2014
IT SKILLS &
SALARY REPORT

**A Comprehensive Survey
from Global Knowledge
& Windows IT Pro**

Global Knowledge ®

Windows IT Pro

> **"Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time."**
>
> **THOMAS EDISON**

INTRODUCTION

FINDINGS FROM THE 2014 IT Skills and Salary Survey indicate that IT and business professionals are not giving up on pursuing career success. This year's study, the seventh for Global Knowledge and the second in partnership with *Windows IT Pro*, confirms that while economic growth remains slow, conditions are improving for most. This year's findings also reveal a varied, robust workday for IT professionals, confirm the value of continued professional development, and provide insight into some of the most valuable IT and business skills.

The survey was conducted online in the fall of 2013. More than half a million survey invitations were emailed to recipients from the databases of Global Knowledge, *Windows IT Pro*, and partner companies. More than 16,300 respondents worldwide completed the survey, with 74 percent of those in Canada and the United States. This report focuses on North America, where 10,299 IT professionals and 1,798 business professionals responded. Professionals from staff to C-level appear interested in sharing their opinions and learning from others.

OVERRIDING TRENDS

COMPENSATION IS INCREASING.

Salaries for both IT and business professionals are higher this year. IT professionals averaged $87,873, and business professionals averaged $95,137. The overall average of $88,952 is 13 percent higher than last year. The percentage of respondents who reported receiving a raise eclipsed 70 percent for the first time since the 2009 survey. Overall, 52 percent reported receiving a bonus—the highest percentage since the study's inception. When factoring for bonus eligibility, 68 percent of those who were eligible received a bonus, which averaged more than $6,500.

PROFESSIONALS ARE WEARING MANY HATS.

Doing more with less appears to be the new normal. Thirteen percent of IT respondents reported their work was focused in only one of the four major functional areas designated in the study. More than half of the respondents reported working in two or three functional areas, while one-third reported working in all four.

TRAINING MATTERS.

Eighty percent of IT respondents who trained in the last year said it was a positive investment for their career path, with more than 85 percent reporting that they gained new knowledge that could be used in their existing positions. Adding new skills made a significant difference in some respondents' base salary. Higher raises were likely for those who trained as well as for those who earned a certification within the previous 12 months.
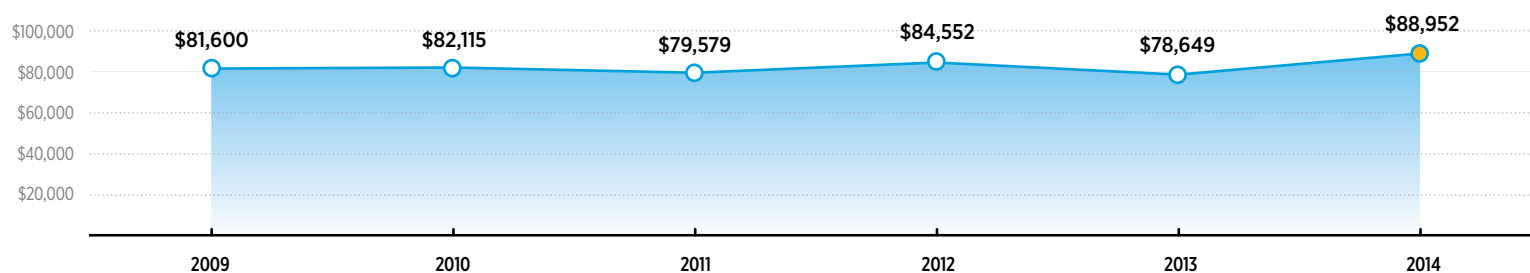
CERTAIN SKILLS STAND OUT.

Seventy-nine percent of IT respondents reported they expect their organizations to add skills in at least one functional area in 2014. Within those areas, respondents said their organizations will focus on enhancing security, expanding competency in virtualization, continuing the migration to cloud-based applications and services, revamping network infrastructure, and reviewing resources allocated to servers and storage.

CONDITIONS ARE IMPROVING.

Consistent with results from the last two surveys, nearly 80 percent of this year's respondents reported IT and business projects being started or resumed. This rate increases to 90 percent for those respondents who reported business conditions are good (22 percent, up eight points over last year). Twenty-eight percent of respondents reported business conditions are improving.
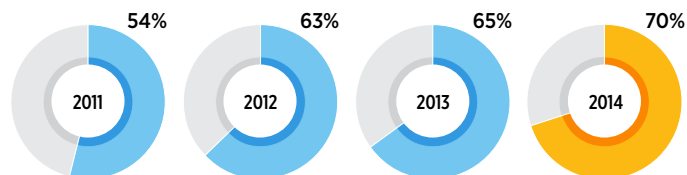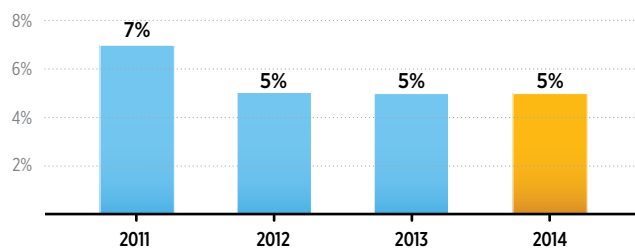
PARTICIPANT PROFILE

Base Salary

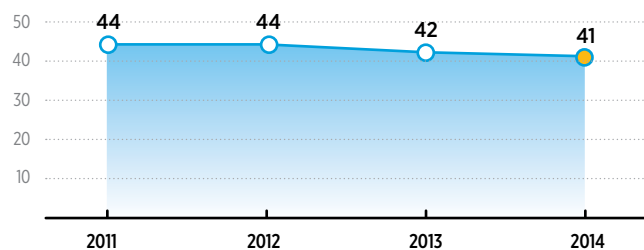|	2009	2010	2011	2012	2013	2014
	$81,600	$82,115	$79,579	$84,552	$78,649	$88,952

PARTICIPANT PROFILE

Received a Raise

2011	2012	2013	2014
54%	63%	65%	70%

Received a Bonus

2011	2012	2013	2014
40%	48%	48%	53%

Raise Percentage

2011	2012	2013	2014
7%	5%	5%	5%

Average Bonus

2011	2012	2013	2014
$7,926	$5,920	$4,522	$5,600

Average Age

2011	2012	2013	2014
44	44	42	41

Male vs. Female

2011	2012	2013	2014
3.6:1	3.7:1	4.2:1	3.5:1

Average Tenure

2011	2012	2013	2014
16	16	14	14

College Degree

2011	2012	2013	2014
68%	70%	68%	72%
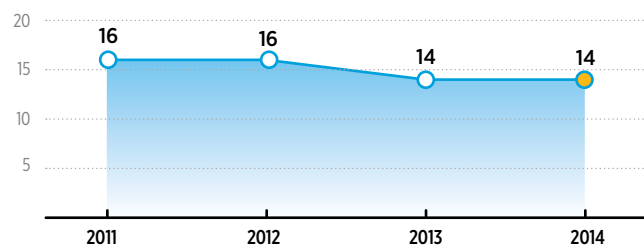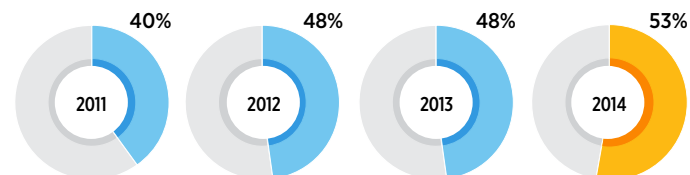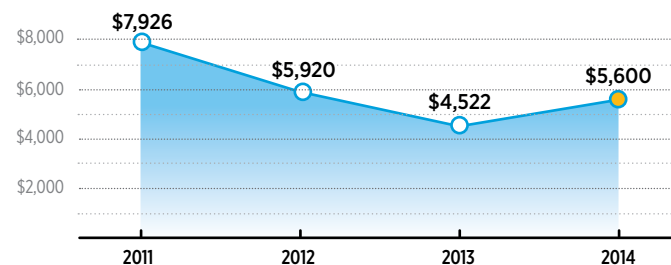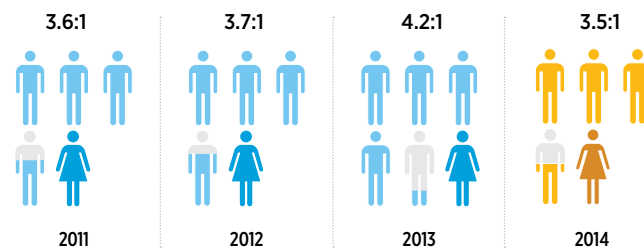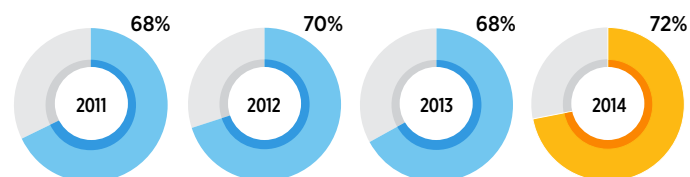
> **"Money won't create success; the freedom to make it will."**
>
> **NELSON MANDELA**

COMPENSATION

AFTER DECLINING LAST YEAR, salaries for both IT and business professionals took a positive turn. Overall, the average salary of this year's respondents was $88,952 ($87,873 for IT professionals and $95,137 for business professionals), a 13 percent increase. Seventeen percent earned less than $60,000, while approximately 30 percent earned $100,000 or more (29 percent for IT professionals and 36 percent for business professionals).

Several factors affect income potential, including job function, tenure, experience (including certifications), company size, industry, and geography. Data from this year's study continues to highlight these factors. In the current study, we shined a brighter light on job function.

SALARY RANGE OF RESPONDENTS

● 2010 ● 2011 ● 2012 ● 2013 ● 2014

Less than $40,000
- 3.6%
- 6.9%
- 5.7%
- 5.3%
- 5.8%

$40,000 –$49,000
- 5.0%
- 7.8%
- 8.1%
- 9.7%
- 8.0%

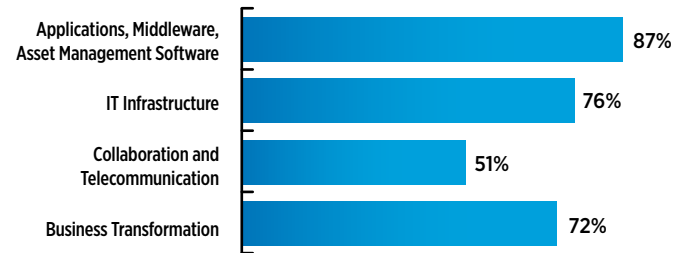**$50,000 –$59,000**
- 8.3%
- 11.2%
- 10.1%
- 11.0%
- 10.4%

$60,000 –$69,000
- 8.7%
- 13.4%
- 12.2%
- 14.3%
- 12.5%

$70,000 –$79,000
- 13.9%
- 13.2%
- 13.0%
- 14.3%
- 13.4%

$80,000 –$89,000
- 15.0%
- 12.9%
- 13.3%
- 13.1%
- 13.8%

$90,000 –$99,000
- 15.9%
- 10.2%
- 10.1%
- 10.3%
- 11.0%

$100,000 –$109,000
- 10.8%
- 8.7%
- 7.8%
- 7.7%
- 8.2%

$110,000 –$119,000
- 5.2%
- 4.7%
- 5.3%
- 4.0%
- 4.7%

$120,000 –$129,000
- 4.1%
- 3.8%
- 4.9%
- 3.8%
- 4.5%

$130,000 or more
- 9.5%
- 7.2%
- 9.5%
- 6.5%
- 7.7%

5% 10% 15% 20%
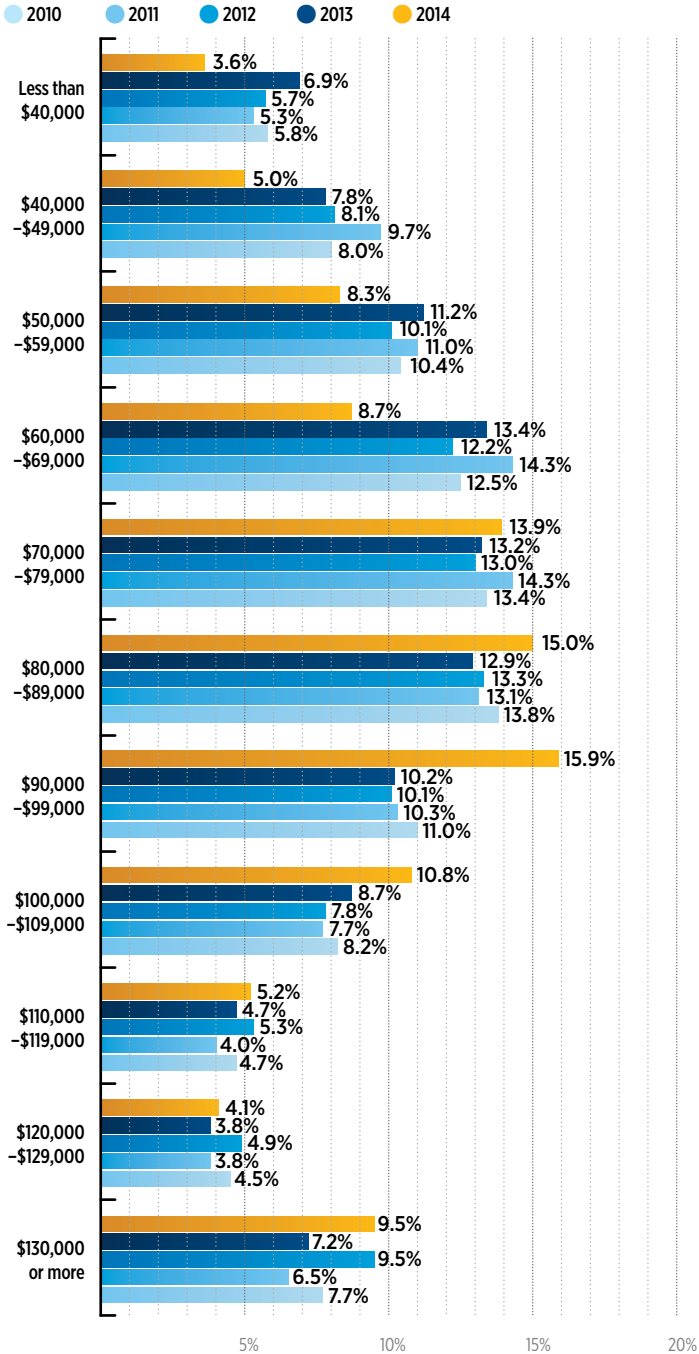
JOB FUNCTIONS AND TASKS

In recognition of the ever-changing face of the information economy, this year's study looked at job functions more holistically. In previous years, the question of job function allowed for only a single response. This year, we divided job function into four primary areas and asked IT respondents to indicate in which areas they work.

FUNCTIONAL AREAS RESPONDENTS WORK

- Applications, Middleware, Asset Management Software — 87%
- IT Infrastructure — 76%
- Collaboration and Telecommunication — 51%
- Business Transformation — 72%

Approximately 13 percent of the respondents reported working in a single functional area. More than one-third (36 percent) work in one or two areas, two-thirds (66 percent) work in one to three areas, and 34 percent divide their work across all four functional areas.

NUMBER OF FUNCTIONAL AREAS

- 1 Functional Area — 13%
- 2 Functional Areas — 23%
- 3 Functional Areas — 30%
- 4 Functional Areas — 34%
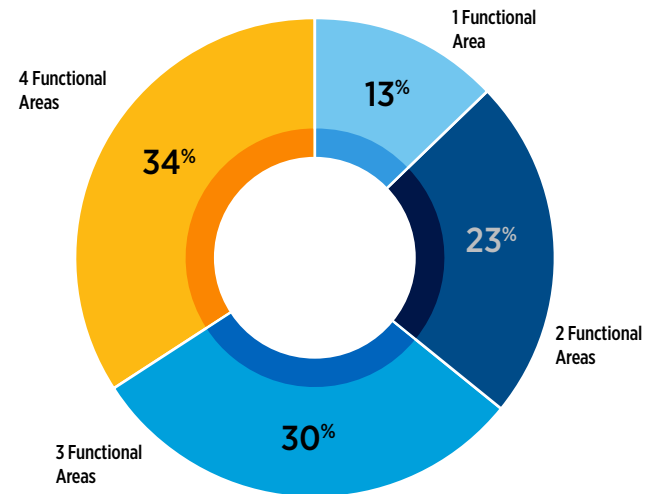
SALARY BY FUNCTIONAL AREA AND SPECIFIC TASK

Functional Area / Specific Task	Mean	Median	#
Applications, Middleware, Asset Management Software	**$86,730**	**$85,000**	**8,922**
Application Development	$95,340	$92,000	1,779
Application Implementation and Support	$86,452	$85,000	3,537
Collaboration Apps	$93,827	$90,000	890
CRM, ERP, SCM	$93,240	$90,000	873
Databases	$88,507	$86,400	2,469
Desktop and Productivity	$77,172	$75,000	2,775
eCommerce	$93,856	$91,858	378
Email and Messaging	$79,065	$77,000	2,473
Middleware	$94,420	$90,585	770
Mobile Apps	$88,895	$85,668	770
Network Management	$80,096	$78,000	3,274
Operating Systems	$80,278	$78,700	3,352
Programming Software	$92,670	$90,000	870
Security	$87,840	$85,000	3,021
System Software Deployment and Support	$83,078	$81,000	2,476
Virtualization	$84,903	$82,236	2,584
IT Infrastructure	**$85,893**	**$84,165**	**7,822**
Enterprise Architecture	$92,558	$90,000	3,301
Cloud	$94,217	$90,000	1,883
Data Center	$88,778	$85,167	3,256
Networking	$82,489	$80,000	4,452

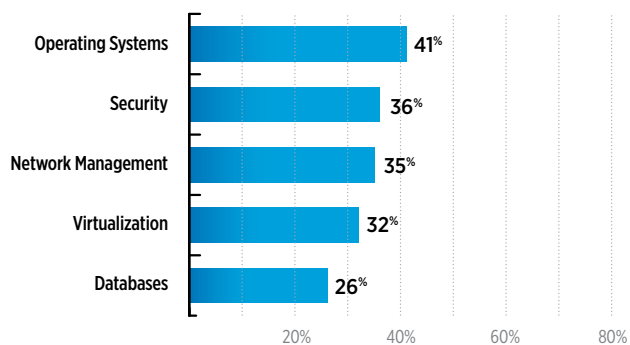| Functional Area / Specific Task	Mean	Median	#
Peripherals (Printers, Displays, etc.)	$76,963	$75,000	2,398
Servers	$83,533	$81,950	4,584
Service Provider and Carrier Networks	$87,638	$85,000	1,460
Storage	$84,287	$82,000	2,853
Initiatives (BYOD, etc.)	$88,194	$85,000	2,265
Collaboration and Telecommunication	**$84,738**	**$82,000**	**5,269**
Contact Center and Call Control	$82,448	$80,000	1,484
Mobility and Wireless	$85,488	$82,739	2,863
Presence	$88,127	$85,000	922
Social Platforms and Apps	$92,140	$88,000	724
Telephony	$82,423	$80,000	2,384
Video and Web Conferencing	$84,216	$80,123	1,982
Initiatives (BYOD [Security], Social Media, etc.)	$90,688	$86,000	1,809
Business Transformation	**$91,205**	**$88,580**	**7,385**
Leadership and Professional Skills	$94,046	$90,000	4,501
Business Process Improvement	$98,147	$93,020	2,385
Finance	$97,251	$92,911	751
Human Resources	$97,589	$92,806	456
Business Intelligence and Analysis	$93,102	$90,000	1,965
Project and Program Management	$93,054	$90,000	4,226
Regulatory and Governance	$99,985	$95,000	1,485
Sales and Marketing	$96,291	$90,000	490

DRILLING DOWN FURTHER: TASKS

Under each of the four functional areas, we listed specific tasks (e.g., customer relationship management, enterprise resource management, supply chain management, virtualization, storage, and project management), and respondents selected the combination of functional areas and tasks that best describes their work duties.
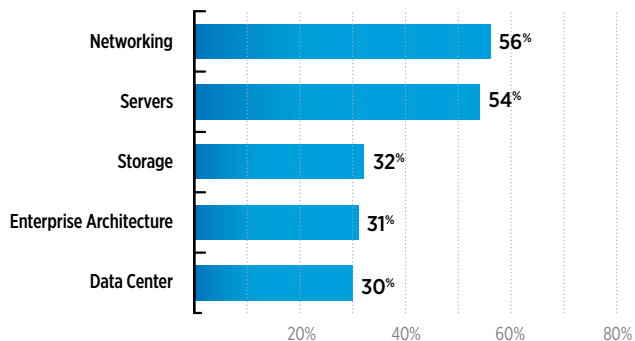
On average, IT respondents focus on 8.5 specific tasks. Respondents who reported taking on additional responsibilities also reported working on a greater number of specific tasks (10 vs. 8.1 for those who did not take on additional responsibilities). Similar differences were reported by respondents who developed new skills. Those who did averaged 9.7 tasks, whereas those who did not averaged 8.2.
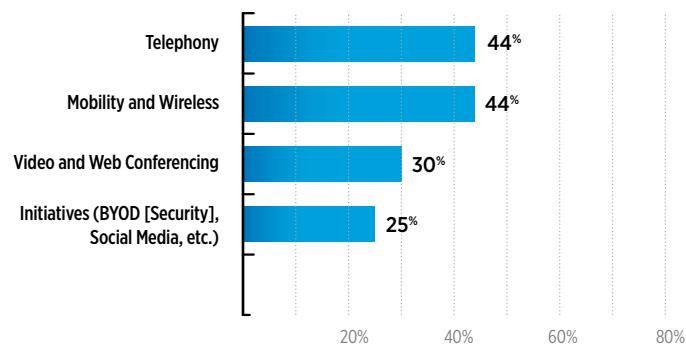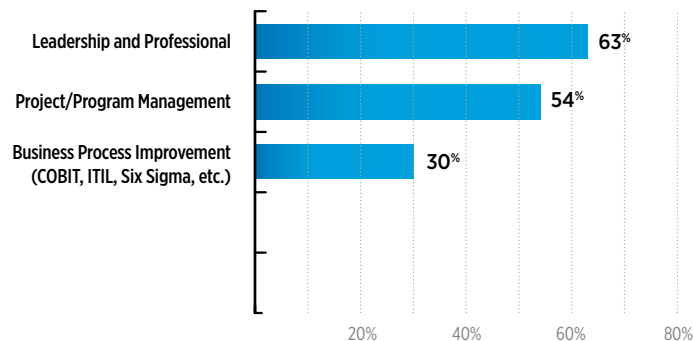
COMPENSATION WITHIN FUNCTIONAL AREAS

Salaries vary across functional areas and by the number of areas in which an IT professional works. Respondents working in the Business Transformation area, which includes project management and ITIL, earn an average of $91,205 per year, or five percent ($4,475) more than respondents working in the next highest paying group. Within each functional area, the range in average salaries is lowest in the Business Transformation area ($6,931 or a 7 percent difference between high and low) and highest in the Applications, Middleware, Asset Management Software area ($18,168 or a 24 percent difference between high and low).

IT respondents indicated that having skills in certain task areas had positively impacted their total compensation.

SKILLS THAT POSITIVELY IMPACTED COMPENSATION

Applications, Middleware, Asset Management Software

Skill	Percent
Operating Systems	41%
Security	36%
Network Management	35%
Virtualization	32%
Databases	26%

Collaboration and Telecommunication

Skill	Percent
Telephony	44%
Mobility and Wireless	44%
Video and Web Conferencing	30%
Initiatives (BYOD [Security], Social Media, etc.)	25%

IT Infrastructure Tasks

Task	Percent
Networking	56%
Servers	54%
Storage	32%
Enterprise Architecture	31%
Data Center	30%

Business Transformation

Area	Percent
Leadership and Professional	63%
Project/Program Management	54%
Business Process Improvement (COBIT, ITIL, Six Sigma, etc.)	30%

COMPANY SIZE

Respondents reported that larger companies pay on average 15 percent ($12,173) more than companies with fewer than 100 employees. IT professionals working in the largest firms were more apt to see a raise compared to their colleagues in small firms (73 percent vs. 59 percent). This year's data also showed that IT professionals working in smaller firms are more apt to spread themselves across more tasks than their counterparts in larger firms where a higher degree of specialization is the norm.

SALARY AND TASKS MANAGED BY COMPANY SIZE

Company Size (Number of Employees)	Mean	Median	Tasks	#
Small (<100)	$80,119	$75,900	10.9	1,444
Midsize (100–999)	$82,358	$80,000	9.9	2,812
Large (1000+)	$92,292	$90,000	7.2	6,043

How Many (Red) Hats Do You Wear?

Red Hat-certified survey respondents reported being active across all four primary functional areas.

They work on an average of 10.8 specific tasks, spending their time involved in application implementation and support, operating systems, security, virtualization, enterprise architecture, networking, servers, project management, and developing leadership and professional skills.

Applications, Middleware, Asset Management Software — **95%**

IT Infrastructure — **93%**

Collaboration and Telecommunication — **47%**

Business Transformation — **66%**

INDUSTRY

In the current study, ranking among the five top-paying industries shifted slightly. Software development retained its top position with an average salary of $103,812, up four percent over last year. Other top-paying industries include VAR/IS integration; aerospace and defense contracting; IT consulting; and mining, oil, and gas. Three of the five top-paying industries rely more heavily on certified professionals. They include aerospace/defense contracting, VAR/IS integration, and IT consulting.

Did You Stay or Did You Go?

One-third of this year's IT respondents reported they considered leaving their present field for another career (consistent with the 2013 study). Twelve percent relocated to take a new position (down from 15 percent in the 2013 study), and 20 percent changed employers (down five points from last year). These percentages were consistent across functional areas.
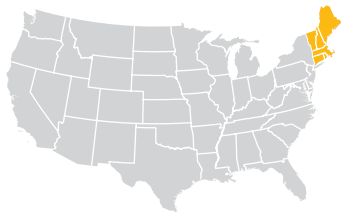
Industry	Mean	Median
Software Development	$103,812	$94,000
VAR/IS Integration	$100,227	$95,000
Aerospace/Defense	$98,923	$96,767
IT Consulting	$97,882	$92,000
Natural Resources: Mining, Oil, Gas	$97,239	$90,334
Professional Business Services	$94,208	$90,000
Pharmaceutical or Medical and Biotech R&D	$93,765	$90,000
IT Communication Manufacturing	$93,757	$90,500
Government: Military and Homeland Security	$93,385	$86,000
Accounting, Banking, Finance	$92,926	$90,908
Media, Film, Music	$91,826	$90,000
Transportation or Public Utilities	$91,626	$90,000
Insurance, Real Estate, Legal	$91,395	$90,000
Telecommunications	$89,672	$85,000
Security services	$88,149	$85,603
Overall Average	**$87,873**	**$85,500**
Wholesale	$86,994	$81,500

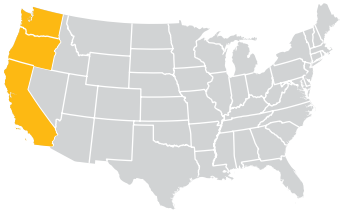| Industry	Mean	Median
IT-Related Services	$85,782	$83,608
Retail	$85,744	$84,145
Healthcare	$85,693	$85,000
Data Analytics	$85,550	$87,885
Manufacturing: Consumer	$85,450	$86,000
Sales and Distribution	$85,345	$88,000
Manufacturing: Industrial	$85,144	$85,000
Hospitality, Travel, Recreation	$84,538	$85,000
All Others	$84,183	$79,800
Government: Non-Defense, State, Local	$83,616	$83,101
Communications, Public Relations, Advertising	$83,055	$85,000
Sports and Entertainment	$82,261	$80,000
Construction, Architecture, Engineering	$81,599	$76,044
Logistics and Supply Chain	$81,026	$80,000
Natural Resources: Agriculture, Forestry, Fishing	$76,122	$75,484
Education Services	$74,263	$73,663
Nonprofit	$72,587	$73,306

GEOGRAPHY

The average IT salary in the US ranges 11 percent, from a high of $91,868 in the South Atlantic region to a low of $82,889 in the East South Central region. Variation is clear within regions, with major metro areas having higher base salaries—and higher costs of living—than rural areas.
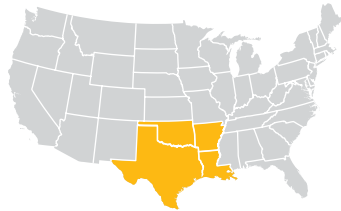
For example, the average salary for Citrix-certified professionals ranges from $86,633 in Midwest markets, such as Toledo or Milwaukee, to more than $100,000 in Pacific Coast markets, such as San Jose, San Diego, and Portland. Project management professionals also see a similar geographic shift with salaries peaking at $119,098 in Mid-Atlantic markets, such as New York, Philadelphia, or Newark, to $95,317 in Mountain markets, such as Phoenix, Denver, and Boise.

Click here for a complete list of salaries by state.

1 SOUTH ATLANTIC
MEAN: $91,868
MEDIAN: $89,000

4 NEW ENGLAND
MEAN: $91,537
MEDIAN: $90,000

7 EAST NORTH CENTRAL
MEAN: $84,077
MEDIAN: $83,326

2 PACIFIC
MEAN: $91,701
MEDIAN: $89,000

5 WEST SOUTH CENTRAL
MEAN: $89,128
MEDIAN: $86,334

8 WEST NORTH CENTRAL
MEAN: $83,301
MEDIAN: $84,145
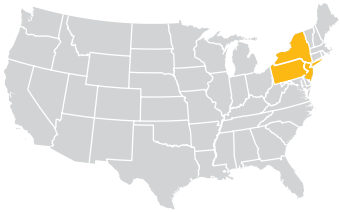
3 MID-ATLANTIC
MEAN: $91,690
MEDIAN: $89,000
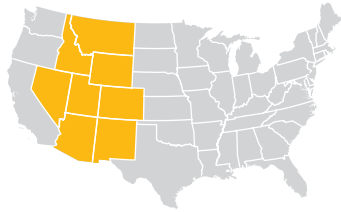
6 MOUNTAIN
MEAN: $85,092
MEDIAN: $81,000

9 EAST SOUTH CENTRAL
MEAN: $82,889
MEDIAN: $82,000

TOP FIVE STATES BY SALARY

Virginia
$100,859

New Jersey
$100,750

Connecticut
$99,966

Maryland
$98,614

Colorado
$95,518

BOTTOM FIVE STATES BY SALARY

South Dakota
$66,045

Wyoming
$69,573

Montana
$71,061

Nevada
$71,629

New Mexico
$73,931

NOTE: Washington, DC, ranks highest overall with $106,498.

CANADIAN VARIATIONS

Regional variations in salary are also common across Canada. Overall, IT professionals earn an average of $84,505 (USD), with provincial variations ranging from $91,090 in Alberta to $75,685 in Nova Scotia. These figures align with our data indicating that the oil and natural gas sector, critical to Alberta's regional economy, is one of the top paying.

ITIL-certified respondents show a peak salary of $96,742 in Vancouver and $87,192 in Toronto. Microsoft-certified professionals' salaries range from $77,727 in Quebec to $85,000–$86,000 in British Columbia and Alberta.

① ONTARIO
MEAN: $83,732
MEDIAN: $84,974

④ QUEBEC
MEAN: $86,644
MEDIAN: $81,698

⑦ NOVA SCOTIA
MEAN: $75,685
MEDIAN: $77,637

② ALBERTA
MEAN: $91,090
MEDIAN: $86,836

⑤ MANITOBA
MEAN: $80,793
MEDIAN: $80,000

⑧ NEWFOUNDLAND AND LABRADOR
MEAN: $71,903
MEDIAN: $68,000

③ BRITISH COLUMBIA
MEAN: $85,833
MEDIAN: $83,319
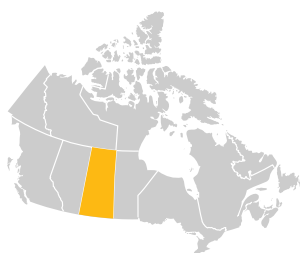
⑥ SASKATCHEWAN
MEAN: $80,032
MEDIAN: $75,852

⑨ NEW BRUNSWICK
MEAN: $79,942
MEDIAN: $80,719

OTHER RESPONDENTS

Sixteen respondents were from **Prince Edward Island** and the three territories **Yukon**, **Nunavut**, and **Northwest Territories**.

MEAN: $66,944
MEDIAN: $70,038

RAISES AND THEIR REASONS

The percentage of respondents indicating they received a raise in the last year continues to increase. Seventy percent of respondents reported receiving a salary increase, compared to 65 percent in the 2013 study and up 27 points from the recession-driven low of 43 percent in 2010.
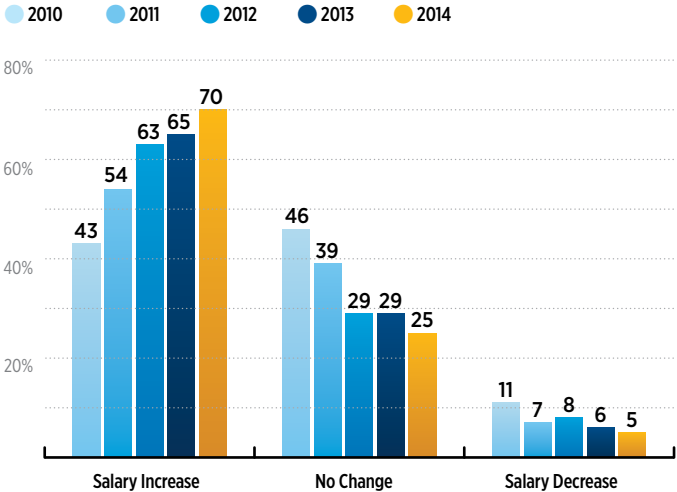
More than half (54 percent) of respondents reported receiving a raise of one to five percent, consistent with data from the previous two surveys. One out of 10 respondents reported seeing their salary increase six to 10 percent, while six percent indicated receiving a raise of 11 percent or more.

Seventy-five percent estimated they will see a raise in the coming year. Between 31 and 35 percent, depending upon job function, estimated they will receive a bonus of six percent or more of their annual salary. Overall, 68 percent received a bonus of at least one percent.

Raises that were due to performance in a current position, standard company increase, or cost of living adjustment were most apt to fall in the one to five percent range. Change in position, either internal or external, was the most likely driver of salary increases of 11 percent or more.

SALARY CHANGE OVER TIME

● 2010 ● 2011 ● 2012 ● 2013 ● 2014

Salary Increase: 43, 54, 63, 65, 70
No Change: 46, 39, 29, 29, 25
Salary Decrease: 11, 7, 8, 6, 5

Adding new skills made a significant difference in some respondents' base salary. Those who engaged in training were twice as likely as the overall average to see a raise of 11 percent or higher (18 percent vs. 7 percent), and raises were more pronounced for those who had completed a new certification within the prior 12 months.

PRIMARY FACTORS THAT LED TO A PAY INCREASE

● 1–5% Raise
● 6–10% Raise
● 11% or More Raise

Performance at current job: 76%, 16%, 8%

Standard company increase: 89%, 8%, 3%

Cost-of-living increase: 88%, 8%, 4%

Internal promotion: 49%, 31%, 20%

Additional responsibilities: 63%, 23%, 14%

Internal lateral move: 54%, 27%, 19%

External lateral move: 44%, 27%, 29%

External promotion: 33%, 27%, 40%

Added valuable new skills: 60%, 23%, 18%
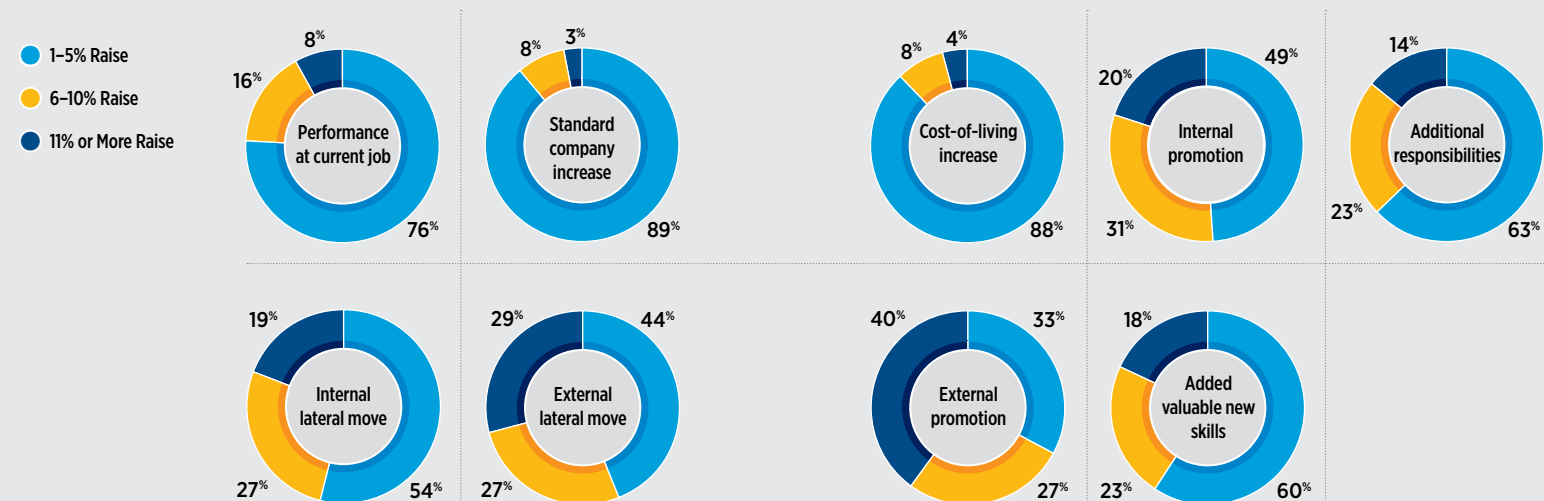
> "Be miserable.
> Or motivate yourself.
> Whatever has to be done,
> it's always your choice."
>
> **WAYNE DYER**

TRAINING AND CERTIFICATION

EIGHTY-FIVE PERCENT of IT respondents reported training in the previous 12 months. This is comparable to the 2013 study and up eight points over the 2012 study. Of those who trained, 86 percent did so to acquire new skills or update current ones. Sixty-one percent trained in pursuit of a new certification or to recertify. More than half (56 percent) of those who trained did so for both certification and skills acquisition.

Across functional groups, the percentage of respondents who undertook formal training varied greatly. Respondents in the Applications, Middleware, Asset Management Software area were the most likely to pursue formal training (87 percent), compared to 52 percent of those respondents working in the Collaboration and Telecommunication area.

AREAS TRAINED IN OVER THE PAST 12 MONTHS

Applications, Middleware, Asset Management Software — 76%
- Application Development — 16%
- Application Implementation and Support — 18%
- Collaboration Apps — 7%
- CRM, ERP, SCM — 7%
- Databases — 20%
- Desktop and Productivity — 16%
- eCommerce — 2%
- Email and Messaging — 14%
- Middleware — 5%
- Mobile Apps — 11%
- Network Management — 29%
- Operating Systems — 32%
- Programming Software — 12%
- Security — 35%
- System Software Deployment and Support — 13%
- Virtualization — 32%

IT Infrastructure — 60%
- Enterprise Architecture — 25%
- Cloud — 30%
- Data Center — 22%
- Help Desk — 17%
- Networking — 50%
- Peripherals (Printers, Displays, etc.) — 11%
- Servers — 42%
- Service Provider and Carrier Networks — 8%
- Storage — 26%
- Initiatives (BYOD, etc.) — 20%

Collaboration and Telecommunication — 33%
- Contact Center and Call Control — 18%
- Mobility and Wireless — 40%
- Presence — 13%
- Social Platforms and Apps — 14%
- Telephony — 37%
- Video and Web Conferencing — 28%
- Initiatives (BYOD [Security], Social Media, etc.) — 30%

Business Transformation — 54%
- Leadership and Professional Skills — 57%
- Business Process Improvement — 30%
- Finance — 7%
- Human Resources — 7%
- Customer Service — 14%
- Business Intelligence and Analysis — 19%
- Project and Program Management — 45%
- Knowledge Management — 17%
- Regulation and Governance — 19%
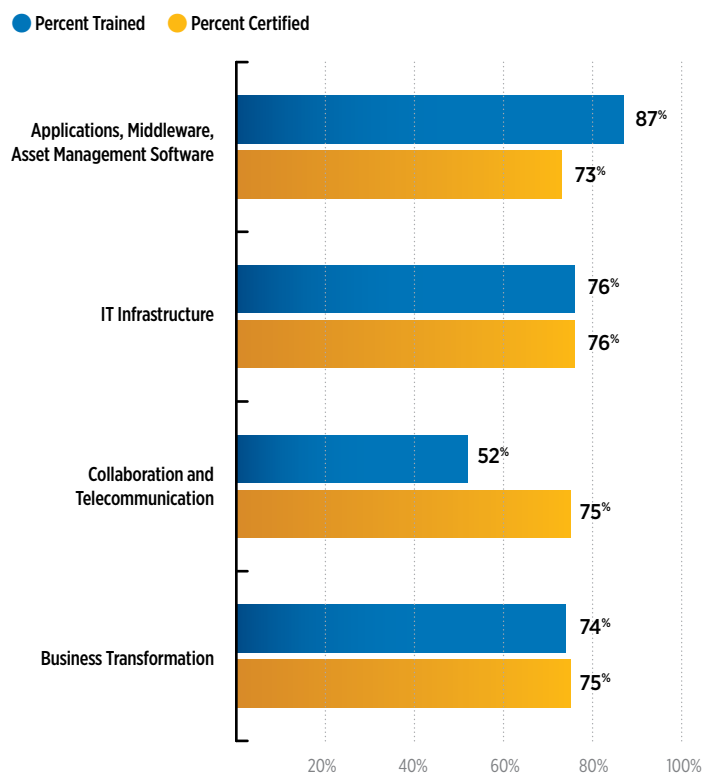- Sales and Marketing — 5%

PERCEIVED TRAINING VALUE

More than two-thirds of IT professionals view skills- or certification-based training as having a positive impact upon base salary, and seven out of 10 IT professionals who trained said it provided value to their employer. Eighty percent view it as a positive addition to their career, with 86 percent reporting they gained new knowledge as a result of their training efforts. Less than five percent reported that the training they were involved in benefited neither themselves nor their company.

Of those who earned a new certification or achieved recertification, more than 70 percent reported experiencing improved work effectiveness after certification. Eighty-three percent of IT training decision makers reported that they perceived improvements in their staff's work effectiveness after certification.

FORMAL TRAINING IN THE LAST YEAR BY FUNCTIONAL AREA

● Percent Trained   ● Percent Certified

Functional Area	Percent Trained	Percent Certified
Applications, Middleware, Asset Management Software	87%	73%
IT Infrastructure	76%	76%
Collaboration and Telecommunication	52%	75%
Business Transformation	74%	75%

20% 40% 60% 80% 100%

WHO IS LIKELY TO TRAIN?

Organizational size impacts training likelihood—at least slightly. Overall, 85 percent of the IT respondents indicated they trained, with ranges from 81 percent for organizations with fewer than 100 employees up to 87 percent for firms with 1,000 or more employees.

As for training budgets, the median annual spend for an individual is $2,500. The percentage of respondents reporting they are allocated $5,000 or more annually is nearly the same as the percentage of those who reported having to train on less than $1,000 (23 percent vs. 25 percent, respectively). Not surprisingly, company size plays a role. IT staff in smaller firms (less than 100 employees) are significantly more likely to have limited training budgets of $1,000 or less compared to firms with more than 1,000 employees (38 percent vs. 22 percent). Conversely, larger firms are more apt to budget $5,000 or more per full-time employee than smaller organizations (25 percent vs. 17 percent).

A significant correlation exists between the number of functional areas in which IT professionals work and the number of areas in which they train. Nearly half of those respondents who work in one area train in that one area. Accordingly, the majority of those who work in all four key areas—Applications, Middleware, Asset Management Software; IT Infrastructure; Collaboration and Telecommunication; and Business Transformation—can expect to train in those areas. The data suggests that organizations utilize training as a bridge to prepare technical employees to take on new responsibilities in areas in which they are not yet working.

The training decision is a joint venture between employee and organization. More than 75 percent reported that the employee takes the lead in identifying training that will support current and projected job functions. The remaining respondents reported that the company takes the lead. Company-paid training is still the norm, with more than 85 percent reporting that the company pays for it up front. The remaining 15 percent said their company reimburses them after training.
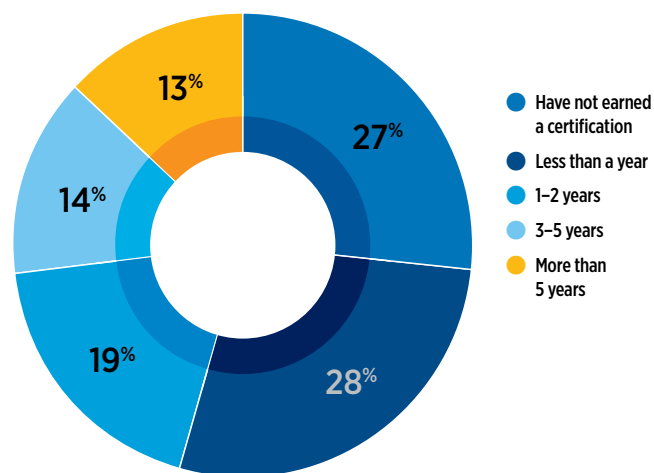
CERTIFICATION TRENDS

Seventy-three percent of this year's IT respondents indicated that they hold a certification, with little variation across the key job functional areas. More than half (52 percent) of those certified hold a single certification, with an additional one-third holding two or three certifications.

Nearly half of the IT respondents in the current study have earned a new certification within the past two years, with 28 percent earning their most recent certification within the last 12 months. This is comparable to the 2013 and 2012 studies. Fifty-three percent reported they are currently pursuing a certification (30 percent) or have plans to do so in 2014 (23 percent). This total percentage is down from 66 percent in the 2013 study.

This finding is more pronounced for those under 35 or with up to 10 years of work experience (particularly those in the IT Infrastructure job functional area), those who have obtained a certification within the last two years, and those working in multiple functional areas. IT professionals in smaller firms (less than 1,000 employees) are more apt to be pursuing certification compared to colleagues in larger firms (48 percent vs. 42 percent). Significant variation exists across industries. A cluster of industry segments are certification friendly, including military and homeland security, IS integration, IT consulting and related services, and telecommunications.

Approximately half of the IT respondents reported that they are not presently pursuing a certification and do not have plans to do so in the coming year. Tenure is a dominant driver. Sixty-four percent of those with more than 20 years of experience report not having certification plans, compared to one-third of those with fewer than 10 years of experience. The number of functional areas a respondent works in is also a factor. Fifty-seven percent of those working in just one area do not plan to certify, compared to 44 percent for those working across all four areas.

TIME SINCE LAST CERTIFICATION

- **Have not earned a certification**
- **Less than a year**
- **1–2 years**
- **3–5 years**
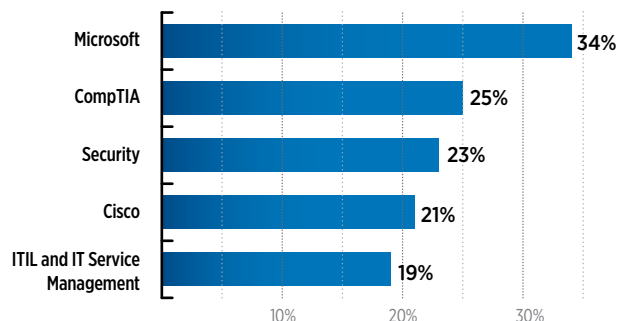- **More than 5 years**

13% 27% 14% 28% 19%

IMPACT ON COMPENSATION

Respondents consider certifications as having a positive impact on their earning potential. 2014 is the year of the security specialist, with risk management and security topping the list of highest-paid certifications. Three certifications from ISACA offer IT professionals interested in data security a path with strong earnings potential. Receiving 99 responses, Certified Information Systems Security Professional (CISSP) certification from (ISC)[2] fell just under the number needed to make the Top-Paying Certifications list, but it too shows strong earning potential with an average salary of $114,287. Respondents possessing advanced CISSP certifications in architecture and engineering reported even higher earnings.

Business transformation and process improvement certifications hold positions four through six. Salaries for the Six Sigma Green Belt, PMP®, and Certified Scrum Master are approaching $110,000. Those with advanced Six Sigma certifications, including Black Belt and Master Black Belt, reported earning more than $113,000 per year. Two Citrix certifications, the security-focused Certified Ethical Hacker, and ITIL v3 Foundation certification round out the top 10.

Both Microsoft and Cisco had entries in the top 20. New to the list is the Red Hat Certified System Administrator with an average salary of $94,802. Rounding out the Top 20 this year are the ITIL Expert, two more certifications from Citrix, and VMware Certified Professional – Data Center Virtualization.

MOST COMMON CERTIFICATIONS

Certification	Percentage
Microsoft	34%
CompTIA	25%
Security	23%
Cisco	21%
ITIL and IT Service Management	19%

Click here for a complete list of certifications by salary.

TOP-PAYING CERTIFICATIONS

Certification	Mean	Median	#
CRISC: Certified in Risk and Information Systems Control	$118,253	$103,000	156
CISM: Certified Information Security Manager	$114,844	$105,000	129
CISA: Certified Information Systems Auditor	$112,040	$102,590	185
Six Sigma Green Belt	$109,165	$100,000	100
PMP®: Project Management Professional	$108,525	$102,000	625
Certified Scrum Master	$107,396	$102,000	120
CCEE: Citrix Certified Enterprise Engineer	$104,240	$96,500	126
CCA: Citrix Certified Administrator for Citrix NetScaler	$103,904	$95,501	101
CEH: Certified Ethical Hacker	$103,822	$94,977	163
ITIL v3 Foundation	$97,682	$92,715	1,375
CCA: Citrix Certified Administrator for Citrix XenServer	$97,578	$90,000	189
ITIL Expert	$96,194	$89,706	146
CCDA: Cisco Certified Design Associate	$95,602	$90,000	177
MCSE: Microsoft Certified Systems Engineer	$95,505	$92,000	588
CCA: Citrix Certified Administrator for Citrix XenDesktop	$95,094	$87,000	228
MCSE: Microsoft Certified Systems Engineer (2003)	$94,922	$90,241	381
RHCSA: Red Hat System Administration	$94,802	$90,058	130
VCP-DCV: VMware Certified Professional – Data Center Virtualization	$94,515	$88,866	344
MCTS: Windows Server 2008 Applications Infrastructure Configuration	$91,948	$85,000	139
MCITP: Enterprise Administrator	$91,280	$87,500	214

NOTE: Certifications listed here had at least 100 responses. For a complete list of certifications by salary, visit www.globalknowledge.com/salary14extra.

> **"A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty."**
>
> **WINSTON CHURCHILL**

LOOKING AHEAD

MORE THAN TWO-THIRDS of respondents reported that their organizations will be adding skills in the Applications, Middleware, Asset Management Software functional area. Sixty-two percent plan to add skills in IT Infrastructure, more than half expect to add in Business Transformation, and 45 percent plan to add in Collaboration and Telecommunication.

Executives and staff reported similar outlooks, with executives favoring investing in areas that can impact project-level success and the ability to compete, including ITIL and business process improvement, business intelligence, and project management.

Those in organizations that are experiencing business growth said they plan to invest more heavily in security, virtualization, data centers, server technologies, mobility-oriented activities, business intelligence, and leadership and professional skills.
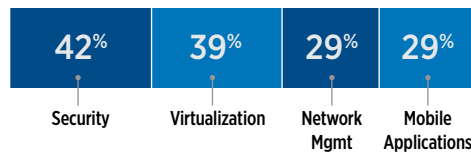
Organizations with 1,000 or more employees anticipate investing in application implementation and support, mobile apps, security, enterprise architecture, initiatives, contact centers, business process improvement, business intelligence, and predictive analytics. Smaller organizations plan to add skills in networking, peripherals, servers, and efforts that directly drive sales.
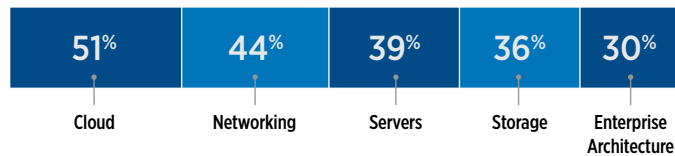
IT TRAINING EXPECTATIONS

There is consensus that a highly skilled team is important to project success. Seventy percent of IT managers said they anticipate authorizing staff to attend skills and certification-oriented training in 2014. One-third of managers reported they expect to send staff to project management training, with a similar percentage expecting to invest in training for professional and leadership development.
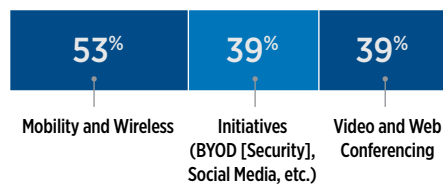
TASKS LIKELY TO BE INVESTED IN

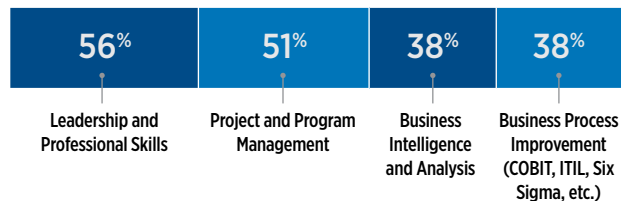### Applications, Middleware, Asset Management Software

42%	39%	29%	29%
Security	Virtualization	Network Mgmt	Mobile Applications

IT Infrastructure

51%	44%	39%	36%	30%
Cloud	Networking	Servers	Storage	Enterprise Architecture

Collaboration and Telecommunication

53%	39%	39%
Mobility and Wireless	Initiatives (BYOD [Security], Social Media, etc.)	Video and Web Conferencing

Business Transformation

56%	51%	38%	38%
Leadership and Professional Skills	Project and Program Management	Business Intelligence and Analysis	Business Process Improvement (COBIT, ITIL, Six Sigma, etc.)

LIKELIHOOD FOR TRAINING IN 2013

● IT Skills   ● Project Management   ● Business Skills

Managers

Likely	70%
Unsure	15%
Unlikely	15%
Likely	32%
Unsure	28%
Unlikely	40%
Likely	31%
Unsure	26%
Unlikely	44%

Staff

Likely	59%
Unsure	23%
Unlikely	19%
Likely	23%
Unsure	24%
Unlikely	52%
Likely	23%
Unsure	22%
Unlikely	55%
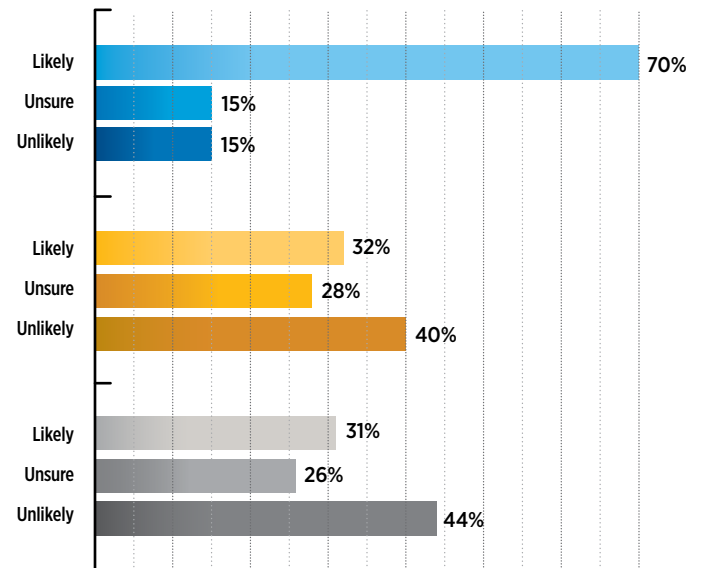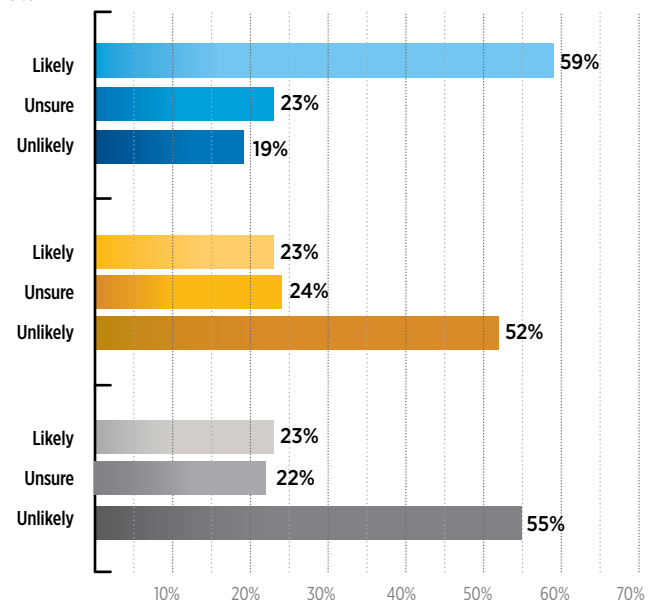
NON-IT TRAINING TRENDS

This year, non-IT respondents accounted for 15 percent of the overall response and were from a broad mix of disciplines, including some that are heavily certification-focused, such as non-IT project management, accounting, and engineering.

More than 80 percent of non-IT respondents reported professional development training was either important or very important to their career path. Two-thirds see professional certification as important. More than 70 percent anticipate pursuing skills training in 2014, with 43 percent expecting to pursue some form of certification. Seventy-eight percent of non-IT managers anticipate sending their staff to skills training, with 61 percent anticipating sending their team members to certification-oriented training.
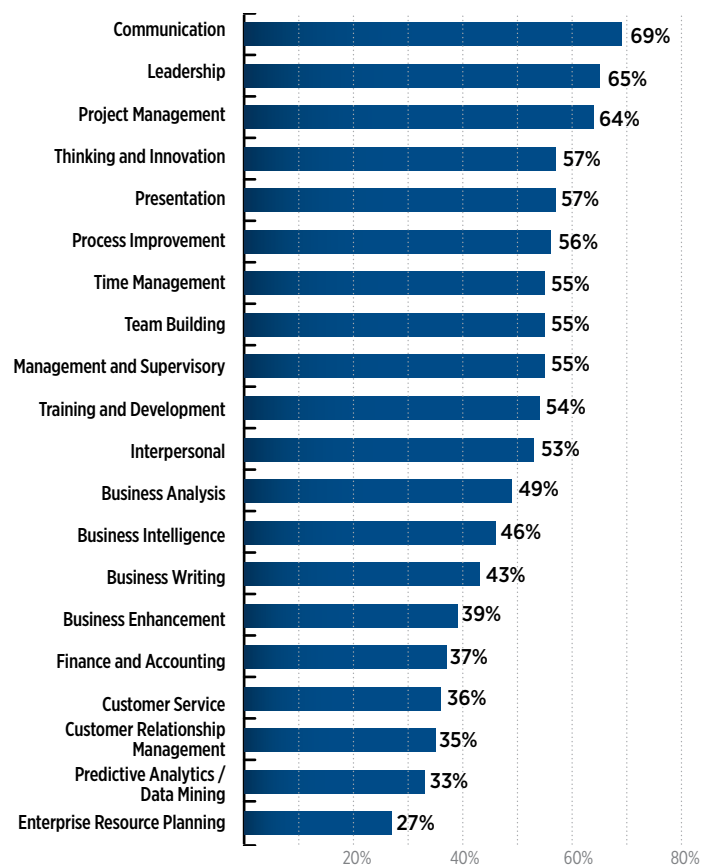
Key issues facing non-IT respondents include communication within their teams and broader enterprise, clarity surrounding job roles and responsibilities, collaboration among team members, and working effectively with team members in remote locations.
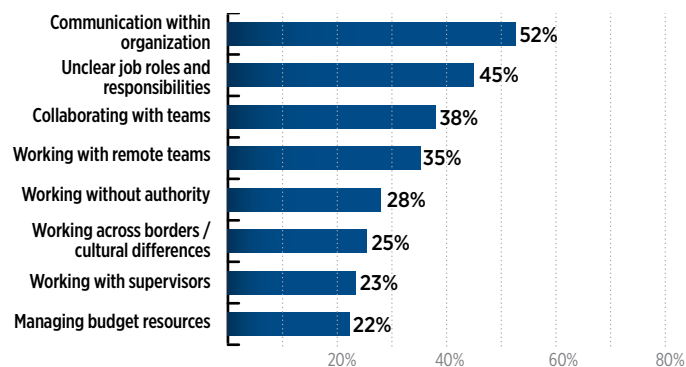
FUTURE ECONOMIC IMPACT

Seventy-nine percent of respondents reported that business and IT projects are being initiated or resumed—stable compared to the previous two surveys. Of those reporting an increase in projects, more than 80 percent reported either a slight or moderate increase. Fifteen percent indicated a significant increase in the pace of new and resumed projects.

Looking at current business conditions, five percent of respondents reported they are seeing worst ever business conditions. This percentage is consistent with the 2013 study but down significantly from a high of 14 percent in the 2010 study. Half of respondents reported they're seeing at least slow growth, and 22 percent reported business is good, up significantly from 14 percent in 2013. Forty-five percent reported that business is difficult, which is consistent with last year's data.

SKILLS CRITICAL TO NON-IT CAREER GROWTH

Skill	Percent
Communication	69%
Leadership	65%
Project Management	64%
Thinking and Innovation	57%
Presentation	57%
Process Improvement	56%
Time Management	55%
Team Building	55%
Management and Supervisory	55%
Training and Development	54%
Interpersonal	53%
Business Analysis	49%
Business Intelligence	46%
Business Writing	43%
Business Enhancement	39%
Finance and Accounting	37%
Customer Service	36%
Customer Relationship Management	35%
Predictive Analytics / Data Mining	33%
Enterprise Resource Planning	27%

KEY CHALLENGES FOR NON-IT PROS

Challenge	Percent
Communication within organization	52%
Unclear job roles and responsibilities	45%
Collaborating with teams	38%
Working with remote teams	35%
Working without authority	28%
Working across borders / cultural differences	25%
Working with supervisors	23%
Managing budget resources	22%

> **"The purpose of a business is to create and keep a customer."**
>
> **PETER DRUCKER**

CONCLUSIONS

ORGANIZATIONS THAT INVEST in technology and train their personnel to take advantage of it can better their position in the market. Though IT and business professionals have limited, if any, control over the global economy, they do have the power to influence the value they bring to the organization.

When it comes to new skills, adding to one's skill set not only improves on-the-job effectiveness but also opens the door for advancement and an above-average increase in compensation. Certifications are still seen as valuable within both IT and non-IT communities. This trend is unlikely to change as the pace of technological innovation and market forces continue to demand new ways of thinking and executing.

Continuing a trend revealed in recent studies, technical professionals can add to their earning potential by branching into areas of business process improvement, including ITIL, business intelligence, and Six Sigma. Similar opportunities are open to those who pursue training and certification across technical areas.

ABOUT
THIS REPORT

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ABOUT THE PRIMARY RESEARCHER

Greg Timpany is the Senior Market Research Manager at Global Knowledge. He has more than 20 years of experience in market research, competitive intelligence, and database marketing. He has designed and implemented consumer and B2B studies and is a published author and lecturer focusing on the effective use of marketing data. Greg has held positions with Guitar Center, Los Angeles Times, and Wilkin Guge Marketing, and he holds an MBA in Information Systems and Marketing from California State University, San Bernardino.

THANKS TO OUR PARTNERS

Global Knowledge and *Windows IT Pro* extend a special thank you to our partners for helping make this year's survey a success:

- **ASPE Training**
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- **Layer8 Training**
- **Microsoft**
- **PeopleCert**
- **Red Hat**
- **VMware**

SURVEY METHODOLOGY

The 2014 IT Skills and Salary Survey was conducted online from September 13 to October 20, 2013. More than half a million survey invitations were emailed to recipients from the databases of Global Knowledge, *Windows IT Pro*, and partner companies. Links were also provided in online newsletters. The survey yielded more than 16,300 completed responses from around the globe, with 74 percent coming from the United States and Canada. This online survey was tabulated using SPSS and Q-Research software.