APPLICATIONS ANALYST PROGRAMMER I

This is professional work in the performance of analytical and programming activities in microcomputer, minicomputer, and/or mainframe environments at large computer centers, state agencies, and university departmental or school facilities devoted to business, administrative, research, academic, or scientific computation.

Under the direction of a technical or administrative supervisor, employees perform analysis and programming associated with making modifications and enhancements to existing computer applications. In addition, work may include applications development tasks. Assignments involve analysis of interrelated programs and the impact of changes to an entire application as opposed to the maintenance, modification or development of isolated programs. Employees either oversee the programming activities of a lower level applications programmer or perform the programming duties of the projects themselves. Work may include related duties as required.

I.    DIFFICULTY OF WORK:

Variety and Scope - Work involves in-depth discussions with administrative users or researchers to identify and clarify specific operations currently used- by the department or researcher and how proposed changes in procedures might impact on existing applications and desired outputs. Employees determine the feasibility of applications modifications needed by the user; develop the logical flow of the application to be changed; design input/output and file specifications; and evaluate the effects of changes to interrelated components of an application. Work may involve the development of applications when necessary, particularly when proposed changes to existing applications prove to be ineffective in meeting user needs. Employees oversee or perform the coding of program instructions using a programming language, test and debug the program, and write program documentation. Assignments are within several applications established for a variety of users.

Intricacy - Automation projects are characterized by a limited number of stated user objectives and relatively stable work functions. Options to be considered in solving the automation problem are few and solutions normally involve existing hardware and software technologies. Work sometimes requires the consideration and integration of work performed by others into the finished product. Project assignments may require the assignment of work, to lower level programmers and the coordination of their work into the finished product.

Subject Matter Complexity - In maintenance or enhancement projects, tasks require an understanding of existing computer applications and user operations to determine appropriate modifications and impact to-66 application from changes in user needs. Employees must develop knowledge of the users' work function when associated with developing a new system. In research or academic environments, work requires an understanding of the user's field of work, data needs, and analytical devices and tools available for manipulating the data. Work requires a thorough understanding of programming language(s) and other software currently in use and a working understanding of the types and capabilities of hardware.

Guidelines - Guidelines include a general description of the application change or of the user request. Other guidelines include applications programming references, computer hardware and operating system specifications, and applications documentation. Guidelines are applicable to most situations but each individual request requires research to understand the automation project and its impact.

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## II. RESPONSIBILITY:

<u>Nature of Instructions</u> - Employees receive a general description of the user's problem from higher level analysts or the user in both the administrative or the research/academic environment. Developmental projects or major modifications are described by detailed specifications and may require discussion with higher level analysts or department heads.

<u>Nature of Review</u> - Work is performed independently and is tested and debugged prior to being placed in production. Work is reviewed through periodic discussions with the supervisor of project status or problems as they arise.

<u>Scope of Decisions</u> - Changes to existing computer applications impact on the users of the applications and their data requirements. Changes to a component of a system may impact on interrelated components and other system users.

<u>Consequence of Decisions</u> - Errors in analysis or programming may result in a product which does not meet desired expectations or which may cause inaccurate research conclusions to be drawn.

## III.      INTERPERSONAL COMMUNICATIONS:

<u>Scope *of* Contacts</u> - Work requires contact with a variety of computer users and other data processing personnel.

<u>Nature and Purpose</u> - Contact with users is to analyze and clarify requested application changes or new application requests and to coordinate program implementation. Contact with other programmers or analysts are to discuss integration or coordination needs and the programming techniques to be used. Contact with computer operations personnel is to explain or discuss production specifications. Work may require coordination of the work of lower level programmers.

## IV.      OTHER WORK DEMANDS:

<u>Work Conditions</u> - Work is conducted in an office setting and requires the use of computer equipment.

<u>Hazards</u> - Employees are not exposed to workplace hazards.

## V.      RECRUITMENT REQUIREMENTS:

<u>Knowledges, Skills, and Abilities</u> - Considerable knowledge of programming techniques, programming language(s), operating systems, and the capabilities and limitations of computer and peripheral equipment.  Considerable knowledge of the principles and techniques of computer programming applications and documentation. Ability to comprehend, analyze, and interpret organizational and procedural problems to make alterations to existing applications. Ability to communicate effectively in oral and written form. Ability to establish and maintain effective working relationships.

<u>Minimum Education and Experience</u> - Graduation from a four-year college or university with nine semester hours in computer programming and two years of progressive experience in computer programming; or graduation from a four-year college or university with a degree in computer science, information systems management or a related curriculum and one year of progressive experience in computer programming; or an equivalent combination of education and experience. A degree directly related to the technical nature of the application(s) assigned may be substituted for up to six months of the experience requirement.

Degrees must be received from appropriately accredited universities.

<u>Special Note:</u> This is a generalized representation of positions in this class and is not intended to identify essential functions per ADA.  Examples of work are primarily essential functions of the majority of positions in this class, but may not be applicable to all positions.