

PART II

DEPARTMENT OF EDUCATION
STATE OF HAWAII

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Minimum Qualification Specifications
for the Classes:

RESEARCH STATISTICIANS I, II, III, IV, V, VI & VII

Education Requirement:

Applicants for all levels must have successfully completed one of the following:

- A. A full 4-year course leading to a Bachelor's degree in an accredited college or university which has included 3 semester hours in statistics and 15 additional semester hours in an appropriate field, e.g. the physical or biological sciences, agriculture, medicine, education or engineering; or in the social sciences including demography, history, economics, social welfare, geography, international relations, social or cultural anthropology, sociology, political science, public administration, business administration, psychology, etc.
- B. Four years of progressively responsible experience in administrative, professional, investigative, technical or other responsible work which demonstrated that the applicant is able to assimilate and analyze data to arrive at sound solutions to problems and which includes evidence of professional statistical work (see paragraphs below).
- C. Courses as given in A above, plus additional appropriate experience as described in B or education which when combined with these courses, will total four years of education and experience and give the applicant a technical knowledge comparable to that which would have been acquired through successful completion of a full four-year course.

The experience described in paragraph B above should include evidence of professional statistical work such as (a) sampling; (b) collecting, computing and analyzing statistical data; (c) applying statistical methods to data collection or processing or in the establishment and operation of data collection systems; (d) applying known statistical techniques to data such as measurement of central tendency, dispersion, skewness, sampling error, simple and multiple correlation, analysis of variance and tests of significance.

Without other indication of professional statistical experience, work in the processing of numerical or quantified information by other than statistical methods is not considered appropriate qualifying experience. Examples of such non-qualifying work include statistical clerical work; statistical drafting; work requiring the calculation of totals, averages, percentages or other arithmetic summations; work involving the preparation of

simple tables or charts; work requiring the verification of data by simple comparison or proofreading.

For positions involving highly technical research, development or similar complex scientific functions, selection may be restricted to eligibles who show the successful completion of a full college course in the appropriate field as designated above. In addition, some positions may require the knowledge of and application of advanced mathematical statistics; selection for these positions may be restricted to eligibles who possess such course work.

Experience Requirements:

Applicants must have had progressively responsible experience of the type and quality described below and in the amounts indicated in the following table:

Class Title	Specialized Experience	Supervisory Experience	Admin Experience	Total (yrs)
Research Stat I	0	0	0	0
Research Stat II	1/2	0	0	1/2
Research Stat III	1-1/2	0	0	1-1/2
Research Stat IV	2-1/2	0	0	2-1/2
Research Stat V	3-1/2	*	0	3-1/2
Research Stat VI	3-1/2	1	**	4-1/2
Research Stat VII	3-1/2	2	**	5-1/2

*For the Research Statistician V level, supervisory aptitude rather than actual supervisory experience may be accepted.

**For the Research Statisticians VI and VII levels, administrative aptitude rather than actual administrative experience may be accepted.

Specialized Experience:

Level I: None.

Level II: Half year of research statistical survey work which included applying accepted statistical methods and procedures in the editing of schedules and tables for errors, bias or inconsistencies; exercising discretion and judgment in making the necessary adjustments in accordance with program objectives; or assisting in the preparation of questionnaires and tabulation plans pertaining to projects of broad scope.

Level III: One and a half years of research statistical survey work which included applying statistical theory and method in planning surveys and developing questionnaires, planning tabulations, preparing cost studies or planning editing procedures related to statistical projects of some scope and moderate complexity.

Level IV: Two and a half years of research statistical survey work which included applying statistical theory and method to the planning, establishment and operation of comprehensive data collection systems, including all phases of collection, editing, processing and publishing of complex and extensive statistical data. The capacity to plan and coordinate statistical survey activities of considerable difficulty, breadth and complexity is required.

Levels V, VI and VII: Three and a half years of research statistical survey work which included applying statistical theory and method to the planning, establishment and operation of comprehensive data collection systems, including all phases of collection, editing, processing and publishing of complex and extensive statistical data. The capacity to plan and coordinate statistical survey activities of considerable difficulty, breadth and complexity is required.

Supervisory Experience: Work involved in supervising others in conducting research projects. Such experience must have included (1) planning and directing the work of others, (2) assigning and reviewing their work, (3) advising them on difficult problem areas, (4) timing and scheduling their work, and (5) training and developing of new employees.

This experience must have demonstrated conclusively, depending on the type and level of position to be filled, that the applicant has the ability to (1) plan and direct statistical research projects of great breadth and difficulty, (2) advise government officials on complex administrative or research problems in the field of statistics, (3) prepare well-written statistical reports or edit for scientific validity the statistical reports of a professional staff, and (4) work effectively with others especially with the persons to whom consultation or advice on statistical problems is given.

For the Research Statistician V level, supervisory aptitude rather than actual supervisory experience may be accepted. Supervisory aptitude is the demonstration of aptitude or potential for performing supervisory duties through successful completion of regular or special assignments which involve some supervisory responsibilities by details to supervisory positions, by completion of training courses in supervision accompanied by application of supervisory skills in work assignments, or by favorable appraisals of a supervisor indicating the possession of supervisory potential.

Administrative Experience: Experience in the field of research analysis which included active participation in and major responsibility for the development, management, execution and coordination of policies, activities and programs. For the Research

Statisticians VI and VII levels, administrative aptitude rather than actual administrative experience may be accepted. Administrative aptitude is the demonstration of strong affirmative evidence of the necessary administrative aptitudes and abilities. Such evidence may be in the form of success in regular or special assignments or projects which involve administrative problems (e.g. in planning, organizing, promoting and directing a program providing staff advice and assistance), interest in management demonstrated by the performance of work assignments in a manner which clearly indicates awareness of managerial problems and the ability to solve them, completion of educational or training courses in the areas of management accompanied by the application of principles which were learned to work assignments, management's observation and evaluation of the applicant's leadership and managerial capabilities, and success in trial assignments to managerial and/or administrative tasks.

Substitution of Graduate Study for Experience: Successful completion of graduate study at an accredited college or university which included at least one graduate course in research methods and techniques or in advanced statistics may be substituted for experience to the extent indicated below:

- (1) Each full year (30 semester hours or 45 quarter hours) of graduate study in an appropriate field, as described in the Education Requirement, for one year of Specialized Experience.
- (2) The completion of all requirements for the Ph.D. degree in statistics or in any of the appropriate subject-matter field, including the thesis, may be substituted for all of the experience required for the Research Statistician IV level.

Quality of Experience:

Possession of the required number of years of experience will not in itself be accepted as proof of qualification for a position. The applicant's overall experience must have been of such scope and level of responsibility as to conclusively demonstrate that applicant has the ability to perform the duties of the position for which applicant is being considered.

Selective Certification:

Specialized knowledge, skills and abilities may be required to perform the duties of some positions. In such positions, certification may be restricted to eligibles who possess the pertinent experience and/or training required to perform the duties of the position.

Agencies requesting selective certification must show the connection between the kind of training and/or experience on which they wish to base selective certification and the duties of the position to be filled.

Tests:

Applicants must qualify on the appropriate examination for the class. For non-competitive actions, the examination may be waived.

Physical Requirements:

Applicants must be physically able to perform efficiently the duties of the position, which are described elsewhere in this specification. Good distant vision in one eye and ability to read without strain printed material the size of typewritten characters are required, glasses permitted. Ability to hear the conversational voice, with or without a hearing aid, is required. Applicants with an amputation of arm, hand, leg or foot may be required to compensate for that condition by the use of satisfactory prosthesis. Any physical condition which would cause the applicant to be a hazard to themselves or others will disqualify for appointment. In addition, applicants must possess emotional and mental stability.

A person with a disability will be considered upon demonstration of ability to perform the required tasks or have the ability or means to compensate sufficiently for his disability to perform the job.

Due to the transfer of authority to the Department of Education to administer its own Civil Service System pursuant to Act 51 Session Laws of Hawaii 2004, this is an adoption of the minimum qualification specifications for the Executive Branch Civil Service classes RESEARCH STATISTICIANS I, II, III, IV, V, VI & VII by the Department of Education Civil Service system.

DATE APPROVED: OCT 23 2006

EFFECTIVE DATE: JUL - 1 2005



for Gerald Okamoto
Assistant Superintendent
Office of Human Resources