IT Job Family Classification & Pay Grade System

Janco Associates, Inc.

2023 Edition

JANCO'S INFORMATION TECHNOLOGY JOB FAMILIES

Both in an individual's career planning and an enterprise's staffing, promotion, and compensation it is important to have benchmarks on the levels that individuals are at. To that end, one of the best objective ways to meet this goal is to have formal job descriptions and clear paths for promotion and compensation.

Over the past three decades, Janco Associates and its principles have created a set of over 320 IT job descriptions (https://www.e-janco.com/IT_Job_Descriptions.htm) that are viewed by many as the industry standard. As a natural extension of that offering, Janco has documented its IT job classification system.

A job f[...]her-level positions over ti[...]d as they advance over ti[...]ectively. A job family is a ser[...]wledge, skills, abilitie[...]ortunities over time.

The pri[...]icular family and level based [...]the same level have the sa[...]

This is a baseline for job families and needs to be expanded and contracted based on an organization's size and dependence on Information Technology.

POSITION DESCRIPTION STRUCTURE

The position descriptions that are used in Janco's Job Family classification system should have the following format. It includes a position purpose statement, problems and challenges of the position, an itemized list of principal accountabilities, the authority boundaries afforded the holder of the position, job contacts of the position, specifications of experience needed for the position, and finally the career opportunities available to the position holder in the future.

Position Purpose

The Position Purpose section of the position description gives an overview of the responsibilities of the position. This provides a summary of the most important aspects and duties of the position.

Problems and Challenges

The Problems and Challenges section outlines specific challenges facing the holder of the position. If these challenges are met efficiently and effectively, the opportunity for advancement to a higher position, offering greater challenges, will occur.

Job Progression Matrix - Traditional

Competency Progression	Intern Level	Associate Level	Position Level	Senior Level	Specialist Level
Job Knowledge	Limited use and/or application of basic principles, theories, and concepts.	Full use and application of standard principles, theories concepts, and techniques.	Wide application of the principle, theories, and concepts in the field plus a working knowledge of other related disciplines.	Applies extensive knowledge as a generalist or as a specialist with working expertise in all job functions.	Applies advanced principles, theories, and concepts. Contributes to the development of new principles and concepts.
Problem-Solving	Provides solutions to problems of limited scope and mostly routine nature.	Provides solutions to a variety of problems that are routinely encountered under normal business activity.	Provides solutions to a wide range of difficult problems. Solutions are imaginative, thorough, and practical.	Develops solutions to complex problems which require the use of ingenuity and creativity	Works on unusually complex problems and provides solutions that are highly innovative and ingenious
Leadership	Leads self and willingness to accept responsibility.	Leads self and peers by conduct and example.	Leads peers and subordinates with a positive attitude of accomplishment.	Leads teams and individuals with the ability to mentor both and effect improvements.	Leads teams, individuals, and processes with the ability to affect significant improvements.
Project Management	Performs project tasks as directed demonstrating sense of urge...	Performs project tasks as directed.	Meets assigned task schedules and ...	Plans, monitors, and reviews tasks for ...	Plans, monitors, and reviews tasks for adherence to schedule and overall quality. Leads projects and assigns staff
Self-Management	Work is closely supervised. R... specific, detail... instructions.	... adequacy and accuracy.	... in meeting objectives.	... assignment.	Works under self-direction toward pre-determined long-term goals. Assignments are often self-initiated. Plans and pursues courses of action necessary to obtain desired results.
Contribution	Completes routine assignments that balance support for ongoing department processes and self-development	Routinely delivers on assignments that support the continuous delivery of departmental goods and services.	Performs routine and special assignments in support of departmental objectives often functioning across disciplines and areas of expertise.	Handles assignments across varying areas of expertise and is usually called upon to perform in multiple roles.	Delivers a high level of competency in one or more core technologies, business processes, and management disciplines. Demonstrates tactical and strategic thinking.
Communication	Contacts are primarily with immediate supervisor and other professionals in the department or group	Primarily intra-organizational with inter-organizational outside customer contacts on routine matters	Frequent inter-organizational and outside customer contacts as required. Provides solutions, discussions, and status on normal business processes	Develops and presents material for review and information using excellent written, verbal, and graphical communication skills	Serves as the departmental spokesperson on specific projects and processes.

The traditional approaches will normally generate more job descriptions than actual people within the IT function and are often cumbersome to keep up to date.

In a discipline where new technologies are a common occurrence, IT organizations can in this environment generate 5 to 6 new job descriptions when a new technology emerges. At the same time, as older technologies go out of favor there are job descriptions that are no longer needed. With that, we have found that our simplified approach works.

Traditional IT Job Family Progression

Director III
- Job title 1
- Job title 2

Director II
- Job title 1
- Job title 2
- Job title 3

Director I
- Job title 1
- Job title 2
- Job title 3
- Job title 4
- Job title 5

Manager III
- Job title 1
- Job title 2

Manager II
- Job title 1
- Job title 2
- Job title 3

Manager I
- Job title 1
- Job title 2
- Job title 3
- Job title 4
- Job title 5

Supervisor III
- Job title 1
- Job title 2

Director Technology III
- Job title 1
- Job title 2

Director Technology II
- Job title 1
- Job title 2
- Job title 3

DirectorTechnology I
- Job title 1
- Job title 2
- Job title 3
- Job title 4
- Job title 5

Support III
- Job title 1
- Job title 2

Support III
- Job title 1
- Job title 2

Support I
- Job title 1
- Job title 2
- Job title 3
- Job title 4
- Job title 5

- Job title 2
- Job title 3
- Job title 4
- Job title 5

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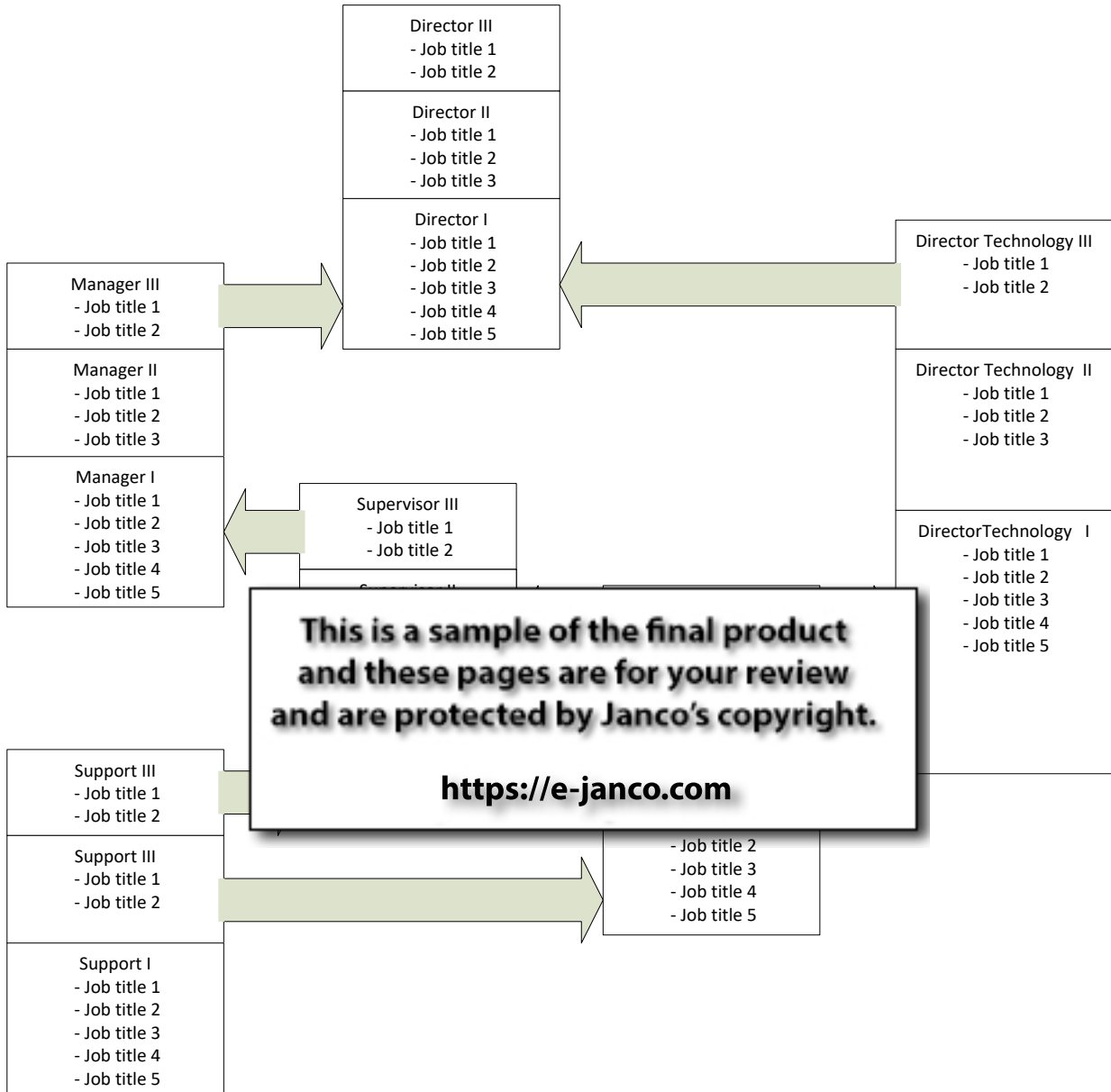## JOB FAMILY CLASSIFICATION

The approach that we have found that works the best has four (4) primary job, families

- **Management Level** – This job family consists of several levels of Information Technology managerial work, which are distinguished based on the complexity and scope of the responsibilities assigned, including the direction of management information programs and services of varying sizes, scopes, and range of operating systems or subsystems, operating budgets, and other related factors characterized by the applications supported, types of equipment, enterprise considerations and responsibilities and the number of staff.

- **Professional Level** - This family consists of several levels of Information Technology Professional work – working Professional through Supervisor/Expert. Levels are distinguished based on the complexity and scope of responsibilities, the degree of specialization, and the degree of independent functioning. Included within this level are all the development activities.

- **Blockchain – Distributed Ledger Technology (DLT)** – This is a new complex architecture and the job family consists of several levels of Blockchain-DLT work, which are distinguished based on the complexity and scope of the responsibilities assigned, including the direction of architecture, interfaces, controls, programs, and services of varying sizes, scope and range operations, operating budgets, and other related factors characterized by the operational areas supported, types of equipment, enterprise considerations and responsibilities and the number of staff.

- **Technical Level** - This job family consists of levels of Information Technology Technical work distinguished by the complexity of the responsibilities assigned and characterized by the type of equipment, operating systems, or subsystems supported. This job family is distinguished from the Information Technology Professional in that its main emphasis is on installing, maintaining, and troubleshooting network and information technology systems and assisting with their ongoing use and operation.

- **Support/Entry Level** - This job family consists of five levels of Information Technology Consultant work which are distinguished by the complexity of the responsibilities assigned and characterized by the type of equipment, operating systems or subsystems, and interactions with client users. Positions allocated to this job family differ from those in the professional or technical categories in that assignments are more administrative, involving the completion and coordination of various information services requirements rather than having direct responsibility for the technical aspects of the information system.

With this model, an organization can add new positions as needed without having to worry about each of the 4 to five other positions which may or may not be needed.

On the following page, a sample of the Janco Job Family classification has been applied to several positions extracted from its IT Position Descriptions Handiguide®.

Janco Job Family Progression Chart

IT Job Families

Manager Family

Level III
- CIO – Chief Information Officer

Level II
- Director Business Applications
- Director Systems & Programming
- Director Prod Svc Data Center

Level I
- Manager Application Development
- Manager Data Security
- Manager Database

Blockchain - DLT

Level IV
- CXO -Chief Experience Officer
- CDO – Chief Digital Officer

Level III
- Manager Blockchain DLT
- Project Manager Blockchain DLT

Level II
- Blockchain DLT Architect
- Blockchain DLT Analyst

Level I
- Blockchain DLP Developer

Professional Family

Level III
- Project Manager Systems
- Project Manager (EA)

- Business Services Analyst
- Programmer Analyst
- Programmer
- IT Planning Analyst
- System Analyst I
- System Analyst II

Technical Family

Level III
- Database Administrator
- System Administrator

Level II
- Data Security Administrator
- ERP Security Administrator
- ERP Technical Lead
- Shift Supervisor Operations

Level I
- System Programmer
- Supervisor POS
- Production Control Analyst
- Lead Computer Operator

Level II
- Help Desk Analyst
- KPI Analyst
- Librarian
- Change Control Analyst

Level I
- PCI-DSS Administrator
- Executive Secretary
- Accounts Payable Clerk
- IT Associate
- Computer Operator

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This is a start of a generic IT Job Family classification and is used as an example within this document.

MANAGER JOB FAMILY SUMMARY

This job family consists of several levels of Information Technology managerial work, which are distinguished based on the complexity and scope of the responsibilities assigned, including the direction of management information programs and services of vary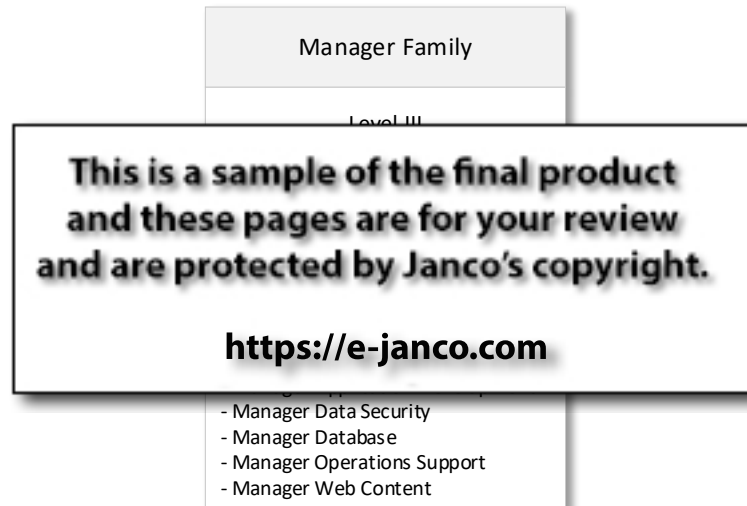ing sizes, scope and range of operating systems or subsystems, operating budgets, and other related factors characterized by the applications supported, types of equipment, enterprise considerations and responsibilities and the number of staff.

Manager Family

Level III

- Manager Data Security
- Manager Database
- Manager Operations Support
- Manager Web Content

Positions in Information Technology job families are responsible for following procedures, SDM, protocols, processes, and mandated regulations as outlined in the enterprises' policies and procedures.   It is distinguished from supervisory levels by the greater degree of responsibility assigned, the number of staff members managed, and the addition of management accountability or the responsibility to serve as a strategic advisor. Primary responsibilities do not include Information Technology Professional duties. IT professional functions may be performed but not as the primary focus of this position.

Typically, positions supervise lower-level managers, supervisors, or work units responsible for developing, implementing, and maintaining programs involving one or more activities related to Information Technology and services, applications development, network, and systems maintenance, computer operations, user consultation, and support or similar functions. May direct a major mission-critical program with limited staff or serve as a strategic advisor to executive and senior-level managerial staff with authority independently to commit the organization to mission-critical projects or expenditures.

PROFESSIONAL JOB FAMILY SUMMARY

This family consists of several levels of Information Technology Professional work – working Professional through Supervisor/Expert. Levels are distinguished based on the complexity and scope of responsibilities, the degree of specialization, and the degree of independent functioning.

Positions in Information Technology job families are responsible for following procedures, protocols, processes, and regulations outlined in the enterprises' policies and procedures.   This job family is distinguished from the technical job family by the primary responsibility for designing and implementing new services, the requirement for professional preparation, and the application of theoretical knowledge.   It is distinguished from the IT Manager Family by the absence of the primary responsibility for managing a unit or other unit supervisors. The professional job family addresses responsibility for the following Information Technology functions:

- Planning
- Analysis
- Programming
- Communications
- Research
- Project Lifecycles
- Security
- Engineering

Professional Family

Level III
- Project Manager Systems
- Project Manager (EA)

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Level I
- Enterprise Architect
- Business Services Analyst
- Programmer Analyst
- Programmer
- IT Planning Analyst
- System Analyst I
- System Analyst II

IT TECHNICAL JOB FAMILY SUMMARY

This job family consists of eight levels of Information Technology Technical work distinguished by the complexity of the responsibilities assigned and characterized by the type of equipment, operating systems, or subsystems supported. Positions in Information Technology job families are responsible for following procedures, protocols, processes, and regulations outlined in the enterprises' policies and procedures.

This job family is distinguished from the Information Technology Professional in that its main emphasis is on installing, maintaining, and troubleshooting network and information technology systems and assisting with their ongoing use and operation. The Information Technology Professional job family emphasizes the application of theoretical knowledge, system design, programming, and large project management. However, Information Technology Technician positions may perform elements of systems analysis and administration, but not as the primary responsibility of the position.

Positions fall into two broad categories

- Operations that involve technical support in completing productions requirements for reports and other batch processing services provided by a computer operating system and

- Technical support involves highly technical work in implementing and maintaining IS systems.

Technical Family

Level III
- Database Administrator
- System Administrator

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- Lead Computer Operator

Responsibilities may include performance or supervision of operational or highly technical work in implementing and maintaining personal computer systems, local area networks, customer workstations, network components, AV systems, and other automation equipment.

BLOCKCHAIN – DISTRIBUTED LEDGER TECHNOLOGY JOB FAMILY SUMMARY

This job family consists of four levels of Blockchain – Distributed Level Technology (DLT) work distinguished by the complexity of the responsibilities assigned and characterized by the type of operation and development environment supported. Positions in Blockchain – Distributed Level Technology (DLT) job families are responsible for following procedures, protocols, processes, and regulations outlined in the enterprises' policies and procedures.

This job family is distinguished from the Blockchain – DLT professional in that its main emphasis is on developing, installing, maintaining, and troubleshooting Blockchain and DLT systems and assisting with their ongoing use and operation. The Blockchain – Distributed Level Technology job family emphasizes the application of collaborative processing, system design, programming, and complex project management. However, Blockchain – DLT positions may perform elements of systems analysis and administration, but not as the primary responsibility of the position.

Positions fall into two broad categories

- Management and control involve completing productions requirements for collaborative services provided by a Blockchain and/or DLT and

- Technical support involves highly technical work in implementing and maintaining Blockchain – DLT systems.

DevOps-Blockchain - DLT

Level IV
- CXO -Chief Experience Officer

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- Blockchain DLT Analyst
- DevOps Application Designer

Level I
- DevOps Software Engineer
- Blockchain DLP Developer
- DevOps Quality Control Specialist
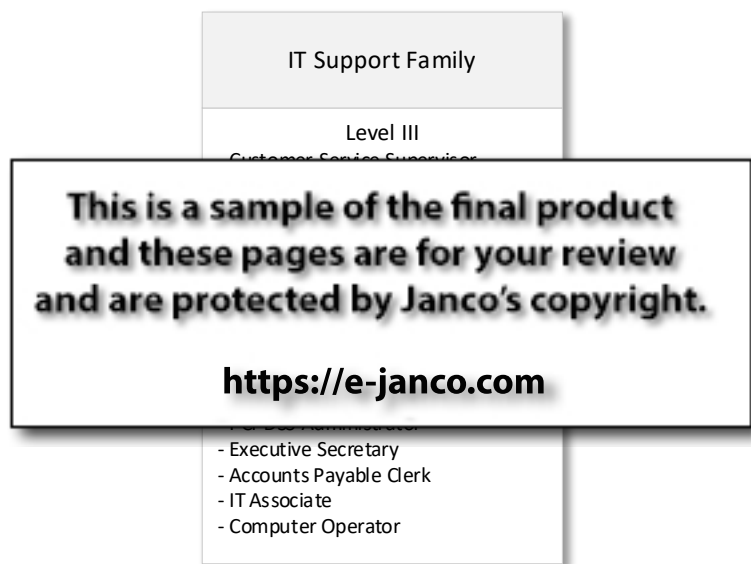- DevOps Version Control Specialist

Responsibilities may include architectural design, performance, or supervision of operational or highly technical work in implementing and maintaining Blockchain – DLT including cyber-currency.

IT SUPPORT ENTRY-LEVEL JOB FAMILY SUMMARY

This job family consists of five levels of Information Technology Consultant work which are distinguished by the complexity of the responsibilities assigned and characterized by the type of equipment, operating systems or subsystems, and interactions with client users. Positions in Information Technology job families are responsible for following procedures, protocols, processes, and regulations outlined in the enterprises' policies and procedures. Positions in this job family are assigned a range of responsibilities for a variety of coordinative, supervisory, or technical services related to providing information services and support for a management information system. Positions provide technical expertise and consulting to assist users in identifying and applying the tools of information technology that cross multiple platforms and disciplines and serve as a liaison between users and Information Technology staff.

IT Support Family

Level III
Customer Service Supervisor

- Executive Secretary
- Accounts Payable Clerk
- IT Associate
- Computer Operator

SYSTEM ANALYST JOB FAMILY JOB DESCRIPTIONS

An example of the job descriptions for part of the Professional Family are included. The positions covered are for System Analysts. The included descriptions are:

System Analyst I

System Analyst II

System Analyst IIII

System Analyst IV

System Analyst V

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JOB EVALUATION QUESTIONNAIRE

Position / Name: _____

Job Code _____

Exempt Status: _____

Instructions:

The Job Evaluation Questionnaire is comprised of three sections:

1:   *Position Attributes have been displayed in matrix format. The attribute categories are:*

- o   Leadership Skills
- o   Analytical Skills
- o   Consequence of Error

1.   Rank each attribute fr... ...lect zero (0) if the attribute does not apply.
2.   An Organization Chart ... ...the information provided, provide the information omitted, and make any change... ...chical within their group. Additional boxes have been provided for convenience only.
3.   General Information about the position which has not been covered within the previous two sections.   Please answer each question as completely as possible.

Completed By: _____   Dated: _____

Overall Skills							Leadership Skills						
Written Communication	0	1	2	3	4	5	Scheduling	0	1	2	3	4	5
Oral Communications	0	1	2	3	4	5	Training	0	1	2	3	4	5
Interpersonal	0	1	2	3	4	5	Coaching	0	1	2	3	4	5
Creativity	0	1	2	3	4	5	Evaluating	0	1	2	3	4	5
Judgment	0	1	2	3	4	5	Counseling	0	1	2	3	4	5
Leadership	0	1	2	3	4	5	Orienting	0	1	2	3	4	5
Analytical	0	1	2	3	4	5	Developing	0	1	2	3	4	5
Technical	0	1	2	3	4	5	Directing	0	1	2	3	4	5
Mechanical	0	1	2	3	4	5	**Job Knowledge**						
Eye/Hand Coordination	0	1	2	3	4	5	Unskilled	0	1	2	3	4	5
Analytical Skills							Semiskilled	0	1	2	3	4	5
Routine/Repetitive	0	1	2	3	4	5	Technical	0	1	2	3	4	5
Interpretative	0	1						0	1	2	3	4	5
Subjective	0	1						0	1	2	3	4	5
Diverse	0	1						0	1	2	3	4	5
Complex	0	1						0	1	2	3	4	5
Long Range Planning	0	1						0	1	2	3	4	5
Latitude							**Consequence of Error**						
Follows Established Precedents	0	1						0	1	2	3	4	5
Uses Judgment w/ Supv. App.	0	1	2	3	4	5	Monetary Loss	0	1	2	3	4	5
Uses Judgment w/o Supv. App.	0	1	2	3	4	5	Adversely Affect Customer	0	1	2	3	4	5
Establishes Precedents	0	1	2	3	4	5	Adversely Affect Other Units	0	1	2	3	4	5
Educational Prerequisites							Delay in Project (s)	0	1	2	3	4	5
High School	0	1	2	3	4	5	Loss of Service	0	1	2	3	4	5
Technical School	0	1	2	3	4	5	Waste of Materials/Equip.	0	1	2	3	4	5
4 Year College Degree	0	1	2	3	4	5	Damage to Equipment	0	1	2	3	4	5
Graduate Degree	0	1	2	3	4	5	Adversely Affect Corp. Image	0	1	2	3	4	5
Specify Major or Certification							Physical Harm (Self/Others)	0	1	2	3	4	5

THE PROCESS TO CREATE PAY RANGES FOR IT PROFESSIONALS

Step 1: Determine the Organization's Compensation Philosophy

The first step in setting pay ranges for IT Professionals is for the organization to define what its approach or philosophy is to compensation

An employer can choose to lead, lag, or match the market when compensating employees. Being a market leader means that the organization pays more for jobs than its competitors. Typically, an organization does this to gain an advantage or attract talent away from its competitors. If the organization decides to match the market, it pays roughly the same as its competitors, and if it lags the market, it is paying less than market rates.

In the IT Job Market (see https://e-janco.com/career/employmentdata.html) it is probably not a good idea to lag on compensation. That will make it more difficult to get the talent required to achieve the organizations' technology objectives.

	2022	2023	% Change
Large Enterprise			
Executives	$175,455	$180,626	2.95%
Middle Managers	$96,449	$99,188	2.84%
Staff	$78,661	$82,636	5.05%
All Large Enterprise	$98,636	$102,199	3.61%
Mid-Size Enterprises			
Executives	$147,156	$159,925	8.68%
Middle Managers	$92,619	$99,789	7.74%
Staff	$77,694	$83,296	7.21%
All Mid-Size Enterprises	$93,217	$100,434	7.74%
IT Positions All Sizes	$95,945	$101,323	5.61%

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Janco's IT Salary survey and job classifications are updated every six months. To get the latest data go to

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...yzing information about a job to determine the ...to other jobs, the qualifications necessary for ...performed. This can be done by observing ...g the job, or using a combination of these methods. The result of a job analysis is a clearly defined job description. Janco's IT Job descriptions were developed with this process in mind. See https://e-janco.com/it-job-descriptions.htm
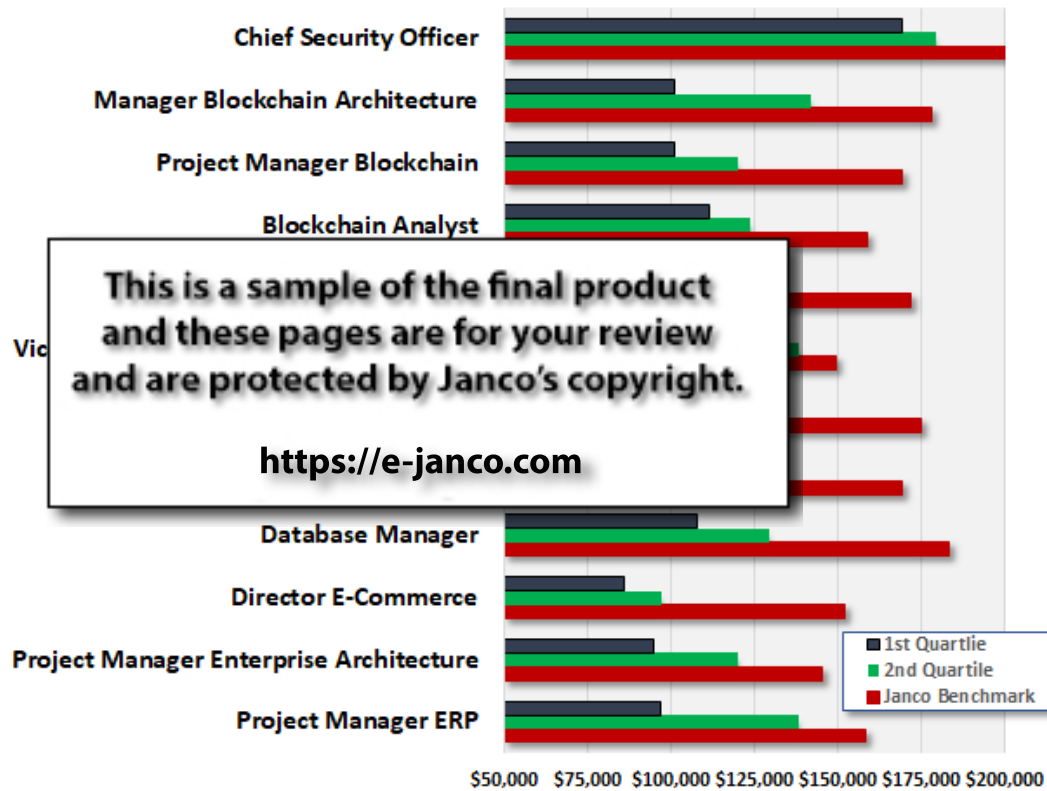
- To avoid violating antitrust laws, employers should not contact other organizations directly for compensation information. Using information from a vendor that is in writing, that uses averaged pay rates and aggregate data received from various sources, and that does not directly identify survey participants is in the best interest of the organization.

- When collecting competitive data, employer-reported data are generally more reliable than employer-provided salary information. Avoid Internet searches for free salary data, which often contain compensation that has been self-reported by employees.

Below is a sample of competitive analysis in the Janco IT Salary Survey. See https://e-janco.com/salary.htm.

Blockchain Related Salaries

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VERSION HISTORY

2023 Edition

- Added Job descriptions for System Analyst I, II, III, IV, and V
- Updated all included job descriptions
- Updated all graphics
- Updated all included forms
- Updated salary data and graphics included in the core document

2022 Edition

- Added System Analyst titles to Professional Job Family
- Added five (5) job descriptions for the full generic System Analyst Job Class
- Added section for setting compensation ranges for IT Professionals

2021 Edition

- Updated to meet current new technologies
- Updated to meet mandated requirements
- Added section for setting compensation ranges for IT Professionals

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