



New Mexico State Personnel Office

2600 Cerrillos Road
Santa Fe, New Mexico 87505-0127

Classification Description

PUBLIC EDUCATION DEPARTMENT (PED) STATISTICIAN SUPERVISOR

<u>Class Title</u>	<u>Class Code</u>	<u>Pay Band</u>	<u>Alt Pay Band*</u>
PED Statistician Supervisor	D2042S	80	

**In accordance with SPB Rule 1.7.4.10 NMAC, the assignment to alternative pay bands shall be reviewed annually to determine their appropriateness.*

Occupation Description

To provide professional expertise in the operation and management of a state-of-the-art and efficient statistical information system that provides a comprehensive range of statistical products and services to meet the information needs of the statewide New Mexico Student Educational Assessment Program and the New Mexico Accountability System.

Nature of Work

The Public Education Department (PED) Statistician develops state of the art systems and methods for the collection, processing and dissemination of economic and educational statistics that are timely and relevant. Performs illustrative data modeling/statistical analyses including linear and non-linear regression analyses, cluster analyses, factor, analysis, econometric modeling, hypothesis testing, experimental design, fixed and mixed effects modeling and forecasting. Incumbent designs evaluation protocols to conduct quantitative evaluations using state data.

Distinguishing Characteristics

Note: The omission of specific statements does not preclude management from assigning other duties which are reasonably within the scope of the duties.

- Leads technical operational and research, data analysis, and statistical reporting functions for the New Mexico Student Educational Assessment Program and the New Mexico Accountability System.
- Plans, coordinates, and performs statistical analysis for the purpose of reporting test results to rate schools and school districts on New Mexico's A thru F school grading system used for federal accountability under the Elementary and Secondary Education Act.
- Represents PED's position on technical issues to legislative stakeholders, external boards and panels, professional associations, and other agencies.
- Accountable for basic and complex statistical design of a performance and accountability system to accurately report on student achievement and graduation rates.
- Performs analysis using variance estimations (weighting), sample design, statistical modeling, and psychometrics to evaluate tutoring and other supplemental education services.
- Ensures quality control of deliverables

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- Designs, develops and implements technical and operational procedures and statistical research to evaluate New Mexico K-12 student, school, district and state performance in reading, language arts, mathematics, science, social studies, attendance and graduation.
- Assists with project development and implementation of advanced statistical models to evaluate effectiveness of educational processes through the design and development of graphs and tables, documented strategies, procedures and programming files.
- Applies advanced knowledge of statistical procedures, psychometric methods and their applications and statistical programming (e.g., SAS, SPSS, STATA, R, HLM).
- Leads staff performing statistical routines related to the compilation and presentation of statistical data and helps resolve problems encountered.

Recommended Education and Experience for Full Performance

Master's Degree in Mathematics, Statistics, Computer Science, Psychology, Economics, Marketing Research, Sociology, Education, or closely related field and eight (8) years of experience in the development, implementation and maintenance of accountability systems, performance measures, data collection, analysis, statistical research, and/or advanced statistical modeling, four (4) years of which must be supervisory. Ph.D. or Ed.D. is preferred.

Minimum Qualifications

Master's Degree in Mathematics, Statistics, Computer Science, Psychology, Economics, Marketing Research, Sociology, Education, or closely related field and six (6) years of experience in the development, implementation and maintenance of accountability systems, performance measures, data collection, analysis, statistical research, and/or advanced statistical modeling. Possession of a Ph.D. or Ed.D. or candidacy for such, as a graduate student researcher in the above educational fields will substitute for the required degree and four (4) years of required experience.

Knowledge and Skills

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Knowledge

Mathematics — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

Computers and Electronics — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

Education and Training — Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.

Skills

Mathematics — Using mathematics and applied statistics to solve problems.

Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

Science — Using scientific rules and methods to solve problems.

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Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Reading Comprehension — Understanding written sentences and paragraphs in work related documents.

Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.

Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.

Programming — Writing computer programs for various purposes.

Speaking — Talking to others to convey information effectively.

Writing — Communicating effectively in writing as appropriate for the needs of the audience.

Statutory Requirements: N/A

Conditions of Employment: Working Conditions for individual positions in this classification will vary based on each *agency's utilization, essential functions, and the recruitment needs* at the time a vacancy is posted. All requirements are subject to possible modification to reasonably accommodate individuals with disabilities.

Default FLSA Status: Exempt. FLSA status may be determined to be different at the agency level based on the agency's utilization of the position.

Bargaining Unit: Not Represented

Established: 07/27/2012 **Revised:**

Note: Classification description subject to change. Please refer to the SPO website www.spo.state.nm.us to ensure this represents the most current copy of the description.