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## Information Security Analysts

Louisiana

### Summary of Job Duties

**Information Security Analysts** [Video](#) - Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

### Detailed Job Description

**Information Security Analysts** Information security analysts plan and carry out security measures to protect an organization's computer networks and systems.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

### Job Zone

The section below shows the job zone information for Information Security Analysts. Job Zone Four: Considerable Preparation Needed.

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| Education   | Experience   | Training   |
|---|--|--|
| Most of these occupations require a four-year bachelor's degree, but some do not. | A considerable amount of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified. | Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training. |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Jobs Available

This section shows the number of job openings and green jobs advertised online in Louisiana for Information Security Analysts and for the related occupational group of Computer and Mathematical Occupations on December 8, 2020 (Jobs De-duplication Level 2).

| Occupation                            | Job Openings | Green Job Count |
|---------------------------------------|--------------|-----------------|
| Information Security Analysts 🌟       | <u>7</u>     | 0               |
| Computer and Mathematical Occupations | <u>903</u>   | <u>17</u>       |

🌟 BRIGHT OUTLOOK NATIONALLY

Source: Online advertised jobs data

## Monthly Job Count

This section shows the number of job openings and green jobs advertised online for Information Security Analysts in Louisiana November, 2020 (Jobs De-duplication Level 2).

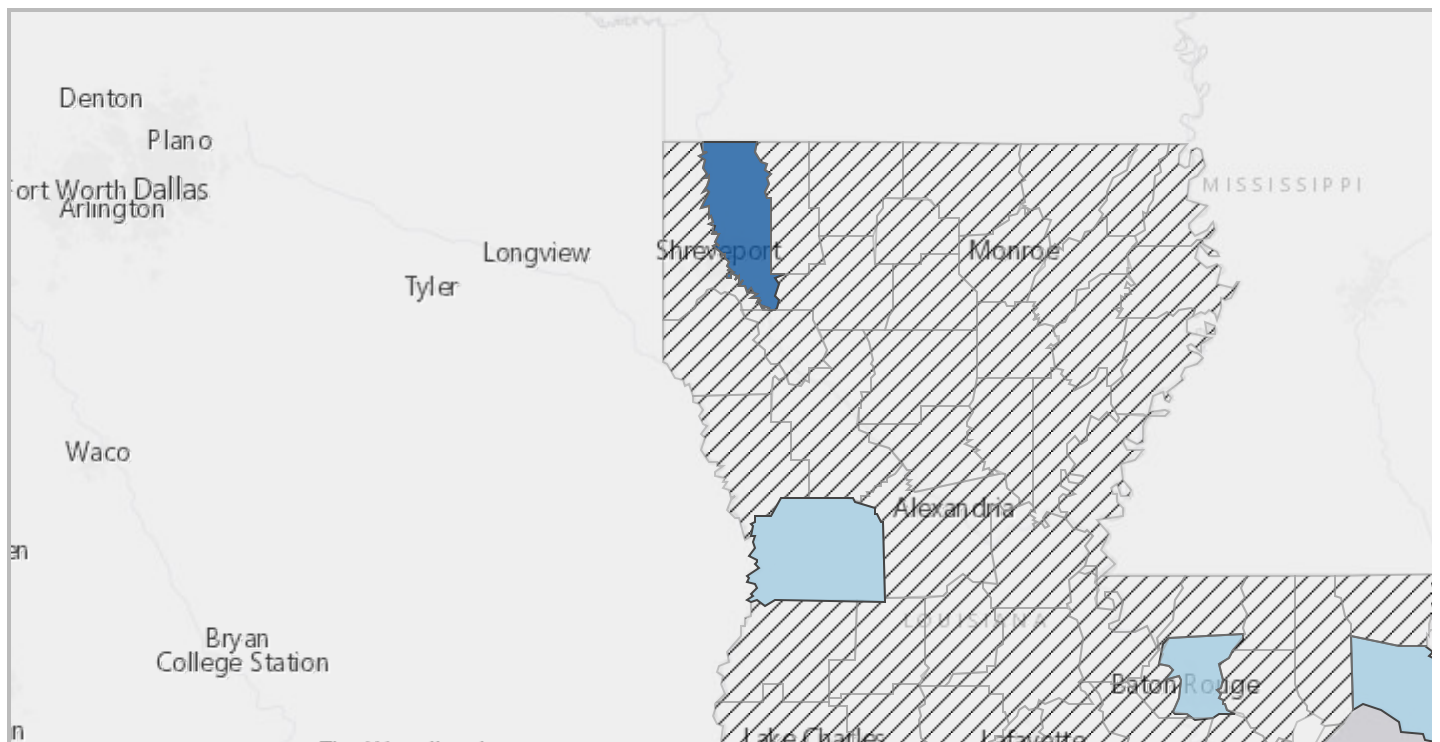
| Occupation                      | Job Openings | Green Job Count |
|---------------------------------|--------------|-----------------|
| Information Security Analysts 🌟 | 31           | 0               |

🌟 BRIGHT OUTLOOK NATIONALLY

Source: Online advertised jobs data

## Jobs Area Distribution

This section shows the distribution of number of job openings and green jobs advertised online for Information Security Analysts in Louisiana by parishes on December 8, 2020 (Jobs De-duplication Level 2).



Job Openings



Job Source: Online advertised jobs data

## Jobs in Related Occupations

This section shows the number of job openings and green jobs advertised online in Louisiana for occupations related to Information Security Analysts on December 8, 2020 (Jobs De-duplication Level 2).

| Rank | Occupation   | Median Wage | Job Openings | Green Job Count | *Related By |
|------|--|-------------|--------------|-----------------|-------------|
| 1    | <u>Computer Systems Engineers/Architects</u> 🟡     | \$62,800    | <u>51</u>    | <u>3</u>        | O*NET       |
| 2    | <u>Electrical Engineers</u> 🟢                      | \$91,002    | <u>32</u>    | <u>3</u>        | O*NET       |
| 3    | <u>Product Safety Engineers</u>                    | \$85,523    | <u>18</u>    | <u>3</u>        | O*NET       |
| 4    | <u>Database Administrators</u> 🟡                   | \$80,017    | <u>30</u>    | <u>2</u>        | O*NET       |
| 5    | <u>Network and Computer Systems Administrators</u> | \$64,569    | <u>62</u>    | <u>2</u>        | O*NET       |

| Rank | Occupation  | Median Wage | Job Openings | Green Job Count | *Related By |
|------|---|-------------|--------------|-----------------|-------------|
| 6    | <u>Computer User Support Specialists</u> 🌟                | \$45,715    | <u>85</u>    | <u>2</u>        | O*NET       |
| 7    | <u>Industrial Safety and Health Engineers</u> 🌱           | \$85,523    | <u>4</u>     | <u>2</u>        | O*NET       |
| 8    | <u>Occupational Health and Safety Specialists</u> 🌱       | \$71,755    | <u>7</u>     | <u>2</u>        | O*NET       |
| 9    | <u>Computer and Information Systems Managers</u> 🌟        | \$104,877   | <u>12</u>    | <u>1</u>        | O*NET       |
| 10   | <u>Computer Systems Analysts</u> 🌟                        | \$68,543    | <u>75</u>    | <u>1</u>        | O*NET       |
| 11   | <u>Computer Programmers</u>                               | \$66,543    | <u>87</u>    | <u>1</u>        | O*NET       |
| 12   | <u>Software Quality Assurance Engineers and Testers</u> 🌟 | \$62,800    | <u>11</u>    | <u>1</u>        | O*NET       |
| 13   | <u>Validation Engineers</u> 🌱                             | \$81,992    | <u>1</u>     | <u>1</u>        | O*NET       |
| 14   | <u>Industrial Engineering Technicians</u> 🌱               | \$82,034    | <u>9</u>     | <u>1</u>        | O*NET       |
| 15   | <u>Claims Examiners, Property and Casualty Insurance</u>  | \$67,332    | <u>11</u>    | 0               | O*NET       |
| 16   | <u>Logisticians</u>                                       | \$72,442    | <u>10</u>    | 0               | O*NET       |
| 17   | <u>Logistics Analysts</u> 🌱                               | \$72,442    | <u>6</u>     | 0               | O*NET       |
| 18   | <u>Informatics Nurse Specialists</u> 🌟                    | \$68,543    | <u>3</u>     | 0               | O*NET       |
| 19   | <u>Information Security Analysts</u> 🌟                    | N/A         | <u>7</u>     | 0               | N/A         |
| 20   | <u>Software Developers, Applications</u> 🌟                | \$79,753    | <u>50</u>    | 0               | O*NET       |
| 21   | <u>Software Developers, Systems Software</u> 🌟 🌱          | \$73,552    | <u>20</u>    | 0               | O*NET       |
| 22   | <u>Web Developers</u> 🌟                                   | \$56,619    | <u>4</u>     | 0               | O*NET       |
| 23   | <u>Computer Network Architects</u>                        | \$73,217    | <u>6</u>     | 0               | O*NET       |
| 24   | <u>Petroleum Engineers</u>                                | \$128,991   | <u>1</u>     | 0               | O*NET       |
| 25   | <u>Technical Writers</u> 🌟                                | \$71,347    | <u>10</u>    | 0               | O*NET       |
| 26   | <u>Power Distributors and Dispatchers</u> 🌱               | \$40,345    | <u>9</u>     | 0               | O*NET       |

Job Source: Online advertised jobs data

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2018 survey.

\*Related By: O\*NET™ - The [Occupational Information Network](#). O\*NET is a registered trademark of the [US Department of Labor/Employment and Training Administration](#).

## Candidates Available

This section shows potential candidates in the workforce system in Louisiana for Information Security Analysts and for the related occupational group of Computer and Mathematical Occupations on December 8, 2020.

| Occupation                            | Candidates |
|---------------------------------------|------------|
| Information Security Analysts 🌟       | 37         |
| Computer and Mathematical Occupations | 2,259      |

🌟 BRIGHT OUTLOOK NATIONALLY

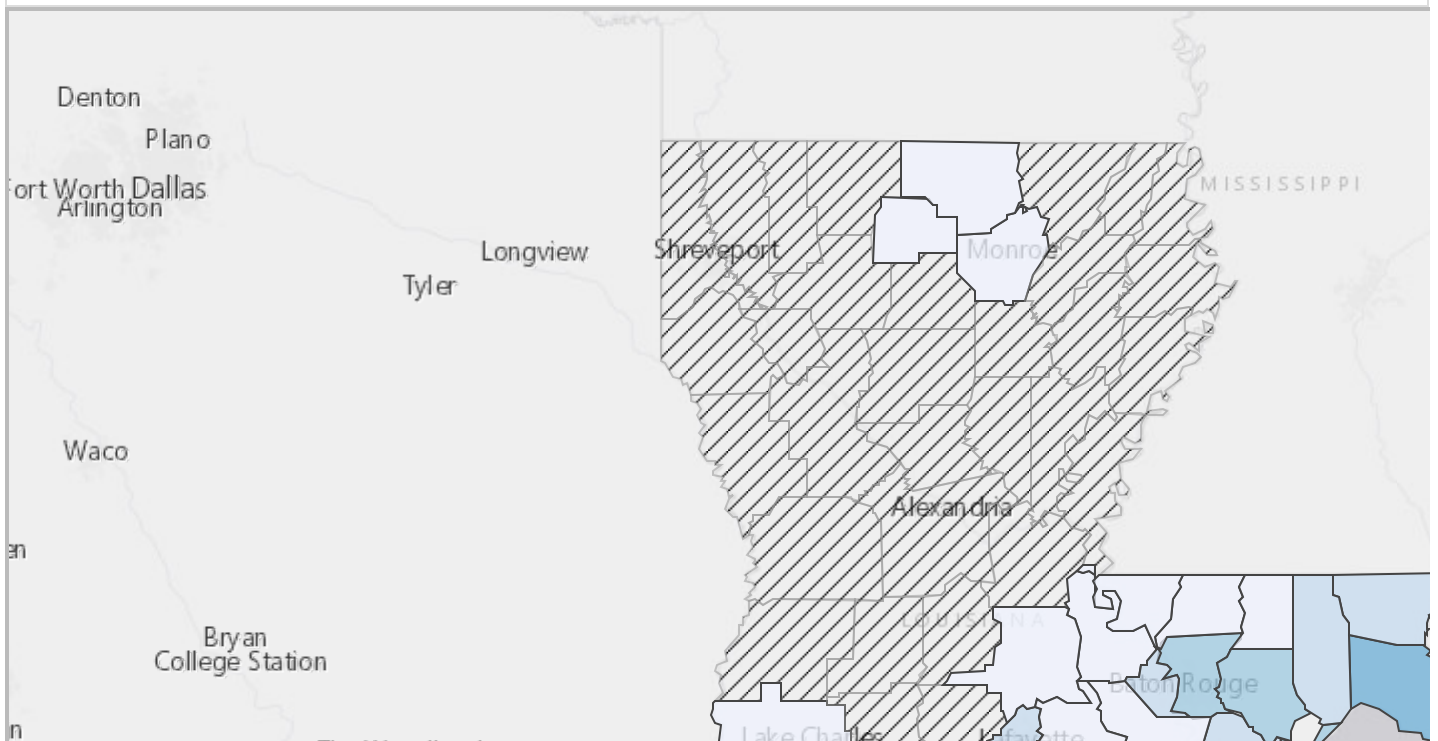
Source: Individuals with active résumés in the workforce system.

## Candidate Area Distribution

This section shows the distribution of potential candidates in the workforce system for Information Security Analysts in Louisiana by parishes on December 8, 2020.

| Rank | Area Name                                   | Median Wage                      | Candidates |
|------|---|----------------------------------|------------|
| 1    | <a href="#">Orleans Parish</a>              | \$72,516<br>state level<br>wages | 25         |
| 2    | <a href="#">Jefferson Parish</a>            | \$72,516<br>state level<br>wages | 21         |
| 3    | <a href="#">St. Tammany Parish</a>          | \$72,516<br>state level<br>wages | 17         |
| 4    | <a href="#">East Baton Rouge Parish</a>     | \$72,516<br>state level<br>wages | 15         |
| 5    | <a href="#">St. John the Baptist Parish</a> | \$72,516<br>state level<br>wages | 15         |

| Rank | Area Name                 | Median Wage                      | Candidates |
|------|---------------------------|----------------------------------|------------|
| 6    | <u>Livingston Parish</u>  | \$72,516<br>state level<br>wages | 14         |
| 7    | <u>St. Bernard Parish</u> | \$72,516<br>state level<br>wages | 14         |
| 8    | <u>St. Charles Parish</u> | \$72,516<br>state level<br>wages | 13         |
| 9    | <u>Tangipahoa Parish</u>  | \$72,516<br>state level<br>wages | 13         |
| 10   | <u>Ascension Parish</u>   | \$72,516<br>state level<br>wages | 12         |



Candidates



Candidate Source: Individuals with active résumés in the workforce system.

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2018 survey.

## Candidates in Related Occupations

This section shows how many potential candidates in the workforce system were looking for work in Louisiana in occupations related to Information Security Analysts on December 8, 2020.

| Rank | Occupation  | Median Wage | Candidates | *Related By |
|------|---|-------------|------------|-------------|
| 1    | <a href="#">Computer User Support Specialists</a> 🌟               | \$45,715    | 550        | O*NET       |
| 2    | <a href="#">Occupational Health and Safety Specialists</a> 🌱      | \$71,755    | 414        | O*NET       |
| 3    | <a href="#">Computer and Information Systems Managers</a> 🌟       | \$104,877   | 288        | O*NET       |
| 4    | <a href="#">Industrial Safety and Health Engineers</a> 🌱          | \$85,523    | 171        | O*NET       |
| 5    | <a href="#">Network and Computer Systems Administrators</a>       | \$64,569    | 160        | O*NET       |
| 6    | <a href="#">Computer Systems Analysts</a> 🌟                       | \$68,543    | 139        | O*NET       |
| 7    | <a href="#">Software Developers, Applications</a> 🌟               | \$79,753    | 120        | O*NET       |
| 8    | <a href="#">Logisticians</a>                                      | \$72,442    | 114        | O*NET       |
| 9    | <a href="#">Electrical Engineers</a> 🌱                            | \$91,002    | 111        | O*NET       |
| 10   | <a href="#">Industrial Engineering Technicians</a> 🌱              | \$82,034    | 109        | O*NET       |
| 11   | <a href="#">Claims Examiners, Property and Casualty Insurance</a> | \$67,332    | 103        | O*NET       |
| 12   | <a href="#">Computer Programmers</a>                              | \$66,543    | 91         | O*NET       |
| 13   | <a href="#">Database Administrators</a> 🌟                         | \$80,017    | 91         | O*NET       |
| 14   | <a href="#">Petroleum Engineers</a>                               | \$128,991   | 79         | O*NET       |
| 15   | <a href="#">Logistics Analysts</a> 🌱                              | \$72,442    | 57         | O*NET       |
| 16   | <a href="#">Computer Hardware Engineers</a>                       | \$77,939    | 46         | O*NET       |
| 17   | <a href="#">Web Developers</a> 🌟                                  | \$56,619    | 42         | O*NET       |
| 18   | <a href="#">Computer Network Architects</a>                       | \$73,217    | 42         | O*NET       |
| 19   | Information Security Analysts 🌟                                   | N/A         | 37         | N/A         |

| Rank | Occupation  | Median Wage | Candidates | *Related By |
|------|---|-------------|------------|-------------|
| 20   | <u>Software Quality Assurance Engineers and Testers</u> ☀️      | \$62,800    | 37         | O*NET       |
| 21   | <u>Software Developers, Systems Software</u> ☀️                 | \$73,552    | 32         | O*NET       |
| 22   | <u>Technical Writers</u> ☀️                                     | \$71,347    | 29         | O*NET       |
| 23   | <u>Fraud Examiners, Investigators and Analysts</u>              | \$55,490    | 16         | O*NET       |
| 24   | <u>Computer Systems Engineers/Architects</u> ☀️                 | \$62,800    | 16         | O*NET       |
| 25   | <u>Power Distributors and Dispatchers</u> 🌿                     | \$40,345    | 15         | O*NET       |
| 26   | <u>Geospatial Information Scientists and Technologists</u> ☀️ 🌿 | \$62,800    | 7          | O*NET       |
| 27   | <u>Informatics Nurse Specialists</u> ☀️                         | \$68,543    | 4          | O*NET       |
| 28   | <u>Product Safety Engineers</u>                                 | \$85,523    | 4          | O*NET       |
| 29   | <u>Web Administrators</u> ☀️                                    | \$62,800    | 3          | O*NET       |
| 30   | <u>Validation Engineers</u> 🌿                                   | \$81,992    | 1          | O*NET       |

☀️ BRIGHT OUTLOOK NATIONALLY | 🌿 GREEN OCCUPATIONS

Candidate Source: Individuals with active résumés in the workforce system.

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2018 survey.

\*Related By: O\*NET™ - The Occupational Information Network. O\*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.

## Jobs and Candidates Available

This section shows the number of job openings and green jobs advertised online, as well as potential candidates in the workforce system in Louisiana for Information Security Analysts and for the related occupational group of Computer and Mathematical Occupations on December 8, 2020 (Jobs De-duplication Level 2).

| Occupation                            | Job Openings | Green Job Count | Candidates | Candidates per Job |
|---------------------------------------|--------------|-----------------|------------|--------------------|
| Information Security Analysts ☀️      | <u>7</u>     | 0               | 37         | 5.29               |
| Computer and Mathematical Occupations | <u>903</u>   | <u>17</u>       | 2,259      | 2.50               |

☀️ BRIGHT OUTLOOK NATIONALLY

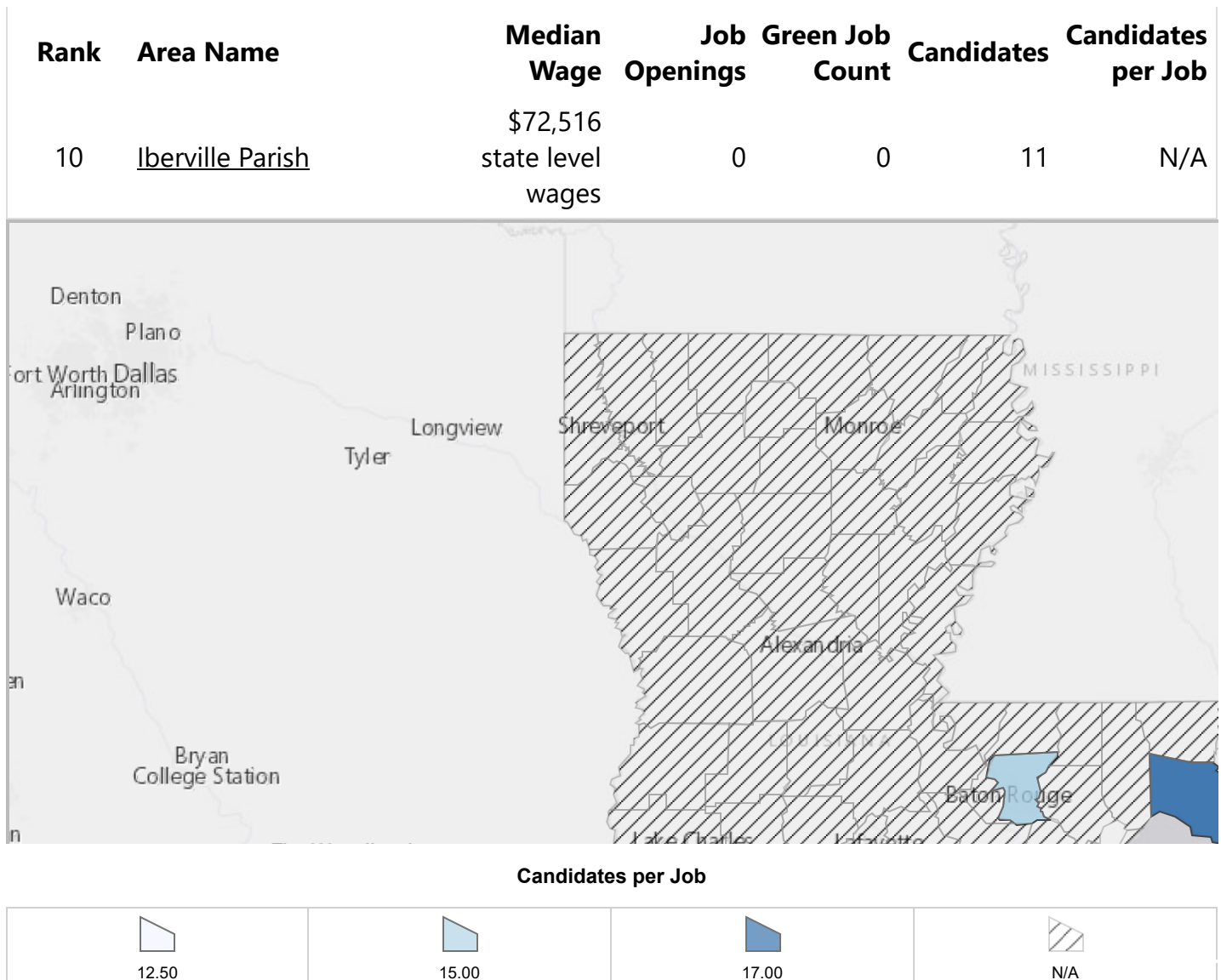


Job Source: Online advertised jobs data  
 Candidate Source: Individuals with active résumés in the workforce system.

## Jobs and Candidates Area Distribution

This section shows the distribution of number of job openings and green jobs advertised online, as well as potential candidates in the workforce system for Information Security Analysts in Louisiana by parishes on December 8, 2020 (Jobs De-duplication Level 2).

| Rank | Area Name                      | Median Wage                   | Job Openings | Green Job Count | Candidates | Candidates per Job |
|------|--------------------------------|-------------------------------|--------------|-----------------|------------|--------------------|
| 1    | <u>St. Tammany Parish</u>      | \$72,516<br>state level wages | <u>1</u>     | 0               | 17         | 17.00              |
| 2    | <u>East Baton Rouge Parish</u> | \$72,516<br>state level wages | <u>1</u>     | 0               | 15         | 15.00              |
| 3    | <u>Orleans Parish</u>          | \$72,516<br>state level wages | <u>2</u>     | 0               | 25         | 12.50              |
| 4    | <u>Ascension Parish</u>        | \$72,516<br>state level wages | 0            | 0               | 12         | N/A                |
| 5    | <u>Assumption Parish</u>       | \$72,516<br>state level wages | 0            | 0               | 11         | N/A                |
| 6    | <u>Bossier Parish</u>          | \$72,516<br>state level wages | <u>2</u>     | 0               | 0          | N/A                |
| 7    | <u>Calcasieu Parish</u>        | \$72,516<br>state level wages | 0            | 0               | 11         | N/A                |
| 8    | <u>East Feliciana Parish</u>   | \$72,516<br>state level wages | 0            | 0               | 11         | N/A                |
| 9    | <u>Iberia Parish</u>           | \$72,516<br>state level wages | 0            | 0               | 11         | N/A                |



Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2018 survey.

## National Supply and Demand Summary

### Information Security Analysts

Employment of information security analysts is projected to grow 31 percent from 2019 to 2029, much faster than the average for all occupations.

Demand for information security analysts is expected to be very high. Cyberattacks have grown in frequency, and analysts will be needed to come up with innovative solutions to prevent hackers from

stealing critical information or creating problems for computer networks.

Banks and financial institutions, as well as other types of corporations, will need to increase their information security capabilities in the face of growing cybersecurity threats. In addition, as the healthcare industry expands its use of electronic medical records, ensuring patients’ privacy and protecting personal data are becoming more important. More information security analysts are likely to be needed to create the safeguards that will satisfy patients’ concerns.

Employment of information security analysts is projected to grow 56 percent in computer systems design and related services from 2019 to 2029. The increasing adoption of cloud services by small and medium-sized businesses and a rise in cybersecurity threats will create demand for managed security services providers in this industry.

Job Prospects

Job prospects for information security analysts should be good. Information security analysts with related work experience will have the best prospects. For example, an applicant with experience as a database administrator would have better prospects in database security than someone without that experience.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

Employers by Number of Job Openings

This section shows the employers with the highest number of job openings and green jobs advertised online for Information Security Analysts in Louisiana on December 8, 2020 (Jobs De-duplication Level 2).

| Rank | Employer Name                                 | Job Openings | Green Job Count |
|------|---|--------------|-----------------|
| 1    | General Dynamics Information Technology, Inc. | 2            | 0               |
| 2    | Volunteers of America SELA                    | 2            | 0               |
| 3    | Domino's Pizza, Inc.                          | 1            | 0               |
| 4    | Globalstar, Inc                               | 1            | 0               |
| 5    | IDS International                             | 1            | 0               |

Source: Online advertised jobs data

Advertised Job Skills

This section shows the top advertised detailed job skills found in job openings advertised online for Information Security Analysts in Louisiana in November, 2020. (Jobs De-duplication Level 1)

| <b>Rank</b> | <b>Advertised Detailed Job Skill</b> | <b>Advertised Skill Group</b> | <b>Job Opening Match Count</b> |
|-------------|--------------------------------------|-------------------------------|--------------------------------|
| 1           | Problem solving                      | Basic Skills                  | <u>15</u>                      |
| 2           | Work independently                   | Basic Skills                  | <u>6</u>                       |
| 3           | Attention to detail                  | Basic Skills                  | <u>5</u>                       |
| 4           | Risk assessments                     | Risk Analyst Skills           | <u>5</u>                       |
| 5           | Positive attitude                    | Interpersonal Skills          | <u>5</u>                       |
| 6           | Risk management                      | Risk Analyst Skills           | <u>4</u>                       |
| 7           | Root cause analysis                  | Reliability Engineer Skills   | <u>4</u>                       |
| 8           | Providing recommendations            | Concierge Skills              | <u>4</u>                       |
| 9           | Operations planning                  | Operations Manager Skills     | <u>3</u>                       |
| 10          | Good attendance                      | Basic Skills                  | <u>3</u>                       |

Source: Online advertised jobs data

## Advertised Tools and Technology

This section shows the top advertised detailed tools and technologies found in job openings advertised online for Information Security Analysts in Louisiana in November, 2020. (Jobs De-duplication Level 1)

| <b>Rank</b> | <b>Advertised Detailed Tool or Technology</b> | <b>Advertised Tool and Technology Group</b>        | <b>Job Opening Match Count</b> |
|-------------|---|--|--------------------------------|
| 1           | Microsoft (MS) Office                         | Office Suite Software                              | <u>6</u>                       |
| 2           | Tenable Nessus                                | Transaction Security and Virus Protection Software | <u>5</u>                       |
| 3           | Microsoft Windows                             | Operating System Software                          | <u>5</u>                       |
| 4           | Airborne collision avoidance systems (ACAS)   | Aircraft Warning Systems                           | <u>4</u>                       |
| 5           | Microsoft PowerPoint                          | Presentation Software                              | <u>4</u>                       |
| 6           | Laptop Computer                               | Notebook Computers                                 | <u>3</u>                       |
| 7           | Geostatistics software GS+                    | Analytical or Scientific Software                  | <u>3</u>                       |
| 8           | Linux software                                | Operating System Software                          | <u>2</u>                       |
| 9           | Alarms  | Alarm Systems                                      | <u>2</u>                       |
| 10          | Keyboard                                      | Keyboards  | <u>2</u>                       |

Source: Online advertised jobs data

## Typical Job Skills

This section shows the job skills that are related to Information Security Analysts.

| Rank | Typical Job Skills  | Typical Skill Category  |
|------|---|-------------------------|
| 1    | Develop computer or information security policies or procedures   | Mental Processes        |
| 2    | Update knowledge about emerging industry or technology trends     | Mental Processes        |
| 3    | Implement security measures for computer or information systems   | Work Output             |
| 4    | Test computer system operations to ensure proper functioning      | Information Input       |
| 5    | Collaborate with others to resolve information technology issues  | Interacting With Others |
| 6    | Troubleshoot issues with computer applications or systems         | Work Output             |
| 7    | Document operational procedures                                   | Work Output             |
| 8    | Monitor the security of digital information                       | Information Input       |
| 9    | Coordinate project activities with other personnel or departments | Interacting With Others |
| 10   | Train others in computer interface or software use                | Interacting With Others |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Personal Skills

This section shows the personal skills that are most useful for Information Security Analysts. Click on a link in the Personal Skills column to view more detailed information.

| Personal Skill                        | Skill Description   | Rank by Importance (Out of 100) |
|---------------------------------------|---|---------------------------------|
| <a href="#">Reading Comprehension</a> | Understanding written sentences and paragraphs in work related documents.   | 75                              |
| <a href="#">Critical Thinking</a>     | Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. | 72                              |

| <b>Personal Skill</b>               | <b>Skill Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|-------------------------------------|---|--|
| <u>Active Listening</u>             | 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. | 69                                     |
| <u>Complex Problem Solving</u>      | Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.   | 69                                     |
| <u>Speaking</u>                     | Talking to others to convey information effectively.  | 66                                     |
| <u>Writing</u>                      | Communicating effectively in writing as appropriate for the needs of the audience.  | 63                                     |
| <u>Monitoring</u>                   | Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.   | 60                                     |
| <u>Judgment and Decision Making</u> | Considering the relative costs and benefits of potential actions to choose the most appropriate one.  | 60                                     |
| <u>Systems Analysis</u>             | Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.   | 60                                     |
| <u>Active Learning</u>              | Understanding the implications of new information for both current and future problem-solving and decision-making.  | 56                                     |
| <u>Time Management</u>              | Managing one's own time and the time of others.   | 53                                     |
| <u>Systems Evaluation</u>           | Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.                               | 50                                     |
| <u>Quality Control Analysis</u>     | Conducting tests and inspections of products, services, or processes to evaluate quality or performance.  | 50                                     |
| <u>Operation Monitoring</u>         | Watching gauges, dials, or other indicators to make sure a machine is working properly.   | 50                                     |
| <u>Coordination</u>                 | Adjusting actions in relation to others' actions.   | 50                                     |
| <u>Instructing</u>                  | Teaching others how to do something.  | 47                                     |

| <b>Personal Skill</b>                    | <b>Skill Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|--|---|--|
| <u>Service Orientation</u>               | Actively looking for ways to help people.   | 47                                     |
| <u>Learning Strategies</u>               | Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things. | 47                                     |
| <u>Management of Personnel Resources</u> | Motivating, developing, and directing people as they work, identifying the best people for the job.                                   | 47                                     |
| <u>Social Perceptiveness</u>             | Being aware of others' reactions and understanding why they react as they do.   | 44                                     |
| <u>Persuasion</u>                        | Persuading others to change their minds or behavior.  | 41                                     |
| <u>Negotiation</u>                       | Bringing others together and trying to reconcile differences.   | 41                                     |
| <u>Programming</u>                       | Writing computer programs for various purposes.   | 41                                     |
| <u>Operations Analysis</u>               | Analyzing needs and product requirements to create a design.  | 38                                     |
| <u>Mathematics</u>                       | Using mathematics to solve problems.  | 31                                     |
| <u>Technology Design</u>                 | Generating or adapting equipment and technology to serve user needs.  | 28                                     |
| <u>Troubleshooting</u>                   | Determining causes of operating errors and deciding what to do about it.  | 28                                     |
| <u>Science</u>                           | Using scientific rules and methods to solve problems.   | 22                                     |
| <u>Equipment Selection</u>               | Determining the kind of tools and equipment needed to do a job.   | 19                                     |
| <u>Operation and Control</u>             | Controlling operations of equipment or systems.   | 19                                     |
| <u>Management of Financial Resources</u> | Determining how money will be spent to get the work done, and accounting for these expenditures.                                      | 19                                     |
| <u>Management of Material Resources</u>  | Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work.                        | 19                                     |

| Personal Skill               | Skill Description  | Rank by Importance (Out of 100) |
|------------------------------|--|---------------------------------|
| <u>Equipment Maintenance</u> | Performing routine maintenance on equipment and determining when and what kind of maintenance is needed. | 16                              |
| <u>Repairing</u>             | Repairing machines or systems using the needed tools.  | 16                              |
| <u>Installation</u>          | Installing equipment, machines, wiring, or programs to meet specifications.                              | 13                              |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Typical Education Requirements

**Information Security Analysts** There is no data available for Information Security Analysts.

Source: This information is based on the BLS Occupational Outlook Handbook (OOH).

## Required Level of Education

This section shows the results of a national survey listing the most common required level of education for Information Security Analysts.

| Rank | Required Level of Education  | Percentage of Respondents |
|------|--|---------------------------|
| 1    | Bachelor's Degree  | 52.64%                    |
| 2    | Post-Baccalaureate Certificate - awarded for completion of an organized program of study; designed for people who have completed a Baccalaureate degree but do not meet the requirements of academic degrees carrying the title of Master.   | 22.52%                    |
| 3    | Associate's Degree (or other 2-year degree)  | 12.87%                    |
| 4    | Post-Secondary Certificate - awarded for training completed after high school (for example, in agriculture or natural resources, computer services, personal or culinary services, engineering technologies, healthcare, construction trades, mechanic and repair technologies, or precision production) | 7.16%                     |
| 5    | Master's Degree  | 2.80%                     |
| 6    | Some College Courses   | 2.01%                     |



Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## On The Job Training

This section shows the results of a national survey listing the most common lengths of on the job training for Information Security Analysts.

| Rank | On The Job Training  | Percentage of Respondents |
|------|--|---------------------------|
| 1    | Over 6 months, up to and including 1 year                        | 27.36%                    |
| 2    | Over 1 month, up to and including 3 months                       | 23.40%                    |
| 3    | Over 3 months, up to and including 6 months                      | 13.39%                    |
| 4    | None or short demonstration                                      | 12.73%                    |
| 5    | Over 1 year, up to and including 2 years                         | 7.05%                     |
| 6    | Over 10 years  | 6.60%                     |
| 7    | Over 4 years, up to and including 10 years                       | 5.82%                     |
| 8    | Anything beyond short demonstration, up to and including 1 month | 3.66%                     |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## On-Site or In-Plant Training

This section shows the results of a national survey listing the most common lengths of on-site or in-plant training for Information Security Analysts.

| Rank | On-Site or In-Plant Training                | Percentage of Respondents |
|------|---|---------------------------|
| 1    | None  | 22.65%                    |
| 2    | Over 3 months, up to and including 6 months | 17.58%                    |
| 3    | Over 1 month, up to and including 3 months  | 14.96%                    |
| 4    | Over 6 months, up to and including 1 year   | 13.98%                    |
| 5    | Up to and including 1 month                 | 12.10%                    |
| 6    | Over 4 years, up to and including 10 years  | 11.66%                    |
| 7    | Over 10 years                               | 2.80%                     |
| 8    | Over 1 year, up to and including 2 years    | 2.27%                     |

| Rank | On-Site or In-Plant Training              | Percentage of Respondents |
|------|---|---------------------------|
| 9    | Over 2 years, up to and including 4 years | 2.01%                     |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Education Level of Jobs and Candidates

This section shows the minimum level of education requested by employers on job openings and green jobs advertised online, as well as the educational attainment of potential candidates in the workforce system that are looking for jobs as Information Security Analysts in Louisiana on December 8, 2020. There were 5 job openings advertised online that did not specify a minimum education requirement (Jobs De-duplication Level 2).

| Rank | Education Level  | Job Openings | Percentage of Job Openings | Green Job Count | Percentage of Green Jobs | Potential Candidates | Percentage of Potential Candidates |
|------|--|--------------|----------------------------|-----------------|--------------------------|----------------------|------------------------------------|
| 1    | Less than High School                                  | 0            | N/A                        | 0               | N/A                      | 1                    | 2.70%                              |
| 2    | High School Diploma or Equivalent                      | 1            | 14.29%                     | 0               | 0.00%                    | 5                    | 13.51%                             |
| 3    | 1 Year of College or a Technical or Vocational School  | 0            | N/A                        | 0               | N/A                      | 1                    | 2.70%                              |
| 4    | 2 Years of College or a Technical or Vocational School | 0            | N/A                        | 0               | N/A                      | 8                    | 21.62%                             |
| 5    | 3 Years of College or a Technical or Vocational School | 0            | N/A                        | 0               | N/A                      | 4                    | 10.81%                             |
| 6    | Vocational School Certificate                          | 0            | N/A                        | 0               | N/A                      | 2                    | 5.41%                              |

| Rank | Education Level    | Job Openings | Percentage of Job Openings | Green Job Count | Percentage of Green Jobs | Potential Candidates | Percentage of Potential Candidates |
|------|--------------------|--------------|----------------------------|-----------------|--------------------------|----------------------|------------------------------------|
| 7    | Associate's Degree | 0            | N/A                        | 0               | N/A                      | 5                    | 13.51%                             |
| 8    | Bachelor's Degree  | <u>1</u>     | 14.29%                     | 0               | 0.00%                    | 8                    | 21.62%                             |
| 9    | Master's Degree    | 0            | N/A                        | 0               | N/A                      | 3                    | 8.11%                              |
| 10   | Not Specified      | <u>5</u>     | 71.43%                     | 0               | 0.00%                    | 0                    | N/A                                |

Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

## Education Training Programs

This section shows the Education Training Programs for Information Security Analysts in Louisiana.

| Provider Name  | Program Name  | Location        | Tuition | Length    | WIOA Eligible |
|--|---|-----------------|---------|-----------|---------------|
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification | Baton Rouge, LA | \$2,895 | 100 Hours | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification | Baton Rouge, LA | \$2,895 | 100 Hours | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification | New Roads, LA   | \$2,895 | 100 Hours | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification | Baton Rouge, LA | \$2,895 | 100 Hours | ✓             |

| Provider Name  | Program Name   | Location        | Tuition | Length    | WIOA Eligible |
|--|--|-----------------|---------|-----------|---------------|
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification                      | Central, LA     | \$2,895 | 100 Hours | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification                      | Jackson, LA     | \$2,895 | 100 Hours | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification                      | Port Allen, LA  | \$2,895 | 100 Hours | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Ethical Hacker (Voucher Included)</u></a><br>An industry-recognized certificate or certification                      | Baton Rouge, LA | \$2,895 | 100 Hours | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Information Security Manager (CISM) (Voucher Included)</u></a><br>An industry-recognized certificate or certification | Baton Rouge, LA | \$1,395 | 75 Hours  | ✓             |
| <a href="#"><u>Baton Rouge Community College</u></a> | <a href="#"><u>Certified Information Security Manager (CISM) (Voucher Included)</u></a><br>An industry-recognized certificate or certification | Baton Rouge, LA | \$1,395 | 75 Hours  | ✓             |

Source: U.S. Department of Commerce, Bureau of the Census, Midyear Estimates

## Advertised Job Certifications

This section shows the top advertised certification groups found in job openings advertised online for Information Security Analysts in Louisiana in November, 2020. (Jobs De-duplication Level 1)

| Rank | Advertised Certification Group    | Advertised Certification Sub-Category | Job Opening Match Count |
|------|-----------------------------------|---------------------------------------|-------------------------|
| 1    | (ISC) <sup>2</sup> Certifications | Information and Cyber Security        | <u>6</u>                |

| Rank | Advertised Certification Group                                    | Advertised Certification Sub-Category | Job Opening Match Count |
|------|---|---------------------------------------|-------------------------|
| 2    | CompTIA Certifications  | Information Technology - All Other    | <u>2</u>                |
| 3    | Information Systems Audit and Control Association (ISACA)         | Information and Cyber Security        | <u>2</u>                |
| 4    | Security Professional Education Development (SPeD) Certifications | Information and Cyber Security        | 1                       |
| 5    | Check Point Certifications  | Information and Cyber Security        | 1                       |
| 6    | Mile2 Cyber Security Certifications                               | Information and Cyber Security        | 1                       |
| 7    | Disaster Recovery Institute (DRI) International Certifications    | Computer Systems                      | 1                       |

Source: Online advertised jobs data

## Training Program Completers

There is no data available for Information Security Analysts in Louisiana.

## National Education, Training, Licensing and Qualifications

### Information Security Analysts

Most information security analyst positions require a bachelor's degree in a computer-related field. Employers usually prefer analysts to have experience in a related occupation.

#### Education

Information security analysts usually need at least a bachelor's degree in computer science, information assurance, programming, or a related field.

Some employers prefer applicants who have a Master of Business Administration (MBA) in information systems. Programs offering the MBA in information systems generally require 2 years of study beyond the undergraduate level and include both business and computer-related courses.

#### Work Experience in a Related Occupation

Information security analysts generally need to have previous experience in a related occupation. Many analysts have experience in an information technology department, often as a network or computer systems administrator

. Some employers look for people who have already worked in fields related to the one in which they are hiring. For example, if the job opening is in database security, they may look for a database administrator. If they are hiring in systems security, a computer systems analyst may be an ideal candidate.

### Licenses, Certifications, and Registrations

There are a number of information security certifications available, and many employers prefer candidates to have certification, which validates the knowledge and best practices required from information security analysts. Some are general information security certificates, such as the Certified Information Systems Security Professional (CISSP), while others have a more narrow focus, such as penetration testing or systems auditing.

### Advancement

Information security analysts can advance to become chief security officers or another type of computer and information systems manager

.

### Important Qualities

#### Analytical skills

.

Information security analysts must carefully study computer systems and networks and assess risks to determine how security policies and protocols can be improved.

#### Detail oriented

.

Because cyberattacks can be difficult to detect, information security analysts must pay careful attention to computer systems and watch for minor changes in performance.

#### Ingenuity.

Information security analysts must anticipate information security risks and implement new ways to protect their organizations' computer systems and networks.

#### Problem-solving skills

.

Information security analysts must respond to security alerts and uncover and fix flaws in computer systems and networks.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

## Typical Work Experience Requirements

**Information Security Analysts** Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Related Work Experience

This section shows the results of a national survey listing the most common related work experience for Information Security Analysts.

| Rank | Related Work Experience                    | Percentage of Respondents |
|------|--|---------------------------|
| 1    | Over 2 years, up to and including 4 years  | 24.07%                    |
| 2    | Over 4 years, up to and including 6 years  | 21.46%                    |
| 3    | Over 8 years, up to and including 10 years | 17.70%                    |
| 4    | Over 10 years                              | 13.07%                    |
| 5    | Over 6 years, up to and including 8 years  | 10.49%                    |
| 6    | Over 6 months, up to and including 1 year  | 9.83%                     |
| 7    | Over 1 year, up to and including 2 years   | 2.24%                     |
| 8    | None                                       | 1.13%                     |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Work Experience of Jobs and Candidates

This section shows the minimum required work experience requested by employers on job openings and green jobs advertised online, as well as the experience level of potential candidates in the workforce system that are looking for jobs as Information Security Analysts in Louisiana on December 8, 2020. There were 5 job openings advertised online that did not specify a minimum experience requirement (Jobs De-duplication Level 2).

| Rank | Experience       | Job Openings | Percentage of Job Openings | Green Job Count | Percentage of Green Jobs | Potential Candidates | Percentage of Potential Candidates |
|------|------------------|--------------|----------------------------|-----------------|--------------------------|----------------------|------------------------------------|
| 1    | Not Specified    | 5            | 71.43%                     | 0               | 0.00%                    | 0                    | N/A                                |
| 2    | Less than 1 year | 0            | N/A                        | 0               | N/A                      | 2                    | 5.41%                              |

| Rank | Experience          | Job Openings | Percentage of Job Openings | Green Job Count | Percentage of Green Jobs | Potential Candidates | Percentage of Potential Candidates |
|------|---------------------|--------------|----------------------------|-----------------|--------------------------|----------------------|------------------------------------|
| 3    | 1 Year to 2 Years   | 0            | N/A                        | 0               | N/A                      | 1                    | 2.70%                              |
| 4    | 2 Years to 5 Years  | 2            | 28.57%                     | 0               | 0.00%                    | 2                    | 5.41%                              |
| 5    | 5 Years to 10 Years | 0            | N/A                        | 0               | N/A                      | 3                    | 8.11%                              |
| 6    | More than 10 Years  | 0            | N/A                        | 0               | N/A                      | 29                   | 78.38%                             |

Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

## Current Job Order Wage Information

The employer has NOT indicated a salary range for this job. The information below shows statistics on typical salaries in the local labor market for Information Security Analysts. This data is NOT an indication of what this employer is willing to pay for this job.

## Employment Wage Statistics

This section shows the estimated employment wage statistics for individuals in Louisiana employed for Information Security Analysts in 2018.

| Rate Type / Statistical Type | Q1       | Entry level | Median   | Experienced | Q3       |
|------------------------------|----------|-------------|----------|-------------|----------|
| Annual wage or salary        | \$57,842 | \$50,183    | \$72,516 | \$86,432    | \$88,755 |
| Hourly wage                  | \$27.81  | \$24.13     | \$34.86  | \$41.55     | \$42.67  |

Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

## Wage Rates on Advertised Jobs

This section shows a statistical breakdown of available wage data on the 7 job openings advertised online for Information Security Analysts in Louisiana that posted a salary on December 8, 2020.



| Rate Type / Statistical Type | Entry Level | Median | Experienced |
|------------------------------|-------------|--------|-------------|
| Annual wage or salary        | N/A         | N/A    | N/A         |
| Hourly Wage                  | N/A         | N/A    | N/A         |

Source: Online advertised jobs data

Note: This information is based on actual job orders and is not based on a statistically valid labor market survey. Hourly wage rate calculations in this section assume a 40 hour work week.

## Desired Salary of Available Candidates

This section shows the desired salary of potential candidates in the workforce system that are looking for jobs as Information Security Analysts in Louisiana on December 8, 2020.

| Rank | Desired Salary      | Potential Candidates | Percentage of Potential Candidates |
|------|---------------------|----------------------|------------------------------------|
| 1    | Not Specified       | 13                   | 36.11%                             |
| 2    | \$20,000 - \$34,999 | 8                    | 22.22%                             |
| 3    | \$35,000 - \$49,999 | 7                    | 19.44%                             |
| 4    | \$50,000 - \$64,999 | 6                    | 16.67%                             |
| 5    | \$65,000 - \$79,999 | 2                    | 5.56%                              |

Source: Individuals with active résumés in the workforce system.

## Wage Rates Area Distribution

There is no data available for Information Security Analysts in Louisiana.

## Wage Rates in Related Occupations

This section shows a comparison of 2018 median annual rates for occupations that are in the same occupational family as Information Security Analysts for Louisiana.

| Rank | Occupation  | Median    | *Related By |
|------|---|-----------|-------------|
| 1    | <a href="#">Petroleum Engineers</a>                         | \$128,991 | O*NET       |
| 2    | <a href="#">Computer and Information Systems Managers</a> 🌟 | \$104,877 | O*NET       |
| 3    | <a href="#">Electrical Engineers</a> 🌱                      | \$91,002  | O*NET       |
| 4    | <a href="#">Industrial Safety and Health Engineers</a> 🌱    | \$85,523  | O*NET       |
| 5    | <a href="#">Product Safety Engineers</a>                    | \$85,523  | O*NET       |

| Rank | Occupation   | Median   | *Related By |
|------|--|----------|-------------|
| 6    | <u>Industrial Engineering Technicians</u> 🌿                    | \$82,034 | O*NET       |
| 7    | <u>Validation Engineers</u> 🌿                                  | \$81,992 | O*NET       |
| 8    | <u>Database Administrators</u> ⚡                               | \$80,017 | O*NET       |
| 9    | <u>Software Developers, Applications</u> ⚡                     | \$79,753 | O*NET       |
| 10   | <u>Computer Hardware Engineers</u>                             | \$77,939 | O*NET       |
| 11   | <u>Software Developers, Systems Software</u> ⚡ 🌿               | \$73,552 | O*NET       |
| 12   | <u>Computer Network Architects</u>                             | \$73,217 | O*NET       |
| 13   | <u>Logisticians</u>  | \$72,442 | O*NET       |
| 14   | <u>Logistics Analysts</u> 🌿                                    | \$72,442 | O*NET       |
| 15   | <u>Occupational Health and Safety Specialists</u> 🌿            | \$71,755 | O*NET       |
| 16   | <u>Technical Writers</u> ⚡                                     | \$71,347 | O*NET       |
| 17   | <u>Computer Systems Analysts</u> ⚡                             | \$68,543 | O*NET       |
| 18   | <u>Informatics Nurse Specialists</u> ⚡                         | \$68,543 | O*NET       |
| 19   | <u>Claims Examiners, Property and Casualty Insurance</u>       | \$67,332 | O*NET       |
| 20   | <u>Computer Programmers</u>                                    | \$66,543 | O*NET       |
| 21   | <u>Network and Computer Systems Administrators</u>             | \$64,569 | O*NET       |
| 22   | <u>Software Quality Assurance Engineers and Testers</u> ⚡      | \$62,800 | O*NET       |
| 23   | <u>Computer Systems Engineers/Architects</u> ⚡                 | \$62,800 | O*NET       |
| 24   | <u>Web Administrators</u> ⚡                                    | \$62,800 | O*NET       |
| 25   | <u>Geospatial Information Scientists and Technologists</u> ⚡ 🌿 | \$62,800 | O*NET       |
| 26   | <u>Web Developers</u> ⚡  | \$56,619 | O*NET       |
| 27   | <u>Fraud Examiners, Investigators and Analysts</u>             | \$55,490 | O*NET       |
| 28   | <u>Computer User Support Specialists</u> ⚡                     | \$45,715 | O*NET       |
| 29   | <u>Power Distributors and Dispatchers</u> 🌿                    | \$40,345 | O*NET       |

⚡ BRIGHT OUTLOOK NATIONALLY | 🌿 GREEN OCCUPATIONS

Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution,

respectively. Data is from an annual survey.

\*Related By: O\*NET™ - The Occupational Information Network. O\*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.

## Wage Rates by Industry

There is no data available for Information Security Analysts in Louisiana.

## National Earnings Data Summary

### Information Security Analysts

The median annual wage for information security analysts was \$99,730 in May 2019. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$57,810, and the highest 10 percent earned more than \$158,860.

In May 2019, the median annual wages for information security analysts in the top industries in which they worked were as follows:

|  |           |
|--|-----------|
| Finance and insurance                        | \$103,510 |
| Computer systems design and related services | 101,980   |
| Information                                  | 100,560   |
| Management of companies and enterprises      | 97,440    |
| Administrative and support services          | 96,190    |

Most information security analysts work full time. Information security analysts sometimes have to be on call outside of normal business hours in case of an emergency. Some work more than 40 hours per week.

Source: U.S. Department of Labor Bureau of Labor Statistics

## Occupational Employment & Future Employment Outlook

This section shows the long term employment projections for Information Security Analysts in Louisiana from 2016-2026.

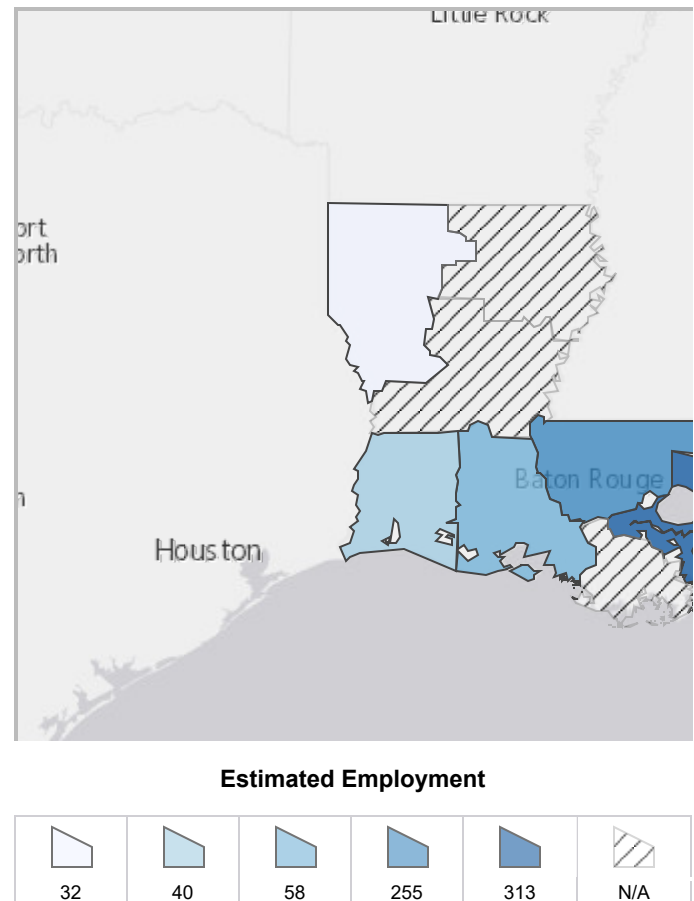
| Occupation                    | 2016<br>Estimated<br>Employment | 2026<br>Projected<br>Employment | Total 2016-<br>2026<br>Employment<br>Change | 2016-2026<br>Annual Avg.<br>Percent<br>Change |
|-------------------------------|---------------------------------|---------------------------------|---|---|
| Information Security Analysts | 757                             | 1,138                           | 381   | 4.16%   |
| Total All                     | 2,034,986                       | 2,203,144                       | 168,158                                     | 0.80%   |

Source: Occupational Employment Projections

## Employment Data Area Distribution

This section shows the distribution of the estimated employment for Information Security Analysts in Louisiana by regional labor market area.

| Rank | Area  | 2016<br>Estimated<br>Employment |
|------|---|---------------------------------|
| 1    | <u>1st Regional Labor Market Area, New Orleans</u>  | 313                             |
| 2    | <u>2nd Regional Labor Market Area, Baton Rouge</u>  | 255                             |
| 3    | <u>4th Regional Labor Market Area, Lafayette</u>    | 58                              |
| 4    | <u>5th Regional Labor Market Area, Lake Charles</u> | 40                              |
| 5    | <u>7th Regional Labor Market Area, Shreveport</u>   | 32                              |
| *    | <u>3rd Regional Labor Market Area, Houma</u>        | Confidential                    |
| *    | <u>6th Regional Labor Market Area, Alexandria</u>   | Confidential                    |
| *    | <u>8th Regional Labor Market Area, Monroe</u>       | Confidential                    |



\* Rank is suppressed for confidential data.

Source: Labor Market Statistics, Occupational Employment Projections Program

## Employment Data in Related Occupations

This section shows the 2016 Estimated Employment in Louisiana for occupations related to Information Security Analysts.

| Rank | Occupation                    | 2016 Estimated<br>Employment | *Related<br>By |
|------|-------------------------------|------------------------------|----------------|
| 1    | <u>Validation Engineers</u> 🌱 | 3,698                        | O*NET          |

| Rank | Occupation   | 2016 Estimated Employment | *Related By |
|------|--|---------------------------|-------------|
| 2    | <u>Computer User Support Specialists</u> 🌟                     | 3,524                     | O*NET       |
| 3    | <u>Network and Computer Systems Administrators</u>             | 2,953                     | O*NET       |
| 4    | <u>Claims Examiners, Property and Casualty Insurance</u>       | 2,910                     | O*NET       |
| 5    | <u>Computer Systems Engineers/Architects</u> 🌟                 | 2,873                     | O*NET       |
| 6    | <u>Geospatial Information Scientists and Technologists</u> 🌟 🌿 | 2,873                     | O*NET       |
| 7    | <u>Software Quality Assurance Engineers and Testers</u> 🌟      | 2,873                     | O*NET       |
| 8    | <u>Web Administrators</u> 🌟                                    | 2,873                     | O*NET       |
| 9    | <u>Computer Programmers</u>                                    | 2,505                     | O*NET       |
| 10   | <u>Computer Systems Analysts</u> 🌟                             | 1,971                     | O*NET       |
| 11   | <u>Informatics Nurse Specialists</u> 🌟                         | 1,971                     | O*NET       |
| 12   | <u>Computer and Information Systems Managers</u> 🌟             | 1,930                     | O*NET       |
| 13   | <u>Petroleum Engineers</u>                                     | 1,645                     | O*NET       |
| 14   | <u>Electrical Engineers</u> 🌿                                  | 1,557                     | O*NET       |
| 15   | <u>Software Developers, Applications</u> 🌟                     | 1,411                     | O*NET       |
| 16   | <u>Occupational Health and Safety Specialists</u> 🌿            | 1,317                     | O*NET       |
| 17   | <u>Software Developers, Systems Software</u> 🌟 🌿               | 1,203                     | O*NET       |
| 18   | <u>Fraud Examiners, Investigators and Analysts</u>             | 1,153                     | O*NET       |
| 19   | <u>Logisticians</u>  | 795                       | O*NET       |
| 20   | <u>Logistics Analysts</u> 🌿                                    | 795                       | O*NET       |
| 21   | <u>Industrial Safety and Health Engineers</u> 🌿                | 646                       | O*NET       |
| 22   | <u>Product Safety Engineers</u>                                | 646                       | O*NET       |
| 23   | <u>Web Developers</u> 🌟  | 560                       | O*NET       |
| 24   | <u>Database Administrators</u> 🌟                               | 508                       | O*NET       |
| 25   | <u>Industrial Engineering Technicians</u> 🌿                    | 404                       | O*NET       |
| 26   | <u>Computer Network Architects</u>                             | 246                       | O*NET       |
| 27   | <u>Technical Writers</u> 🌟                                     | 223                       | O*NET       |
| 28   | <u>Computer Hardware Engineers</u>                             | 206                       | O*NET       |
| *    | <u>Power Distributors and Dispatchers</u> 🌿                    | Confidential              | O*NET       |

\* Rank is suppressed for confidential data.

Source: Occupational Employment Projections

\*Related By: O\*NET™ - The Occupational Information Network. O\*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.

## Projected Annual Openings

This section shows the long term projected annual openings for Information Security Analysts in Louisiana from 2016 to 2026.

| Occupation                    | Total Annual<br>Average<br>Openings | Annual<br>Average<br>Openings<br>Due to<br>Growth | Annual<br>Average<br>Openings<br>Due to<br>Replacement |
|-------------------------------|-------------------------------------|---|--|
| Information Security Analysts | N/A                                 | N/A   | N/A  |
| Computer and Mathematical     | N/A                                 | N/A   | N/A  |

Source: Labor Market Statistics, Occupational Employment Projections Program

## Projected Annual Openings Area Distribution

This section shows the distribution of the total annual average openings for Information Security Analysts in Louisiana by regional labor market area from 2016 to 2026.

| Rank | Area  | Total Annual Average Openings |
|------|---|-------------------------------|
| 1    | <u>1st Regional Labor Market Area, New Orleans</u>  | N/A                           |
| 2    | <u>2nd Regional Labor Market Area, Baton Rouge</u>  | N/A                           |
| 3    | <u>4th Regional Labor Market Area, Lafayette</u>    | N/A                           |
| 4    | <u>5th Regional Labor Market Area, Lake Charles</u> | N/A                           |
| 5    | <u>7th Regional Labor Market Area, Shreveport</u>   | N/A                           |
| *    | <u>3rd Regional Labor Market Area, Houma</u>        | Confidential                  |
| *    | <u>6th Regional Labor Market Area, Alexandria</u>   | Confidential                  |
| *    | <u>8th Regional Labor Market Area, Monroe</u>       | Confidential                  |

There is no total annual average openings data available for Information Security Analysts in Louisiana.

\* Rank is suppressed for confidential data.

Source: Labor Market Statistics, Occupational Employment Projections Program

## Projected Annual Openings in Related Occupations

This section shows the projected total annual average openings in Louisiana for occupations related to Information Security Analysts from 2016 to 2026.

| Rank | Occupation   | Total Annual Average Openings | *Related By |
|------|--|-------------------------------|-------------|
| 1    | <u>Claims Examiners, Property and Casualty Insurance</u> | N/A                           | O*NET       |
| 2    | <u>Computer and Information Systems Managers</u> 🌟       | N/A                           | O*NET       |
| 3    | <u>Computer Hardware Engineers</u>                       | N/A                           | O*NET       |
| 4    | <u>Computer Network Architects</u>                       | N/A                           | O*NET       |

| Rank | Occupation   | Total Annual Average Openings | *Related By |
|------|--|-------------------------------|-------------|
| 5    | <u>Computer Programmers</u>                                    | N/A                           | O*NET       |
| 6    | <u>Computer Systems Analysts</u> 🌟                             | N/A                           | O*NET       |
| 7    | <u>Computer Systems Engineers/Architects</u> 🌟                 | N/A                           | O*NET       |
| 8    | <u>Computer User Support Specialists</u> 🌟                     | N/A                           | O*NET       |
| 9    | <u>Database Administrators</u> 🌟                               | N/A                           | O*NET       |
| 10   | <u>Electrical Engineers</u> 🌿                                  | N/A                           | O*NET       |
| 11   | <u>Fraud Examiners, Investigators and Analysts</u>             | N/A                           | O*NET       |
| 12   | <u>Geospatial Information Scientists and Technologists</u> 🌟 🌿 | N/A                           | O*NET       |
| 13   | <u>Industrial Engineering Technicians</u> 🌿                    | N/A                           | O*NET       |
| 14   | <u>Industrial Safety and Health Engineers</u> 🌿                | N/A                           | O*NET       |
| 15   | <u>Informatics Nurse Specialists</u> 🌟                         | N/A                           | O*NET       |
| 16   | <u>Logisticians</u>  | N/A                           | O*NET       |
| 17   | <u>Logistics Analysts</u> 🌿                                    | N/A                           | O*NET       |
| 18   | <u>Network and Computer Systems Administrators</u>             | N/A                           | O*NET       |
| 19   | <u>Occupational Health and Safety Specialists</u> 🌿            | N/A                           | O*NET       |
| 20   | <u>Petroleum Engineers</u>                                     | N/A                           | O*NET       |
| 21   | <u>Product Safety Engineers</u>                                | N/A                           | O*NET       |
| 22   | <u>Software Developers, Applications</u> 🌟                     | N/A                           | O*NET       |
| 23   | <u>Software Developers, Systems Software</u> 🌟 🌿               | N/A                           | O*NET       |
| 24   | <u>Software Quality Assurance Engineers and Testers</u> 🌟      | N/A                           | O*NET       |
| 25   | <u>Technical Writers</u> 🌟                                     | N/A                           | O*NET       |
| 26   | <u>Validation Engineers</u> 🌿                                  | N/A                           | O*NET       |
| 27   | <u>Web Administrators</u> 🌟                                    | N/A                           | O*NET       |
| 28   | <u>Web Developers</u> 🌟  | N/A                           | O*NET       |
| *    | <u>Power Distributors and Dispatchers</u> 🌿                    | Confidential                  | O*NET       |

🌟 BRIGHT OUTLOOK NATIONALLY | 🌿 GREEN OCCUPATIONS

\* Rank is suppressed for confidential data.

Source: Occupational Employment Projections



## Industries by Employment

This section shows the industries that employed the highest number of Information Security Analysts in Louisiana in 2016.

| Rank | Industry Title   | Estimated Employment | Percent of Total Employment |
|------|--|----------------------|-----------------------------|
| 1    | <a href="#">Professional, Scientific, and Technical Services</a>     | 321                  | 42.40%                      |
| 2    | <a href="#">Utilities</a>  | 66                   | 8.72%                       |
| 3    | <a href="#">Management of Companies and Enterprises</a>              | 51                   | 6.74%                       |
| 4    | <a href="#">Educational Services</a>                                 | 48                   | 6.34%                       |
| *    | <a href="#">Self-Employed and Unpaid Family Workers, Primary Job</a> | Confidential         | Confidential                |
| *    | <a href="#">Oil and Gas Extraction</a>                               | Confidential         | Confidential                |
| *    | <a href="#">Heavy and Civil Engineering Construction</a>             | Confidential         | Confidential                |
| *    | <a href="#">Chemical Manufacturing</a>                               | Confidential         | Confidential                |
| *    | <a href="#">Computer and Electronic Product Manufacturing</a>        | Confidential         | Confidential                |
| *    | <a href="#">Transportation Equipment Manufacturing</a>               | Confidential         | Confidential                |

\* Rank is suppressed for confidential data.

Source: Louisiana Workforce Commission, Occupational Projections Program

## Work Activities

This section shows the most common work activities required by Information Security Analysts in order of importance. Click on a link in the Work Activity column to view more detailed information.

| Work Activity                              | Work Activity Description  | Rank by Importance (Out of 100) |
|--|--|---------------------------------|
| <a href="#">Interacting With Computers</a> | Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information. | 93                              |
| <a href="#">Getting Information</a>        | Observing, receiving, and otherwise obtaining information from all relevant sources.   | 88                              |

| <b>Work Activity</b>   | <b>Work Activity Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|--|---|--|
| <u>Identifying Objects, Actions, and Events</u>                      | Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events. | 82                                     |
| <u>Evaluating Information to Determine Compliance with Standards</u> | Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.        | 78                                     |
| <u>Processing Information</u>  | Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.   | 77                                     |
| <u>Analyzing Data or Information</u>                                 | Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.               | 77                                     |
| <u>Updating and Using Relevant Knowledge</u>                         | Keeping up-to-date technically and applying new knowledge to your job.  | 76                                     |
| <u>Documenting/Recording Information</u>                             | Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.                                  | 76                                     |
| <u>Communicating with Supervisors, Peers, or Subordinates</u>        | Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.                         | 75                                     |
| <u>Making Decisions and Solving Problems</u>                         | Analyzing information and evaluating results to choose the best solution and solve problems.  | 74                                     |
| <u>Monitor Processes, Materials, or Surroundings</u>                 | Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.                                  | 73                                     |
| <u>Interpreting the Meaning of Information for Others</u>            | Translating or explaining what information means and how it can be used.  | 69                                     |
| <u>Organizing, Planning, and Prioritizing Work</u>                   | Developing specific goals and plans to prioritize, organize, and accomplish your work.  | 67                                     |

| <b>Work Activity</b>   | <b>Work Activity Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|--|---|--|
| <u>Thinking Creatively</u>   | Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.  | 64                                     |
| <u>Establishing and Maintaining Interpersonal Relationships</u>                        | Developing constructive and cooperative working relationships with others, and maintaining them over time.  | 61                                     |
| <u>Developing Objectives and Strategies</u>  | Establishing long-range objectives and specifying the strategies and actions to achieve them.   | 57                                     |
| <u>Performing Administrative Activities</u>  | Performing day-to-day administrative tasks such as maintaining information files and processing paperwork.  | 57                                     |
| <u>Estimating the Quantifiable Characteristics of Products, Events, or Information</u> | Estimating sizes, distances, and quantities; or determining time, costs, resources, or materials needed to perform a work activity.   | 55                                     |
| <u>Communicating with Persons Outside Organization</u>                                 | Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail. | 53                                     |
| <u>Judging the Qualities of Things, Services, or People</u>                            | Assessing the value, importance, or quality of things or people.  | 52                                     |
| <u>Provide Consultation and Advice to Others</u>                                       | Providing guidance and expert advice to management or other groups on technical, systems-, or process-related topics.   | 50                                     |
| <u>Coordinating the Work and Activities of Others</u>                                  | Getting members of a group to work together to accomplish tasks.  | 46                                     |
| <u>Developing and Building Teams</u>   | Encouraging and building mutual trust, respect, and cooperation among team members.   | 46                                     |

| <b>Work Activity</b>                                   | <b>Work Activity Description</b>   | <b>Rank by Importance (Out of 100)</b> |
|--|--|--|
| <u>Training and Teaching Others</u>                    | Identifying the educational needs of others, developing formal educational or training programs or classes, and teaching or instructing others.  | 43                                     |
| <u>Coaching and Developing Others</u>                  | Identifying the developmental needs of others and coaching, mentoring, or otherwise helping others to improve their knowledge or skills.   | 42                                     |
| <u>Scheduling Work and Activities</u>                  | Scheduling events, programs, and activities, as well as the work of others.  | 41                                     |
| <u>Resolving Conflicts and Negotiating with Others</u> | Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others.  | 40                                     |
| <u>Monitoring and Controlling Resources</u>            | Monitoring and controlling resources and overseeing the spending of money.   | 39                                     |
| <u>Repairing and Maintaining Electronic Equipment</u>  | Servicing, repairing, calibrating, regulating, fine-tuning, or testing machines, devices, and equipment that operate primarily on the basis of electrical or electronic (not mechanical) principles. | 38                                     |
| <u>Inspecting Equipment, Structures, or Material</u>   | Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.   | 36                                     |
| <u>Guiding, Directing, and Motivating Subordinates</u> | Providing guidance and direction to subordinates, including setting performance standards and monitoring performance.  | 36                                     |
| <u>Selling or Influencing Others</u>                   | Convincing others to buy merchandise/goods or to otherwise change their minds or actions.  | 33                                     |
| <u>Staffing Organizational Units</u>                   | Recruiting, interviewing, selecting, hiring, and promoting employees in an organization.   | 32                                     |

| Work Activity   | Work Activity Description  | Rank by Importance (Out of 100) |
|---|--|---------------------------------|
| <a href="#"><u>Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment</u></a> | Providing documentation, detailed instructions, drawings, or specifications to tell others about how devices, parts, equipment, or structures are to be fabricated, constructed, assembled, modified, maintained, or used. | 24                              |
| <a href="#"><u>Controlling Machines and Processes</u></a>   | Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).  | 23                              |
| <a href="#"><u>Performing for or Working Directly with the Public</u></a>                           | Performing for people or dealing directly with the public. This includes serving customers in restaurants and stores, and receiving clients or guests.   | 19                              |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Tasks

This section shows the most common tasks required by Information Security Analysts in order of importance. Click on a link in the Task column to view more detailed information.

| Tasks   | Task Description | Rank by Importance (Out of 100) |
|---|------------------|---------------------------------|
| <a href="#"><u>Develop plans to safeguard computer files against accidental or unauthorized modification, destruction, or disclosure and to meet emergency data processing needs.</u></a> | Core             | 85                              |
| <a href="#"><u>Monitor current reports of computer viruses to determine when to update virus protection systems.</u></a>  | Core             | 81                              |
| <a href="#"><u>Encrypt data transmissions and erect firewalls to conceal confidential information as it is being transmitted and to keep out tainted digital transfers.</u></a>           | Core             | 80                              |
| <a href="#"><u>Perform risk assessments and execute tests of data processing system to ensure functioning of data processing activities and security measures.</u></a>                    | Core             | 78                              |
| <a href="#"><u>Modify computer security files to incorporate new software, correct errors, or change individual access status.</u></a>  | Core             | 78                              |

| Tasks  | Task Description | Rank by Importance (Out of 100) |
|--|------------------|---------------------------------|
| <u>Review violations of computer security procedures and discuss procedures with violators to ensure violations are not repeated.</u>            | Core             | 76                              |
| <u>Confer with users to discuss issues such as computer data access needs, security violations, and programming changes.</u>                     | Core             | 74                              |
| <u>Document computer security and emergency measures policies, procedures, and tests.</u>  | Core             | 74                              |
| <u>Monitor use of data files and regulate access to safeguard information in computer files.</u>   | Core             | 72                              |
| <u>Coordinate implementation of computer system plan with establishment personnel and outside vendors.</u>                                       | Core             | 72                              |
| <u>Train users and promote security awareness to ensure system security and to improve server and network efficiency.</u>                        | Core             | 70                              |
| <u>Maintain permanent fleet cryptologic and carry-on direct support systems required in special land, sea surface and subsurface operations.</u> | Supplemental     | 76                              |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## National Working Conditions

### Information Security Analysts

Information security analysts held about 131,000 jobs in 2019. The largest employers of information security analysts were as follows:

|  |     |
|--|-----|
| Computer systems design and related services | 26% |
| Finance and insurance                        | 18  |
| Management of companies and enterprises      | 9   |
| Information                                  | 8   |
| Administrative and support services          | 6   |

Many information security analysts work with other members of an information technology department, such as network administrators

or  
computer systems analysts

## Work Schedules

Most information security analysts work full time. Information security analysts sometimes have to be on call outside of normal business hours in case of an emergency. Some work more than 40 hours per week.

Source: U.S. Department of Labor Bureau of Labor Statistics

## Typical Work Conditions

This section shows the most common work conditions required by Information Security Analysts in order of importance.

| Work Condition                        | Work Condition Description  | Rank by Importance (Out of 100) |
|---------------------------------------|---|---------------------------------|
| Electronic Mail                       | How often do you use electronic mail in this job?   | 99                              |
| Indoors, Environmentally Controlled   | How often does this job require working indoors in environmentally controlled conditions?   | 96                              |
| Telephone                             | How often do you have telephone conversations in this job?  | 87                              |
| Face-to-Face Discussions              | How often do you have to have face-to-face discussions with individuals or teams in this job?   | 87                              |
| Contact With Others                   | How much does this job require the worker to be in contact with others (face-to-face, by telephone, or otherwise) in order to perform it? | 83                              |
| Spend Time Sitting                    | How much does this job require sitting?   | 81                              |
| Work With Work Group or Team          | How important is it to work with others in a group or team in this job?   | 80                              |
| Structured versus Unstructured Work   | To what extent is this job structured for the worker, rather than allowing the worker to determine tasks, priorities, and goals?          | 77                              |
| Importance of Being Exact or Accurate | How important is being very exact or highly accurate in performing this job?  | 77                              |
| Freedom to Make Decisions             | How much decision making freedom, without supervision, does the job offer?  | 75                              |

| <b>Work Condition</b>   | <b>Work Condition Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|---|--|--|
| Impact of Decisions on Co-workers or Company Results                                | What results do your decisions usually have on other people or the image or reputation or financial resources of your employer?  | 66                                     |
| Time Pressure   | How often does this job require the worker to meet strict deadlines?   | 65                                     |
| Consequence of Error  | How serious would the result usually be if the worker made a mistake that was not readily correctable?   | 61                                     |
| Coordinate or Lead Others   | How important is it to coordinate or lead others in accomplishing work activities in this job?   | 61                                     |
| Importance of Repeating Same Tasks  | How important is repeating the same physical activities (e.g., key entry) or mental activities (e.g., checking entries in a ledger) over and over, without stopping, to performing this job? | 58                                     |
| Frequency of Decision Making  | How frequently is the worker required to make decisions that affect other people, the financial resources, and/or the image and reputation of the organization?                              | 55                                     |
| Level of Competition  | To what extent does this job require the worker to compete or to be aware of competitive pressures?  | 55                                     |
| Spend Time Using Your Hands to Handle, Control, or Feel Objects, Tools, or Controls | How much does this job require using your hands to handle, control, or feel objects, tools or controls?  | 52                                     |
| Physical Proximity  | To what extent does this job require the worker to perform job tasks in close physical proximity to other people?  | 52                                     |
| Responsibility for Outcomes and Results   | How responsible is the worker for work outcomes and results of other workers?  | 51                                     |
| Letters and Memos   | How often does the job require written letters and memos?  | 50                                     |
| Frequency of Conflict Situations  | How often are there conflict situations the employee has to face in this job?  | 48                                     |



| <b>Work Condition</b>                                 | <b>Work Condition Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|---|--|--|
| Deal With External Customers                          | How important is it to work with external customers or the public in this job?   | 47                                     |
| Spend Time Making Repetitive Motions                  | How much does this job require making repetitive motions?  | 45                                     |
| Deal With Unpleasant or Angry People                  | How frequently does the worker have to deal with unpleasant, angry, or discourteous individuals as part of the job requirements? | 41                                     |
| Sounds, Noise Levels Are Distracting or Uncomfortable | How often does this job require working exposed to sounds and noise levels that are distracting or uncomfortable?                | 37                                     |
| Spend Time Standing                                   | How much does this job require standing?   | 33                                     |
| Responsible for Others' Health and Safety             | How much responsibility is there for the health and safety of others in this job?  | 29                                     |
| Public Speaking                                       | How often do you have to perform public speaking in this job?  | 27                                     |
| Degree of Automation                                  | How automated is the job?  | 26                                     |
| Spend Time Walking and Running                        | How much does this job require walking and running?  | 25                                     |
| Extremely Bright or Inadequate Lighting               | How often does this job require working in extremely bright or inadequate lighting conditions?                                   | 22                                     |
| In an Enclosed Vehicle or Equipment                   | How often does this job require working in a closed vehicle or equipment (e.g., car)?  | 20                                     |
| Very Hot or Cold Temperatures                         | How often does this job require working in very hot (above 90 F degrees) or very cold (below 32 F degrees) temperatures?         | 20                                     |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Work Values and Needs

This section shows the information on the current work values for your selected occupation.

---

| <b>Work Value</b>  | <b>Work Value Description</b>  | <b>Rank By Extent (Out of 100)</b> |
|--------------------|--|------------------------------------|
| Working Conditions | Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.                               | 78                                 |
| Support            | Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.                          | 72                                 |
| Independence       | Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.   | 72                                 |
| Achievement        | Occupations that satisfy this work value are results oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. Corresponding needs are Ability Utilization and Achievement.      | 61                                 |
| Recognition        | Occupations that satisfy this work value offer advancement, potential for leadership, and are often considered prestigious. Corresponding needs are Advancement, Authority, Recognition and Social Status.                     | 56                                 |
| Relationships      | Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive environment. Corresponding needs are Co-workers, Moral Values and Social Service. | 56                                 |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Typical Tools

This section shows common tools used by Information Security Analysts.

| <b>Detailed Tool</b> | <b>Tool Group</b>   |
|----------------------|---------------------|
| Desktop computers    | Desktop computers   |
| Mainframe computers  | Mainframe computers |

| Detailed Tool                    | Tool Group         |
|----------------------------------|--------------------|
| Local area network LAN analyzers | Network analyzers  |
| Network analyzers                | Network analyzers  |
| Notebook computers               | Notebook computers |
| Protocol analyzers               | Protocol analyzers |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Typical Technology

This section shows common technology used by Information Security Analysts.

| Detailed Technology  | Technology Group                                 |
|--|--|
| Access management software                                 | Access software                                  |
| Citrix   | Access software                                  |
| IBM Tivoli Access Management TAM                           | Access software                                  |
| Cisco Systems CiscoWorks                                   | Administration software                          |
| SAS  | Analytical or scientific software                |
| The MathWorks MATLAB                                       | Analytical or scientific software                |
| Docker   | Application server software                      |
| GitHub   | Application server software                      |
| Oracle WebLogic Server                                     | Application server software                      |
| Red Hat WildFly  | Application server software                      |
| Diameter   | Authentication server software                   |
| IBM Tivoli Identity Management TIM                         | Authentication server software                   |
| Password management software                               | Authentication server software                   |
| Remote authentication dial-in user service RADIUS software | Authentication server software                   |
| Backup and archival software                               | Backup or archival software                      |
| System and data disaster recovery software                 | Backup or archival software                      |
| Veritas NetBackup  | Backup or archival software                      |
| IBM Cognos Impromptu                                       | Business intelligence and data analysis software |
| MicroStrategy  | Business intelligence and data analysis software |

## Detailed Technology

Oracle Business Intelligence Enterprise Edition

Qlik Tech QlikView

Tableau

IBM Domino

Automated installation software

Chef

Patch and update management software

Perforce Helix software

Puppet

VMWare

Atlassian JIRA

Salesforce

Apache Cassandra

Apache Hadoop

Apache Hive

Apache Pig

Apache Solr

Elasticsearch

MongoDB

MySQL

NoSQL

Oracle PL/SQL

Relational database management software

Teradata Database

Microsoft SQL Server Reporting Services

SAP Crystal Reports

Amazon Elastic Compute Cloud EC2

Amazon Redshift

Amazon Web Services AWS software

Blackboard

## Technology Group

Business intelligence and data analysis software

Business intelligence and data analysis software

Business intelligence and data analysis software

Communications server software

Configuration management software

Configuration management software

Configuration management software

Configuration management software

Configuration management software

Configuration management software

Content workflow software

Customer relationship management CRM software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base management system software

Data base reporting software

Data base reporting software

Data base user interface and query software

Data base user interface and query software

Data base user interface and query software

Data base user interface and query software

## Detailed Technology

Data entry software  
Microsoft Access  
Microsoft SQL Server  
Oracle JDBC  
Oracle software  
Structured query language SQL  
Secure shell SSH software  
Adobe Systems Adobe ActionScript  
Apache Ant  
Apache Kafka  
Apache Maven  
C  
Common business oriented language  
COBOL  
Eclipse IDE  
Go  
Integrated development environment IDE  
software  
Microsoft .NET Framework  
Microsoft Azure  
Microsoft PowerShell  
Microsoft Visual Basic  
Microsoft Visual Basic for Applications VBA  
Microsoft Visual Basic Scripting Edition  
VBScript  
Microsoft Visual Studio  
National Instruments LabVIEW  
Ruby  
IBM Notes  
Microsoft Exchange Server  
Atlassian Bamboo

## Technology Group

Data base user interface and query software  
Data base user interface and query software  
Data base user interface and query software  
Data base user interface and query software  
Data base user interface and query software  
Data base user interface and query software  
Desktop communications software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Development environment software  
Electronic mail software  
Electronic mail software  
Enterprise application integration software

## Detailed Technology

Extensible markup language XML  
IBM WebSphere  
Microsoft SQL Server Integration Services SSIS  
Oracle Fusion Middleware  
Microsoft Dynamics  
Oracle Fusion Applications  
Oracle Hyperion  
Oracle JD Edwards EnterpriseOne  
Oracle PeopleSoft  
Oracle PeopleSoft Financials  
SAP  
ArcSight Enterprise Threat and Risk Management  
IBM Power Systems software  
Splunk Enterprise  
Ansible software  
Apache Subversion SVN  
Git  
WinMerge  
Computer forensic software  
Delphi Technology  
Oracle E-Business Suite Financials  
Adobe Systems Adobe Flash  
Microsoft Visio  
Human resource management software HRMS  
Supervisory control and data acquisition SCADA software  
LexisNexis  
Active directory software  
Berkeley Internet Domain Name BIND

## Technology Group

Enterprise application integration software  
Enterprise application integration software  
Enterprise application integration software  
Enterprise application integration software  
Enterprise resource planning ERP software  
Enterprise resource planning ERP software  
Enterprise resource planning ERP software  
Enterprise resource planning ERP software  
Enterprise resource planning ERP software  
Enterprise resource planning ERP software  
Enterprise system management software  
Enterprise system management software  
Enterprise system management software  
Expert system software  
File versioning software  
File versioning software  
File versioning software  
Filesystem software  
Financial analysis software  
Financial analysis software  
Graphics or photo imaging software  
Graphics or photo imaging software  
Human resources software  
Industrial control software  
Information retrieval or search software  
Internet directory services software  
Internet directory services software

## Detailed Technology

Domain name system DNS

Network directory services software

Voice over internet protocol VoIP system software

License management software

ESRI ArcGIS software

Geographic information system GIS software

Epic Systems

AccessData FTK

Automated audit trail analysis software

Automated media tracking software

Ethereal

Guidance Software EnCase Forensic

IBM QRadar SIEM

Integrity verification software

Keystroke monitoring software

Micro Focus OpenView

Nagios

Network intrusion prevention systems NIPS

Network, hardware, and software auditing software

Oracle Net Manager

Quest BigBrother

Sniffer Investigator

Snort

Symantec Blue Coat Data Loss Prevention

Tcpdump

Wireshark

Cryptographic key management software

Firewall software

## Technology Group

Internet directory services software

Internet directory services software

Internet protocol IP multimedia subsystem software

License management software

Map creation software

Map creation software

Medical software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

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Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network monitoring software

Network security and virtual private network VPN equipment software

Network security and virtual private network VPN equipment software

## Detailed Technology

Imperva SecureSphere

IpFilter

IpTables

Juniper Networks NetScreen-Security Manager

Palo Alto Networks Next-Generation Security Platform

Trend Micro TippingPoint

Virtual private networking VPN software

HP Fortify

Intrusion detection system IDS

Intrusion prevention system IPS

ISS RealSecure

Network and system vulnerability assessment software

Network security auditing software

Qualys Cloud Platform

Security incident management software

Websense Data Loss Prevention

Advanced business application programming ABAP

Apache Groovy

## Technology Group

Network security and virtual private network VPN equipment software

Network security and virtual private network VPN equipment software

Network security and virtual private network VPN equipment software

Network security and virtual private network VPN equipment software

Network security and virtual private network VPN equipment software

Network security and virtual private network VPN equipment software

Network security and virtual private network VPN equipment software

Network security or virtual private network VPN management software

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Network security or virtual private network VPN management software

Network security or virtual private network VPN management software

Network security or virtual private network VPN management software

Network security or virtual private network VPN management software

Network security or virtual private network VPN management software

Object or component oriented development software

Object or component oriented development software



| Detailed Technology                              | Technology Group                                  |
|--|---|
| C#   | Object or component oriented development software |
| C++  | Object or component oriented development software |
| Objective C                                      | Object or component oriented development software |
| Oracle Java                                      | Object or component oriented development software |
| Practical extraction and reporting language Perl | Object or component oriented development software |
| Python   | Object or component oriented development software |
| Scala  | Object or component oriented development software |
| Swift  | Object or component oriented development software |
| PostgreSQL                                       | Object oriented data base management software     |
| Microsoft Office                                 | Office suite software                             |
| Apple macOS                                      | Operating system software                         |
| Bash   | Operating system software                         |
| Hewlett Packard HP-UX                            | Operating system software                         |
| Job control language JCL                         | Operating system software                         |
| KornShell  | Operating system software                         |
| Linux  | Operating system software                         |
| Microsoft Hyper-V Server                         | Operating system software                         |
| Microsoft Windows                                | Operating system software                         |
| Microsoft Windows Server                         | Operating system software                         |
| Oracle Solaris                                   | Operating system software                         |
| Red Hat Enterprise Linux                         | Operating system software                         |
| Shell script                                     | Operating system software                         |
| Ubuntu   | Operating system software                         |
| UNIX   | Operating system software                         |
| UNIX Shell                                       | Operating system software                         |





Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Licensing Information

There is no data available for Information Security Analysts in Louisiana.

## Typical Knowledge Categories

This section shows the most common knowledge categories required by Information Security Analysts in order of importance. Click on a link in the Knowledge Category column to view more detailed information.

| Knowledge Category                            | Knowledge Category Description   | Rank by Importance (Out of 100) |
|---|--|---------------------------------|
| <a href="#">Computers and Electronics</a>     | Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.  | 84                              |
| <a href="#">English Language</a>              | Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.   | 82                              |
| <a href="#">Administration and Management</a> | Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources. | 67                              |
| <a href="#">Engineering and Technology</a>    | Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services. | 66                              |
| <a href="#">Telecommunications</a>            | Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.  | 66                              |
| <a href="#">Customer and Personal Service</a> | Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.      | 61                              |

| <b>Knowledge Category</b>            | <b>Knowledge Category Description</b>   | <b>Rank by Importance (Out of 100)</b> |
|--------------------------------------|---|--|
| <u>Public Safety and Security</u>    | Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.          | 57                                     |
| <u>Mathematics</u>                   | Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.   | 47                                     |
| <u>Communications and Media</u>      | Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.                               | 45                                     |
| <u>Law and Government</u>            | Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.   | 43                                     |
| <u>Clerical</u>                      | Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology. | 42                                     |
| <u>Personnel and Human Resources</u> | Knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.                             | 36                                     |
| <u>Design</u>                        | Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.  | 35                                     |
| <u>Production and Processing</u>     | Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.  | 35                                     |
| <u>Economics and Accounting</u>      | Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data.   | 32                                     |

| Knowledge Category         | Knowledge Category Description   | Rank by Importance (Out of 100) |
|----------------------------|--|---------------------------------|
| <a href="#">Psychology</a> | Knowledge of human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders. | 27                              |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Typical Work Abilities Required

This section shows the results of a national survey listing the most common work abilities required by Information Security Analysts in order of importance. Click on a link in the Work Ability column to view more detailed information.

| Work Ability                          | Work Ability Description  | Rank by Importance (Out of 100) |
|---------------------------------------|---|---------------------------------|
| <a href="#">Deductive Reasoning</a>   | The ability to apply general rules to specific problems to produce answers that make sense.   | 75                              |
| <a href="#">Inductive Reasoning</a>   | The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).   | 75                              |
| <a href="#">Oral Comprehension</a>    | The ability to listen to and understand information and ideas presented through spoken words and sentences.   | 75                              |
| <a href="#">Problem Sensitivity</a>   | The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.   | 75                              |
| <a href="#">Written Comprehension</a> | The ability to read and understand information and ideas presented in writing.  | 75                              |
| <a href="#">Information Ordering</a>  | The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). | 72                              |
| <a href="#">Written Expression</a>    | The ability to communicate information and ideas in writing so others will understand.  | 72                              |
| <a href="#">Near Vision</a>           | The ability to see details at close range (within a few feet of the observer).  | 69                              |

| <b>Work Ability</b>           | <b>Work Ability Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|-------------------------------|--|--|
| <u>Oral Expression</u>        | The ability to communicate information and ideas in speaking so others will understand.  | 69                                     |
| <u>Category Flexibility</u>   | The ability to generate or use different sets of rules for combining or grouping things in different ways.   | 63                                     |
| <u>Flexibility of Closure</u> | The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.   | 60                                     |
| <u>Speech Clarity</u>         | The ability to speak clearly so others can understand you.   | 60                                     |
| <u>Speech Recognition</u>     | The ability to identify and understand the speech of another person.   | 60                                     |
| <u>Selective Attention</u>    | The ability to concentrate on a task over a period of time without being distracted.   | 53                                     |
| <u>Fluency of Ideas</u>       | The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).   | 50                                     |
| <u>Originality</u>            | The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.  | 50                                     |
| <u>Perceptual Speed</u>       | The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object. | 50                                     |
| <u>Speed of Closure</u>       | The ability to quickly make sense of, combine, and organize information into meaningful patterns.  | 47                                     |
| <u>Far Vision</u>             | The ability to see details at a distance.  | 44                                     |
| <u>Mathematical Reasoning</u> | The ability to choose the right mathematical methods or formulas to solve a problem.   | 44                                     |
| <u>Time Sharing</u>           | The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).  | 44                                     |
| <u>Visualization</u>          | The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.   | 44                                     |

| <b>Work Ability</b>                | <b>Work Ability Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|------------------------------------|--|--|
| <u>Finger Dexterity</u>            | The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.                | 35                                     |
| <u>Memorization</u>                | The ability to remember information such as words, numbers, pictures, and procedures.  | 31                                     |
| <u>Number Facility</u>             | The ability to add, subtract, multiply, or divide quickly and correctly.   | 31                                     |
| <u>Visual Color Discrimination</u> | The ability to match or detect differences between colors, including shades of color and brightness.   | 28                                     |
| <u>Arm-Hand Steadiness</u>         | The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.                                       | 25                                     |
| <u>Control Precision</u>           | The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.  | 22                                     |
| <u>Hearing Sensitivity</u>         | The ability to detect or tell the differences between sounds that vary in pitch and loudness.  | 22                                     |
| <u>Manual Dexterity</u>            | The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.                        | 22                                     |
| <u>Auditory Attention</u>          | The ability to focus on a single source of sound in the presence of other distracting sounds.  | 19                                     |
| <u>Depth Perception</u>            | The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.                        | 19                                     |
| <u>Extent Flexibility</u>          | The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.   | 16                                     |
| <u>Trunk Strength</u>              | The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing. | 16                                     |
| <u>Dynamic Strength</u>            | The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.                   | 10                                     |
| <u>Wrist-Finger Speed</u>          | The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.  | 10                                     |



| <b>Work Ability</b>         | <b>Work Ability Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|-----------------------------|--|--|
| <u>Response Orientation</u> | The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part. | 3                                      |
| <u>Stamina</u>              | The ability to exert yourself physically over long periods of time without getting winded or out of breath.  | 3                                      |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Typical Work Interests

This section shows the results of a national survey listing the most common work interests for Information Security Analysts in order of importance.

| <b>Work Interest</b> | <b>Work Interest Description</b>   | <b>Rank by Importance (Out of 100)</b> |
|----------------------|--|--|
| Conventional         | Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.   | 89                                     |
| Investigative        | Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.  | 72                                     |
| Realistic            | Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others. | 61                                     |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Typical Work Styles

This section shows the most common work styles required by Information Security Analysts in order of importance. Click on a link in the Work Style column to view more detailed information.

| <b>Work Style</b>                               | <b>Work Style Description</b>  | <b>Rank by Importance (Out of 100)</b> |
|---|--|--|
| <a href="#"><u>Attention to Detail</u></a>      | Job requires being careful about detail and thorough in completing work tasks.   | 89                                     |
| <a href="#"><u>Dependability</u></a>            | Job requires being reliable, responsible, and dependable, and fulfilling obligations.  | 88                                     |
| <a href="#"><u>Integrity</u></a>                | Job requires being honest and ethical.   | 88                                     |
| <a href="#"><u>Analytical Thinking</u></a>      | Job requires analyzing information and using logic to address work-related issues and problems.  | 86                                     |
| <a href="#"><u>Cooperation</u></a>              | Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.  | 82                                     |
| <a href="#"><u>Adaptability/Flexibility</u></a> | Job requires being open to change (positive or negative) and to considerable variety in the workplace.   | 81                                     |
| <a href="#"><u>Initiative</u></a>               | Job requires a willingness to take on responsibilities and challenges.   | 80                                     |
| <a href="#"><u>Persistence</u></a>              | Job requires persistence in the face of obstacles.   | 76                                     |
| <a href="#"><u>Self Control</u></a>             | Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations. | 76                                     |
| <a href="#"><u>Achievement/Effort</u></a>       | Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.                         | 75                                     |
| <a href="#"><u>Stress Tolerance</u></a>         | Job requires accepting criticism and dealing calmly and effectively with high stress situations.   | 73                                     |
| <a href="#"><u>Leadership</u></a>               | Job requires a willingness to lead, take charge, and offer opinions and direction.   | 73                                     |
| <a href="#"><u>Independence</u></a>             | Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.    | 72                                     |

| Work Style                                | Work Style Description  | Rank by Importance (Out of 100) |
|---|---|---------------------------------|
| <a href="#"><u>Innovation</u></a>         | Job requires creativity and alternative thinking to develop new ideas for and answers to work-related problems.       | 68                              |
| <a href="#"><u>Concern for Others</u></a> | Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.            | 67                              |
| <a href="#"><u>Social Orientation</u></a> | Job requires preferring to work with others rather than alone, and being personally connected with others on the job. | 59                              |

Source: This information is based on O\*NET™ data. O\*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

## Related Occupations

This section shows a list of occupations related to Information Security Analysts. Click an occupation title to see more information about that occupation.

| Rank | Related Occupations                                | Duties  | *Related By |
|------|--|---|-------------|
| 1    | <a href="#"><u>Computer Network Architects</u></a> | Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network modeling, analysis, and planning. May also design network and computer security measures. May research and recommend network and data communications hardware and software.          | O*NET       |
| 2    | <a href="#"><u>Computer Programmers</u></a>        | Create, modify, and test the code, forms, and script that allow computer applications to run. Work from specifications drawn up by software developers or other individuals. May assist software developers by analyzing user needs and designing software solutions. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information. | O*NET       |

| Rank | Related Occupations  | Duties   | *Related By |
|------|--|--|-------------|
| 3    | <u>Computer Systems Analysts</u> 🌟                             | Analyze science, engineering, business, and other data processing problems to implement and improve computer systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software. | O*NET       |
| 4    | <u>Computer Systems Engineers/Architects</u> 🌟                 | Design and develop solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions.  | O*NET       |
| 5    | <u>Computer User Support Specialists</u> 🌟                     | Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, or via telephone or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.                           | O*NET       |
| 6    | <u>Database Administrators</u> 🌟                               | Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. May plan, coordinate, and implement security measures to safeguard computer databases.  | O*NET       |
| 7    | <u>Geospatial Information Scientists and Technologists</u> 🌟 🌿 | Research or develop geospatial technologies. May produce databases, perform applications programming, or coordinate projects. May specialize in areas such as agriculture, mining, health care, retail trade, urban planning, or military intelligence.  | O*NET       |
| 8    | <u>Informatics Nurse Specialists</u> 🌟                         | Apply knowledge of nursing and informatics to assist in the design, development, and ongoing modification of computerized health care systems. May educate staff and assist in problem solving to promote the implementation of the health care system.  | O*NET       |

| Rank | Related Occupations                                       | Duties  | *Related By |
|------|---|---|-------------|
| 9    | <u>Network and Computer Systems Administrators</u>        | Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Monitor network to ensure network availability to all system users and may perform necessary maintenance to support network availability. May monitor and test Web site performance to ensure Web sites operate correctly and without interruption. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software. May supervise computer user support specialists and computer network support specialists. May administer network security measures. | O*NET       |
| 10   | <u>Software Developers, Applications</u> 🌟                | Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team. May supervise computer programmers.  | O*NET       |
| 11   | <u>Software Developers, Systems Software</u> 🌟 🍃          | Research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. May design embedded systems software. Apply principles and techniques of computer science, engineering, and mathematical analysis.   | O*NET       |
| 12   | <u>Software Quality Assurance Engineers and Testers</u> 🌟 | Develop and execute software test plans in order to identify software problems and their causes.  | O*NET       |
| 13   | <u>Web Administrators</u> 🌟                               | Manage web environment design, deployment, development and maintenance activities. Perform testing and quality assurance of web sites and web applications.   | O*NET       |

| Rank | Related Occupations                                      | Duties  | *Related By |
|------|--|---|-------------|
| 14   | <u>Web Developers</u> 🌟                                  | Design, create, and modify Web sites. Analyze user needs to implement Web site content, graphics, performance, and capacity. May integrate Web sites with other computer applications. May convert written, graphic, audio, and video components to compatible Web formats by using software designed to facilitate the creation of Web and multimedia content. | O*NET       |
| 15   | <u>Claims Examiners, Property and Casualty Insurance</u> | Review settled insurance claims to determine that payments and settlements have been made in accordance with company practices and procedures. Report overpayments, underpayments, and other irregularities. Confer with legal counsel on claims requiring litigation.  | O*NET       |
| 16   | <u>Computer and Information Systems Managers</u> 🌟       | Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.   | O*NET       |
| 17   | <u>Computer Hardware Engineers</u>                       | Research, design, develop, or test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components.   | O*NET       |
| 18   | <u>Electrical Engineers</u> 🌱                            | Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use.   | O*NET       |
| 19   | <u>Fraud Examiners, Investigators and Analysts</u>       | Obtain evidence, take statements, produce reports, and testify to findings regarding resolution of fraud allegations. May coordinate fraud detection and prevention activities.   | O*NET       |
| 20   | <u>Industrial Engineering Technicians</u> 🌱              | Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.                                | O*NET       |
| 21   | <u>Industrial Safety and Health Engineers</u> 🌱          | Plan, implement, and coordinate safety programs, requiring application of engineering principles and technology, to prevent or correct unsafe environmental working conditions.   | O*NET       |

| Rank | Related Occupations   | Duties   | *Related By |
|------|---|--|-------------|
| 22   | <a href="#"><u>Logisticians</u></a>                                 | Analyze and coordinate the logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources.  | O*NET       |
| 23   | <a href="#"><u>Logistics Analysts</u></a> 🌱                         | Analyze product delivery or supply chain processes to identify or recommend changes. May manage route activity including invoicing, electronic bills, and shipment tracing.  | O*NET       |
| 24   | <a href="#"><u>Occupational Health and Safety Specialists</u></a> 🌱 | Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector. Includes environmental protection officers. | O*NET       |
| 25   | <a href="#"><u>Petroleum Engineers</u></a>                          | Devise methods to improve oil and gas extraction and production and determine the need for new or modified tool designs. Oversee drilling and offer technical advice.  | O*NET       |
| 26   | <a href="#"><u>Power Distributors and Dispatchers</u></a> 🌱         | Coordinate, regulate, or distribute electricity or steam.  | O*NET       |
| 27   | <a href="#"><u>Product Safety Engineers</u></a>                     | Develop and conduct tests to evaluate product safety levels and recommend measures to reduce or eliminate hazards.   | O*NET       |
| 28   | <a href="#"><u>Technical Writers</u></a> 🌟                          | Write technical materials, such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work.  | O*NET       |
| 29   | <a href="#"><u>Validation Engineers</u></a> 🌱                       | Design or plan protocols for equipment or processes to produce products meeting internal and external purity, safety, and quality requirements.  | O*NET       |

🌟 BRIGHT OUTLOOK NATIONALLY | 🌱 GREEN OCCUPATIONS

Source: \*\*Related By: O\*NET™ - The [Occupational Information Network](#). O\*NET is a registered trademark of the [US Department of Labor/Employment and Training Administration](#).

## Career Ladder

This section shows the top 10 occupations and the corresponding individuals in the workforce system who were previously Information Security Analysts and have changed their occupation over the last 5 years.

| <b>Occupation Title</b>                            | <b>Number of<br/>Individuals that<br/>Moved</b> | <b>Percentage of<br/>Individuals that<br/>Moved</b> |
|--|---|---|
| <u>Network and Computer Systems Administrators</u> | 11  | 21.57%  |
| <u>Computer User Support Specialists</u> 🌟         | 6   | 11.76%  |
| <u>Customer Service Representatives</u> 🌟 🌿        | 6   | 11.76%  |
| <u>Computer Network Support Specialists</u>        | 5   | 9.80%   |
| <u>Security Guards</u> 🌟                           | 5   | 9.80%   |
| <u>Cashiers</u> 🌟                                  | 5   | 9.80%   |
| <u>Computer and Information Systems Managers</u> 🌟 | 4   | 7.84%   |
| <u>Computer Systems Analysts</u> 🌟                 | 3   | 5.88%   |
| <u>Software Developers, Applications</u> 🌟         | 3   | 5.88%   |
| <u>Medical Assistants</u> 🌟                        | 3   | 5.88%   |

🌟 BRIGHT OUTLOOK NATIONALLY | 🌿 GREEN OCCUPATIONS

Source: Individuals with active résumés in the workforce system.





[View more occupational videos on CareerOneStop](#)

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