; organizational analysis including data presentation and interpretation; principles and procedures of forecasting, and of research planning, design, methodology; problem solving techniques and processes to facilitate the identification and resolution of issues related to the completion of work assignments and Federal and departmental regulations; benefit-cost analysis; complex database design and structure to understand and complete research projects and assignments; and project management principles in order to design projects (e.g., define schedules, tasks, milestones, deliverables and advanced automated processes for capturing data and applying quality control procedures to design and implement complex research projects; current leadership techniques and their application to ensure effective oversight of project team members; project management principles to monitor project progress, and conduct final project evaluation; and function as lead for complex large scale research projects.</p> <p>Ability to: Research, gather, compile, and analyze structured and unstructured data; conduct and interpret descriptive statistical analyses using appropriate software to test research hypotheses and to formulate conclusions and recommendations; prepare research and statistical reports; analyze written and numerical data regarding general governmental problems; speak and write effectively; develop and evaluate alternatives, recommendations, solutions, and conclusions or approaches to research problems; manage a workload consisting of multiple projects and assignments; complete work under critical timelines to meet project objectives and deadlines; be objective and flexible to adapt to changes in priorities and work assignments; and gain and maintain the confidence and cooperation of others, collaborate, and work in multidisciplinary teams and query, mine, analyze, and manipulate data; communicate effectively both orally and in writing to individuals and groups related to the area of research; present ideas and information effectively; adapt and apply formal research methods and principles to research problems; design and validate studies and analyze the accuracy of data collected; analyze quantitative and qualitative data to reach sound conclusions and/or make recommendations; identify improvements and originate and develop new solutions which depart from traditional and existing patterns; identify required data, information, materials, and resources needed to complete/perform a project; reason logically and creatively and use a variety of analytical techniques to resolve or provide information regarding complex research and data problems; consult with and advise administrators or other interested parties on a wide variety of subject-matter areas; recognize when issues, activities, and/or decisions need to be elevated to management, and communicate information effectively to others and plan and carry out large scale research and data projects; prepare and present reports and data models; adapt and apply complex research methods and principles to research problems of an applied practical nature; identify required data, information, materials, and resources needed to complete/perform a project; identify data needs of complex analyses and evaluate adequacy of existing data to meet these needs; develop procedures for collection and integration of data sources; design and test complex data base structures for storage and manipulation; access and process data located on large databases, servers, mainframes and/or desktop computers; design and conduct a complex research project and/or validating studies; conduct program evaluation studies including the systematic analysis of program requirements, goals, and outcomes to ensure program effectiveness; analyze</p>

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and evaluate the impact of programs, procedures, business processes, and/or policies; develop documents related to data processing and analysis procedures for research projects and assignments to be used as a future resource; determine how a system or process works and how utilizing new inputs, operations, and environmental conditions would affect outcomes; function as a technical lead for complex projects to ensure timely completion; provide technical assistance to professional personnel; establish and maintain cooperative relationships with others, and with stakeholders; communicate with internal and external stakeholders with diplomacy and tact, especially concerning difficult and sensitive issues and translate legislatively mandated program evaluation requirements into methodically rigorous study designs; translate departmental policy into action programs and/or test the impact of policy changes; evaluate the adequacy and merit of proposed research and evaluation study designs and techniques; provide expert consultation on the feasibility impact or potential of a variety of operations, projects or proposals to the department and to other organizations; analyze and evaluate the impact of changes to existing programs, procedures, business processes, and/or policies; use creativity when independently designing research projects; and write clear and concise studies and reports; design and develop research methodologies required to ensure the collection and analysis of appropriate, meaningful, and unbiased data; conduct and interpret descriptive and/or inferential statistical analyses using appropriate software to test research hypotheses and to formulate conclusions and recommendations; analyze situations accurately and take effective action at the appropriate time; and provide mentoring to staff and present complex quantitative and qualitative data visually using charts, graphs, tables, and other appropriate methods in order to complete reports and/or develop presentations; design and implement advanced automated processes utilizing statistical software for capturing data and applying quality control procedures to design and implement research projects work on multiple projects and assignments simultaneously to finish assignments on time and within budget; develop and prioritize short-range and long-range plans and schedules that coordinate with operating goals and objectives of the department; and facilitate meetings and discussions in a manner that ensures participants remain focused on the intended topic and encourages active participation.

WORK ENVIRONMENT, PHYSICAL OR MENTAL ABILITIES:

- Proficiency with communications-related technologies, including personal computer applications, telecommunications equipment, Internet, voicemail, email, etc.
- Occasional travel throughout the state of California to include evenings, overnight, weekends or several days at a time.
- Ability to work in a standard office setting to include work in close proximity to co-workers.

SUPERVISOR'S STATEMENT: I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE

SUPERVISOR'S NAME (Print)	SUPERVISOR'S SIGNATURE	DATE
Kim Hua		

EMPLOYEE'S STATEMENT: I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT

The statements contained in this duty statement reflect general details as necessary to describe the principal functions of this job. It should not be considered an all-inclusive listing of work requirements. Individuals may perform other duties as assigned, including work in other functional areas to cover absence of relief, to equalize peak work periods or otherwise balance the workload.

EMPLOYEE'S NAME (Print)	EMPLOYEE'S SIGNATURE	DATE