



Research Data Specialist 2

Exam Code: 8PB40

Department: State of California

Exam Type: Servicewide, Open

Final Filing Date: Continuous

CLASSIFICATION DETAILS

Research Data Specialist 2 - \$6,496.00 - \$8,131.00 per month.

View the [classification specification](#) for the **Research Data Specialist 2** classification.

APPLICATION INSTRUCTIONS

Final Filing Date: Continuous

Who Should Apply:

Applicants who meet the minimum qualifications as stated on this bulletin may apply for and take this examination.

Once you have taken this examination, you may not retake it for **nine (9)** months.

How To Apply:

The link to connect to the Training and Experience Evaluation is located farther down on this bulletin in the "Taking the Exam" section. **Special Testing Arrangements:**

If you require special testing arrangements due to a verified disability or medical condition, please contact:

California Department of Human Resources
CalCareer Service Center
1810 16th Street
Sacramento, CA 95814

Phone: (866) 844-8671

Email: CalCareer@CalHR.CA.GOV

California Relay Service: 7-1-1 (TTY and voice)

TTY is a Telecommunications Device for the Deaf, and is reachable only from phones equipped with a TTY Device

MINIMUM QUALIFICATIONS

All applicants must meet the education and/or experience requirements as stated on this exam bulletin to be accepted into the examination. Part-time or full-time jobs, regardless of whether paid or volunteer positions, and inside or outside California state service will count toward experience.

All Levels Education

Incumbents must possess 12 semester or 18 quarter units course work in any combination of a data driven research-related field, such as economics, mathematics, psychology, sociology, demography, geography, anthropology, statistics, data science or a [research-related field](#). This must include at least one course in statistical methods; and

[Equivalent to graduation from an accredited college with a bachelor's degree](#). Work experience may be substituted on a year-for-year basis by applicants who have the required units mentioned above.

A Master's Degree in economics, mathematics, psychology, sociology, demography, geography, anthropology, statistics, data science or a related research-oriented field may be substituted for two years of the required experience. A doctoral degree in the same areas may be substituted for three years of the required experience.

Experience applicable to one of the following patterns may be combined on a proportional basis with experience applicable to the other pattern to meet the total experience requirements. **Research Data Specialist 2**

Either 1

One year of experience in the California state civil service [performing data researchoriented duties at a level of responsibility equivalent to that of a Research Data Specialist 1](#);

Or 2

Five years of [progressively responsible quantitative and qualitative data research experience engaged in the collection, compilation, manipulation, analysis, and interpretation of data](#). (Experience applied toward this requirement must include one

year of experience performing duties at a level of responsibility equivalent to a Research Data Specialist 1.)

POSITION DESCRIPTION

Research Data Specialist 2

Under general direction, incumbents independently perform the more complex data analysis in response to ad-hoc research and reporting requests utilizing business intelligence software programs to query, validate, format, and organize structured and unstructured data to forecast trends and assess potential impact in areas where changes are being implemented and a body of knowledge or experience does not exist. Incumbents have responsibility for coordinating the more complex research projects or activities, which involves defining and creating new data models and visualizations to ensure information needs are met. Senior departmental management utilizes these highly skilled practitioners as prime resource persons and innovators in the subject matter of their occupation. Incumbents have responsibility for designing and directing major complex research projects or activities.

EXAMINATION SCOPE

This examination consists of the following components:

Training and Experience Evaluation – Weighted 100% of the final score.

The examination will consist solely of a **Training and Experience Evaluation**. To obtain a position on the eligible list, a minimum score of 70% must be received. Applicants will receive their score upon completion of the Training and Experience Evaluation process.

In addition to evaluating applicants' relative knowledge, skills, and ability, as demonstrated by quality and breadth of education and/or experience, emphasis in each exam component will be measuring competitively, relative job demands, each applicant's:

Knowledge of:

1. 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.
2. Planning studies and investigations.
3. Trend analysis procedures.
4. Time management techniques to provide for efficient prioritization and completion of projects and assignments.
5. Software to prepare spreadsheet summaries, reports, charts, and tables.
6. Basic arithmetic and statistical techniques to analyze numerical data.
7. Departmental policies and procedures.

8. Design and implement research-related projects
9. Practices required to ensure and maintain data security, including securely transmitting confidential data.
10. Experimental design procedures.
11. Problem-solving techniques and processes to identify and resolve issues related to the completion of work assignments.
12. Advanced mathematical techniques and descriptive statistical analysis techniques and methods.
13. Principles and concepts applied in research and statistical settings
14. Principles and concepts appropriate to data and research techniques and methodologies.
15. Operations research methods.
16. Current data analytics processes, including the utilization of business intelligence software programs.
17. Broad principles of algorithms, data structures, and data management.
18. Application of computerized models to research data, statistical and other methods used in the analysis.
19. Survey methods and analytical techniques.
20. Organizational analysis including data presentation and interpretation.
21. Principles and procedures of forecasting, and of research planning, design, methodology.
22. Problem solving techniques and processes to facilitate the identification and resolution of issues related to the completion of work assignments.
23. State, federal and departmental regulations.
24. Benefit-cost analysis.
25. Complex database design and structure to understand and complete research projects and assignments.
26. Project management principles in order to design projects (e.g., define schedules, tasks, milestones, deliverables).

Ability to:

1. Research, gather, compile, and analyze structured and unstructured data.
2. Conduct and interpret descriptive statistical analyses using appropriate software to test research hypotheses and to formulate conclusions and recommendations.
3. Prepare research and statistical reports.
4. Analyze written and numerical data regarding general governmental problems.
5. Speak and write effectively.
6. Develop and evaluate alternatives, recommendations, solutions, and conclusions or approaches to research problems.
7. Manage a workload consisting of multiple projects and assignments.

8. Complete work under critical timelines to meet project objectives and deadlines
9. Be objective and flexible to adapt to changes in priorities and work assignments.
10. Gain and maintain the confidence and cooperation of others, collaborate, and work in multidisciplinary teams.
11. Query, mine, analyze, and manipulate data.
12. Communicate effectively both orally and in writing to individuals and groups related to the area of research.
13. Present ideas and information effectively.
14. Adapt and apply formal research methods and principles to research problems.
15. Design and validate studies and analyze the accuracy of data collected.
16. Analyze quantitative and qualitative data to reach sound conclusions and/or make recommendations.
17. Identify improvements and originate and develop new solutions which depart from traditional and existing patterns.
18. Identify required data, information, materials, and resources needed to complete/perform a project.
19. Reason logically and creatively and use a variety of analytical techniques to resolve or provide information regarding complex research and data problems.
20. Consult with and advise administrators or other interested parties on a wide variety of subject-matter areas.
21. Recognize when issues, activities, and/or decisions need to be elevated to management, and communicate information effectively to others.
22. Plan and carry out large scale research and data projects.
23. Prepare and present reports and data models.
24. Adapt and apply complex research methods and principles to research problems of an applied practical nature.
25. Identify required data, information, materials, and resources needed to complete/perform a project.
26. Identify data needs of complex analyses and evaluate adequacy of existing data to meet these needs.
27. Develop procedures for collection and integration of data sources.
28. Design and test complex data base structures for storage and manipulation.
29. Access and process data located on large databases, servers, mainframes and/or desktop computers.
30. Design and conduct a complex research project and/or validating studies.
31. Conduct program evaluation studies including the systematic analysis of program requirements, goals, and outcomes to ensure program effectiveness.
32. Analyze and evaluate the impact of programs, procedures, business processes, and/or policies.

33. Develop documents related to data processing and analysis procedures for research projects and assignments to be used as a future resource.
34. Determine how a system or process works and how utilizing new inputs, operations, and environmental conditions would affect outcomes.
35. Function as a technical lead for complex projects to ensure timely completion.
36. Provide technical assistance to professional personnel.
37. Establish and maintain cooperative relationships with others, and with stakeholders.
38. Communicate with internal and external stakeholders with diplomacy and tact, especially concerning difficult and sensitive issues.
39. Translate legislatively mandated program evaluation requirements into methodically rigorous study designs.
40. Translate departmental policy into action programs and/or test the impact of policy changes.
41. Evaluate the adequacy and merit of proposed research and evaluation study designs and techniques.
42. Provide expert consultation on the feasibility impact or potential of a variety of operations, projects or proposals to the department and to other organizations.
43. Analyze and evaluate the impact of changes to existing programs, procedures, business processes, and/or policies.
44. Use creativity when independently designing research projects.
45. Write clear and concise studies and reports.
46. Design and develop research methodologies required to ensure the collection and analysis of appropriate, meaningful, and unbiased data.
47. Conduct and interpret descriptive and/or inferential statistical analyses using appropriate software to test research hypotheses and to formulate conclusions and recommendations.
48. Analyze situations accurately and take effective action at the appropriate time.
49. Provide mentoring to staff.

ELIGIBLE LIST INFORMATION

A servicewide, open eligible list for the **Research Data Specialist 2** classification will be established for:

State of California (all State of California departments, statewide)

The names of successful competitors will be merged onto the eligible list in order of final score regardless of exam date. Eligibility expires **twelve (12) months** after it is established. Applicants must then retake the examination to reestablish eligibility. Veterans' Preference will be granted for this examination. In accordance with Government Codes 18973.1 and 18973.5, whenever any veteran, or widow or widower of a veteran achieves a passing score on an open examination, he or she shall be ranked in the top rank of the resulting eligible list.

Veterans status is verified by the California Department of Human Resources (CalHR). Information on this program and the Veterans' Preference Application (Std. 1093) is available [online](#). Additional information on veteran benefits is available at the Department of Veterans Affairs.

Career Credits will not be added to the final score for this exam, because it does not meet the requirements to qualify for Career Credits.

EXAMINATION INFORMATION

[Preview Training and Experience Evaluation](#)

PREPARING FOR THE EXAMINATION

Here is a list of suggested resources to have available prior to taking the exam.

Employment History: Employment dates, job titles, organization names and addresses, names of supervisors or persons who can verify your job responsibilities, and phone numbers of persons listed above.

Education: School names and addresses, degrees earned, dates attended, courses taken (verifiable on a transcript), persons or office who can verify education, and phone numbers of persons or offices listed above.

Training: Class titles, certifications received, names of persons who can verify your training, and phone numbers of persons listed above.

TAKING THE EXAMINATION

Take the examination for the [Research Data Specialist 2](#) classification.

TESTING DEPARTMENTS

State of California (all State of California departments)

CONTACT INFORMATION

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EQUAL OPPORTUNITY EMPLOYER

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right of family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding, and related medical conditions), and sexual orientation.

DRUG-FREE STATEMENT

It is an objective of the State of California to achieve a drug-free State work place. Any applicant for State employment will be expected to behave in accordance with this objective, because the use of illegal drugs is inconsistent with the law of the State, the rules governing civil service, and the special trust placed in public servants.

GENERAL INFORMATION

Examination and/or Employment Application (STD 678) forms are available at the California Department of Human Resources, local offices of the Employment Development Department, and through your [CalCareer Account](#).

If you meet the requirements stated on this examination bulletin, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described in this bulletin will be rated against a predetermined job-related rating, and all applicants who pass will be ranked according to their score.

The California Department of Human Resources (CalHR) reserves the right to revise the examination plan to better meet the needs of the service, if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all applicants will be notified.

General Qualifications: Applicants must possess essential personal qualifications including integrity, initiative, dependability, good judgement, the ability to work cooperatively with others, and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.

Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) departmental promotional, 3) multi-departmental promotional, 4) servicewide promotional, 5) departmental open, 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

High School Equivalence: Equivalence to completion of the 12th grade may be demonstrated in any one of the following ways: 1) passing the General Education Development (GED) Test; 2) completion of 12 semester units of college-level work; 3) certification from the State Department of Education, a local school board, or high school authorities that the competitor is considered to have education equivalent to graduation from high school; or 4) for clerical and accounting classes, substitution of business college work in place of high school on a year-for-year basis.