

Summary of Discussions with Focus Groups from the Information Technology Occupational Group

Overview of Findings

In the information technology occupational group, each information technology discipline has employees in generalist or specialist roles. Also in the disciplines, the complexity levels of the work assignments and decision making are different depending on the agency's usage of the class series. In one agency an employee may be classified at the lowest level in a class series, while an employee in the same class series in another agency who has the same level of complexity in their work will be classified in a higher level of the series. In addition, one agency may use all levels of the class series to incorporate their agency's hierarchy of reporting, while another agency uses the same class series as a career ladder for learning from entry to full-performance and beyond. Finally, in one agency the employee's work can be clearly defined into one clear discipline and class, while in another agency, an employee in the same class is performing work in multiple disciplines. Inadvertently then, it appears that some agencies create career ladders or structures that don't properly reflect the work that is being performed or don't reflect the training and experience that their own employees possess or there is not a clear fit in the State's classification system to cover the broad areas of work that is being asked of an employee to perform. In those agencies, skilled technicians and specialists can find themselves held back within an agency despite their recognized expertise, and the employees indicated that there is an increasing tendency for those employees to leave the agency to find other jobs where their skills and capabilities are valued as much or more than the diplomas or degrees they hold. This results in the feelings that the agency or the State is a great training ground to get job experience, but it is not a place to stay for your whole career. In other agencies, employees stay because they like the work that they are doing and higher level classifications or increased compensation levels are not a priority over the enjoyment and satisfaction from the work one does.

The work covered in the information technology occupations currently requires the regular and recurring knowledge of IT systems, concepts, and methods as the major requirement in comparison to IT user positions that require paramount knowledge of other subject-matter principles, concepts, and methods and secondary knowledge of IT systems, concepts, and methods. As technology expands in the work place it is becoming much harder to separate the user from IT technicians and specialists, this is due to an increased need in the IT occupations to have a working understanding of the business operations, applications, and systems they are supporting; as well as the IT user needing a working understanding of the IT applications and systems. But the difference still remains for positions to be classified in an IT discipline the employee's work must directly involve the development, delivery, or support of IT systems and services. In addition, according to the participants, an individual to be recognized as being fully proficient they must have a strong understanding of the business knowledge of the agency's operations in which they are employed.

While recognizing the merits of distinguishing between specialty areas, the need to reduce the numbers of specialty titles to a manageable number is imperative to give consistency across

agencies. The current titling structure does not take into consideration IT shops where positions may be assigned three or more specialties for practical reasons; nor does it take into consideration positions that supervise contractors or federal employees. It was also apparent that there needs to be flexibility in the classification system to assign different skills or skills sets to positions based on what skills the individual brings to the position. From the focus group discussions, the following disciplines were identified. Although these disciplines were identified, there are tasks such as project management, planning, managing, etc, that still cut across all disciplines. It will likely change again in the future, but the disciplines listed represent the major categories of work within the occupations.

Disciplines

Application Development – Work that involves the designing, documenting, developing, modifying testing, installing, implementing, and supporting new or existing applications or applications software.

Computer Operations – Work that involves the monitoring and controlling of computer and peripheral electronic data processing equipment to process data according to operating instructions. Enters commands at a computer terminal and sets controls on computer and peripheral devices. Monitors and responds to operating and error messages.

Customer Support – Work that involves the arranging and delivery of customer support services, including installation, configuration, troubleshooting, customer assistance, and/or training, in response to customer requirements.

Data Management – Work that involves the developing, implementation, and administration of systems for the acquisition, storage, and retrieval of data.

Information Technology Services – Work that involves the developing, delivering, and supporting IT systems and services. This specialty includes positions that involve work in more than two or more of the established disciplines.

Internet – Work that involves the designing, development, testing, implementation, and management of Internet, intranet, and extranet activities, including systems/application development and technical management of web sites. This specialty only includes positions that require the application of technical knowledge of Internet systems, services, web applications, and technologies.

Network Services – Work that involves the analysis, designing, development, testing, quality assurance, configuration, installation, implementation, integration, maintenance, and/or management of network systems used for the transmission of information in voice communications such as with radio or telephone (including cellular), data communications involving digital transmission between computers, computer terminals, facsimile stations, and/or video communications such as that used in teleconferencing.

Operating Systems – Work that involves the installation, configuration, testing, implementation, and management of the systems environment in support of the organization’s IT architecture and business needs.

Policy and Planning – Work involves a wide range of IT management activities that typically extend and apply to an entire organization or major components of an organization. This includes strategic planning, capital planning and investment control, workforce planning, project management, policy and standards development, resource management, knowledge management, architecture and infra structure planning and management, auditing, and information security management.

Security – Work that involves ensuring confidentiality, integrity, and availability of systems, networks, and data through the analysis, development, implementation, maintenance, and enhancement of information.

Systems Administration – Work that involves coordinating the installation, testing, operations, troubleshooting, and maintenance of hardware and software systems.

Systems Analysis – Work that involves applying analytical processes to the design and implementation of new and improved information systems to meet the business requirements of an organization.

Minimum Qualifications

The majority of the participants agreed that the current minimum qualifications were sufficient. Some of the reoccurring comments from the participants are as follows:

- Experience is equal or more important than education.
- Most of the work is learned on the job.
- Most classes require the business knowledge of the agency.
- Education in Computer Science is too broad; recommendations were to change education and experience to the specific discipline areas.
- In policy and planning positions, a college degree should be required due to skill in applying program management principles, analytical methods, oral and written communication techniques, and IT concepts, principles, methods, and practices.

Full Performance

Amount of Time to Reach Full Performance

Participants indicated that it takes anywhere from six months to a year to reach full performance at entry and between two and three years to be capable of full performance work at a higher level classification. The distinction between an entry-level and full performance-level is primarily based on the employee’s aptitude with a range of processes and procedures, knowledge of the organization’s business and IT systems, as well as the level of independence in the performance of the employee’s duties. In almost all cases, the time increments mentioned above reflect the experience acquired through on the job training. However, due to the continual changes in technology, most IT positions requires the employee most often be in a learning mode.

Some participants also indicated that this length of time can be dependent on cyclical or seasonal issues, depending on the particular discipline.

Advanced Full Performance Level: In the information technology occupation group there does not appear to be a clearly defined level of work that is higher in complexity and responsibilities than an employee who is seen as performing independently at full performance. The next higher role is generally seen as a supervisor or manager.

There are some work areas where a person or persons are identified as a lead worker due to their advanced expert knowledge on procedures and operations or due to their expertise in a particular specialty or sub-discipline. These same people, as technology changes, may become obsolete due to their no longer needed skills. Therefore, a new lead worker may emerge. They emerge due to them having the expert knowledge of the new IT field, technology, and/or system.

Type of Supervision Received

In the Computer Operations discipline employees generally receive limited supervision and the work usually does not require the use of independent judgment or discretion. While supervision is limited, employees generally do not have authority to make independent decisions outside of standard operating procedures or guidelines. As one becomes advanced or seen as an expert in their processes, employees are given more independent judgment to act on their own discretion requiring the use of technical knowledge to resolve complex problems. Supervision exists to provide general direction, review judgments made by employees, and clarify standards, policies and procedures that are normally seen as the day-to-day work activities of a supervisor. Additional, specific instructions are given for new, difficult, or unusual assignments.

In other IT disciplines employees generally receive limited supervision and the work requires employees to use independent judgment or act on their own discretion, requiring the use of initiative and creativity to resolve problems or interpret policy to develop solutions. As employees progress to higher levels of positions, direction becomes more general and employees have greater and greater independence and accountability. Major work assignments are examined for soundness or technical judgment and for general effectiveness and adequacy. At the advanced level, employees have a broad and comprehensive knowledge of theories, concepts and practices with the ability to apply those skills to complex, difficult and/or unprecedented situations. Supervision exists to provide administrative direction in the planning, organizing and implementation of the work activities, as well as to oversee the budget responsibilities, respond to legislative and media inquiries and complaints, and to see to human resource issues. In general, the supervisors and managers handle the more potentially controversial matters, or far-reaching implications, and other administrative/managerial types of problems.

Supervisory/Management Approval

Given the great deal of independence afforded full performance IT specialists and technicians with respect to making decisions regarding the scope of their work, the only issues that the participants indicated were necessary to obtain approval from their supervisors for were the following: budget matters; personnel matters such as hiring and disciplinary issues; procedural changes; and anything that is contrary to mission or path of the agency.

What Criteria Should Compensation be Based? There seemed to be a consensus that performance and other personal characteristics that the employee brings to the job (such as initiative, ability to work well with others, etc.) should be one of, if not the primary criteria for the basis of compensation. The participants indicated that this would be especially important criteria during the period of time when a new employee is working toward the full performance level. There was also consensus that, due to the importance of experience and on-the job training, longevity was also important criteria on which employees' pay should be based, especially after the point when an employee becomes capable of full performance of his or her job duties. Longevity coincides with an employee's continued career growth and additional responsibilities. Pay for an employees' certification, licensure or completion of specific training, where such accomplishments enhance the employee's ability to perform the duties of their position or allow the employee to perform additional duties associated with their position, was also agreed to be something that would be a benefit to positions in the IT Occupational Group.

While performance and other personal characteristics were thought to be the most important criteria on which pay should be based, the participants expressed concern with the ability to fairly administer a system that bases pay on those qualities. The primary concern was favoritism. However, the participants thought that a system based exclusively on longevity with all employees receiving the same amount of increase, regardless of effort or job performance, would not work well, and could serve as a disincentive to exceptional work.

In addition, the participants indicated that they were all in favor of a system that would allow an employee to progress in pay as they progressed in their career. There was some interest in developing a career ladder system similar to what is being used for Equipment Operators in KDOT and several law enforcement or correctional class series. Employees in those classes where agencies uses the class series as a career ladder expressed their appreciation of the system of progression, while those employees in agencies that do not have automatic progression expressed frustration for having to wait for a "slot" to open before they could receive an increase in pay.

Occupational Survey Summary

Participation Rate: 65%

SUMMARY BY DISCIPLINE AREAS

Application Development:	
Job Classes: Applications Support Technician; Applications Developer I, II , III and Supervisor	
<u>Participation Rate:</u>	32%
<u>Time Worked in Occupation:</u>	Approximately 88% of the employees in this discipline area have over 1 year or more work experience; 35.4% have one to five years; and 52.6% have five or more years.
<u>Education, Training and Experience:</u>	Most positions at entry will require high school and less than a bachelor's degree and additional 6 months to a year on-the-job training to become fully proficient. Many require extensive skill, knowledge, and experience requiring over 2 years, up to and including 4 years.
<u>Skills:</u> (Extremely)	<ol style="list-style-type: none"> 1. Programming 2. Complex Problem Solving 3. Operations Analysis 4. Troubleshooting 5. Systems Analysis
<u>Behavioral:</u> (Core)	<ol style="list-style-type: none"> 1. Achievement Orientation 2. Building Relationships 3. Communication 4. Problem Resolution
<u>Work Context:</u> (Every Day)	<ol style="list-style-type: none"> 1. Contact with Others 2. Face to face Discussions 3. Work in teams 4. Decisions affect other people 5. Writes letters and memos
<u>Supervision Received/Independence:</u> (Level 4 or Higher)	63.9% - Level 4 - Receive limited supervision and the work requires employees to use independent judgment or act on their own discretion. Requires the use of initiative and creativity to resolve problems or interpret policy to develop solutions. A manager may be available to provide general direction or advice, but employees usually act independently based on their own judgment.
<u>Supervision Given:</u>	75.3% - Majority of positions have no supervisory responsibilities
<u>Knowledge within the Field or Specialty:</u>	56.9% - have in-depth knowledge of concepts, practices and procedures with ability to use in varied situations while 35.6% have a broader and comprehensive knowledge of theories, concepts and practices with ability to use in complex, difficult and/or unprecedented situations.

<u>Decision Making:</u>	<ol style="list-style-type: none"> 1. 36.3% - Decisions may affect a work unit or area within a department/division. May contribute to business and operational decisions that affect the department/ division. 2. 34.4%- Decisions have major implications on the management and operations of an area within a department/division. Job may contribute to important strategy, operational and business decisions that affect the department/division. 3. 16.9% - Decisions have significant, broad implications for the management and operations of a major department/division or multiple departments/divisions. Job contributed to decisions on the overall strategy and direction of the agency.
<u>Problem Solving:</u>	<ol style="list-style-type: none"> 1. 49.4% - Problems are highly varied, complex and often non-recurring, requiring novel and creative approaches to resolution. New concepts and approaches may have to be developed. 2. 11.9% - Problems are broad, complex and abstract, often involving agency-wide issues. Must develop solutions using substantial creativity, resourcefulness, innovation, negotiation and diplomacy.
<u>Fiscal Responsibility:</u>	Only 17% of the positions require assisting in planning, monitoring and/or managing budget in functional area of a program.
<u>Licenses/Certifications:</u>	Only 4% of position requires a licenses or certification.
<u>Type of Applications</u>	<p>71.7% work on PC Platform in which 29.1% require developing applications using PC programming languages such as SQL, C++, Visual Basic, etc; and the 26.5% require developing applications using web based programming languages such as Java, XML, Cold Fusion, ASP, PERL, etc.</p> <p>26.6% work on Mainframe Platform in which require developing applications using Mainframe languages such as COBOL, JCL, CICS, etc</p> <p>2.7 work on web pages using HTML, DHTML, Javascript, etc</p>

Computer Operations:	
Job Classes: Computer Operator I and II; Computer Operations Supervisor and Manager; Computer Operations Facility Technician	
<u>Participation Rate:</u>	6%
<u>Time Worked in Occupation:</u>	Approximately 88% of the employees in this discipline area have over 1 year or more work experience; 13% have one to five years; 23% have five to ten years; .
<u>Education, Training and Experience:</u>	Most positions at entry will require high school and less than a bachelor's degree and additional 6 months to a year on-the-job training to become fully proficient. Many require extensive skill, knowledge, and experience requiring over 2 years, up to and including 4 years.

<u>Skills:</u> (Extremely)	<ol style="list-style-type: none"> 1. Troubleshooting 2. Equipment Maintenance 3. Instructing
<u>Behavioral:</u> (Core)	<ol style="list-style-type: none"> 1. Achievement Orientation 2. Building Relationships 3. Communication 4. Problem Resolution
<u>Work Context:</u> (Every Day)	<ol style="list-style-type: none"> 1. Contact with Others 2. Work in teams 3. Decisions affect other people 4. Face to face Discussions 5. Deal with external customers or the public
<u>Supervision Received/Independence:</u> (Level 4 or Higher)	53.9% - Level 4 - Receive limited supervision and the work requires employees to use independent judgment or act on their own discretion. Requires the use of initiative and creativity to resolve problems or interpret policy to develop solutions. A manager may be available to provide general direction or advice, but employees usually act independently based on their own judgment.
<u>Supervision Given:</u>	92.3% - Majority of positions have no supervisory responsibilities
<u>Knowledge within the Field or Specialty:</u>	53.9% - have in-depth knowledge of concepts, practices and procedures with ability to use in varied situations while 15.4% have a broader and comprehensive knowledge of theories, concepts and practices with ability to use in complex, difficult and/or unprecedented situations.
<u>Decision Making:</u>	<ol style="list-style-type: none"> 1. 46.2% - Decisions may affect a work unit or area within a department/division. May contribute to business and operational decisions that affect the department/ division. 2. 30.8%- Decisions have major implications on the management and operations of an area within a department/division. Job may contribute to important strategy, operational and business decisions that affect the department/division. 3. 7.7% - Decisions have significant, broad implications for the management and operations of a major department/division or multiple departments/divisions. Job contributed to decisions on the overall strategy and direction of the agency.
<u>Problem Solving:</u>	<ol style="list-style-type: none"> 1. 73.1% - Problems are varied, requiring analysis or interpretation of the situation. Problems are solved using knowledge and skills, general precedents and practices. 2. 11.5% - Problems are highly varied, complex and often non-recurring, requiring novel and creative approaches to resolution. New concepts and approaches may have to be developed.
<u>Fiscal Responsibility:</u>	Only 7.7% of the positions require assisting in planning, monitoring and/or managing budget in functional area of a program.

<u>Licenses/Certifications:</u>	No licenses or certification required.
<u>Type of Platform and Network Protocols</u>	60.0% work on Mainframe platform, 20% Windows, 10% AS400, and 10% Linux. 33.3% of the employees work with Print Servers networks and network protocols.

Data Management:	
Job Classes: Database Administrator I, II, and III ; Database Administration Supervisor; System Software Analyst I, II, and III; System Software Staff Consultant; System Software Supervisor	
<u>Participation Rate:</u>	13%
<u>Time Worked in Occupation:</u>	Approximately 82% of the employees in this discipline area have over 1 year or more work experience; 38% have one to five years; 44% have five to ten years;
<u>Education, Training and Experience:</u>	Most positions at entry will require post secondary education or a bachelor's degree and additional 6 months to a year on-the-job training to become fully proficient. Many require extensive skill, knowledge, and experience requiring over 2 years, up to and including 4 years.
<u>Skills:</u> (Extremely)	<ol style="list-style-type: none"> 1. Troubleshooting 2. Complex Problem Solving 3. Systems Analysis 4. Judgment and Decision Making 5. Coordination
<u>Behavioral:</u> (Core)	<ol style="list-style-type: none"> 1. Achievement Orientation 2. Building Relationships 3. Communication 4. Problem Resolution
<u>Work Context:</u> (Every Day)	<ol style="list-style-type: none"> 1. Contact with Others 2. Face to face Discussions 3. Work in teams 4. Decisions affect other people 5. Writing letters and memos
<u>Supervision Received/Independence:</u> (Level 4 or Higher)	53.9% - Level 5 – Employees in this area receive General Directions, working from broad goals and policies. Desired results are communicated to the employee and alternative methods may be suggested but are not explicitly prescribed. Major work assignments are examined for soundness or technical judgment and for general effectiveness and adequacy.
<u>Supervision Given:</u>	20% - Of the positions have supervisory or managerial responsibilities.
<u>Knowledge within the Field or Specialty:</u>	38.9% - have in-depth knowledge of concepts, practices and procedures with ability to use in varied situations while 53.7% have a broader and comprehensive knowledge of theories, concepts and practices with ability to use in complex, difficult and/or unprecedented situations.

<u>Decision Making:</u>	<ol style="list-style-type: none"> 1. 27.8% - Decisions may affect a work unit or area within a department/division. May contribute to business and operational decisions that affect the department/ division. 2. 40.7%- Decisions have major implications on the management and operations of an area within a department/division. Job may contribute to important strategy, operational and business decisions that affect the department/division. 3. 29.6% - Decisions have significant, broad implications for the management and operations of a major department/division or multiple departments/divisions. Job contributed to decisions on the overall strategy and direction of the agency.
<u>Problem Solving:</u>	<ol style="list-style-type: none"> 1. 29.6% - Problems are varied, requiring analysis or interpretation of the situation. Problems are solved using knowledge and skills, general precedents and practices. 2. 44.4% - Problems are highly varied, complex and often non-recurring, requiring novel and creative approaches to resolution. New concepts and approaches may have to be developed. <p>25.9% - Problems are broad, complex and abstract, often involving agency-wide issues. Must develop solutions using substantial creativity, resourcefulness, innovation, negotiation and diplomacy.</p>
<u>Fiscal Responsibility:</u>	Only 43.7% of the positions require assisting in planning, monitoring and/or managing budget in functional area of a program.
<u>Licenses/Certifications:</u>	No licenses or certification required.
<u>Type of Platform</u>	23% work on Mainframe platform, 59% Windows, 4% AS400, and 14% Linux.

Network Management:

Job Classes: Broadcast Engineer; Equipment Planning Technician I and II; IT Security Analyst I, II, and III; Network Control Technician I, II, III, and Supervisor; Network Service Technician I, II, III, and Supervisor	
<u>Participation Rate:</u>	12%
<u>Time Worked in Occupation:</u>	Approximately 91% of the employees in this discipline area have over 1 year or more work experience; 30% have one to five years; 37% have five to ten years
<u>Education, Training and Experience:</u>	Most positions at entry will require post secondary education or a bachelor's degree and additional 6 months to a year on-the-job training to become fully proficient. Many require extensive skill, knowledge, and experience requiring over 2 years, up to and including 4 years.
<u>Skills:</u> (Extremely)	<ol style="list-style-type: none"> 1. Troubleshooting 2. Complex Problem Solving 3. Technology Design 4. Systems Analysis 5. Coordination
<u>Behavioral:</u>	1. Achievement Orientation

(Core)	<ul style="list-style-type: none"> 2. Building Relationships 3. Communication 4. Problem Resolution
<u>Work Context:</u> (Every Day)	<ul style="list-style-type: none"> 1. Contact with Others 2. Work in teams 3. Decisions affect other people 4. Face to face Discussions 5. Deal with external customers or the public
<u>Supervision Received/Independence:</u> (Level 4 or Higher)	78% - Level 4 - Receive limited supervision and the work requires employees to use independent judgment or act on their own discretion. Requires the use of initiative and creativity to resolve problems or interpret policy to develop solutions. A manager may be available to provide general direction or advice, but employees usually act independently based on their own judgment.
<u>Supervision Given:</u>	86.3% - Majority of positions have no supervisory responsibilities
<u>Knowledge within the Field or Specialty:</u>	64.7% - have in-depth knowledge of concepts, practices and procedures with ability to use in varied situations while 25.5% have a broader and comprehensive knowledge of theories, concepts and practices with ability to use in complex, difficult and/or unprecedented situations.
<u>Decision Making:</u>	<ul style="list-style-type: none"> 1. 43.1% - Decisions may affect a work unit or area within a department/division. May contribute to business and operational decisions that affect the department/ division. 2. 33.3%- Decisions have major implications on the management and operations of an area within a department/division. Job may contribute to important strategy, operational and business decisions that affect the department/division. 3. 23.5% - Decisions have significant, broad implications for the management and operations of a major department/division or multiple departments/divisions. Job contributed to decisions on the overall strategy and direction of the agency.
<u>Problem Solving:</u>	<ul style="list-style-type: none"> 1. 47.1% - Problems are varied, requiring analysis or interpretation of the situation. Problems are solved using knowledge and skills, general precedents and practices. 2. 31.4% - Problems are highly varied, complex and often non-recurring, requiring novel and creative approaches to resolution. New concepts and approaches may have to be developed. 3. 19.6% - Problems are broad, complex and abstract, often involving agency-wide issues. Must develop solutions using substantial creativity, resourcefulness, innovation, negotiation and diplomacy.
<u>Fiscal Responsibility:</u>	Only 31.5% of the positions require assisting in planning, monitoring and/or managing budget in functional area of a program.
<u>Licenses/Certifications:</u>	5.9% a licenses or certification required.
<u>Type of Platform</u>	71% work on Windows platform, 11% AS400, and 9% Linux.

Policy and Planning	
Job Classes: IS Manager I and II; IT Architecture Analyst I and II; IT Project Analyst and Manager	
<u>Participation Rate:</u>	6%
<u>Time Worked in Occupation:</u>	Approximately 80% of the employees in this discipline area have over 1 year or more work experience; 40% have one to five years; 25.7% have five to ten years;
<u>Education, Training and Experience:</u>	Most positions at entry a bachelor's degree and additional 6 months to a year on-the-job training to become fully proficient. Many require extensive skill, knowledge, and experience requiring over 4 years, up to and including 6 years.
<u>Skills:</u> (Extremely)	<ol style="list-style-type: none"> 1. Judgment and Decision Making 2. Coordination 3. Complex Problem Solving 4. Service Orientation 5. Technology Design
<u>Behavioral:</u> (Core)	<ol style="list-style-type: none"> 1. Achievement Orientation 2. Building Relationships 3. Communication 4. Problem Resolution
<u>Work Context:</u> (Every Day)	<ol style="list-style-type: none"> 1. Contact with Others 2. Face to face Discussions 3. Work in teams 4. Decisions affect other people 5. Lead Others in Accomplishing Work
<u>Supervision Received/Independence:</u> (Level 5 or Higher)	51.5% - Level 5 – Employees in this area receive General Directions, working from broad goals and policies. Desired results are communicated to the employee and alternative methods may be suggested but are not explicitly prescribed. Major work assignments are examined for soundness or technical judgment and for general effectiveness and adequacy.
<u>Supervision Given:</u>	48% - Of the positions have supervisory or managerial responsibilities.
<u>Knowledge within the Field or Specialty:</u>	42.4% - have in-depth knowledge of concepts, practices and procedures with ability to use in varied situations while 57.6% have a broader and comprehensive knowledge of theories, concepts and practices with ability to use in complex, difficult and/or unprecedented situations.
<u>Decision Making:</u>	<ol style="list-style-type: none"> 1. 42.4%- Decisions have major implications on the management and operations of an area within a department/division. Job may contribute to important strategy, operational and business decisions that affect the department/division. 2. 45.5% - Decisions have significant, broad implications for the management and operations of a major department/division or multiple departments/divisions. Job contributed to decisions on the overall strategy and direction of the agency.

<u>Problem Solving:</u>	<ol style="list-style-type: none"> 33.3% - Problems are highly varied, complex and often non-recurring, requiring novel and creative approaches to resolution. New concepts and approaches may have to be developed. 48.5% - Problems are broad, complex and abstract, often involving agency-wide issues. Must develop solutions using substantial creativity, resourcefulness, innovation, negotiation and diplomacy.
<u>Fiscal Responsibility:</u>	Only 75.8% of the positions require assisting in planning, monitoring and/or managing budget in functional area of a program.
<u>Licenses/Certifications:</u>	No licenses or certification required.
<u>Type of Platform</u>	84% work on Windows platform, 8% Mainframe, and 8% Linux

Technology Support	
Job Classes: Technology Support Technician I, II and Supervisor; Technician Support Consultant I, II and III	
<u>Participation Rate:</u>	31%
<u>Time Worked in Occupation:</u>	Approximately 85% of the employees in this discipline area have over 1 year or more work experience; 37% have one to five years; 48.7% have five to ten years;
<u>Education, Training and Experience:</u>	Most positions at entry a bachelor's degree and additional 6 months to a year on-the-job training to become fully proficient. Many require extensive skill, knowledge, and experience requiring over 4 years, up to and including 6 years.
<u>Skills:</u> (Extremely)	<ol style="list-style-type: none"> Troubleshooting Complex Problem Solving Installation Technology Design Equipment Maintenance Repairing
<u>Behavioral:</u> (Core)	<ol style="list-style-type: none"> Achievement Orientation Building Relationships Communication Problem Resolution
<u>Work Context:</u> (Every Day)	<ol style="list-style-type: none"> Contact with Others Face to face Discussions Work in teams Decisions affect other people Writing letters and memos
<u>Supervision Received/Independence:</u> (Level 5 or Higher)	47.0% - Level 4 – Receive limited supervision and the work requires employees to use independent judgment or act on their own discretion. Requires the use of initiative and creativity to resolve problems or interpret policy to develop solutions. A manager may be available to provide general direction or advice, but employees usually act independently based on their own judgment..

<u>Supervision Given:</u>	83.4% - Majority of positions have no supervisory responsibilities.
<u>Knowledge within the Field or Specialty:</u>	60.3% - have in-depth knowledge of concepts, practices and procedures with ability to use in varied situations while 29.8% have a broader and comprehensive knowledge of theories, concepts and practices with ability to use in complex, difficult and/or unprecedented situations.
<u>Decision Making:</u>	<ol style="list-style-type: none"> 1. 44.4% - Decisions may affect a work unit or area within a department/division. May contribute to business and operational decisions that affect the department/ division. 2. 29.1%- Decisions have major implications on the management and operations of an area within a department/division. Job may contribute to important strategy, operational and business decisions that affect the department/division. 3. 20.5% - Decisions have significant, broad implications for the management and operations of a major department/division or multiple departments/divisions. Job contributed to decisions on the overall strategy and direction of the agency.
<u>Problem Solving:</u>	<ol style="list-style-type: none"> 1. 45% - Problems are varied, requiring analysis or interpretation of the situation. Problems are solved using knowledge and skills, general precedents and practices. 2. 37.8% - Problems are highly varied, complex and often non-recurring, requiring novel and creative approaches to resolution. New concepts and approaches may have to be developed. 3. 15.2% - Problems are broad, complex and abstract, often involving agency-wide issues. Must develop solutions using substantial creativity, resourcefulness, innovation, negotiation and diplomacy.
<u>Fiscal Responsibility:</u>	Only 39.8% of the positions require assisting in planning, monitoring and/or managing budget in functional area of a program.
<u>Licenses/Certifications:</u>	6% of positions require licenses or certification.
<u>Type of Platform</u>	89% work on Windows platform, 5% Mainframe, and 3% Linux