



# Information Technology

Real-Time Insights by Real-Time Talent

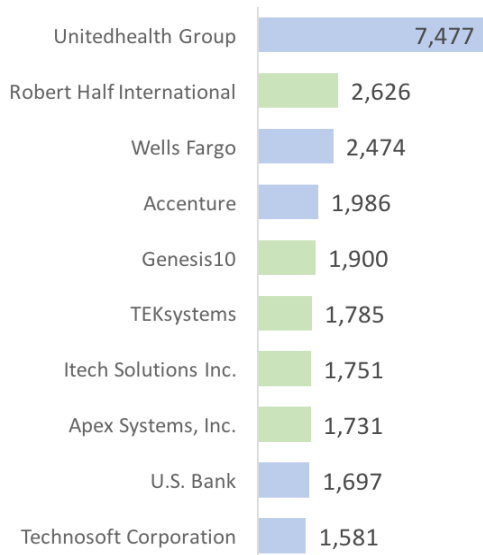
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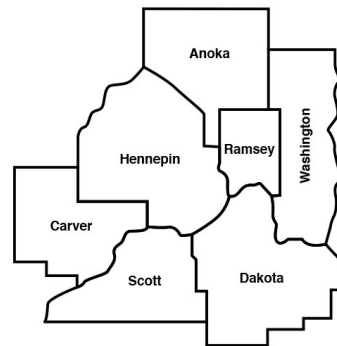
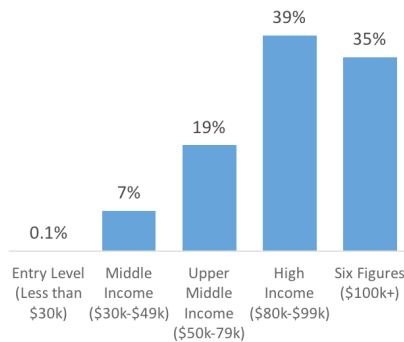


## IT Recruiting in the Twin Cities, 2015

### Top 10 IT Employers



### Salary Distribution of 2015 IT Jobs



### Employers of IT Workers

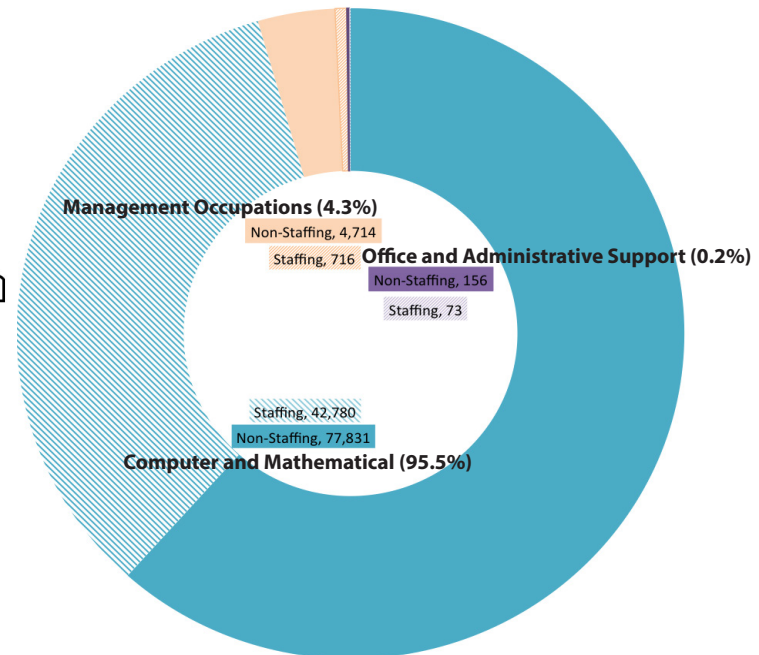
**6,244 (20.6% Staffing)**

### Top Websites Used

- #1: U.S. Jobs 15.6%
- #2: LinkedIn 12.3%
- #3: Corporate Site 12.2%
- #4: Job Network 8.9%
- #5: Dice 8.2%

### Total IT Jobs, 2015

- Hennepin:** 73.3%
- Ramsey:** 14.8%
- Anoka:** 7.0%
- Dakota:** 1.5%
- Scott:** 1.3%
- Washington:** 1.2%
- Carver:** 0.9%
- Twin Cities:** 126,269



Twin Cities Metro IT Jobs  
Advertised Online in 2015

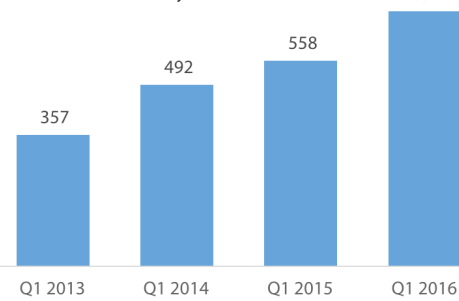
Source: TalentNeuron Recruit. Only jobs for which a salary was provided or a reliable BLS salary estimate could be determined were included in the salary distribution measure. Counts of corporate site listings might be undercounted due to some privacy restrictions of company sites or posting of vacancies in an unreadable format (i.e. PDF).

## Healthcare IT in April 2016

Demand for IT services in healthcare has grown enormously over the past ten years. In the Twin Cities Metro, there are approximately 2,800 qualified IT professionals that would have the qualifications required by healthcare employers. As of April 18, 2016, there were 264 jobs specifically in the field of healthcare IT and competition between 37 employers seeking new talent.

Healthcare IT positions are difficult to fill almost anywhere in the nation, but tending to be slightly more difficult in the Twin Cities Metro than in other MSAs. This is largely due to the smaller number of candidates and higher competitive intensity locally. Currently, the average posted salary for a healthcare IT position is \$93,350 and the average posting remains live online for an average of 43 days.

Demand for Healthcare IT in the Twin Cities Metro  
January - March 2013-2016



# Information Technology Recruiting Trends Spotlight on Emerging Fields

New IT systems are stepping outside of technology silos to create robust ecosystems of data collection, management, analysis, and diagnosis. Demand for IT professionals - particularly with more than two years of work experience - has increased dramatically across the Twin Cities Metro. During the first quarter of 2016, IT job postings were up 39% since 2013, with healthcare IT positions up 93% over the same timeframe. The highest demand is for high income jobs paying between \$80,000 - \$99,000 annually. Six baseline skills and five character traits were sought by the majority of employers seeking new talent in these emerging IT fields.

In addition to these, an ability to work independently and provide strong customer service were other baseline skills specifically desired from new healthcare IT and computer networking employees. Certifications are required for many IT positions and are highly specialized.





### Character Traits

- 1) Detail-oriented
- 2) Creativity
- 3) Integrity
- 4) Self-motivated
- 5) Teamwork

### Baseline Skills

- 1) Communication skills
- 2) Project management
- 3) Troubleshooting
- 4) Business requirements gathering
- 5) Analytical Skills
- 6) Problem solving

## Features of Critical Information Technician Career Pathways in the Twin Cities 7-County Metro, 2015

	Example Job Titles	Top 5 Employers	Top Desired Certifications	Top 5 Hard Skills Ranked in order of Demand
 Healthcare IT	<ul style="list-style-type: none"> <li>Network Engineer</li> <li>Software Engineer</li> <li>Business Analyst</li> <li>Project Manager / Specialist</li> <li>IT Application Services Manager</li> </ul>	<ul style="list-style-type: none"> <li>Fairview Health Services -19%</li> <li>HealthPartners +48%</li> <li>HealthEast Care System +114%</li> <li>Unitedhealth Group +3500%</li> <li>HCMC +60%</li> </ul>	<ul style="list-style-type: none"> <li>Project Management Professional</li> <li>Certified Information Systems Security Professional</li> <li>Project Management Institute</li> <li>Certified Information Security Manager</li> <li>System Administrator</li> </ul>	<ul style="list-style-type: none"> <li>Structured Query Language</li> <li>Epic Software</li> <li>Management of Info Systems</li> <li>Quality Assurance</li> <li>Technical Support</li> </ul>
 IT Shipping and Logistics	<ul style="list-style-type: none"> <li>Web Engineer</li> <li>Technical Systems Lead</li> <li>QA Automation Engineer</li> <li>Supply Chain Project Manager</li> <li>Ecommerce Engineer</li> </ul>	<ul style="list-style-type: none"> <li>Best Buy +110%</li> <li>C.H. Robinson +1%</li> <li>Target Corporation -2%</li> <li>Bluestem Brands, Inc. +92%</li> <li>CyberCoders +60%</li> </ul>	<ul style="list-style-type: none"> <li>Project Management Professional</li> <li>Certified Information Systems Security Professional</li> <li>Certified Scrum Master</li> <li>Project Management Institute</li> <li>Solution Demonstration Lab</li> </ul>	<ul style="list-style-type: none"> <li>Bills of Lading (BoL)</li> <li>Enterprise Resource Planning Software</li> <li>SAP Business Objects</li> <li>Document Control</li> <li>Structured Query Language</li> </ul>
 Computer Networking	<ul style="list-style-type: none"> <li>Network Engineer</li> <li>Systems / Network Administrator</li> <li>Desktop Support Analyst</li> <li>User Experience Lead</li> <li>Hadoop Administrator</li> </ul>	<ul style="list-style-type: none"> <li>Robert Half International +88%</li> <li>TEKsystems +48%</li> <li>Unitedhealth Group +43%</li> <li>Wells Fargo -11%</li> <li>Apex Systems, Inc. +161%</li> </ul>	<ul style="list-style-type: none"> <li>Cisco Certified Network Associate</li> <li>System Administrator</li> <li>Microsoft Certified Systems Engineer</li> <li>Cisco Certified Network Professional</li> <li>Microsoft Certified Professional</li> </ul>	<ul style="list-style-type: none"> <li>Technical Support</li> <li>Linux / UNIX</li> <li>Structured Query Language</li> <li>Microsoft Active Directory</li> <li>VMWare</li> </ul>
 Cybersecurity	<ul style="list-style-type: none"> <li>IT Security Specialist</li> <li>Payment Security Specialist</li> <li>App Programmer Analyst</li> <li>Business Systems Consultant</li> <li>Computer Crime Investigator/Forensics Expert</li> </ul>	<ul style="list-style-type: none"> <li>Unitedhealth Group +69%</li> <li>Wells Fargo -17%</li> <li>ACCENTURE +395%</li> <li>Itech Solutions Inc. +133%</li> <li>Genesis10 +30%</li> </ul>	<ul style="list-style-type: none"> <li>Certified Info Systems Security Professional</li> <li>Certified Information Systems Auditor</li> <li>Certified Information Security Manager</li> <li>Certified Ethical Hacker</li> <li>Global Information Assurance Certification</li> </ul>	<ul style="list-style-type: none"> <li>Structured Query Language</li> <li>Systems Development Life Cycle</li> <li>Information Security</li> <li>Quality Assurance</li> <li>Business Systems</li> </ul>

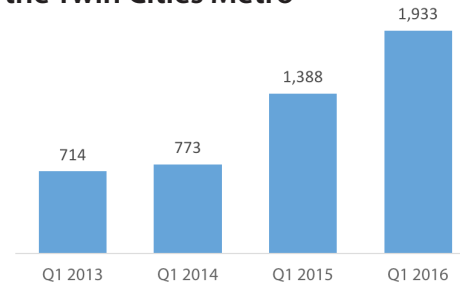
Competitive Intensity refers to the number of candidates per direct employer. High competitive intensity would mean that there are fewer candidates per direct employer in the region. Hiring Scale is calculated from multiple factors to determine the expected difficulty of hiring for a particular position in the specified county.



# Snapshot: Information Security Analyst

Information Security Analysts are in high demand across healthcare, finance, technology, and corporate retail chains. About 85% of all Minnesota Security Analyst positions were located in the Twin Cities Metro, with Hennepin County having the majority. Security Analyst job openings in Greater Minnesota seem to stay posted for longer periods, 53 days compared to 45 in the Twin Cities Metro, suggesting that it may be more difficult to fill these positions outside of the Twin Cities. The position is high paying (though averaging about \$8,000 less in Greater Minnesota as compared to the Twin Cities) and typically requires a bachelor's degree and two or more years of experience. As outlined in MSPWin's career pathways, Information Security Analysts may come from a background as Information Clerks, Computer Network Support Specialists, or Computer System Administrators.

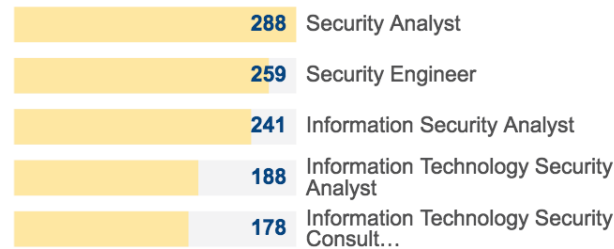
## Security Analyst Jobs Posted Online in the Twin Cities Metro



## Current Hiring Statistics (4/18/16)

Online openings, including staffing: 567 jobs  
 Number of employers hiring now: 201  
 Estimated candidate supply: 1,700  
 Average posting period: 45 days  
 Median salary: \$100,600

## Common Job Titles Used by Employers



## Top 5 Hard Skills (2015)

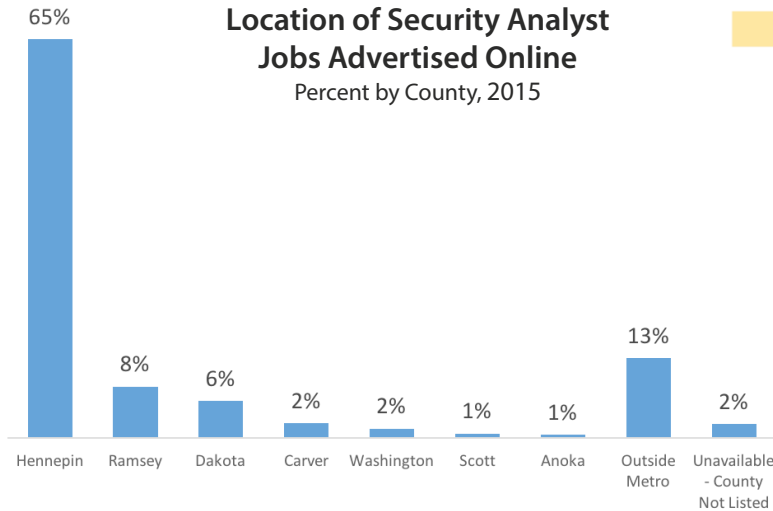
1. Information / Network / Cyber / App Security
2. Firewall
3. Linux / UNIX Network Security
4. Intrusion Prevention (IPS) / Detection / Testing
5. Security Architecture

## Top 5 Soft Skills (2015)

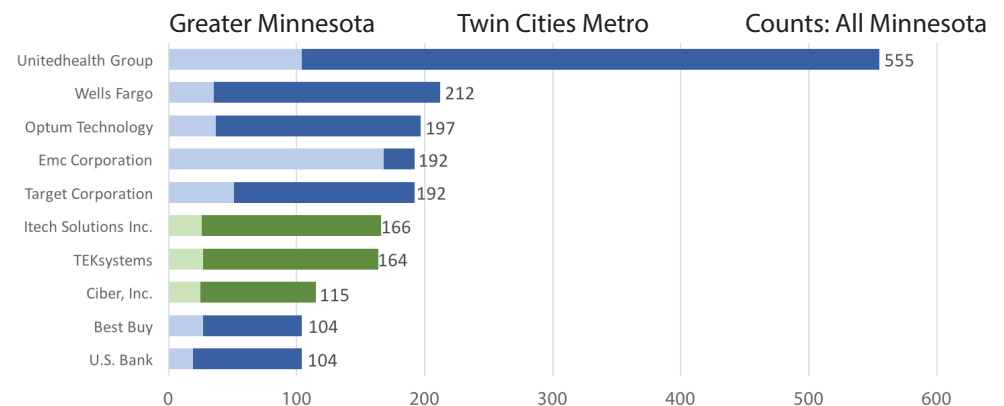
1. Oral & Written Communication
2. Risk Management
3. Integrity
4. Project Management
5. Problem Solving

## Location of Security Analyst Jobs Advertised Online

Percent by County, 2015



## Number of Jobs Posted by Top Employers (2015)



## Total Information Security Analyst Positions in the 7-County Metro, 2015

**4,394** (+45.6% since 2014)

In the table above, "Number of Jobs Posted by Top Employers," the lighter shade indicates job postings in Greater Minnesota, while the darker shade indicates number of jobs in the Twin Cities Metro. Green indicates staffing firms and blue direct employers. The total counts indicate jobs throughout the state. Skills and education data are based on required skills identified by employers throughout Minnesota in jobs advertised online in 2015. Top titles count back 4 years.



**Real-Time Talent**

Using data to build the  
world's best workforce

## A Catalyst for Change

Real-Time Talent is a unique public-private collaborative, whose leaders represent Minnesota's higher education, workforce system, and key industries. Our aim is to support higher education and workforce systems to become more market-oriented and data driven in order to meet pending workforce shortages head on. We do this by introducing new tools and reinforcing the use of existing tools to align decisions to labor market needs, establishing a culture of cross-sector collaboration.

We define our work in the following ways:

- Help employer associations and chambers of commerce to support employers in meeting their talent needs
- Help academic leaders choose which programs to start, stop, scale up, or scale down to meet the needs of their students and the economy
- Help academic, nonprofit, and workforce center counselors support students and job seekers in choosing educational investments and securing employment
- Help government agencies, foundations, and policy makers understand and support the current job market

We invite you to visit our website at [realtimetalentmn.org](http://realtimetalentmn.org), where you will find additional reports and resources on Minnesota's workforce. If you have any questions about the findings presented in this report or have a particular research request, please contact us at:

651-325-4277 or [erin.olson@realtimetalentmn.org](mailto:erin.olson@realtimetalentmn.org)

## Data Sources

The Information Technology occupations analyzed in this report were selected from entry-level positions in MSPWin career pathway maps developed in October 2015. The principal data source used in this report is TalentNeuron Recruit (formerly Wanted Analytics), a real-time labor market data source that spiders to online job postings to provide current data on position openings and recent trends. It pulls data from over 25,000 unique online job boards and corporate sites in North America alone.

Postings by staffing agencies are included alongside direct employers, unless otherwise stated. Heavily-unionized sectors and any type of position that has a lower rate of posting job vacancies online will be under-represented by TalentNeuron Recruit Data. All data in the first and second pages of this report was pulled on February 1, 2016 at 9:00am and verified on April 18, 2016 between 1:00pm and 8:00pm. Data on the Information Security Analyst position was pulled on April 19, 2016 at 12:00pm. Differences in results downloaded at an earlier or later date are due to changes in access to online postings, improved deduplication of postings, or other data quality improvements. Results depend on the posting practices of employers, and simply indicate that a vacancy was posted - not that a position was filled.

Information Technician positions were identified in TalentNeuron Recruit utilizing the IT function specification. Using this function specification, further sub-classification was made utilizing industry codes and occupation codes. Healthcare IT: NAICS 62. Shipping and Logistics: SOC 13-1080, 13-1020. Computer Networking: SOC15-1140, 15-1150. Cybersecurity: SOC 15-1120. Information Security Analysts: SOC 15-1122.

All data are for the seven-county Minneapolis-Saint Paul Metropolitan Area.