

FOR IMMEDIATE RELEASE

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NOTE: This news release is a summary extract of content from the 1st Quarter 2025 editions of Foote Partners' *IT Skills Demand and Pay Trends Report* and *IT Skills and Certification Pay Volatility Index*, two market intelligence trend reports updated every 3 months from data contributed by HR departments at 4,661 U.S. and Canadian employers. They contain IT jobs, skills, and certifications data trends published in the firm's *IT Skills and Certifications Pay Index™* and deep-dive benchmark analysis from Foote Partners' research group.

As AI shifts from experimental to operational at many employers, paying IT talent is fast becoming a new ballgame. The list of AI-related skills and certifications generating cash pay premiums reported in Foote Partners' *IT Skills and Certifications Pay Index™* (ITSCPI) has expanded from 25 to 92 skills and certifications.

648 IT certifications reported in the ITSCPI declined slightly in average market value in 1st quarter 2025---down 0.2%---and with a nearly 5-point increase in pay volatility. 134 certifications (21%) changed in cash premiums paid by employers compared to just 103(16%) in the prior quarter, on par with the two-year average pay volatility for all certifications.

By contrast, average cash pay premiums for 723 non-certified IT skills gained 0.2% in Q1 2025, adding to a long run of quarterly increases that was only briefly interrupted by a loss in the final quarter of 2024. They are still earning much higher cash pay premiums on average than IT certifications: the equivalent of 9.6% of base salary on average compared to only 6.5% for certifications.

Market pay gains for non-certified IT skills in Q1 2025 were mostly in the *Management/Methodology/Process* and *Web/E-commerce* categories. For IT certifications, gains have been more spread out: *Applications Development, Architecture/Project Mgt/Process,* and *Database/Data Management* categories.

April 9, 2025 – Vero Beach, FL. Extra pay awarded by employers to talented tech professionals for 723 non-certified IT skills---also known as cash pay premiums---which has increased on average over five of the last six calendar quarters---gained slightly in the first quarter of 2025 following a loss in the prior quarter. For 648 IT certifications, the story was just the opposite: a small overall loss in Q1 2025 that followed a gain in the final quarter of 2024. This is according to Foote Partners' long-running *IT Skills and Certifications Pay Index™* (ITSCPI) of cash pay premiums for 1,371 certified and non-certified IT skills.

Cash pay premiums for certifications have been significantly less volatile than non-certified skills over the past two years, according to Foote Partners' companion research, the *IT Skills and Certifications Pay Volatility Index*. In this period, an average of 21% of IT certifications changed in market value every 90 days. For non-certified IT skills, quarterly pay volatility has averaged a much higher 31% in the same period. This is a meaningful key statistic given that supply/demand and pay for certifications are largely vendor-driven, while the market value of non-certified IT skills is mostly determined by employers that consume them.

Moreover, **the gap in average cash pay premium between noncertified and certified IT skills has remained the widest in nearly two decades, by more than 3% of base salary equivalent.** This and other findings come from quarterly compensation data updates provided by 4,661 private and public-sector employers in 83 U.S. and Canadian cities who partner with our firm to report pay for their 456,795 technology professionals in the U.S. and Canada.

“We are continually asked how AI and other fast-paced emerging technologies impact pay for tech professionals. And of course, we have decades of evidence from our ITSCPI research to show that for many employers, it is almost mandatory to incorporate agility tools like skill pay premiums into their pay practices to be able to consistently hire and retain their workers,” explains David Foote, chief analyst and research officer of Foote Partners. “Technology development and adoption rates are uncertain, influencing competitive pay for talent. Also, where employers want to be positioned in consuming tech—ranging from being on the ‘bleeding edge’ to the ‘lagging edge’—will dramatically impact how much it will cost them to acquire skilled talent.”

“But now with AI starting to shift from experimental to operational for many employers, paying IT talent is fast becoming a new ballgame. We need to think about jobs more as tasks, not titles: tasks that can be done entirely by an AI agent/robot, tasks that you will do *with* an AI agent/robot, and finally, tasks that you will be doing uniquely as a human. Skills are mapped directly onto each of these tasks, as they always have, except that now there are new skills and skill combinations required by each task, and that will continue to change. For example, when we began tracking and reporting cash pay premiums for AI-related skills and certifications, there were only about 25 certified and non-certified skills. That number has now climbed to 92 skills and certifications.”

Pay Performance, 3/12/24/24/36 months Certified vs. Noncertified Tech Skills

(105,273 IT professionals, data through 4/1/2025)

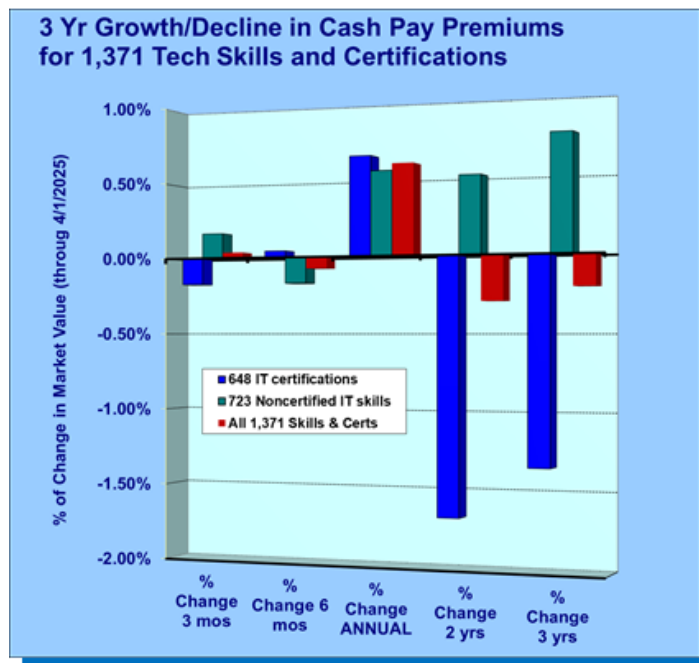


Figure 1

Source: Foote Partners, *IT Skills and Certifications Pay Index™* (1Q2022 – 1Q2025 datasets)

MULTI-YEAR PAY PREMIUM TRENDS: Certified versus Noncertified IT Skills

Average median cash pay premiums for a single certified or noncertified IT skill. N = 105,273 IT Professional

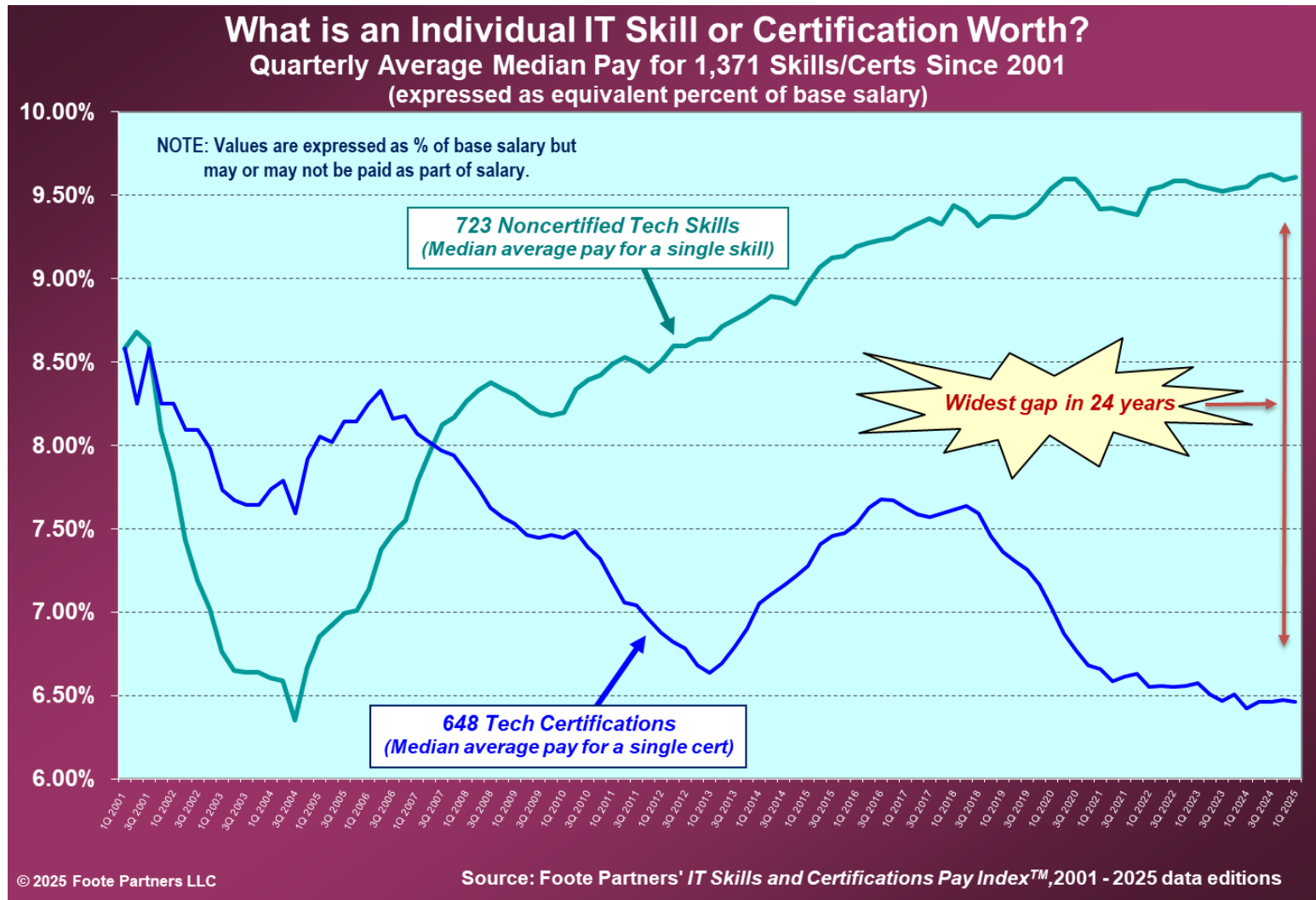


Figure 2

How to interpret gains and losses in IT skills and certifications pay premiums

Quarterly gains and losses in premium pay reflect a widening or narrowing, respectively, in the gap between supply and demand for skills and certifications. This may occur for any number of reasons. For example, a quarterly decline in pay for a skill may signal that the market supply of talent for that skill is catching up to demand—not necessarily that demand is starting to wane. IT professionals are often attracted to a skill or certification if they perceive that it has rising value in the marketplace and therefore can help them to achieve higher pay, greater job security, a promotion, or more flexibility in their career choices. As they pursue greater competency in that skill or as more workers attain certification, supply increases and market pricing (which is elastic to the laws of supply and demand) will be driven downward unless demand is rising at the same proportional rate. Conversely, if demand rises and supply is not increasing to match that level of demand, pay premiums for specific skills and certifications will increase.

Therefore, when interpreting gains and losses in market pay it is important to consider all factors that could be driving supply and demand and market perception. Those factors range from:

- aggressive marketing of certifications by vendors;
- changes in certification programs (e.g., certification extensions or retirement);
- new technology and evolution/maturation of current technologies;
- technology adoption rate;
- product integration strategies,
- economic conditions;
- employment opportunities;
- mergers/acquisitions;
- budget cycles and the timing of skills and talent acquisition by employers;
- changes in labor sourcing plans pursuant to company strategies.

IT NONCERTIFIED SKILLS PAY SUMMARY – Through April 1, 2025

NONCERTIFIED TECH SKILLS PAY PERFORMANCE: By Category

NON-CERTIFIED TECH SKILLS. 245 of 714 non-certified tech skills changed cash market value from January 1, 2025 to April 1, 2025, a **3-point increase** compared to 221 of 710 skills in the prior calendar quarter. The average cash pay premium increased slightly, up 0.2%, from the 0.3% decline in the prior quarter and gains in the prior three quarters.

Noncertified IT Skills - % Growth/Decline
 3 months & 12 months

(714 skills, data through 4/1/2025)

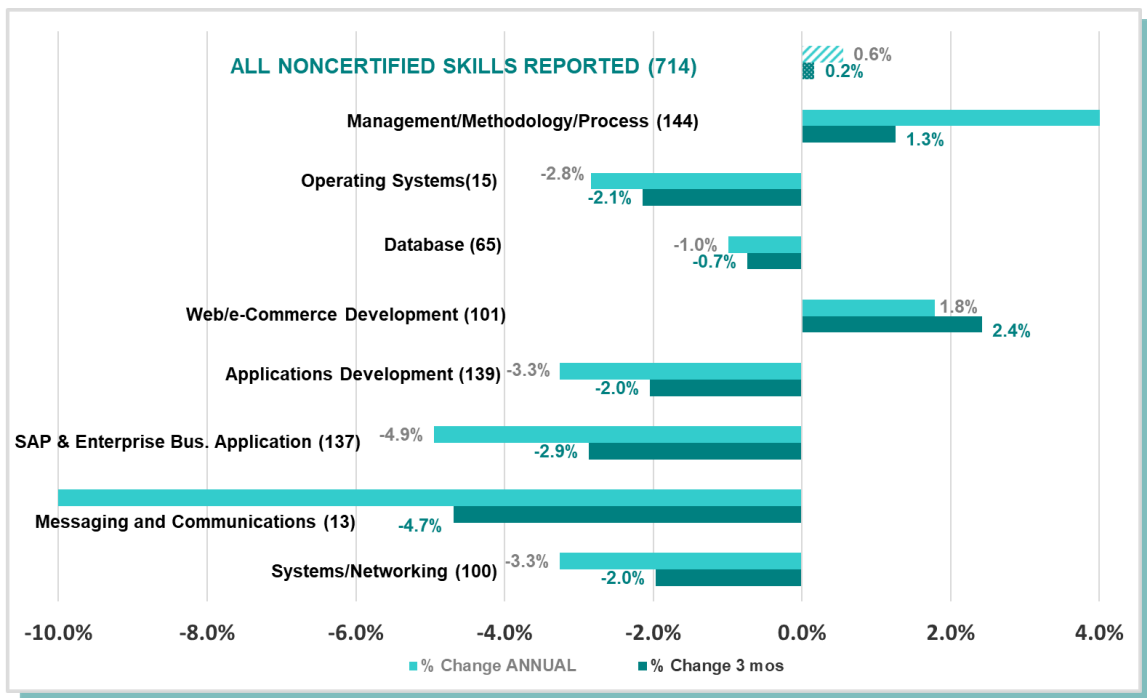


Fig. 3

Source: Foote Partners [IT Skills & Certifications Pay Index™](#), 1st Quarter 2025 data

NON-CERTIFIED IT SKILLS ANALYSIS – Winners

A. NON-CERTIFIED TECH SKILLS EARNING HIGH PAY---AND STILL GROWING IN VALUE

The following non-certified tech skills meet two prerequisites:

- They **earned workers cash pay premiums well above the average** of all 723 skills reported in our *IT Skills and Certifications Pay Index™* in the calendar quarter ending April 1, 2025.
- They **recorded gains in cash market value in the six months** ending April 1, 2025(unless otherwise noted).

No skill below is earning less than the equivalent of 18 percent of base salary—significant considering the average for all skills reported is 9.6 percent of base—and are listed in descending ranked order of cash premium and market value increases (including ties). Not surprising, the list contains a number of security, coding, database, analytics and artificial intelligence related skills.

Here is the list of noncertified IT skills pay premiums meeting the above criteria (in alphabetical order):

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Amazon RedShift	Data Transformation	Neural Networks
AWS DevOps	Deployment Automation	Penetration Testing
Artificial Intelligence for IT Operations	DevOps	Predictive Analytics and Modeling
Azure Machine Learning	Ethereum	Program Management
Blockchain	GitOps	Prompt Engineering
Computer Vision	Google TensorFlow	PyTorch
Convolutional Neural Network	Identity access management	Security testing
Data Engineering	Large Language Models	Site Reliability Engineering
Data Governance	Machine Learning	Smart Contracts
Data Management	Microservices	Threat Detection/Modelling/Mgt
Data Privacy	MLOps	Vulnerability Scanning/Assessment/Management
	Network Architecture	

Below is the same list, but **in descending ranked order of cash premium first and market value increase second** (including ties).

1. **AWS DevOps**
Average Pay Premium: 23 percent of base salary equivalent
Market Value Increase: 21.1 percent (in the six months through April 1, 2025)
2. **Large Language Model/LLM tuning**
Average Pay Premium: 23 percent of base salary equivalent
Market Value Increase: 15 percent (in the six months through April 1, 2025)
3. **Smart Contracts**
Average Pay Premium: 22 percent of base salary equivalent
Market Value Increase: 15.8 percent (in the six months through April 1, 2025)
4. **MLOps**
Predictive Analytics and Modeling
Average Pay Premium: 22 percent of base salary equivalent
Market Value Increase: 10 percent (in the six months through April 1, 2025)

NON-CERTIFIED IT SKILLS ANALYSIS – Winners, cont'd.

6. Convolutional Neural Network

Site Reliability Engineering

Average Pay Premium: 22 percent of base salary equivalent

Market Value Increase: 4.8 percent (in the six months through April 1, 2025)

8. Blockchain

Average Pay Premium: 21 percent of base salary equivalent

Market Value Increase: 23.5 percent (in the six months through April 1, 2025)

9. Identity access management

Prompt Engineering

Average Pay Premium: 21 percent of base salary equivalent

Market Value Increase: 16.7 percent (in the six months through April 1, 2025)

11. Ethereum

Average Pay Premium: 21 percent of base salary equivalent

Market Value Increase: 10.5 percent (in the six months through April 1, 2025)

12. Neural Networks

Average Pay Premium: 21 percent of base salary equivalent

Market Value Increase: 5 percent (in the six months through April 1, 2025)

13. Azure Machine Learning

Security testing

Average Pay Premium: 20 percent of base salary equivalent

Market Value Increase: 25 percent (in the six months through April 1, 2025)

15. Data Transformation

Average Pay Premium: 20 percent of base salary equivalent

Market Value Increase: 17.6 percent (in the six months through April 1, 2025)

16. Data Engineering

Threat Detection/Modelling/Management

Average Pay Premium: 20 percent of base salary equivalent

Market Value Increase: 11.1 percent (in the six months through April 1, 2025)

18. Artificial Intelligence for IT Operations (AIOps)

Data Governance

Machine Learning

PyTorch

Average Pay Premium: 20 percent of base salary equivalent

Market Value Increase: 5.3 percent (in the six months through April 1, 2025)

22. Data Management

Average Pay Premium: 19 percent of base salary equivalent

Market Value Increase: 18.8 percent (in the six months through April 1, 2025)

NON-CERTIFIED IT SKILLS ANALYSIS – Winners, cont'd.

23. Deployment Automation

GitOps

Microservices

Average Pay Premium: 19 percent of base salary equivalent

Market Value Increase: 11.8 percent (in the six months through April 1, 2025)

26. Google TensorFlow

Average Pay Premium: 19 percent of base salary equivalent

Market Value Increase: 5.6 percent (in the six months through April 1, 2025)

27. Amazon RedShift

Program Management

Average Pay Premium: 18 percent of base salary equivalent

Market Value Increase: 12.5 percent (in the six months through April 1, 2025)

29. Computer Vision

Data Privacy

DevOps

Network Architecture

Penetration testing

Vulnerability Scanning/Assessment/Management

Average Pay Premium: 18 percent of base salary equivalent

Market Value Increase: 5.9 percent (in the six months through April 1, 2025)

IT CERTIFICATIONS PAY SUMMARY – Through April 1, 2025

A. CERTIFIED IT SKILLS PAY PERFORMANCE: By Category

TECH CERTIFICATIONS. 134 of 640 IT certifications changed cash market value in 1Q 2025 compared to only 103 of 638 certification in the prior quarter, **a nearly 5-point increase**. The average cash pay premium for all certifications reported decreased by slightly 0.2% in this quarter following small gain in the prior quarter.

**IT Certifications - % Growth/Decline
3 months & 12 months**

(648 certifications, data through 4/1/2025)

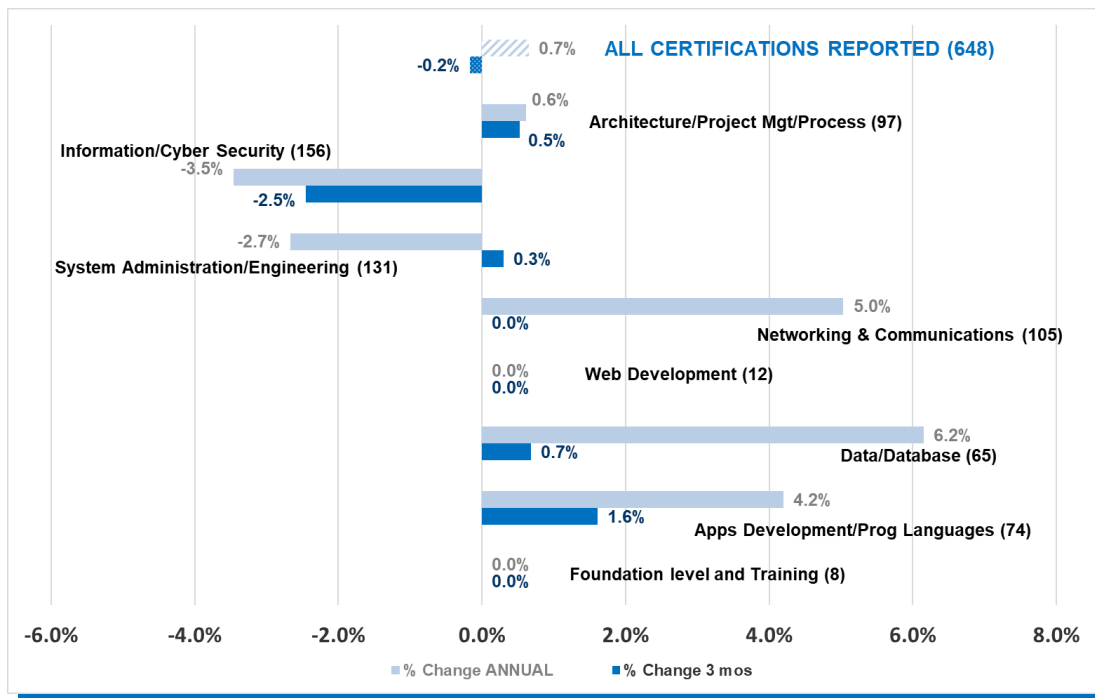


Figure 4

Source: Foote Partners [IT Skills & Certifications Pay Index™](#), 1st quarter 2025 data

IT CERTIFICATIONS ANALYSIS – Winners

A. **IT CERTIFICATIONS:** Paying well above average and still growing most in market value

As a group, the 648 IT certifications tracked in our *IT Skills and Certifications Pay Index™* have decreased in market value in two of the last four calendar quarters and in the 1st quarter 2025 declined slightly. **Let’s examine those certifications that have helped drive up average cash pay premiums in the last six months.** The following IT certifications meet two prerequisites:

- They **earned workers cash pay premiums well above the average of all certifications** in our IT Skills and Certifications Pay Index™ in quarter ending April 1, 2025.
- They recorded substantial gains in cash market value in the six months ending April 1, 2025(except where noted).

None of the following IT certifications is earning less than the equivalent of 10 percent of base salary—significant considering the average for all skills reported is 6.5 percent of base—and every certification listed below grew somewhere in the 10 percent to 33 percent range in cash market value in the six months ending January 1st. **They are listed in descending ranked order of market value gain** (including ties).

Here is the list of IT certifications that meet the above criteria (in alphabetical order):

Artificial Intelligence Engineer (AIE - all tracks)	Offensive Security Certified Expert
Certification of Capability in Business Analysis	Offensive Security Certified Professional
Certified Enterprise Coach (Scrum/Agile)	Offensive Security Web Expert
Certified in Risk and Information Systems Control Cisco	Oracle Cloud Platform Application Integration Certified Professional
Certified Network Professional - Security	Pegasystems Certified Data Scientist
EC-Council Certified Chief Information Security Officer	PMI Portfolio Management Professional
EC-Council Certified Ethical Hacker	SAS Certified Professional: AI and Machine Learning
EC-Council Certified Threat Intelligence Analyst	
Google Cloud - Professional Cloud Security Engineer	

Below is the same list, but **in descending ranked order of cash premium first and market value increase second** (including ties).

* * * *

1. **SAS Certified Professional: AI and Machine Learning**

Average Pay Premium: 12 percent of base salary equivalent
 Market Value Increase: 33.3 percent (in the six months through April 1, 2025)

2. **Artificial Intelligence Engineer (AIE - all tracks)**
 Cisco Certified Network Professional - Security
 EC-Council Certified Chief Information Security Officer (CCISCO)
 Offensive Security Certified Expert

Oracle Cloud Platform Application Integration Certified Professional
 Average Pay Premium: 11 percent of base salary equivalent
 Market Value Increase: 10 percent (in the six months through April 1, 2025)

IT CERTIFICATIONS ANALYSIS – Winners, cont'd.

7. **Certified in Risk and Information Systems Control (CRISC)**
EC-Council Certified Ethical Hacker (CEH)
Offensive Security Certified Professional (OSCP)
Offensive Security Web Expert (OSWE)
PMI Portfolio Management Professional (PfMP)
Average Pay Premium: 10 percent of base salary equivalent
Market Value Increase: 11.1 percent (in the six months through April 1, 2025)

12. **Certified Enterprise Coach (Scrum/Agile)**
Certification of Capability in Business Analysis
EC-Council Certified Threat Intelligence Analyst(CTIA)
Google Cloud - Professional Cloud Security Engineer
Pegasystems Certified Data Scientist
Average Pay Premium: 10 percent of base salary equivalent
Market Value Increase: 11.1 percent (in the twelve months through April 1, 2025)

IT CERTIFICATIONS ANALYSIS – Biggest Losers

IT CERTIFICATIONS THAT HAVE LOST THE MOST MARKET VALUE OVER TIME

LOSING GROUND: Listed to the right are certifications in alphabetical order that have **lost between 27% to 50% of their cash pay premium market value in the 24-month period ending April 1, 2025**. Some on this list are now retired or scheduled to be.

Why do certifications lose their value?

Certifications decline in market value for a number of obvious and not so obvious reasons. Pay premiums may diminish as a certification expires, is retired, or is replaced with other certifications as technology evolves. Also, there remains a lingering bias that taking a proctored exam does not confer expertise in a subject on the test taker, especially when the pass rate is 70 percent (or less) correct answers. The certification industry has fought back against this bias by adding laboratory requirements and even peer review panels that decide if the candidate has qualified to receive designation.

But just as often it is their popularity that drives down pay premiums for a certification: as interest in a certification escalates and more people attain the certification, the gap between supply and demand for the certification narrows, driving down its market value as the laws of scarcity would dictate. This has been frequently documented in the case of dozens of certifications over the 20+ years Foote Partners has been tracking and reporting their cash pay premiums in the *IT Skills and Certifications Pay Index*.

Adobe/Magento 2 Certified Developer-Associate	Microsoft Office Specialist
Adobe/Magento 2 Certified Developer-Professional	Offensive Security Exploitation Expert (OSEE)
Certificate of Cloud Security Knowledge (CCSK)	Offensive Security Web Assessor (OSWA)
Certified Scrum Developer	Okta Certified Developer
Certified Scrum Trainer	Okta Certified Professional
Check Point Certified Security Master (CCSM)	Oracle VM 3.0 for x86 Certified Implementation Specialist
CompTIA Linux+	PMI Program Management Professional (PgMP)
CSX CyberSecurity Practitioner (CSXP)	Qlik Sense Data Architect
CWNP/Certified Wireless Design Professional (CWDP)	Red Hat Certified Specialist in Messaging Administration
EC-Council Certified Encryption Specialist v2(ECES)	Salesforce Certified Technical Architect
GIAC Certified Forensics Examiner (GCFE)	SUSE Enterprise Architect (SEA)
GIAC Critical Controls Certifications (GCCC)	SUSE Enterprise Engineer (SCE)
GIAC Enterprise Vulnerability Assessor (GEVA)	Teradata VantageCloud Lake Associate Certified
GIAC Penetration Tester (GPEN)	TIBCO Certified Architect
GIAC Web Application Penetration Tester (GWAPT)	TIBCO Certified Professional
HDI Support Center Analyst	VMware Certified Advanced Professional 6/7 - Cloud Mgt and Automation Deployment
HDI Technical Support Professional	VMware Certified Advanced Professional 6/7 - Cloud Mgt and Automation Design
Linux Professional Institute certification (LPIC-Level 3)	VMware Certified Professional 6/7 - Cloud Mgt and Automation
Microsoft Certified Azure Data Engineer Associate	
Microsoft MTA: Windows OS	

IT Skills & Certifications Pay Data Trend Charts & Analysis

IT Skills and Certifications Pay Index™ – 1st Quarter 2025 data edition*

- Noncertified IT Skills (Page 14)
- IT Certifications (Page 23)

IT Skills and Certifications Pay Volatility Index™ – 1st Quarter 2025 data edition *

- Summary (Page 31)
- IT certifications (page 32)
- Non-certified IT skills (page 33)

*All data collected through April 1, 2025

Noncertified IT Skills Data Trend Charts & Analysis

(Data collected through April 1, 2025)

723 Non-Certified IT Skills Reported

Footo Research Group

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Delphi	Objective Caml (Ocaml)	Apache Solr	Microsoft Silverlight
Drupal	Octopus Deploy	Apache Velocity	Microsoft Visual Studio
Eclipse	OpenShift	Apache web server	Mobile applications development
Elixir	Oracle APEX	Apache Wicket	Mule/MuleESB
Epic Systems applications	Oracle Apps Developer Framework	Apex Code	Node.js
Erlang	Platform Engineering	Backbone.js	Oracle Fusion
Ethereum	PL/SQL	CGI	Oracle WebLogic/
F#	Powerbuilder	Cold Fusion MX	Oracle Workflow
Flutter	Progress 4GL/Development tools	Content management systems	Pandas
Full Stack Development	R language	CSS/CSS3	Perl
Gemini	RapidMiner	Cypress	PHP (all)
Generative AI	Red Hat Fuse	Django	PySpark
Git/GitHub	Rstudio	Docker /Docker Swarm	Python
GitLab	Ruby	Documentum	React
GitOps	Ruby on Rails	Elasticsearch/Elastic Stack	Redux
Go language (Golang)	Rust	Ember.js	REST
GoCD	Saas	Figma	RESTful
Gosu/Guidewire	SAS	Front End Development	SailPoint
Gradle	SAS Enterprise Guide	GatsbyJS	Scalable Vector Graphics (SVG)
Groovy/Grails	Scala	Google Analytics	Secure coding/SW development
gRPC	Scrum	Google App Engine	Sitecore CMS
Grunt	Selenium	Google Cloud AI (Vertex AI, AutoML)	SOAP/SOAP UI
Hibernate/NHibernate	Semaphore CI/CD	Google Cloud Platform	Social Media/Networks
HP ALM (App. Lifecycle Mgt)	ServiceNow ITSM	Gradio	Spring Framework
HP Unified Functional Testing	Sonatype Nexus	GraphQL	Spring Boot
Integration Testing	SpecFlow	HTML5	Spring Cloud
iRise	SPSS	JavaBeans/EJB 3.0	Spring Integration
Jasmine	SQL	JavaFX	Spring MVC
Java	Stable Diffusion	JavaScript	Spring Security
JBehave	Swift	Java Server Pages	TIBCO
Jenkins	Tcl	JBoss/Wildfly	UDDI
JIRA	TeamCity	Jetty	Umbraco
JUnit	TestNG	Joomla!	VBScript
Kotlin	TransacT-SQL/tSQLt	jQuery	Video/graphics editing
MapReduce	Travis CI	JSON	Visual Interdev VoiceXML
MATLAB	UML (unified modeling language)	Julia	Web collaboration appliances
Microsoft Azure	Visual Basic 6.0	KnockoutJS	Web Content Development
Microsoft Azure Stack	Visual C++	Laravel PHP	Web Design
Microsoft Azure Logic Apps	Vue.js	Magento/Adobe Commerce	WebSphere
Microsoft Copilot	VMware Cloud Foundry PaaS	Magnolia	WebSphere Datapower
Microsoft PowerApps	WebSphereMQ	Microsoft .NET	Wikis
Microsoft Power Platform	Xcode	Microsoft BizTalk Server	WSDL
Microsoft SQL Server Mgt Studio		Microsoft Blazor	XAML/XACML
Microsoft Team Foundation Server		Microsoft Commerce Server	XHTML MP
Midjourney	<u>Web/e-Commerce Development</u>	Microsoft Identity Integration Services	XML (all variants)
Mokito	Active Server Pages	Microsoft Forefront Threat Management Gateway (ISA)	
NetWeaver	ActiveX	Microsoft Sharepoint/Sharepoint Server	
Next.js	Adobe Experience Manager	SuccessFactors	
NIM	Ajax		
NUnit	Amazon Cloudwatch		
	AngularJS		

723 Non-Certified IT Skills Reported

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SAP ALE	SAP Hybris/Commerce Cloud	Wireline Networking/Telecomm.	Informatica
SAP APO	SAP IBP (Integrated Business	WML	Java Database Connectivity
SAP Ariba	Planning)	Web Dynpro	Kibana
SAP Auto-ID infrastructure	SAP IS-U (Utilities)	Workday HCM	Looker
SAP Basis Components	SAP ITS		Master data management
SAP BI	SAP MDM		Microsoft Access
SAP BO Data Services	SAP MDX	Data/Database	Microsoft Exchange Server
SAP BODI	SAP MI	Alteryx Designer	2010/2013
SAP BOXI	SAP MII	Amazon Athena	Microsoft SQL Server
SAP BO Dashboard Design	SAP MM	Amazon DynamoDB	2019/2016/2014/2012
SAP BPC	SAP MRO	Amazon EMR	Microsoft SQL Server Integration
SAP BSP	SAP MRS	Amazon RedShift	Services
SAP Business One	SAP Netweaver Applications Server	Apache Cassandra	Microsoft SQL Server Reporting
SAP Business Workflow/Webflow	SAP Netweaver BW (BIW)	Apache CouchDB	Services (SSRS)
SAP CA	SAP NetWeaver Visual Composer	Apache Hive	MongoDB
SAP CAF	SAP NWDI	Apache Iceberg	MySQL
SAP CAR	SAP NWDS	Apache Ignite	NewSQL
SAP CCM	SAP Oil & Gas	Apache Impala	NoSQL
SAP CE	SAP PI (NetWeaver Process	Apache Spark SQL	OpenEdge ABL
SAP CFM	Integration)	Azure Cosmos DB	Oracle Application Server
SAP CO	SAP PLM	Azure Data Factory	Oracle Business Intelligence
SAP CO-PA	SAP PM	Azure SQL Data Warehouse	Enterprise Edition Plus
SAP Commerce Cloud	SAP POSDM	Alteryx Designer	Oracle Coherence
SAP CRM	SAP PP	Amazon Athena	Oracle DB 9i/10g/11i/12c
SAP Crystal Reports	SAP PS	Amazon DynamoDB	Oracle Enterprise Manager
SAP CS	SAP PSCD	Amazon RedShift	Oracle Exadata
SAP Digital Banking	SAP Public Sector Management	Apache Cassandra	Oracle Forms
SAP EBP	SAP QM	Apache CouchDB	Oracle Reports
SAP EDI	SAP for Retail	Apache Hive	PostgreSQL
SAP EHS	SAP SAM (Service & Asset Mgt)	Apache Spark SQL	Power Query
SAP EPM	SAP S/4HANA	Azure Cosmos DB	Redis
SAP ERP	SAP SCM	Azure Data Factory	Riak
SAP ESA	SAP SD	Azure SQL Data Warehouse	Smart Contracts
SAP Exchange Infrastructure (XI)	SAP SD - GTS	Azure SQL Database	Snowflake/Snowflake Schema
SAP FI (Financial Accounting)	SAP Security	Azure Synapse Analytics	Sqoop
SAP FI – CA	SAP SEM	Base SAS	Sybase Adaptive Server
SAP FI - CO	SAP SM	Big Data	Teradata
SAP FI – FSCM	SAP SM	Blockchain	TIBCO Spotfire
SAP FI - Travel Management	SAP Smart Forms	Cloudera Impala	Visual SQL
SAP Fiori	SAP Solution Manager	Couchbase Server	
SAP F&R (Forecasting/Replenish)	SAP SRM	Data mining	
SAP FS (Insurance)	SAP TM	Data Vault	
SAP GRC	SAP UI5 (UI development toolkit for	Database management	
SAP GTS	HTML5)	DB2	
SAP HANA	SAP Web Application Server	dBASE/xBASE	
SAP HCM (SAP HR)	SAP WEBI	ETL (Extract, transform, load)	
SAP HCM ESS/MSS	SAP WM	GIS	
SAP HR-PA	SAP WM – EWM	Google BigQuery	
SAP HR-PY (Payroll)	Siebel/Siebel Analytics	Google Data Studio	
	Software AG webMethods	Hbase	

723 Non-Certified IT Skills Reported

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Microsoft Application Virtualization
Microsoft Azure Sentinel Microsoft
Hyper-V
Microsoft SCCM
Microsoft SCVMM
Microsoft Virtual Server
Mobile device management
Mobile security
Multiprotocol Label Switching
NAS/Network Attached Storage
Network access control/Identity mgt
systems
Network security management
NGFW(next-generation firewall)
Novell Netware
PaaS
Performance Analysis/Tuning
Performance Management/Metrics
Performance Optimization
Performance Testing
Prometheus
Puppet
Rackspace Cloud
RedHat OpenShift
Routing (e.g. OSPF, RIP, IGRP)
Salt
SAN/Storage Area Networks
Security skills (project-based)
Security Information and Event
Management
SMTP
SNA
Software-Defined Networking
SolarWinds Orion
Storage Virtualization/Admin
TCP/IP
Terraform
Tivoli
Vagrant
vCenter Server
vCloud
Virtualization (various)
Virtual security
VMware ESXi Server
VMware NSX
VoIP/IP telephony
VPN/OpenVPN
WAN/3G/4G services

Web Infrastructure
Web services security
Wireless Network Mgmt
Wireless security
Wireless sensors/RFID

Operating Systems

AIX
Fedora CoreOS
HP-UX
Linux
Mac OS X
Mobile operating systems (iOS,
Android)
OpenStack
Red Hat Enterprise Linux
Solaris
SUSE
Unix (all)
VMware vSphere
Windows 10/11
Windows NT
Windows Server 2019/2016/ 2012

Management, Methodologies and Process

Artificial Intelligence
Artificial Intelligence for IT
Operations Artificial Intelligence
Model Optimization
AWS Codebuild
AWS DevOps
Azure AI/ML services
Azure DevOps
Azure Key Vault
Azure Machine Learning
Azure Monitor
Azure OpenAI
Azure Service Fabric
BERT
Big Data Analytics
Bioinformatics
Business Analysis
Business Analytics
Business Intelligence
Business performance mgt
Business process management/
modeling/improvement

Caffe
Capacity Planning/Management
Change management
COBIT
Collaboration software
Complex Event Processing/Event
Correlation
Computer Vision
Configuration Management
Continuous Improvement
Continuous Integration/Continuous
Delivery
Convolutional Neural Network
CRM
Cryptography (encryption, VPN)
Customer Experience
Cyber Threat Intelligence
Cybersecurity
Data Acquisition and Control Systems
Data Analytics
Data Architecture
Data Cleansing
Data Engineering
Data Governance
Data Integration
Data Management
Data Migration
Data Modelling
Data Privacy
Data Protection
Data Quality
Data Science
Data Security
Data Strategy
Data Transformation
Data Visualization
DataOps
DataRobot Enterprise AI Platform
Deep Learning
Deployment Automation
DevOps
DevSecOps
Digital Analytics
Digital Forensics
Digital Marketing
E-Discovery
E-Procurement
ERP

Event-Driven Architecture
FinOps
Flink
ForgeRock/Ping Identity
Functional Programming
Functional Testing
Game Development/Gamification
General Data Protection Regulation
Google TensorFlow
Governance, Risk Management and
Compliance
H2O.ai
HL7
Hugging Face Transformers
Hyperautomation
Identity access management
Incident Management
Information management
IT Audit
IT Governance
ITIL V3
IT Service Management/ITSM
Kanban
Keras
Large Language Model/LLM tuning
Machine Learning
Marketo
Metadata design and development
Microservices
Microsoft SQL Server Analysis
Services
Microsoft Visio
MLOps
Model Tuning
Natural language processing
Network Architecture
Neural Networks
NIST/NIST 800
Object Detection/YOLO
ONNX (Open Neural Network
Exchange)
OpenCV
Penetration testing
Power BI
Predictive Analytics and Modeling
Prescriptive Analytics
Process Improvement
Program Management

723 Non-Certified IT Skills Reported

Foote Partners News Release – April 9, 2025

Messaging & Communications

ActiveMQ
Apache Camel
Apache Kafka
HCL Domino
Java Messaging Service
Message-oriented Middleware
(Wave, XMPP/Jabber, etc.)
Microsoft Exchange
Novell Groupwise
Oracle Comm Messaging Server
RabbitMQ
TIBCO Enterprise Message
Service
TIBCO Rendezvous
Unified Communications/
Messaging

4-YEAR NON-CERTIFIED IT SKILLS PAY TRENDS

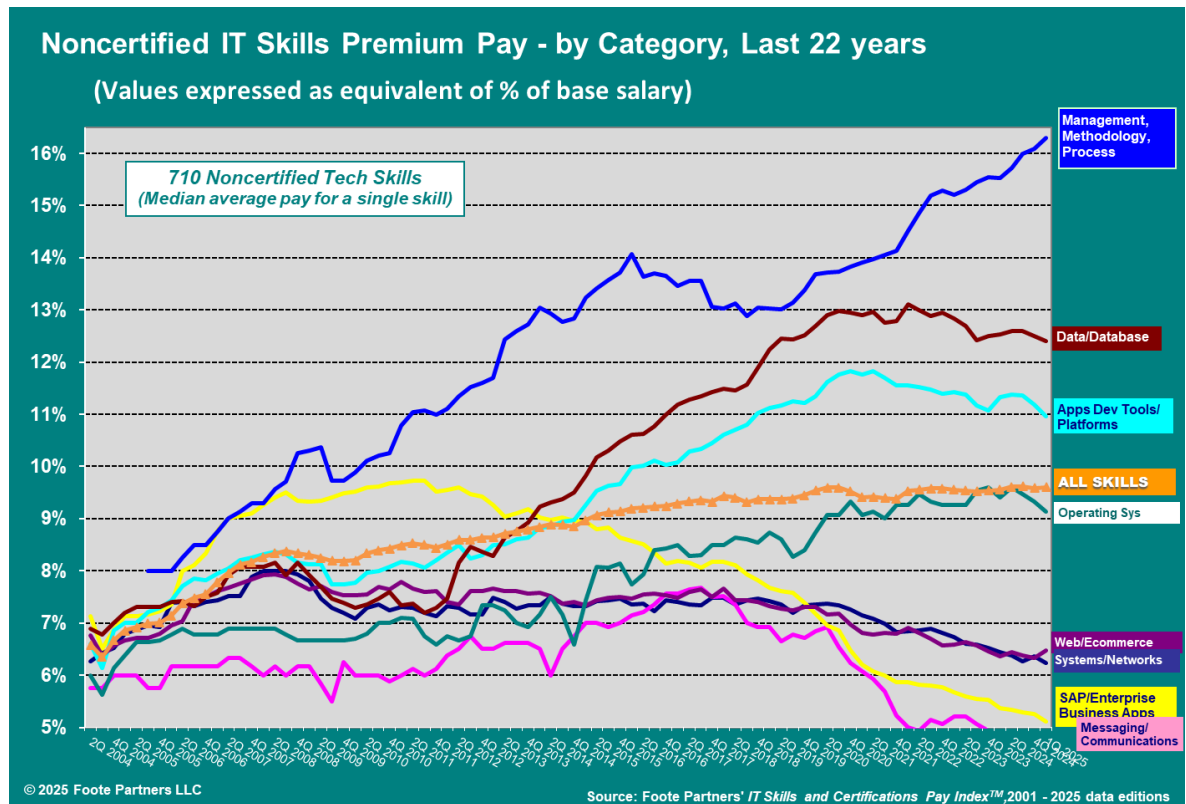
(Through 4/1/2025 – 105,273 IT Professionals)

NONCERTIFIED IT SKILLS CATEGORIES	# of skills surveyed	Change in Average Premium Pay by Category					
		% Change 3 mos	% Change 6 mos	% Change ANNUAL	% Change 2 yrs	% Change 3 yrs	% Change 4 yrs
Systems/Networking	100	-2.0%	-0.5%	-3.3%	-7.4%	-8.9%	-12.7%
Messaging and Communications	13	-4.7%	-7.6%	-11.6%	-16.4%	-12.9%	-28.3%
SAP & Enterprise Business Applications	137	-2.9%	-3.3%	-4.9%	-10.0%	-13.0%	-17.5%
Apps Development Tools & Platforms	140	-2.0%	-3.6%	-3.3%	-4.1%	-5.1%	-6.8%
Web/e-Commerce Development	102	2.4%	1.6%	1.8%	-1.6%	-6.2%	-4.8%
Data/Database	65	-0.7%	-1.5%	-1.0%	-3.4%	-5.3%	-3.9%
Operating Systems	15	-2.1%	-3.5%	-2.8%	-1.4%	-1.4%	0.7%
Management/Methodology/Process	151	1.3%	1.9%	4.9%	7.1%	12.3%	17.1%
ALL NONCERTIFIED SKILLS REPORTED	723	0.17%	-0.17%	0.55%	0.51%	0.77%	2.03%

17-YEAR NON-CERTIFIED IT SKILLS PAY TRENDS BY CATEGORY

(% Change in Average Median Pay for a Single Non-certified IT Skill)

(Through 4/1/2025 – 105,273 IT Professionals)



Pay data supporting these charts available in the [IT Skills and Certifications Pay Index™](#) – 1Q 2025 data edition

HIGHEST PAYING Non-certified IT Skills (cash pay premiums, all 723 skills surveyed, ranked)

These **non-certified IT skills** are among those earning the highest pay premiums (data collected January 1, 2025 to April 1, 2025). **Shown in alphabetical order by the overall market value rank in descending order including ties. Green/Red** = increased/decreased in market value this quarter. **Purple** = Made the list this quarter for first time.

1.[Tie]AWS DevOps Large Language Model/LLM tuning	4.[cont.] Threat Detection/Modelling/ Management	6.[cont.] Program Management Vulnerability Scanning/Assessment/ Management Zachman Framework	8.[cont.] COBIT Data Analytics Data Migration Data Modelling Data Protection Data Quality Data Visualization Deep Learning ForgeRock/Ping Identity General Data Protection Regulation(GDPR) Generative AI gRPC Hyperautomation Kanban Master data management NIST/NIST 800 QA Automation/Quality Assurance Requirements Engineering/Analysis Rust Scaled Agile Framework (SAFe) Security management User-Centered Design
2.[Tie]Convolutional Neural Network Data Strategy Flink MLOps Predictive Analytics and Modeling Site Reliability Engineering Smart Contracts	5.[Tie] Apache Ignite Artificial Intelligence Data Management DataOps Deployment Automation DevSecOps GitOps Google TensorFlow Microservices Prescriptive Analytics Snowflake/Snowflake Schema Splunk	7.[Tie] Business process mapping/ modeling/improvement Clojure Cyber Threat Intelligence Data Cleansing Data Integration Digital Forensics Go language (Golang) Governance, Risk management and Compliance H2O.ai HL7 Keras Object Detection/YOLO Quantitative Analysis/Regression Analysis Test Driven Development/Scripting	
3.[Tie] Amazon Athena Blockchain Ethereum Event-Drive Architecture Identity access management Neural Networks Prompt Engineering	6.[Tie]Amazon RedShift Apache Hive Apache Iceberg Artificial Intelligence Model Optimization Computer Vision Continuous Integration Data Privacy Data Science Data Security DevOps FinOps Marketo Metadata design and development Natural language processing Network Architecture Penetration testing	8.[Tie] Apache Spark AWS Codebuild Azure DevOps Azure Key Vault Azure Monitor Azure OpenAI Azure Service Fabric Big Data analytics Caffe Capacity Planning/Management	
4.[Tie] Apache Airflow Artificial Intelligence for IT Operations Azure Machine Learning Bioinformatics Data Architecture Data Engineering Data Governance Data Transformation Machine Learning ONNX (Open Neural Network Exchange) PyTorch Risk analytics/assessment Security architecture and models Security testing			

SOURCE: Foote Partners [IT Skills & Certifications Pay Index™](#), 1Q 2025 data edition

NON-CERTIFIED TECH SKILLS TREND HIGHLIGHTS: Market Value Gainers & Highest Pay – 1st Quarter 2025 data

These non-certified tech skills *gained 10% or more in market value in the three months ending April 1, 2025* vs. prior quarter (seen below grouped by segment).
Listed in alphabetical order within each group. The highest-paying skills are listed on the right *in alphabetical order.*

IT SKILLS (non-certified)			Highest Paying(A-Z)	
<p><u>Applications Development skills</u> Apache Cloudstack AWS CodeDeploy Clojure COBOL Cognos Elixir Erlang Ethereum Git/GitHub GitOps PL/SQL SAS Xcode</p> <p><u>Management, Process & Methodology skills</u> AWS DevOps Azure Machine Learning Bioinformatics Capacity Planning/Management Data Cleansing Data Management Data Transformation Deployment Automation Digital Marketing Large Language Model/LLM tuning Microservices MLOps Neural Networks Program Management Prompt Engineering SEO</p>	<p><u>SAP & Enterprise Business Applications skills</u> NetWeaver Portal (SAP EP) Oracle BPM Oracle HFM Oracle Retail Remedy ITSM Salesforce Sales Cloud SAP BOXI SAP Commerce Cloud SAP FI SAP FI - CO SAP Hybris SAP IBP SAP SD SAP TM</p> <p><u>Database Skills</u> Amazon RedShift Apache Spark SQL Blockchain GIS Microsoft SQL Server Reporting Services (SSRS)</p>	<p><u>Systems/Networking skills</u> Azure AKS Cisco CUCM Citrix NetScaler HP Quality Center IaaS (Infrastructure as a Service) PaaS Performance Optimization RedHat OpenShift</p> <p><u>Web/SOA/E-Commerce skills</u> Adobe Analytics Ajax (Asynchronous JavaScript and XML) Amazon Cloudwatch AngularJS Backbone.js Figma Google Analytics Jetty KnockoutJS Magento/Adobe Commerce Mobile applications development Oracle WebLogic/Portal Oracle Workflow REST/REST Assured Spring Framework (Batch, Boot, Cloud, etc.) WebSphere</p>	<ul style="list-style-type: none"> - Amazon Athena - Apache Airflow - Apache Ignite - Artificial Intelligence - Artificial Intelligence for IT Operations (AIOps) - AWS DevOps - Azure Machine Learning - Bioinformatics - Blockchain - Convolutional Neural Network - Data Architecture - Data Engineering - Data Governance - Data Management - Data Strategy - Data Transformation - DataOps - Deployment Automation - DevSecOps - Ethereum - Event-Drive Architecture - Flink - GitOps - Google TensorFlow - Identity access management - Large Language Model/LLM tuning - Machine Learning - Microservices - MLOps - Neural Networks 	<ul style="list-style-type: none"> - ONNX (Open Neural Network Exchange) - Predictive Analytics and Modeling - Prescriptive Analytics - Prompt Engineering - PyTorch - Risk analytics/assessment - Security architecture and models - Security testing - Site Reliability Engineering - Smart Contracts - Snowflake/Snowflake Schema - Splunk - Threat Detection/Modelling/Management
<p>SOURCE: Foote Partners IT Skills & Certifications Pay Index™, 1Q 2025 data edition</p>				

NON-CERTIFIED IT SKILLS TREND HIGHLIGHTS: Market Value Losers – 1st Quarter 2025 data

These non-certified IT skills **declined 10% or more in market value in the three months ending April 1, 2025** vs. prior quarter (seen below grouped by segment).
 Listed in alphabetical order within each group.

IT SKILLS (Non-certified)

Applications Development skills

Amazon Kinesis
 Apache Pig
 Apache Tomcat
 Apache Zookeeper
 Appium
 ChatGPT
 Cloud Foundry PaaS
 Eclipse
 F#
 gRPC
 Hibernate/Nhibernate
 HP ALM (Application Lifecycle Management)
 MATLAB
 Oracle Applications Developer Framework
 Red Hat Fuse
 Ruby on Rails
 Rust
 SAS Enterprise Guide
 Tcl
 TeamCity

Data/Database

Amazon EMR
 Apache Impala
 Big Data
 Google Data Studio
 Hbase
 Oracle Application Server
 Oracle Exadata
 Sqoop
 TIBCO Spotfire

SAP & Enterprise Business App skills

Oracle Eloqua
 Oracle Financials
 Oracle SCM (Supply Chain Management)
 PeopleSoft (CRM/Financials/HCM)
 Salesforce Commerce Cloud
 SAP ALE
 SAP APO
 SAP Ariba
 SAP Basis Components
 SAP BI
 SAP BPC
 SAP CX
 SAP FI - FSCM
 SAP HANA
 SAP HCM
 SAP IS-U
 SAP MDG
 SAP MDM
 SAP PP
 SAP QM
 SAP UI development toolkit for HTML5
 SAP WEBI
 SAP WM - EWM

Messaging & Communications Skills

ActiveMQ
 Apache Pulsar

Systems/Networking skills

Azure Storage
 Cisco ASA
 Citrix Hypervisor (XenServer)
 Citrix Virtual Apps (XenApp)
 EIGRP
 Fortinet
 Intrusion prevention/detection systems
 LAN
 NAS/Network Attached Storage
 Performance management/metrics
 Puppet
 Salt
 Vagrant
 vCenter Server
 vCloud
 VoIP/IP telephony
 WAN 4G/5G services
 Web services security

Operating Systems skills

Solaris

Web/E-commerce Development skills

Adobe Experience Manager
 Django
 Documentum
 Joomla!
 Julia
 Magnolia
 Spring Cloud
 Spring MVC
 Umbraco
 VBScript

Management, Process & Methodology skills

Business analytics
 COBIT
 Cryptography (encryption, VPN, SSL/TLS, Hybrids)
 Deep Learning
 Game Development/Gamification
 Scaled Agile Framework (SAFe)

SOURCE: Foote Partners [IT Skills & Certifications Pay Index™](#), 1Q 2025 data edition

IT Certification Data Trend Charts & Analysis

(Data collected through April 1, 2025)

AccessData Certified Examiner
 Adobe/Magento 2 Certified Developer-Associate
 Adobe/Magento 2 Certified Developer-Professional
 Arcitura Certified Cloud Security Specialist
 Artificial Intelligence Engineer (AIE)
 Avaya Certified Design Specialist
 Avaya Certified Implementation Specialist
 Avaya Certified Integration Specialist
 Avaya Certified Solution Specialist
 Avaya Professional Design Specialist
 AWS Certified Advanced Network – Specialty
 AWS Certified Cloud Practitioner
 AWS Certified Data Analytics – Specialty
 AWS Certified Developer - Associate
 AWS Certified DevOps Engineer - Professional
 AWS Certified Security - Specialty
 AWS Certified Solutions Architect - Associate (Cloud)
 AWS Certified Solutions Architect - Professional (Cloud)
 AWS Certified SysOpsAdministrator-Associate (Cloud)
 AXELOS ITIL 4 certifications
 BICSI ITS Technician
 BICSI Technician and Registered Communications
 Distribution Designer
 Brocade Certified Network Engineer
 Brocade Certified Network Professional
 Brocade Certified Fabric Designer
 Brocade Certified Fabric Professional (BCFP)
 BTA Certified Blockchain Security Professional (CBSP)
 Certificate in Information Security Management Principles
 (CISMP)
 Certificate of Cloud Security Knowledge (CCSK)
 Certificate of Cloud Auditing Knowledge (CCAK)
 Certification Authorization Professional (CAP)
 Certification of Capability in Business Analysis (CCBA)
 Certified Analytics Professional (CAP)
 Certified Artificial Intelligence Practitioner (CAIP)
 Certified Artificial Intelligence Scientist (CAIS)
 Certified Business Analysis Professional (CBAP)
 Certified Business Continuity Manager/ISO 22301(CBCM)
 Certified Business Continuity Professional (CBCP)
 Certified Business Process Associate (CBPA)
 Certified Business Process Leader (CBPL)
 Certified Business Process Professional (CBPP)
 Certified Cisco Systems Instructor (CCSI)
 Certified Cloud Architect
 Certified Cloud Security Professional (CCSP)
 Certified Cloud Technology Professional
 Certified Compliance Professional

Certified Computer Examiner (CCE)
 Certified Computing Professional (CCP-ISC2)
 Certified Data Centre Management Professional (CDCMP)
 Certified Data Privacy Solutions Engineer/ISACA(CDPSE)
 Certified Data Professional (CDP)
 Certified Disaster Recovery Engineer (C/DRE)
 Certified Enterprise Coach (Scrum/Agile)
 Certified Ethical AI Professional (CEAP)
 Certified Forensic Computer Examiner (CFCE)
 Certified Fraud Examiner
 Certified Healthcare Information Security and Privacy
 Practitioner (HCISPP)
 Certified in Convergent Network Technologies (CCNT)
 Certified in Emerging Technology(CET-ISACA)
 Certified in Governance, Risk and Compliance(CGRC)
 Certified in Risk and Information Systems Control (CRISC)
 Certified in the Governance of Enterprise IT (CGEIT)
 Certified Information Privacy Manager- all countries
 Certified Information Privacy Professional - all countries
 Certified Information Privacy Technologist- all countries
 Certified Information Security Manager (CISM)
 Certified Information Systems Auditor (CISA)
 Certified Information Systems Risk Manager/Mile2
 Certified Information Systems Security Professional (CISSP)
 Certified IP Telecom Network Specialist (CIPTS)
 Certified Tester Foundation Level (CTFL) v4.0
 Certified Tester Foundation Level Agile Tester (CTFL-AT)
 Certified Tester Advanced Level Test Analyst (CTAL-TA)
 Certified IT Architect (IASA CITA)
 Certified Kubernetes Administrator (CKA)
 Certified Kubernetes Security Specialist (CKS)
 Certified Manager of Software Quality (CMSQ)
 Certified Penetration Testing Engineer (CPTE)
 Certified Protection Professional
 Certified Scrum Developer
 Certified Scrum Product Owner
 Certified Scrum Product Owner - Advanced
 Certified Scrum Professional - ScrumMaster
 Certified Scrum Team Coach
 Certified Scrum Trainer
 Certified ScrumMaster
 Certified ScrumMaster – Advanced
 Certified Secure Software Lifecycle Professional (CSSLP)
 Certified Software Quality Analyst (CSQA)
 Certified Telecommunications Network Specialist (CTNS)
 Certified Tester Foundation Level (CTFL) v4.0
 Certified Tester Foundation Level Agile Tester (CTFL-AT)
 Certified Tester Advanced Level Test Analyst (CTAL-TA)

Check Point Certified Security Administrator (CCSA)
 Check Point Certified Security Expert (CCSE)
 Check Point Certified Security Master (CCSM)
 Cisco Certified CyberOps Associate
 Cisco Certified CyberOps Professional
 Cisco Certified Design Expert (CCDE)
 Cisco Certified DevNet Associate
 Cisco Certified DevNet Professional
 Cisco Certified DevNet Expert
 Cisco Certified Entry Network Technician (CCENT)
 Cisco Certified Internetwork Expert (CCIE, all variations)
 Cisco Certified Network Associate - Data Center
 Cisco Certified Network Associate (CCNA Routing and
 Switching)
 Cisco Certified Network Associate (Network Security)
 Cisco Certified Network Associate (Networking automation
 and programmability)
 Cisco Certified Network Associate (was CCNA Cloud)
 Cisco Certified Network Associate (was CCNA
 Collaboration)
 Cisco Certified Network Associate (was CCNA Wireless)
 Cisco Certified Network Associate (was Design Associate)
 Cisco Certified Network Professional - Collaboration
 Cisco Certified Network Professional - Data Center
 Cisco Certified Network Professional - Service Provider
 Cisco Certified Network Professional - Enterprise/Design
 Cisco Certified Network Professional - Enterprise/Routing
 and Services
 Cisco Certified Network Professional - Enterprise/Wireless
 Networks
 Cisco Certified Network Professional (CCNP-all)
 Cisco Certified Network Professional - Security
 Cisco Certified Systems Instructor (CCSI)
 Cisco Data Center Unified Computing Design Specialist
 Cisco Data Center Unified Fabric Support Specialist
 Citrix Certified Associate - Networking
 Citrix Certified Associate - Virtualization
 Citrix Certified Expert – Networking
 Citrix Certified Expert - Virtualization
 Citrix Certified Instructor (CCI - Virtualization, Networking,
 or Mobility)
 Citrix Certified Professional - Networking
 Citrix Certified Professional - Virtualization (CCP-V)
 Citrix XenServer Certified (CC-XenServer)
 CIW Advanced HTML5 and CSS3 Specialist
 CIW Certified Database Design Specialist
 CIW Web Design Professional
 CIW Web Development Professional

CIW Web Foundations Associate
 CIW Web Security Professional
 Cloud U (Rackspace)
 Cloudera Certified Associate Administrator
 Cloudera Certified Associate Data Analyst
 Cloudera Certified Associate Spark and Hadoop
 Developer
 Cloudera Certified Professional: Data Engineer
 CompTIA A+
 CompTIA Advanced Security Practitioner
 CompTIA Certified Technical Trainer
 CompTIA Cloud Essentials
 CompTIA Cloud+
 CompTIA Cybersecurity Analyst+
 CompTIA Linux+
 CompTIA Mobile App Security+
 CompTIA Mobility+
 CompTIA Network+
 CompTIA Penetration Tester
 CompTIA Project+
 CompTIA Security+
 CompTIA Server+
 CompTIA Storage+
 Convergence Technologies Professional (CTP)
 CSX CyberSecurity Practitioner (CSXP)
 CWNP Certified Wireless Security Professional (CWSP)
 CWNP/Certified Wireless Analysis Professional (CWAP)
 CWNP/Certified Wireless Design Professional (CWDP)
 CWNP/Certified Wireless Network Administrator(CWNA)
 CWNP/Certified Wireless Network Trainer (CWNT)
 CWNP/Certified Wireless Network Expert (CWNE)
 CWNP/Certified Wireless Technology Specialist (CWTS)
 Cyber Security Forensic Analyst
 Dell Cloud Infrastructure Design Proven Professional
 Dell Cloud Services Architect - Expert (DCE - CA)
 Dell Cloud Services Design Proven Professional
 Dell Data Science Associate (DCA-DS)
 Dell Data Science Specialist - Advanced Analytics
 Dell Information Storage and Management Foundations
 Dell Platform Engineer/PowerScale - Specialist
 Dell PowerEdge Association(EMC)
 Dell PowerEdge Professional(EMC)
 Dell PowerMax (all - Maintenance/Install/Operate)
 Dell PowerStore (all - Deploy/Operate)
 EC-Council Certified Application Security Engineer
 (CASE)
 EC-Council Certified Cloud Security Engineer (CCSE)
 EC-Council Certified DevSecOps Engineer (ECDE)

EC-Council Certified Encryption Specialist v2(ECES)
 EC-Council Certified Ethical Hacker (CEH)
 EC-Council Certified Incident Handler V2 (ECIH)
 EC-Council Certified Network Defender
 EC-Council Certified Penetration Testing Professional
 EC-Council Certified SOC Analyst (ECSA)
 EC-Council Computer Hacking Forensic Investigator
 EC-Council Disaster Recovery Professional (EDRP)
 EC-Council Web Application Hacking and Security Testing
 Fortinet Network Security Expert (NSE) Level 1
 Fortinet Network Security Expert (NSE) Level 2
 Fortinet Network Security Expert (NSE) Level 3
 Fundamentals of Google AI for Web-Based Machine Learning
 GIAC Assessing and Auditing Wireless Networks
 GIAC Certified Defending Advanced Threats (GDAT)
 GIAC Certified Detection Analyst (GCDA)
 GIAC Certified Enterprise Defender (GCED)
 GIAC Certified Forensics Analyst (GCFSA)
 GIAC Certified Forensics Examiner
 GIAC Certified Incident Handler (GCIH)
 GIAC Certified Intrusion Analyst (GCI)
 GIAC Certified Project Manager (GCPM)
 GIAC Certified Web Application Defender
 GIAC Certified Windows Security Administrator (GCWN)
 GIAC Cloud Forensic Responder (GCFR)
 GIAC Cloud Penetration Tester (GCPN)
 GIAC Cloud Security Automation (GCSA)
 GIAC Cloud Security Essentials (GCLD)
 GIAC Continuous Monitoring Certification (GMON)
 GIAC Critical Controls Certifications (GCCC)
 GIAC Cyber Threat Intelligence (GCTI)
 GIAC Defending Advanced Threats (GDAT)
 GIAC Defensible Security Architecture (GDSA)
 GIAC Enterprise Vulnerability Assessor (GEVA)
 GIAC Exploit Researcher and Advanced Penetration Tester (GWAPT)
 GIAC Information Security Fundamentals (GISF)
 GIAC Information Security Professional (GISP)
 GIAC Mobile Device Security Analyst (GMOB)
 GIAC Network Forensic Analyst (GNFA)
 GIAC Penetration Tester (GPEN)
 GIAC Public Cloud Security (GPCS)
 GIAC Python Coder (GPYC)
 GIAC Reverse Engineering Malware (GREM)
 GIAC Security Essentials (GSEC)
 GIAC Security Leadership (GSLC)
 GIAC Security Operations Certified (GSOC)

GIAC Security Operations Manager (GSOM)
 GIAC Systems and Network Auditor (GSNA)
 GIAC Web Application Penetration Tester (GWAPT)
 Global Industrial Cyber Security Professional (GICSP)
 Google Cloud - AI Engineer Certification
 Google Cloud - Professional Cloud Architect
 Google Cloud - Professional Data Engineer
 Google Cloud - Professional Network Engineer
 Google Cloud Associate - Cloud Engineer
 Google Cloud DevOps Engineer
 Google Professional Cloud Developer
 Google Professional Machine Learning Engineer
 Google Cloud - Professional Cloud Security Engineer
 HDI Customer Service Representative
 HDI Desktop Support Manager
 HDI Desktop Support Technician
 HDI Support Center Analyst
 HDI Support Center Director
 HDI Support Center Manager
 HDI Support Center Team Lead
 HDI Technical Support Professional
 Help Desk Analyst: Tier 1 Support Specialist/Ed2Go
 Help Desk Team Lead/RCCSP
 Hitachi Qualified Professional - Storage Administration
 HP Accredited Solutions Expert (ASE - all)
 HP Accredited Technical Professional (ATP - all)
 HP ASE - Storage Solutions V4
 HP ATP - Hybrid IT Solutions V2
 HP ATP - Storage Solutions V1 /V2
 HP Master Accredited Solutions Expert (MASE - all)
 HP Master ASE – Hybrid IT Solutions Architect V1
 HP Master ASE - Storage Solutions Architect V3
 Huawei Certified Network Associate (all)
 Huawei Certified Network Expert (all)
 Huawei Certified Network Professional (all)
 IAPP Certified Information Privacy Manager
 IAPP Certified Information Privacy Professional
 IBM Advanced Systems Administrator (all)
 IBM AI Engineering Professional Certificate
 IBM Applied AI Engineering Professional Certificate
 IBM Certified Administrator - Cognos Analytics
 IBM Certified Application Developer - Cloud Solutions v3
 IBM Certified Application Developer - DB2 9.7 for Linux, Unix and Windows
 IBM Certified Application Developer (all)
 IBM Certified Data Architect - Big Data
 IBM Certified Data Engineer - Big Data
 IBM Certified Database Administrator - DB2 11.1 for Linux, UNIX and Windows

IBM Certified Developer - Cognos Analytics
 IBM Certified Professional Developer - Cloud v4
 IBM Certified Professional SRE - Cloud v1
 IBM Cloud Security Engineer Specialty
 IBM Certified Solution Advisor - Blockchain Platform V2
 IBM Certified Solution Advisor - DevOps V2
 IBM Certified Solution Architect – Cloud v4
 IBM Certified Solution Architect - Data Warehouse V1
 IBM Certified Solution Designer (all)
 IBM Certified Specialist - AI Enterprise Workflow V1
 IBM Certified Systems Administrator: WebSphere Application Server Network Deployment
 IBM Certified Systems Administrator (all)
 IBM Cloud Security Engineer Specialty
 Information Systems Security Architecture Professional (ISSAP/CISSP)
 Information Systems Security Engineering Professional (ISSEP/CISSP)
 InfoSys Security Management Professional (ISSMP/CISSP)
 ITIL Expert Certification
 ITIL Foundation Certification
 ITIL Intermediate Certification
 ITIL Master Certification
 JBoss Certified Developer (Seam, Persistence, ESB)
 Juniper Networks Certified Internet Associate
 Juniper Networks Certified Internet Expert
 Juniper Networks Certified Internet Professional
 Juniper Networks Certified Internet Specialist
 Linux Foundation Certified Engineer
 Linux Foundation Certified System Administrator
 Linux Professional Institute certification (LPIC- 2)
 Linux Professional Institute certification (LPIC- 3)
 MCSE: Core Infrastructure
 Microsoft Certified Azure Administrator
 Microsoft Certified Azure Administrator Associate
 Microsoft Certified Azure AI Engineer Associate
 Microsoft Certified Azure Data Engineer Associate
 Microsoft Certified Azure Data Scientist Associate
 Microsoft Certified Azure Developer Associate
 Microsoft Certified Azure Fundamentals
 Microsoft Certified Azure Security Engineer Associate
 Microsoft Certified Azure Solutions Architect
 Microsoft Certified Azure Solutions Architect Expert
 Microsoft Certified DevOps Engineer Expert
 Microsoft Certified Professional
 Microsoft Certified Solutions Associate(all)
 Microsoft Certified Power BI Data Analyst Associate

Microsoft Certified Solutions Associate: SQL 2016 DBA
 Microsoft Certified Solutions Associate: Windows Server 2012/2016
 Microsoft Certified Solutions Developer (MCSD)
 Microsoft Certified Dynamics 365 Associate(all business applications)
 Microsoft Certified Solutions Expert: Data Platform
 Microsoft Certified Solutions Expert: Desktop Infrastructure
 Microsoft Certified Trainer (MCT)
 Microsoft MTA: Windows OS
 Microsoft Office Specialist
 Mile2 Certified Cloud Security Officer(C)CSO
 MIT CSAIL Professional Certificate in AI and Machine Learning
 MIT Professional Certificate in Machine Learning & AI
 Mongo DB Associate Data Modeler
 Mongo DB Certified DBA
 Mongo DB Certified Developer
 MongoDB Certified Developer Associate
 NetApp Certified Data Administrator, ONTAP (NCDA)
 NetApp Certified Hybrid Cloud Architect
 NetApp Certified Implementation Engineer (NCIE)
 NetApp Certified Storage Associate – Hybrid Cloud
 NetScout/nGenius Certified Analyst (nCA)
 NetScout/nGenius Certified Associate (nCA)
 NetScout/nGenius Certified Expert (nCE)
 NetScout/nGenius Certified Specialist (nCS)
 Novell Certified Administrator (CNA)
 Novell Certified Novell Engineer (CNE)
 Novell Certified Instructor
 Novell Certified Linux Engineer (Novell CLE)
 Novell Certified Linux Professional (Novell CLP)
 Novell Identity Manager Administrator
 Offensive Security Defense Analyst (OSDA)
 Offensive Security Defense Security Expert
 Offensive Security Certified Expert
 Offensive Security Experienced Penetration Tester
 Offensive Security Exploit Developer (OSED)
 Offensive Security Exploitation Expert (OSEE)
 Offensive Security Professional (OSCP)
 Offensive Security Web Assessor (OSWA)
 Offensive Security Web Expert (OSWE)
 Offensive Security Wireless Professional (OSWP)
 Okta Certified Administrator
 Okta Certified Consultant
 Okta Certified Developer
 Okta Certified Professional

Open Group Certified Architect (Open CA)
 Open Group Certified IT Specialist (Open CITS)
 Oracle Business Intelligence Foundation Suite 11G Certified Implementation Specialist
 Oracle Certified Associate - DBA (OCA)
 Oracle Certified Associate - Java SE 8 Programmer
 Oracle Certified Associate - MySQL Heatwave
 Oracle Certified Associate - WebLogic Server 12c Admin
 Oracle Certified Expert - Java SE Developer
 Oracle Certified Expert - MySQL 5.1 Cluster Database Administrator
 Oracle Certified Expert - Siebel CRM Business Analyst
 Oracle Certified Expert - Solaris 10 Network Administrator for Solaris
 Oracle Certified Master - DBA (OCM)
 Oracle Certified Master - Java EE Enterprise Architect
 Oracle Certified Master - Java SE Developer
 Oracle Certified Professional - Advanced PL/SQL Developer
 Oracle Certified Professional - Application Server Administrator
 Oracle Certified Professional - Database Cloud Administrator
 Oracle Certified Professional 2019 - DBA(OCF)
 Oracle Certified Professional - Fusion Middleware 11g/12c Forms Developer
 Oracle Certified Professional - Java EE Web Component Developer
 Oracle Certified Professional - Java EE Web Services Developer
 Oracle Certified Professional - Java SE Programmer
 Oracle Certified Professional - MySQL 8.0 Database Administrator
 Oracle Certified Professional - MySQL 5.x Developer
 Oracle Certified Professional - Solaris 10 Systems Administrator
 Oracle Certified WebLogic Server 12c Administrator
 Oracle Cloud Infrastructure 2022/2023 Certified Architect Professional
 Oracle Database PL/SQL Developer Certified Professional
 Oracle E-Business Suite 12 Certified Implementation Specialist
 Oracle Linux Certified Administrator (OCA)
 Oracle MySQL 8.x Database Developer Certified Professional
 Oracle PL/SQL Developer Associate
 Oracle SOA Suite 12c Implementation Specialist
 Oracle VM 3.0 for x86 Certified Implementation Specialist
 Pegasystems Certified Data Scientist
 Pegasystems Certified Decisioning Consultant
 Pegasystems Certified Lead System Architect

Pegasystems Certified Senior Systems Architect
 Pegasystems Certified System Architect
 Pegasystems Certified Pega Business Architect
 Pegasystems Certified Robotics System Architect
 PHP Certification
 Pivotal Application Architect
 Pivotal Cloud Foundry Operator certification
 Pivotal Developer
 PMI Agile Certified Practitioner (PMI-ACP)
 PMI Certified Associate in Project Management (CAPM)
 PMI Portfolio Management Professional (PMP)
 PMI Professional in Business Analysis (PMI-PBA)
 PMI Program Management Professional (PgMP)
 PMI Project Management Professional (PMP)
 PMI Risk Management Professional (PMI-RMP)
 Prince2 Foundation
 Prince2 Practitioner
 Professional Certified Investigator
 Professional in Project Management (GAQM)
 Qlik Sense Business Analyst
 Qlik Sense Data Architect
 Qualified Information Security Professional Q/ISP
 Rackspace Certified Technician
 Red Hat Certified Architect (RHCA)
 Red Hat Certified Architect: Cloud
 Red Hat Certified Architect: Enterprise Applications
 Red Hat Certified Architect: Infrastructure
 Red Hat Certified Engineer (RHCE)
 Red Hat Certified Enterprise Application Developer
 Red Hat Certified Specialist in Business Process Design
 Red Hat Certified Specialist in Cloud Infrastructure
 Red Hat Certified Specialist in Linux Performance Tuning
 Red Hat Certified Specialist in Messaging Administration
 Red Hat Certified Systems Administrator (RHCSA)
 RSA Certified Administrator (RSA/CA)
 RSA Certified Instructor (RSA/CI)
 SAFe Certification
 Salesforce B2C Commerce Developer
 Salesforce Certified Administrator
 Salesforce Certified Advanced Administrator
 Salesforce Certified Application Architect
 Salesforce Certified Data Architect
 Salesforce Certified Hyperautomation Specialist
 Salesforce Certified Integration Architecture Designer
 Salesforce Certified Platform Developer
 Salesforce Certified Systems Architect
 Salesforce Certified Technical Architect
 Salesforce Certified User Experience Designer

Salesforce Identity and Access Management Architect
 Salesforce Platform App Builder
 SAS Certified Big Data Professional Using SAS 9
 SAS Certified Data Integration Developer for SAS 9
 SAS Certified Data Scientist Using SAS 9
 SAS Certified Platform Administrator for SAS 9
 SAS Certified Predictive Modeler - SAS Enterprise Miner
 SAS Certified Professional: Advanced Programming/SAS 9.4
 SAS Certified Specialist Base Programming/SAS 9.4
 SAS Certified Specialist: Natural Language Processing and Computer Vision
 SAS Certified Statistical Business Analyst - SAS 9
 SAS Certified Advanced Analytics Professional Using SAS 9
 SAS Certified Data Quality Steward for SAS®
 SAS Certified Professional: AI and Machine Learning
 SAS Certified Professional: Data Curation for SAS Data Scientists
 SAS Certified Specialist: Visual Business Analytics
 ServiceNow Certified Application Developer (CAD)
 ServiceNow Certified Implementation Specialist (CIS)
 ServiceNow Certified Systems Administrator (CSA)
 Siebel 8 Consultant Certified Expert
 Six Sigma Black Belt
 Six Sigma Green Belt
 Six Sigma Master Black Belt
 Six Sigma Yellow Belt
 SNIA Certified Storage Architect
 SNIA Certified Storage Networking Expert (SCSN-E)
 SNIA Certified Storage Professional
 SNIA Certified Systems Engineer Sniffer Certified Expert
 SolarWinds Certified Professional (SCP)
 SonicWall Network Security Administrator
 Splunk Core Certified User
 SUSE Certified Administrator
 SUSE Enterprise Engineer (SCE)
 SUSE Enterprise Architect or (SEA)
 Systems Security Certified Practitioner (SSCP)
 Tableau Desktop Certified Professional
 Tableau Server Certified Professional
 Teradata VantageCloud Lake Associate Certified
 Teradata Vantage Administration
 Teradata Vantage Data Engineering Certified
 Teradata Vantage Data Science Master
 Teradata Vantage Master 2.0
 Teradata Vantage Architecture
 Teradata Vantage Analytics

Teradata SQL for Business Users
 TIBCO Certified Professional
 TIBCO Certified SOA Architect
 TOGAF 9 Certified
 Virtualization Council Master Infrastructure Architect
 VMware Certified Advanced Professional - Digital Workspace
 VMware Certified Advanced Professional 6.5 - Data Center Virtualization Design
 VMware Certified Advanced Professional – Network Virtualization
 VMware Certified Advanced Professional (all)
 VMware Certified Advanced Professional 6 - Data Center Virtualization Deployment
 VMware Certified Advanced Professional 6/7 - Cloud Mgt and Automation Deployment
 VMware Certified Advanced Professional 6/7 - Cloud Mgt and Automation Design
 VMware Certified Design Expert – Network Virtualization
 VMware Certified Design Expert - Cloud Mgt and Automation
 VMware Certified Design Expert (all)
 VMware Certified Design Expert 6 - Data Center Virtualization
 VMware Certified Professional - Digital Workspace
 VMware Certified Professional – Desktop Management 2021
 VMware Certified Professional - Network Virtualization
 VMware Certified Professional - Security 2021
 VMware Certified Professional 6 - Data Center Virtualization (VCP6-DCV)
 VMware Certified Professional 6.5 - Data Center Virtualization (VCP6.5-DCV)
 VMware Certified Professional 6/6.5
 VMware Certified Professional 6/7 - Cloud Mgt and Automation
 VMware Certified Technical Associate - Data Center Virtualization
 Zachman Certified - Enterprise Architect

4-YEAR IT CERTIFICATIONS PAY TRENDS

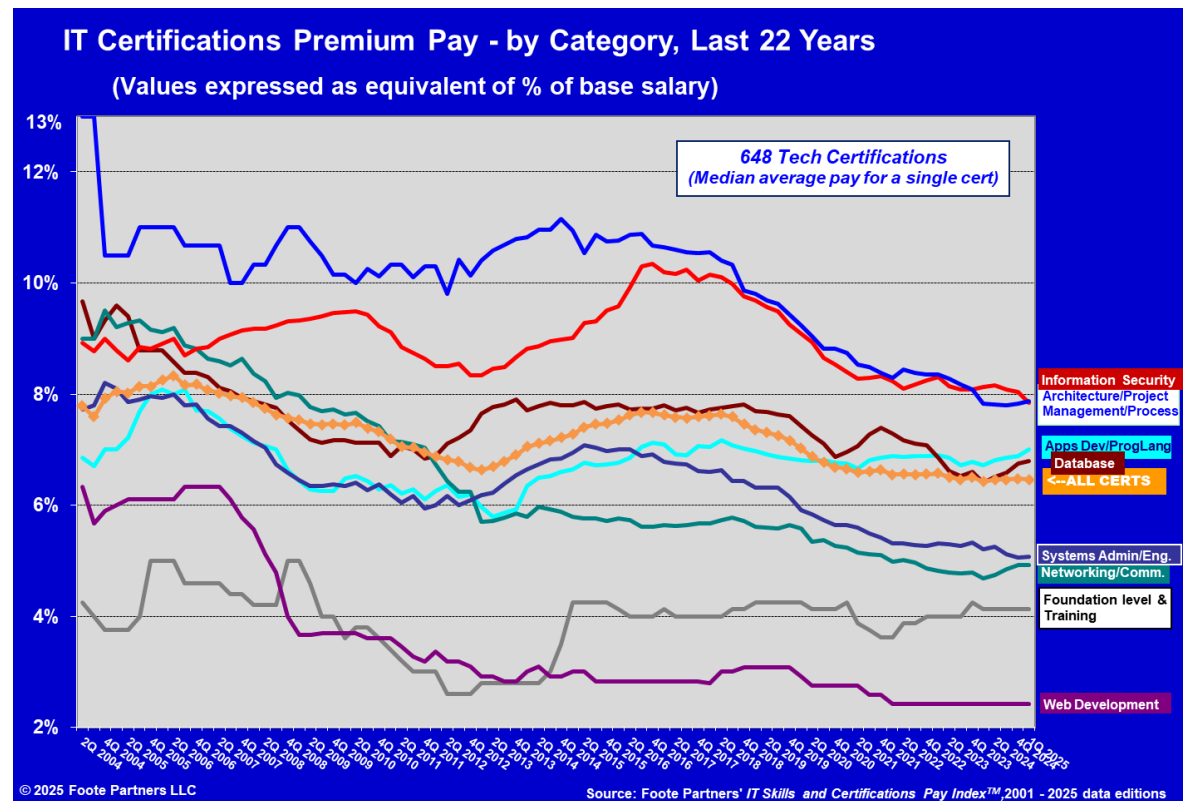
(Through 4/1/2025 – 105,273 IT Professionals)

IT CERTIFICATIONS CATEGORIES	# of certs surveyed	Change in Average Premium Pay by Category					
		% Change 3 mos	% Change 6 mos	% Change ANNUAL	% Change 2 yrs	% Change 3 yrs	% Change 4 yrs
Training and Beginner/Foundation level	8	0.0%	0.0%	0.0%	3.1%	13.8%	-2.9%
Apps Development/Prog. Languages	74	1.6%	2.1%	4.2%	1.4%	1.6%	3.8%
Data/Database	65	0.7%	3.4%	6.2%	-0.9%	-6.7%	-2.4%
Web Development	12	0.0%	0.0%	0.0%	0.0%	0.0%	-12.1%
Networking & Communications	105	0.0%	1.6%	5.0%	2.4%	-1.1%	-5.9%
System Administration/Engineering	131	0.3%	-0.9%	-2.7%	-4.5%	-4.6%	-10.2%
Information/Cyber Security	156	-2.5%	-3.0%	-3.5%	-5.6%	-4.8%	-6.6%
Architecture/Project Management/Process	97	0.5%	0.9%	0.6%	-5.8%	-5.0%	-9.9%
ALL CERTIFICATIONS REPORTED	648	-0.17%	0.05%	0.65%	-1.67%	-1.34%	-2.94%

17-YEAR IT CERTIFICATIONS PAY TRENDS BY CATEGORY

% Change in Average Median Pay for a Single IT Certification)

(Through 4/1/2025 – 105,273 IT Professionals)



SOURCE: Foote Partners 2025 [IT Skills & Certifications Pay Index™](#)

Pay data supporting these charts available in the [IT Skills and Certifications Pay Index™](#) – 1Q 2025 data edition

HIGHEST PAYING IT Certifications (cash pay premiums for all 648 certs surveyed, ranked)

These IT certifications are among those earning the highest pay premiums (data collected January 1, 2025 to April 1, 2025). **Shown in alphabetical order by overall rank in descending order including ties.** **Green/Red** = increased/decreased in market value this quarter. **Purple** = Made the list this quarter for first time.

1. GIAC Security Leadership	4.[cont.] Certified ScrumMaster - Advanced EC-Council Certified Ethical Hacker EC-Council Certified Threat Intelligence Analyst GIAC Certified Incident Handler Google Cloud - Professional Cloud Security Engineer InfoSys Security Architecture Professional (ISSAP/CISSP) Offensive Security Certified Professional Offensive Security Web Expert Oracle Certified Master - Java SE Developer Pegasystems Certified Data Scientist Pegasystems Certified Senior Systems Architect PMI Portfolio Management Professional PMI Risk Management Professional	6.[cont.] EC-Council Web Application Hacking and Security Testing Fortinet Certified Expert in Cybersecurity GIAC Certified Forensics Analyst GIAC Certified Intrusion Analyst GIAC Cloud Security Automation GIAC Experienced Cyber Security GIAC Experienced Forensic Analyst GIAC Security Operations Manager Google Certified Professional Cloud Architect Google Professional Cloud Developer IAPP Certified Information Privacy Manager IBM Applied AI Engineering Professional Certificate IBM Certified Solution Advisor - DevOps V2 Mile2 Certified Cloud Security Officer Offensive Security Defense Analyst Offensive Security Defense Security Expert Offensive Security Experienced Penetration Tester Offensive Security Exploitation Expert Open Group Certified Architect (Open CA) Oracle Certified Expert - Java SE Developer (all) Oracle Certified Master - DBA Pegasystems Certified Pega Business Architect Pivotal Application Architect PMI Professional in Business Analysis PMI Project Management Professional Red Hat Certified Architect: Infrastructure Red Hat Certified Specialist in Business Process Design SAFe Certification SAS Certified Data Scientist Using SAS 9 SAS Certified Professional: Advanced Programming/SAS 9.4 SAS Certified Advanced Analytics Professional Using SAS 9 Six Sigma Master Black Belt Systems Security Certified Practitioner (SSCP)
2.[Tie] GIAC Strategic Planning, Policy, and Leadership SAS Certified Professional: AI and Machine Learning Zachman Certified - Enterprise Architect	5.[Tie] AWS Certified DevOps Engineer - Professional AWS Certified Security - Specialty BTA Certified Blockchain Security Professional Certificate of Cloud Auditing Knowledge Certified Artificial Intelligence Practitioner Certified Business Continuity Manager/ISO 22301 Certified Business Continuity Professional Certified Business Process Leader Certified Compliance & Ethics Professional Certified Ethical AI Professional Certified Forensic Computer Examiner Certified Information Privacy Technologist- all countries Certified Information Systems Auditor Certified Information Systems Risk Manager/Mile2 Certified Kubernetes Security Specialist Certified Penetration Testing Engineer Certified Scrum Professional - ScrumMaster Certified ScrumMaster Check Point Certified Security Administrator Cisco Certified CyberOps Professional CyberSecurity Forensic Analyst (CSFA) EC-Council Certified Cloud Security Engineer (CCSE) EC-Council Certified SOC Analyst	
3.[Tie] Artificial Intelligence Engineer (AIE - all tracks) Certified Secure Software Lifecycle Professional Certified Software Quality Manager Cisco Certified Network Professional - Security EC-Council Certified Chief Information Security Officer (CCISCO) InfoSys Security Engineering Professional (ISSEP/CISSP) InfoSys Security Management Professional (ISSMP/CISSP) MIT CSAIL Professional Certificate in AI and Machine Learning Offensive Security Certified Expert Oracle Cloud Platform Application Integration Certified Pegasystems Certified Lead System Architect TOGAF 9 Certified		
4.[Tie] Certification of Capability in Business Analysis Certified Artificial Intelligence Scientist Certified Cloud Security Professional (ISC2-CCSP) Certified Data Privacy Solutions Engineer Certified Enterprise Coach (Scrum/Agile) Certified in Governance, Risk and Compliance Certified in Risk and Information Systems Control Certified in the Governance of Enterprise IT Certified Information Privacy Manager- all countries Certified Information Security Manager Certified Information Systems Security Professional Certified Professional Scrum Product Owner Certified Scrum Product Owner - Advanced		

Pay data supporting these charts available in the [IT Skills and Certifications Pay Index™](#) – 1Q 2025 data edition

IT CERTIFICATION PAY TREND HIGHLIGHTS: Market Value Gainers & Highest Paying – 1st Quarter 2025 data

These tech certifications *gained 10% or more in market value in the three months ending April 1, 2025* vs. prior quarter (seen below grouped by segment).
 Listed in alphabetical order within each group. Highest paying skills listed on right *in alphabetical order.*

IT CERTIFICATION Gainers

Info/Cyber Security certifications

Check Point Certified Security Administrator (CCSA)
 Cisco Certified Network Professional - Security
 EC-Council Certified Chief Information Security Officer (CCISCO)
 EC-Council Certified Ethical Hacker (CEH)
 GIAC Defensible Security Architect (GDSA)
 IBM Cloud Security Engineer Specialty
 Offensive Security Certified Professional (OSCP)
 Offensive Security Defense Analyst (OSDA)
 Offensive Security Web Assessor (OSWA)
 Offensive Wireless Security Professional (OSWP)
 Okta Certified Developer

Systems Administration certifications

AWS Certified SysOpsAdministrator-Associate (Cloud)
 HP Accredited Solutions Expert (ASE - all)
 HP ASE - Storage Solutions V4
 HP Master ASE - Storage Solutions Architect V3
 IBM Certified Solution Architect – Cloud v4
 IBM Certified Systems Administrator (all)
 Microsoft Certified Solutions Expert : Server Infrastructure
 Oracle Linux Certified Administrator (OCA)
 Red Hat Certified Systems Administrator (RHCSA)
 VMware Certified Professional 6.5 - Data Center Virtualization (VCP6.5-DCV)
 VMware Certified Professional 6/6.5

Application Development/Programming Languages certifications

Google Professional Cloud Developer
 IBM Certified Administrator - Cognos Analytics
 IBM Certified Application Developer - Cloud Solutions v3
 IBM Certified Application Developer (all)
 IBM Certified Solution Designer (all)
 Oracle Database PL/SQL Developer Certified Professional
 Pivotal Application Architect
 Pivotal Developer
 Red Hat Certified Architect: Infrastructure
 SAS Certified Professional: Advanced Programming/SAS 9.4
 SAS Certified Specialist Base Programming/SAS 9.4

Networking & Communications certifications

AWS Certified Advanced Network - Specialty
 Brocade Certified Fabric Designer (BCSD)
 Brocade Certified Fabric Professional (BCFP)
 Brocade Certified Network Engineer
 Cisco Certified Internetwork Expert (CCIE, all variations)
 Cisco Certified Network Professional - Data Center
 Cisco Certified Network Professional - Enterprise/Wireless Networks
 Dell Cloud Infrastructure Design Proven Professional
 Dell Cloud Services Design Proven Professional
 Juniper Networks Certified Associate (JNCIA - all specializations)

Architecture, Project Management, and Process Certifications

Artificial Intelligence Engineer (AIE - all tracks)
 Google Certified Professional Cloud Architect
 HDI Support Center Manager
 IBM Certified Solution Architect - Data Warehouse V1
 Six Sigma Black Belt
 Six Sigma Green Belt

Data/Database certifications

IBM Certified Application Developer - DB2 9.7 for Linux, Unix and Windows
 IBM Certified Data Architect - Big Data
 IBM Certified Data Engineer - Big Data
 IBM Certified Professional Developer - Cloud v4
 IBM Certified Specialist - AI Enterprise Workflow V1
 SAS Certified Data Integration Developer for SAS 9
 SAS Certified Data Scientist Using SAS 9
 SAS Certified Predictive Modeler - SAS Enterprise Miner
 SAS Certified Advanced Analytics Professional Using SAS 9
 SAS Certified Professional: Data Curation for SAS Data Scientists

Source: Foote Partners [IT Skills & Certifications Pay Index™](#), 1Q 2025 data edition

IT CERTIFICATION PAY TREND HIGHLIGHTS: Market Value Losers – 1st Quarter 2025 data

These IT certifications **declined 10% or more in market value in the three months ending April 1, 2025** vs. prior quarter (seen below grouped by segment).
 Listed in alphabetical order within each group.

TECH CERTIFICATIONS Losers

Application Development/Programming Languages

Microsoft Certified Solutions Developer (MCSD)
 Salesforce B2C Commerce Developer
 Salesforce Certified User Experience Designer
 TIBCO Certified Architect
 TIBCO Certified Professional

Data/Database certifications

AWS Certified Data Analytics – Specialty
 Microsoft Certified Azure Data Analyst Associate
 Microsoft Certified Azure Data Engineer Associate
 Microsoft Certified Azure Data Scientist Associate
 Microsoft Certified Power BI Data Analyst Associate
 Oracle Certified Professional - MySQL 8.0 Database Administrator
 Qlik Sense Business Analyst
 Qlik Sense Data Architect

Architecture, Project Management, and Process Certifications

Certified Business Analysis Professional (CBAP)
 Certified Scrum Product Owner
 Certified Scrum Professional - ScrumMaster
 CompTIA Cloud+
 CompTIA Project+
 HDI Customer Service Representative
 Microsoft Certified: DevOps Engineer Expert
 Salesforce Certified Technical Architect
 SAS® Certified Specialist: Visual Business Analytics
 Six Sigma Master Black Belt

Systems Administration certifications

Linux Professional Institute certification (LPIC-Level 2)
 Microsoft Certified Solutions Associate: Windows Server 2012/2016
 Red Hat Certified Architect (RHCA)
 Red Hat Certified Architect: Cloud
 Red Hat Certified Engineer(RHCE)
 Salesforce Certified Administrator
 ServiceNow Certified Implementation Specialist (CIS)
 ServiceNow Certified Systems Administrator (CSA)
 SUSE Certified Administrator
 SUSE Enterprise Architect (SEA)
 SUSE Enterprise Engineer (SCE)
 VMware Certified Design Expert (all)

Networking and Communications

AWS Certified Solutions Architect - Associate (Cloud)
 AWS Certified Solutions Architect - Professional (Cloud)
 CompTIA Network+
 CWNP/Certified Wireless Analysis Professional (CWAP)
 CWNP/Certified Wireless Design Professional (CWDP)
 Juniper Networks Certified Expert (JNCIE - all specializations)
 Juniper Networks Certified Professional (JNCIP - all specializations)
 SolarWinds Certified Professional (SCP)
 VMware Certified Professional - Network Virtualization

Info/Cyber Security certifications

AWS Certified Security - Specialty
 Certificate of Cloud Security Knowledge (CCSK)
 Certified Data Privacy Solutions Engineer(CDPSE-ISACA)
 Check Point Certified Security Expert (CCSE)
 Check Point Certified Security Master (CCSM)
 CompTIA Cybersecurity Analyst+ (CySA+)
 CSX CyberSecurity Practitioner (CSXP)
 CWNP Certified Wireless Security Professional (CWSP)
 EC-Council Certified Cloud Security Engineer (CCSE)
 Fortinet Certified Expert in Cybersecurity (FCX)
 GIAC Assessing and Auditing Wireless Networks
 GIAC Certified Detection Analyst (GCDA)
 GIAC Certified Enterprise Defender (GCED)
 GIAC Certified Web Application Defender
 GIAC Certified Windows Security Administrator (GCWN)
 GIAC Cloud Security Automation (GCSA)
 GIAC Critical Controls Certifications (GCCC)
 GIAC Defending Advanced Threats (GDAT)
 GIAC Enterprise Vulnerability Assessor (GEVA)
 GIAC Exploit Researcher and Advanced Penetration Tester
 GIAC Information Security Professional (GISP)
 GIAC Network Forensic Analyst (GNFA)
 GIAC Reverse Engineering Malware (GREM)
 GIAC Security Essentials (GSEC)
 GIAC Security Leadership (GSLC)
 GIAC Security Operations Manager (GSOM)
 GIAC Web Application Penetration Tester (GWAPT)
 Offensive Security Exploitation Expert (OSEE)

Source: Foote Partners [IT Skills & Certifications Pay Index™](#), 1Q 2025 data edition

2025 IT Skills & Certifications Pay Volatility Index™

Demand dynamics in benchmarked certified and non-certified IT skills pay

(Data collected through April 1, 2025)

What is skills and certifications pay volatility?

Skills volatility is defined as the incidence of gains or declines in premium pay earned by tech professionals for specific certified and noncertified technical and business skills. Tracking volatility is useful for both analyzing and forecasting demand for skills, for monitoring IT workforce transition, and for understanding IT management decision making. Volatility offers valuable insights that salary movements and hiring behavior do not. Important in this distinction is that skills can be segmented and benchmarked more meaningfully than jobs. Similar to IT positions, there are the broad categories (e.g., security, networking, systems, database, applications development). But also, more narrow areas, for example---web/e-commerce development, storage area networking, virtualization, architecture, business process, project management, methodology. But unlike most jobs, within categories or niche are very specific vendor-specific or vendor independent niches and skill specializations that provide more granular analysis (e.g., SAP, AJAX, Ruby on Rails, Microsoft Sharepoint, collaboration appliances, Oracle database).

TRENDS Cash Pay Premium Volatility for IT Skills and Certifications

Pay volatility in market value for individual IT skills and certifications—defined as incidence of gains or declines over a period of time in premium pay earned by IT professionals for specific technical and business skills—displayed a **dramatically decrease from January 1, 2025 to April 1, 2025** compared to the prior quarter according to the latest update of Foote Partners’ long-running *IT Skills and Certifications Pay Index™* of market values for tech skills. Market value is measured by tracking additional cash compensation paid to workers by their employers for specific certified and non-certified skills they possess.

Current Quarterly Recap (data collected through April 1, 2025)

TOTAL: All Skills and Certifications

- **28.0%** of skills and certifications (379 of 1,371) recorded a change in cash pay this quarter, higher than the 24% in the prior quarter, when 324 of 1,348 changed. This was slightly higher than the **26.4%** average quarterly pay volatility over the last two years.
- **177 gained value** while **202 declined** in value in 1st Quarter 2025, significantly higher than the 158 and 166 vectors, respectively, in the 4th quarter and more in line with the 214 gains/210 declines recorded in 3Q 2024.

CERTIFIED SKILLS

- **20.9%** of reported certifications(134 of 640) changed value in 1st Quarter 2025, a nearly 5-point increase compared to the **16.1%** (103 of 638) pay volatility in the prior quarter and about the same of the 21.1% two-year average certifications pay volatility
- **60** certifications **gained** market value, while 74 declined in value, a significantly different trend from the 54 gains and 49 declines, respectively, in the prior quarter.

NONCERTIFIED SKILLS

- **34.3%** of reported IT skills (245 of 714) changed value in the 1st Quarter 2025, a 3-point increase from the **31.1%** (221 of 710) pay volatility in the prior quarter.
- **117** noncertified skills **gained** market value, while 128 declined in value, in the 1st Quarter 2025, compared to 104 and 117, respectively, in the prior quarter.

Tracking skills volatility is useful in many ways: analyzing and forecasting demand for skills; monitoring IT workforce transition; and understanding IT management decision making. In fact, we believe statistical volatility in IT skills pay offers a more complete story of true labor market conditions than salary movements and hiring behavior, among other common indicators. Important in this distinction is that skills can be segmented and benchmarked more meaningfully than jobs allowing microanalyses.

Similar to jobs, IT skills have broad skills categories that can be tracked (e.g., security, networking, systems, database, applications development). But unlike jobs, skills pay can be pinpointed to hundreds of niches and specializations. Also, unlike most job trends analyses, within skills categories and niches are *vendor-specific* and *vendor independent* skill specializations for more granular tracking, analysis, and forecasting.

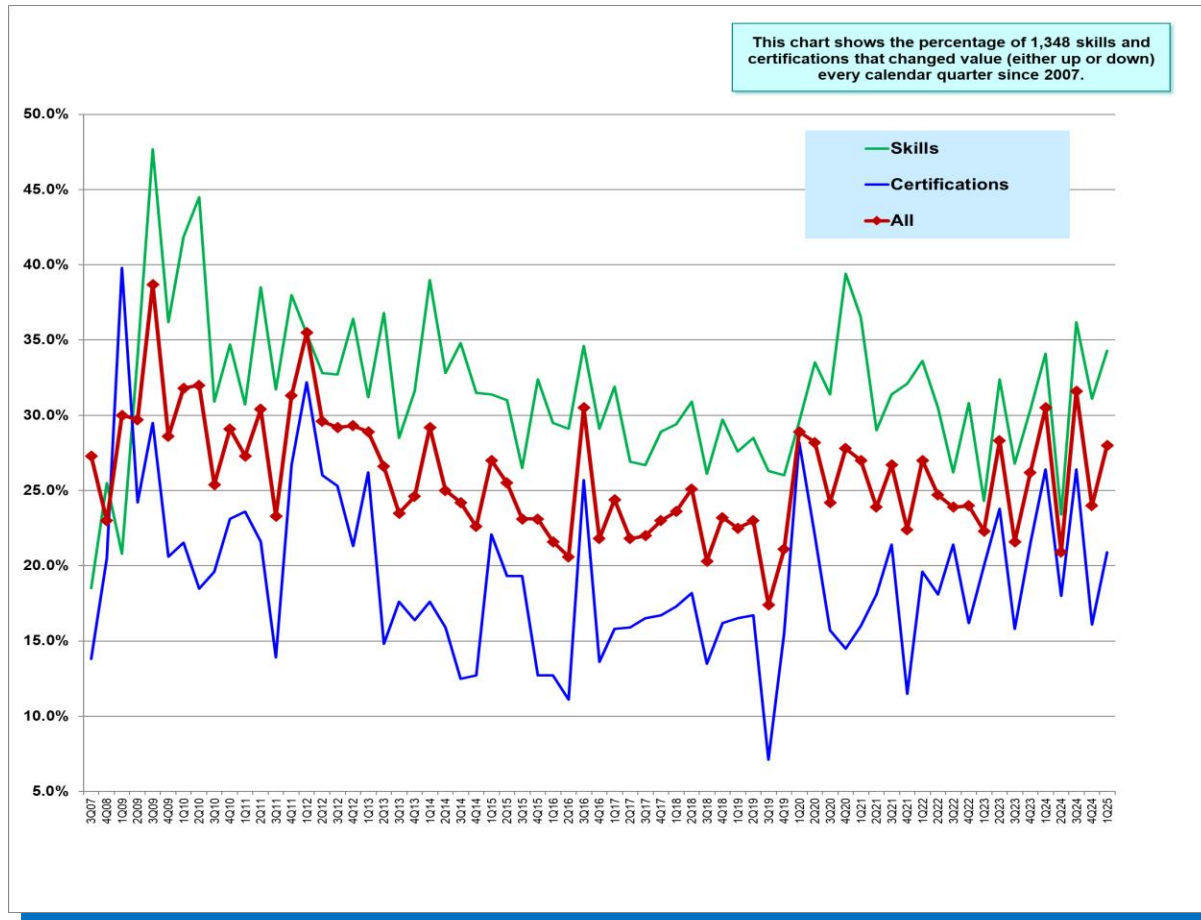
Quarterly volatility for all 1,371 certified and non-certified skills in the last two years has been widely variable, in the 21% to 31% range. This is an important shift trend that we believe signals a move that employers are taking a more long-term view to building their tech workforces for evolving technologies such as AI/Machine Learning and a variety of digital solutions. Tech leaders right now are demanding more agility, faster reaction times, and more predictable execution; this is keeping volatility high as skills markets constantly adjust to meet surges in demand for specific certified and non-certified skills.

They will be able to achieve those capabilities through applying architecture principles and practices to people management.

(Source: Foote Partners LLC, [2025 IT Skills & Certifications Pay Index™](#))

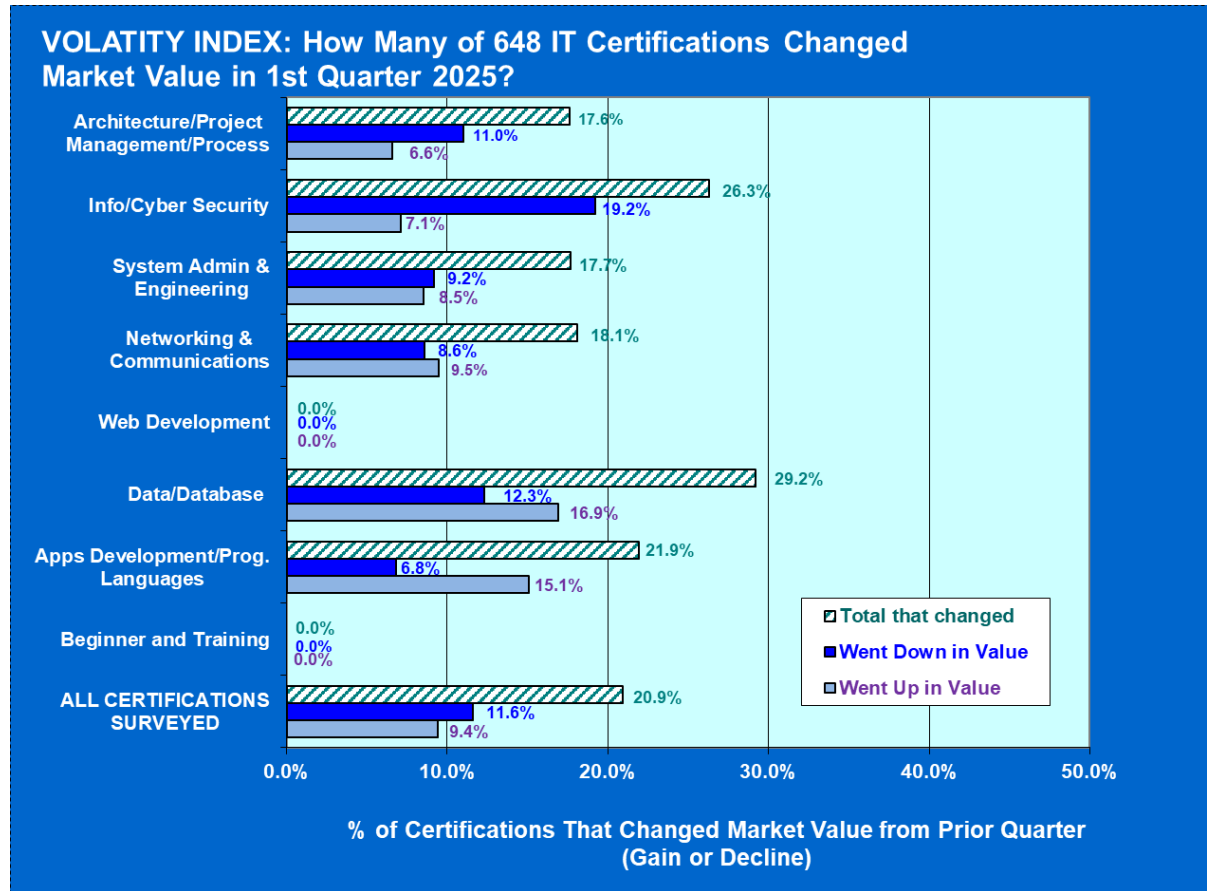
VOLATILITY HIGHLIGHTS - 18 Year Trending

IT Skills and Certifications Volatility Index™ – 1,371 Skills and Certifications



(Source: Foote Partners LLC, [2025 IT Skills & Certifications Pay Index™](#))

VOLATILITY HIGHLIGHTS IT Certifications – 1st Quarter 2025 datasets



(Source: Foote Partners LLC, [2025 IT Skills & Certifications Pay Index™](#))

IT Skills and Certifications Volatility Index™
1Q 2025 data edition findings: Tech Certifications

IT Certifications Volatility Highlights

Among all 640 certifications reported in the prior quarter, highest quarterly volatility ($\geq 15\%$) occurred in these segments (ranked highest to lowest):

- Data/Database
- Info/Cybersecurity
- Applications Development/Programming Languages

Within segments, notable downward volatility (value **declines**) occurred most in these (ranked):

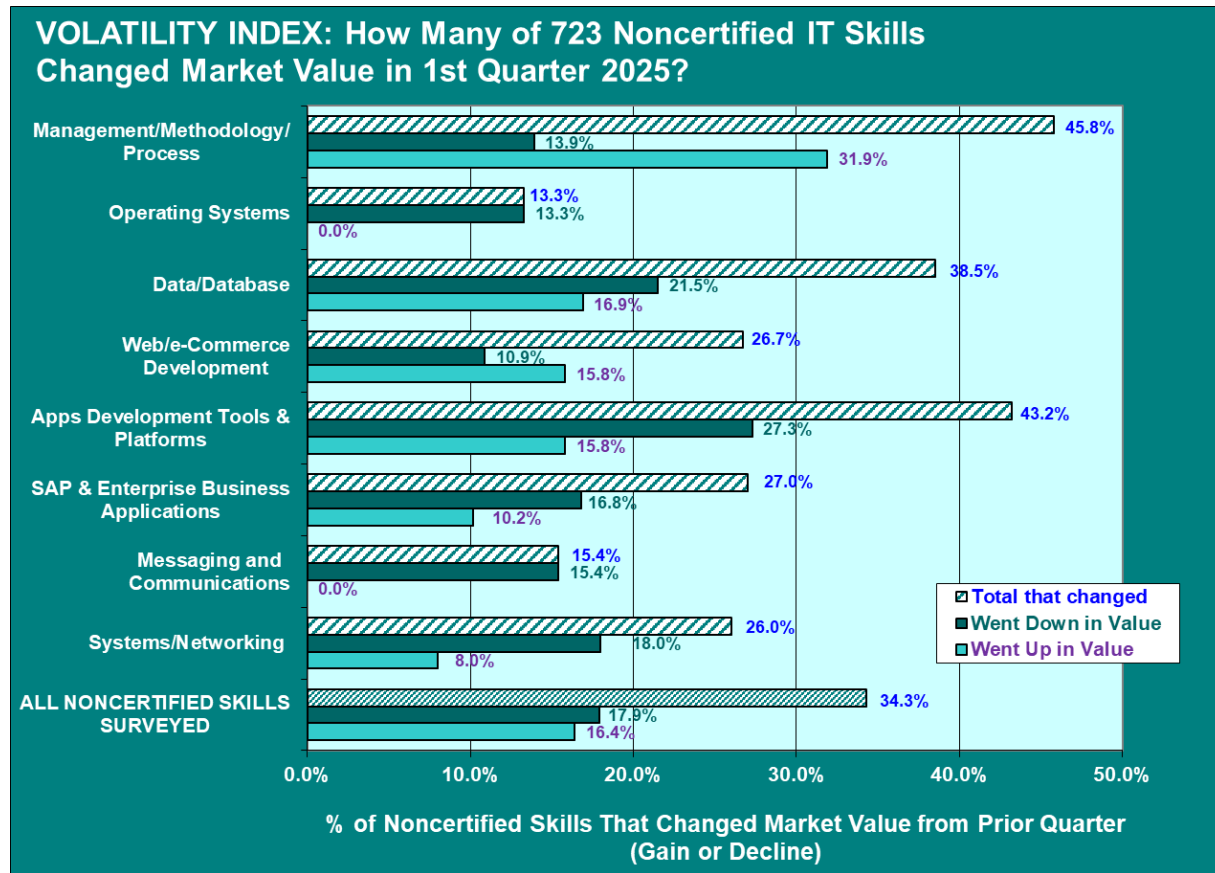
- Info/Cybersecurity

Within segments, notable upward volatility (value **gains**) occurred most in these:

- Applications Development/Programming Languages

(Pay data supporting these charts available in the [IT Skills and Certifications Pay Index™](#) – 1Q 2025 quarterly data edition)

VOLATILITY HIGHLIGHTS Non-certified IT Skills – 1st Quarter 2025 datasets



(Source: Foote Partners LLC, [2025 IT Skills & Certifications Pay Index™](#))

IT Skills and Certifications Volatility Index™ 1Q 2025 data edition findings: Non-certified IT

Non-certified IT Skill Pay Volatility Highlights

Among all 714 noncertified IT skills reported this quarter, high volatility (>20%) occurred in all segments (ranked highest to lowest):

- Management/ Methodology/Process
- Applications Development Tools & Platforms
- Data/Database
- Web/Ecommerce Development
- SAP & Enterprise Business Applications
- Systems/Networking

Within segments, notable downward volatility (value **declines**) occurred most in these (ranked):

- Management/ Methodology/Process

Within segments, notable upward volatility (value **gains**) occurred most in these (ranked):

- Management/ Methodology/Process

(Pay data supporting these charts available in the [IT Skills and Certifications Pay Index™](#) – 1Q 2025 quarterly data edition)

2025 IT Skills and Certifications Pay Index™ (1st Quarter 2025 datasets)

- Pay premiums for **1,371 certified and noncertified IT skills**
 - Three data points for each position: 10th, 50th, 90th percentile
- Verified and validated IT skills pay data from **105,273 IT professionals at 4,661 employers** in US and Canada
- Current data collected through April 1, 2025 (updated quarterly)
- Excel format data tables allowing for data loading into third-party data analytics tools from PayScale, MarketPay, PayFactors, CompAnalyst, WillisTowersWatson, Mercer, et. al.
- Certifications Guide containing basic information about surveyed IT certifications (pre-requisites; costs; test content; lab requirements, etc.)

Definition of IT skills premium pay

- Pay that IT workers receive for possessing high-value IT and business skills used on the job
- Given in the form of a bonus, or embedded in base salary to adjust for the presence of a dominant vendor or technology central to job performance (examples: Cisco Network Engineer, Python Software Engineer, Redhat Linux Systems Administrator, or SAP Developer.)
- Often used to adjust either base pay or total pay in situations where job title does not match actual on-the-job duties and responsibilities, and changing the job title is not an attractive option
- May be used as a reward, recruiting inducement, retention tool, or as a guide for creating consulting rate cards

ABOUT THIS RESEARCH

Foote Partners' primary research survey for tracking IT skills and certifications pay and supply/demand volatility is the industry-leading **IT Skills and Certifications Pay Index™ (ITSCPI)**, launched in 1999, and the **IT Skills and Certifications Volatility Index**, both updated every three months for the past 20 years. Data covering 456,795 tech professionals at 4,661 employers in 83 U.S. and Canada cities are reported for IT salaries and skills pay earned for 280 positions and 1,371 certified and noncertified technical and business skills. Verified and validated pay data for 105,273 tech workers has been included in the 1st Quarter 2025 data edition of the ITSCPI, compiled from data collected through April 1, 2025.

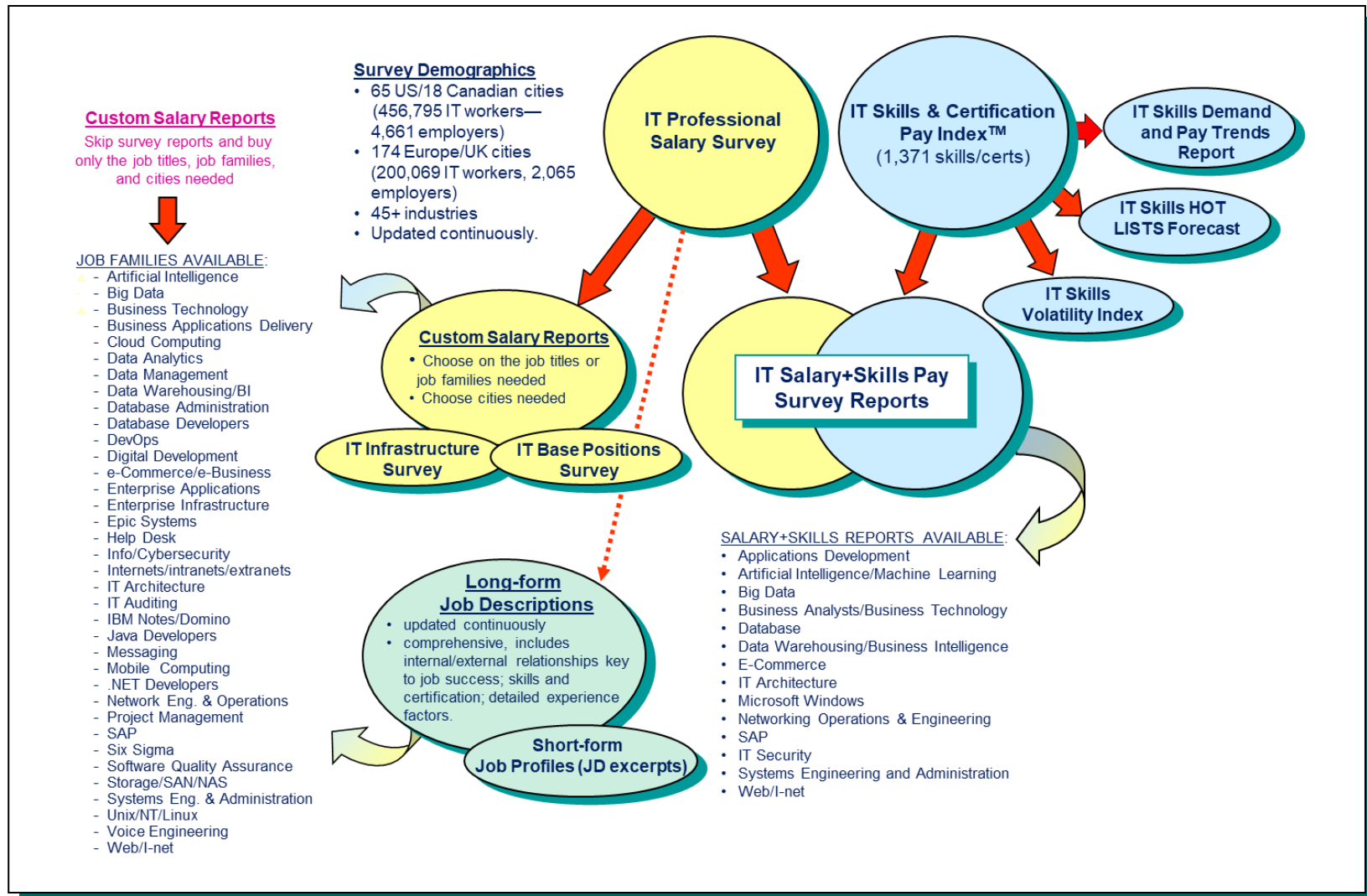
Demographics of the participating organizations for our latest update are as follows, measured most appropriately for the type of business, by revenues, assets, total premiums and operating budgets:

- 18% of participating organizations have \$5 billion+ in sales/\$15+ billion in total assets
- 28% of participating organizations earn more than \$1 billion in annual revenues or more than \$5 billion in total assets
- 46% of participating organizations have \$500+ million in sales/\$1+ billion in total assets/\$500+ million in premiums/\$500+ million operating budget (government, educational, not-for-profit)
- 54% of participating organizations fall in the SMB (small-to-medium sized business) segment, generally defined as organization under \$500 million in sales.
- [Public sector] 5% have operating budgets of \$500 million or more, [nonprofit/educational sectors] 4% with operating budgets \$100 million to less than \$500 million

TO OBTAIN A COPY OF THE LATEST **IT SKILLS AND CERTIFICATIONS PAY INDEX™**

Please visit the Foote Partners web site: [IT Skills and Certifications Pay Index™](#)
[IT Skills and Certifications Pay Volatility Index](#)

Foote Partners 2025 IT Compensation Survey Product Map



ABOUT FOOTE PARTNERS

Foote Partners, LLC is a technology analyst firm and independent benchmark research organization focusing on the people (versus vendor) side of managing technology and the IT labor force. A thought leader and trusted advisor to thousands of employers on five continents who purchase our products and services, we provide benchmark data and pragmatic forward-thinking advice and market intelligence targeting the tech workforce in the modern highly integrated business/IT hybrid environment in which all private and public organizations now operate.

Our products are deeply grounded in specialized proprietary data-driven statistical and empirical research, benchmark surveys, and business intelligence collected from 4,661 North American employers with whom we have deep longstanding research partnerships. These partnerships have been created and supported specifically to enable unique market intelligence views and difficult-to-find decision support research on the multiple facets of IT human capital management. As a group, these U.S., Canadian, and European partners were selected to meet strict criteria for what we believe is the most meaningful demographic representation for tech professionals in each local labor markets.

Founded in 1997 and comprised of former Gartner industry analysts, McKinsey & Company, Mercer and WillisTowersWatson senior consultants, and former corporate HR, IT, and business executives, the firm's research division publishes 50+ quarterly-updated benchmarking, analytical research and forecasting products that help employers benchmark their IT compensation, solve difficult information technology management and workforce problems, and strengthen their ability to execute complex business solutions.

Foote Partners tech compensation survey findings and labor market trend analyses are featured regularly in countless business, HR, and IT media sources and periodicals around the globe, including *Bloomberg BusinessWeek*, *Forbes*, *Fortune*, *Wall Street Journal*, *New York Times*, *CIO Magazine*, *ComputerWorld*, and *WorldatWork's Journal* and *Workspan Magazine*; and in appearances on network and cable television, National Public Radio, and countless podcasts and webcasts.

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