Global Knowledge®

2019 IT Skills and Salary Report

IT Decision-Maker Insights

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Introduction

Welcome to the Global Knowledge 2019 IT Skills and Salary Report. It is the largest worldwide study of professionals in the technology community and has been conducted annually for over a decade.

Throughout the report, you'll find the data broken up by region: North America; Latin America; Europe, the Middle East and Africa (EMEA); and the Asia-Pacific region.

IT professionals, human resources and industry leaders use this report as a guide for salaries, in-demand certifications, tech priority areas, skills gaps, professional development, job satisfaction, and future outlooks in IT.

Traditionally, we have combined all areas of study into one report, but this year we're breaking it up into smaller reports so we can dig deeper into each topic.

HOW TO USE THE IT DECISION-MAKER INSIGHTS REPORT

The IT decision-maker data helps answer questions, such as:

- What are the biggest challenges facing IT leaders?
- Have skills gaps continued to rise?
- What are the causes and impacts of skills gaps?
- How likely are IT decision-makers to authorize training for their teams?
- How much value do IT decision-makers assign to certified employees?

PRIMARY FINDINGS

Skills gaps pose a huge risk
IT decision-makers report a rise in skills gaps for the third straight year. Nearly 80% worldwide say their teams lack necessary skills. And these gaps have serious consequences, such as increased stress on employees and missed project and product goals for organizations.

Hiring isn't a viable solution
IT leaders who find themselves in dire need of upskilled personnel are finding that they are unable to hire their way out of the problem. The biggest challenge according to decision-makers is their inability to attract qualified candidates. The most difficult hiring areas are cybersecurity and cloud computing.

Not all IT decision-makers authorize training
Only 59% of IT decision-makers approved training in the past year, even as their organizations provided formal training opportunities. The absence of training support is puzzling, considering a lack of training investment is a leading cause of skills gaps.

Certification matters
Ninety-three percent of IT decision-makers believe that certified employees bring value to the organization above and beyond the cost of certification. A majority of managers who authorized training last year did so to prepare their teams for certification or recertification. Certified personnel are better at their jobs, and the value is undeniable.

THIS YEAR'S REPORTS

PART 1
Salary and certifications
Released July 9. Download it for free.

PART 2
IT decision-maker insights

PART 3
Professional development and job satisfaction

PART 4
Looking forward

IT Decision-Makers

IT decision-makers guide the use of resources to meet organizational needs. To ensure success, they must address challenges such as skills gaps, budget constraints, hiring and professional development.

In this year's IT Skills and Salary Report, more than one out of four respondents (28% or 3,377 IT professionals) hold some degree of managerial responsibility over IT efforts.

Most surveyed decision-makers oversee smaller teams, as 73% manage a workforce of 10 or fewer employees. Only four percent manage teams of 100 or more.

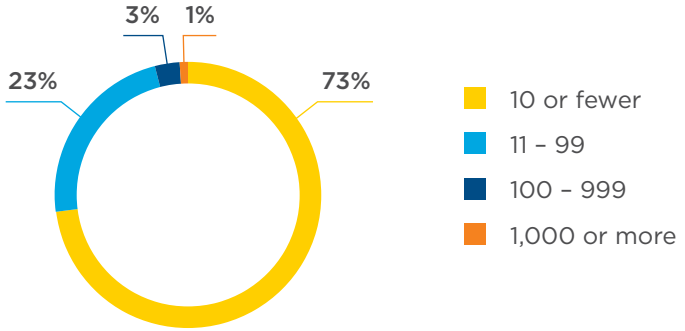
KEY CHALLENGES

IT leaders routinely confront obstacles that impede their ability to achieve organizational goals. Over the past few years, this report has illuminated the main challenges facing decision-makers, most notably rising skills gaps, shrinking IT budgets and a lack of qualified talent.

Recruitment and retention are the top challenges in 2019, with 50% of IT decision-makers struggling to fill their teams with skilled professionals. Resource and budget constraints are the next most pressing issues, faced by 49% of respondents.

Thirty-nine percent of decision-makers struggle to develop stronger teams.

SIZE OF IT WORKFORCE MANAGED



KEY CHALLENGES FOR IT LEADERS

Recruitment and retention are the top challenges in 2019, with 50% of IT decision-makers struggling to fill their teams with skilled professionals.

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IT DEPARTMENT BUDGETS

Not all IT decision-makers manage a budget, but for those who do, there is a large discrepancy in budget size. For those who have a budget, 33% are allotted less than $250,000 annually, while 29% have budgets of $3 million or more. For purposes of this survey, salaries are excluded from budgets.

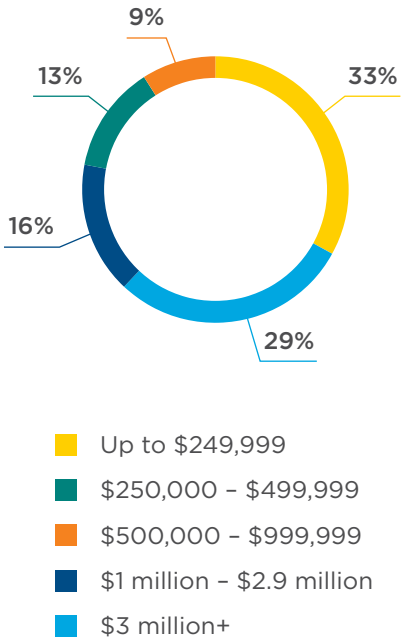
Budget size is often reflective of team size. Sixty percent of managers who have the smallest budgets manage 10 or fewer employees.

While financial restrictions remain a key challenge for IT leaders, many are optimistic about their 2019 budget.

In North America, 52% of IT decision-makers expect a budget increase this year. In Asia-Pacific, that number rises to 56%. These are the highest numbers in three years, and if true, will certainly reduce resource and financial constraints moving forward.

Globally, 17% of decision-makers expect a budget decrease.

ANNUAL IT BUDGET (EXCLUDING SALARIES)



FORECASTED IT BUDGET CHANGE (EXCLUDING SALARIES)

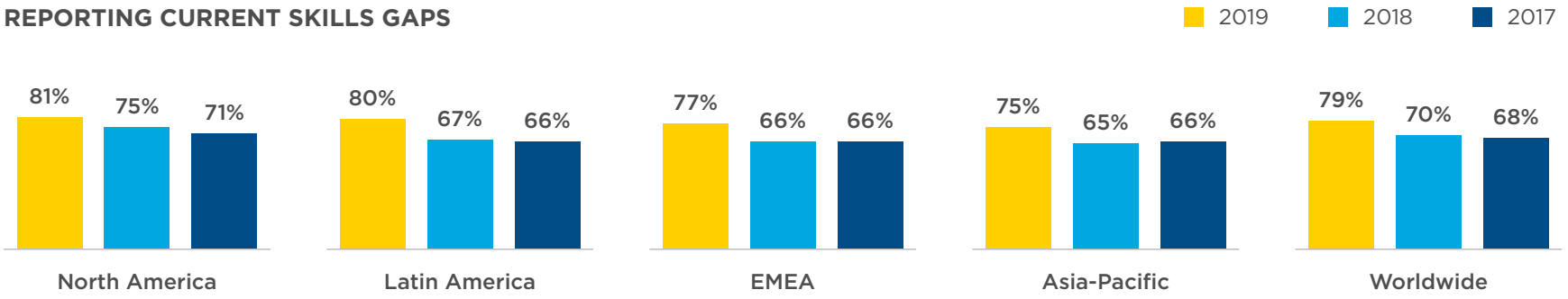
	NORTH AMERICA			LATIN AMERICA			EMEA			ASIA-PACIFIC		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Increase	52%	41%	39%	49%	44%	44%	46%	36%	32%	56%	41%	47%
Decrease	17%	23%	22%	16%	27%	29%	18%	25%	28%	17%	22%	22%
No Change	31%	35%	39%	35%	29%	27%	35%	39%	40%	27%	36%	31%

SKILLS GAPS

The most ominous trend in our IT Skills and Salary Report is in regard to skills. IT decision-makers have told us in recent years that they are struggling to ensure their teams have the skills needed to meet organizational goals. Unfortunately, that struggle is only getting worse.

Since 2016, skills gaps have more than doubled. While only 31% of decision-makers experienced a lack of necessary skills in 2016, 79% worldwide face skills gaps today.

REPORTING CURRENT SKILLS GAPS



North American decision-makers report the highest percentage of skills gaps (81%), while Latin America (80%), EMEA (77%) and Asia-Pacific (75%) follow closely behind. All regions report more skills gaps this year compared to last.

Is there an end in sight? IT decision-makers aren't so optimistic, with 68% anticipating new skills gaps to form in the next two years.

What is causing the IT skills shortage?
It's difficult to pinpoint a single reason for the current IT skills shortage. Even decision-makers seem split on the cause, which suggests that a number of factors are at play.

The number one reason for skills gaps is difficulty attracting job candidates with relevant expertise. Managers who have expected to hire their way out of their skills problems have faced a tough reality the past few years—there just aren't enough qualified applicants.

The second most likely cause of skills gaps is the rate of technological change. IT professionals struggle to keep pace—they can't train quickly enough. With that in mind, 39% of decision-makers attribute skills gaps to a lack of training investment. This number is in line with last year's report, which means not much has been done to increase funding for professional development.

Cost of skills gaps
Seventy-six percent of IT leaders say that skills gaps pose a high or medium risk to business objectives. This risk comes in many forms—delays, loss of revenue, employee stress, loss of business to competitors, etc.

Regardless of cause, there's no doubt that skills gaps have severe consequences. Research from the International Data Corporation (IDC) suggests that by 2020, 90% of all organizations will have adjusted

REASONS BEHIND SKILLS GAPS

project plans, delayed product and service releases, incurred costs or lost revenue because of a lack of IT skills. IDC estimates that these losses worldwide will total $390 billion annually.[1]

In terms of productivity, 60% of IT decision-makers believe that skills gaps cost their employees between three and eight hours per week. Extrapolate that out and IT departments could be losing up to 416 hours per employee, per year, to skills gaps. With the average North American IT salary at $109,985, we're talking over $22,000 lost in salary per employee. Add in the opportunity costs of not training your people to overcome business challenges and it's even more substantial.

According to IT decision-makers, skills gaps will cost employers up to 416 hours and over $22,000 per employee, per year.

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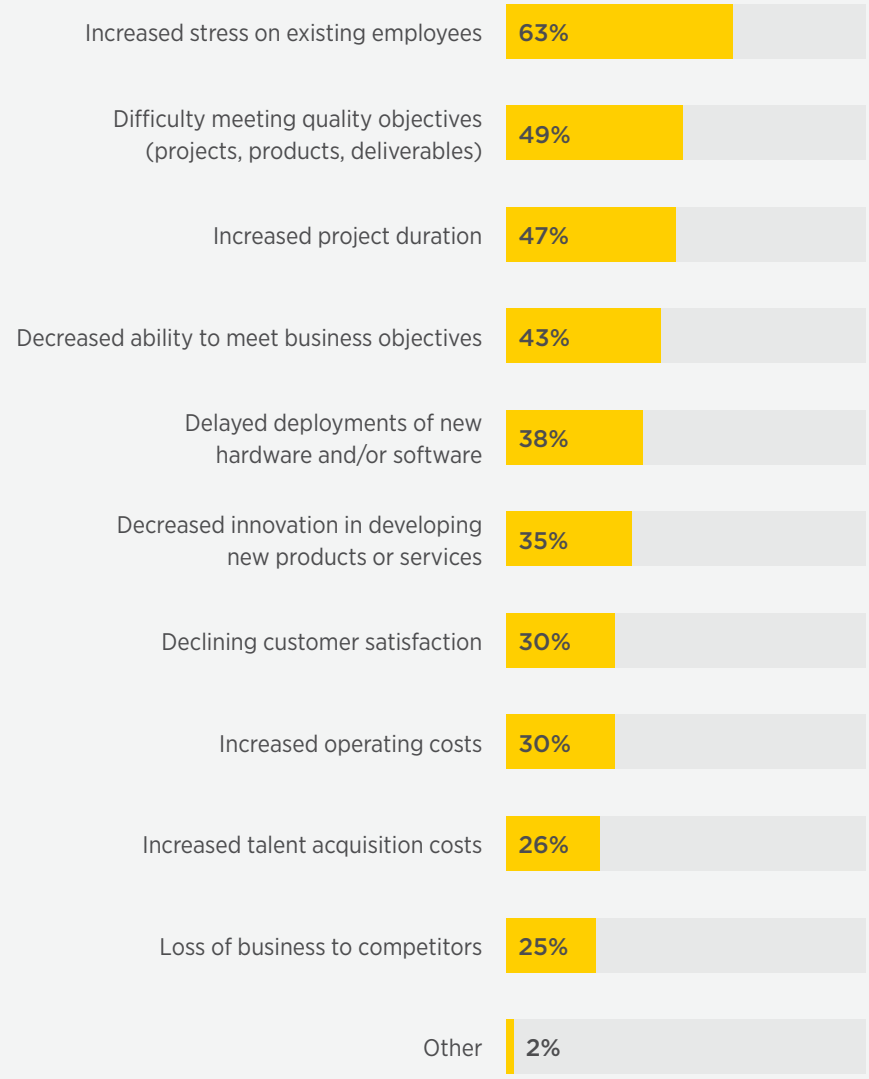
IMPACT OF SKILLS GAPS ON THE ORGANIZATION



1 IDC, 2019 IT Training Buyer Survey Spotlight: Impact of Skills Gap and the Need for Strategic IT Skills Development, Doc #US44842319, March 2019

HIRING

For the fourth year in a row, IT decision-makers report having the most difficult time finding qualified cybersecurity talent. Thirty-eight percent of worldwide decision-makers struggle to hire the cybersecurity professionals they need. This skews up to 48% in Asia-Pacific, but remains relatively consistent across all other regions.

Cloud computing professionals are also in high demand, rising from 29% to 34% in one year. Decision-makers in Latin America are actually having a tougher time hiring cloud professionals than those in cybersecurity.

Hiring, in general, has been a thorn in decision-makers' sides of late. Nearly 70% say that hiring has been somewhat or extremely difficult. Only seven percent say that hiring is easy.

TOP 10 CHALLENGE AREAS FOR FINDING QUALIFIED TALENT

Challenge Area	North America	Latin America	EMEA	Asia-Pacific	Worldwide
Cybersecurity	37%	38%	37%	48%	38%
Cloud Computing	34%	39%	34%	31%	34%
DevOps	24%	23%	25%	20%	24%
Systems and Solutions Architects	21%	13%	21%	17%	20%
Analytics and Big Data	19%	21%	20%	23%	20%
Application Development	20%	13%	19%	12%	19%
Leadership and Management	17%	18%	18%	21%	18%
Artificial Intelligence and Machine Learning	14%	21%	19%	27%	18%
Systems Engineering	17%	11%	16%	8%	15%
Networking and Wireless	15%	21%	16%	12%	15%

THE VALUE OF TRAINING IN ORGANIZATIONAL SUCCESS

Fifty-eight percent of IT decision-makers say their organizations offer formal training for technical employees. This number is down one percent from last year.

Those that offer formal training report fewer skills gaps and greater productivity. But not all decision-makers are taking advantage of training opportunities for their staff. Even when formal training was provided by the company, only 59% of decision-makers authorized it. When formal training is available, managers need to do everything in their power to ensure employees have the opportunity to build necessary skills.

Workload is often an excuse we hear as to why training isn't authorized—IT decision-makers think they can't afford to have employees away from their desks taking a course. But think about the productivity lost due to skills gaps. If IT decision-makers don't make room for training now, they'll pay for it later in the form of lost revenue and production, and possibly employees leaving for other jobs. Investing in their staff shows a commitment that may ease stress levels and help retain top talent.

There is a significant difference in the cost of training versus cost of replacing an employee. IT leaders have told us how difficult it is to find qualified staff. But even if you do find a suitable job candidate, you've lost time to hiring and onboarding. This is just another example of how a training investment in current staff is less of a financial burden than hiring, and subsequently training, new employees.

Need help managing your training? Download our free training planner.

THE VALUE OF CERTIFICATION

For the IT decision-makers who authorized training in the past 12 months, 67% did so to prepare their team members for certification or recertification.

Certification value is undeniable—93% of decision-makers around the world agree that certified employees provide added value above and beyond the cost of certification.

The main benefit of certified personnel is their ability to close organizational skills gaps—over half of all IT decision-makers said this was an advantage. Certified professionals are also better at meeting client requirements, increasing productivity, reducing time to troubleshoot, and completing projects more quickly.

BENEFITS FROM CERTIFIED PERSONNEL

Benefit	North America	Latin America	EMEA	Asia-Pacific	Worldwide
Closes organizational skill gaps	56%	39%	46%	54%	52%
Meets client requirements	44%	61%	55%	46%	49%
Boosts productivity	48%	34%	48%	51%	48%
Troubleshooting issues takes less time	43%	39%	37%	38%	40%
Projects are completed faster	38%	46%	40%	37%	39%
Gives us an edge over competitors	34%	41%	45%	36%	38%
Reduces employee turnover	36%	39%	29%	21%	31%
Products and services are deployed quicker	26%	24%	26%	20%	24%
Makes hiring easier	17%	20%	17%	9%	16%

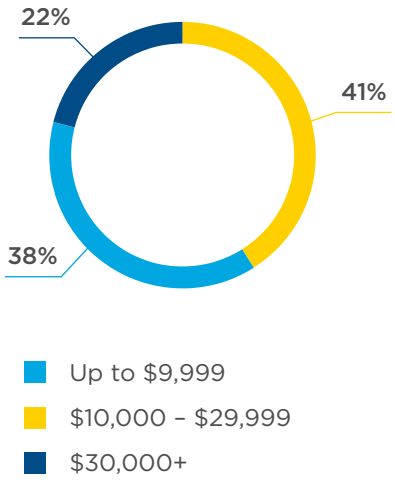
When asked to estimate the economic benefit of certified employees versus their non-certified peers, 63% said it exceeds $10,000 a year. Twenty-two percent placed the number above $30,000.

The skills gained in certification prep provide a tremendous amount of value to teams and organizations. If budget is the main reason to not authorize certification training, IT decision-makers need to understand that certified employees will more than make up for the investment.

Resources to help you certify and recertify your team
Certifications require investments of time, money and mental focus. Make sure you and your team aren't wasting them. Global Knowledge centralizes certification resources so you don't have to search.

- How to Select the Right Certification for You
- IT Certifications: 5 New Realities
- Certification Prep Guides

ESTIMATED ANNUAL ECONOMIC BENEFIT CERTIFIED EMPLOYEES BRING TO THE ORGANIZATION



Sixty-three percent of IT decision-makers say the economic benefit of certified employees exceeds $10,000 a year.

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Conclusion

Forty-two percent of organizations do not allocate funds for training. Simply put, IT decision-makers need better support. How can they realistically be expected to drive organizational success when their employees have to fend for themselves to upgrade their skills? Free, informal training resources only go so far. Formal training needs to be prioritized.

At the same time, IT decision-makers must authorize training when it's built into their budgets. According to our report, 41% of decision-makers who had formal training available for their teams decided to forgo it. You can't object to a lack of training investment when you are leaving skill-building opportunities on the table.

A cost-effective way to eliminate skills gaps is to train existing staff. Buying skills isn't always a realistic solution, plus it can be more expensive. IT decision-makers are also struggling to hire qualified talent, especially in high-demand fields like cybersecurity and cloud computing. Decision-makers should always be focusing on building the skills of the employees they already have. This type of investment will chip away at skills shortages and show team members that the organization supports their professional development.

If our surveyed decision-makers are correct in their hypotheses, IT budgets should gradually increase in 2019. That means more training should be authorized this year. An overwhelming majority of managers support certifications and their added value. They know that the cost of certification and certification training will be less than the value a certified employee adds to the organization.

IT decision-makers face a host of daily challenges, including identifying skills needs, managing personalities, balancing budgets and pushing their teams to innovate. It's an awful lot of pressure, especially when skills gaps are delaying organizations from seizing market opportunities. It all starts with an investment in skill-building. Organizations must support the decision-maker, and decision-makers must in turn support their teams. If the last three years are any indication, skills gaps aren't going away on their own. They must be attacked head on with the appropriate training.

RESOURCES

- IT Skills and Salary Report Resource Hub
- How to Convince Your Manager of the Benefits of Training
- Mind the Gap: Six Steps to a Highly-Skilled Workforce free eBook
- The 10 Most Important IT Skills for 2019

SURVEY METHODOLOGY

The 2019 IT Skills and Salary Survey was conducted online from September 2018 through November 2018, using the Qualtrics Insight Platform.

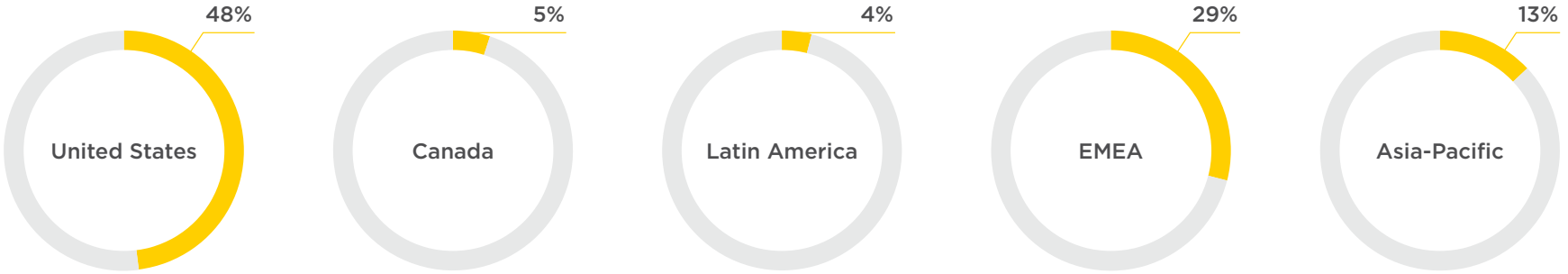
Global Knowledge and partner companies and organizations emailed survey invitations to recipients from their databases. Links were also provided in online newsletters. The survey yielded 12,271 completed responses, with 54% coming from the United States and Canada and the remainder from countries around the world. The online survey was tabulated using IBM SPSS and Q Research software.

THANKS TO OUR PARTNERS

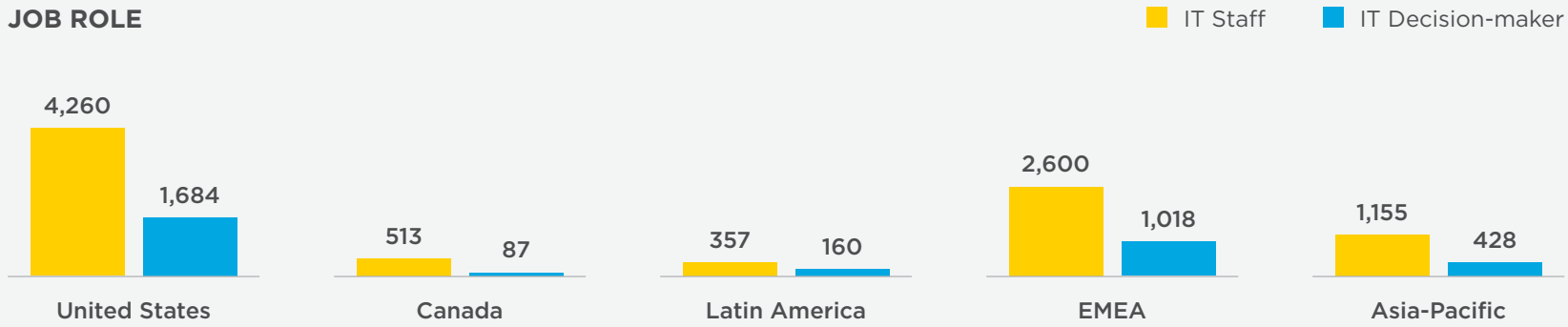
Global Knowledge extends a special thank you to our partners for helping make this year's survey possible:

DEMOGRAPHICS

RESIDING COUNTRY OR REGION



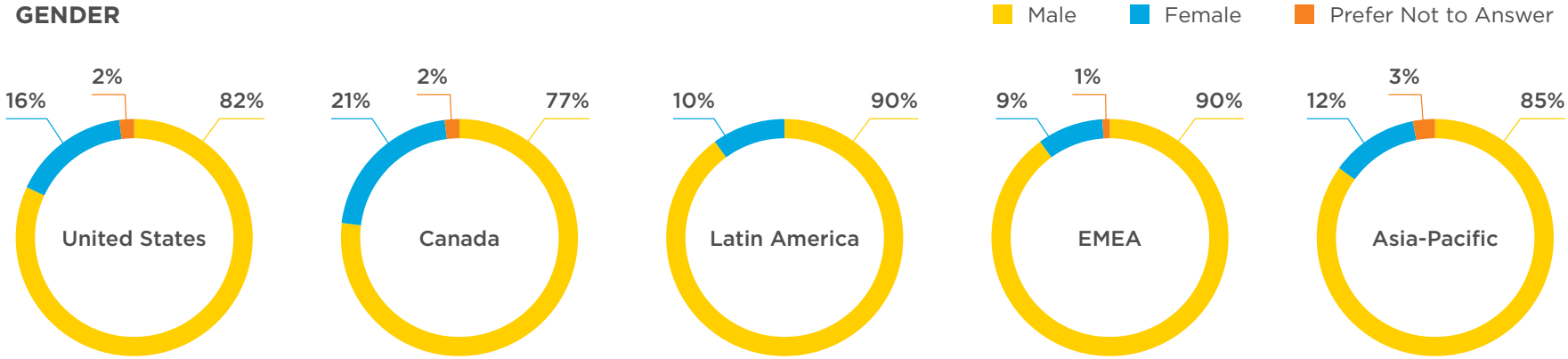
JOB ROLE



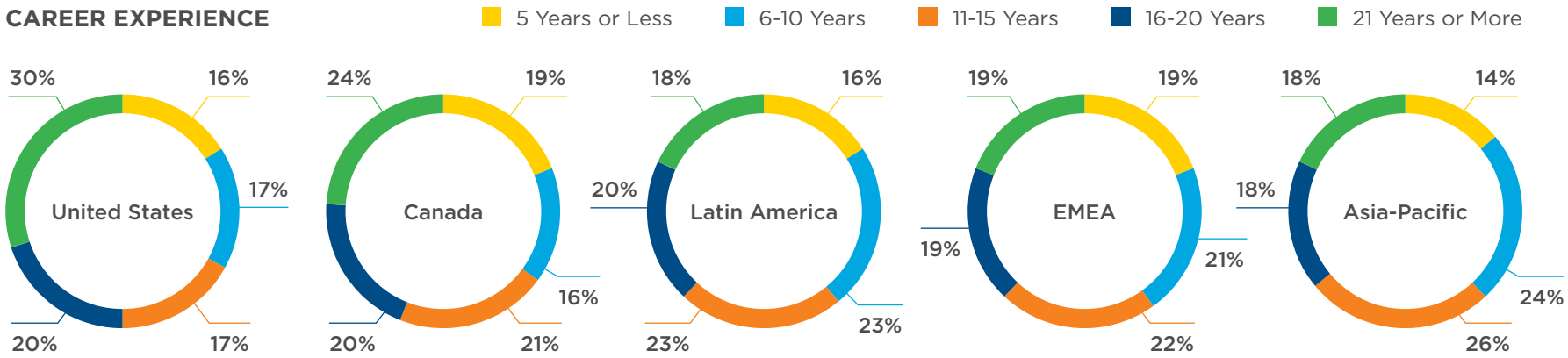
AVERAGE AGE

DEMOGRAPHICS

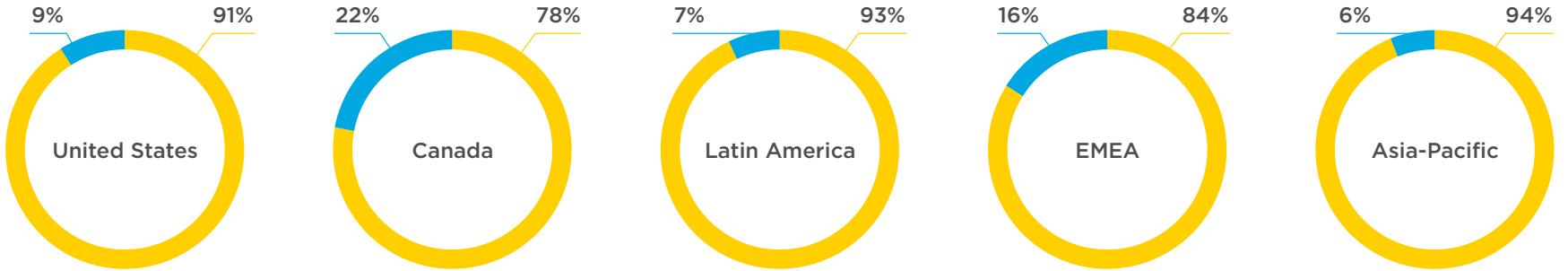
GENDER



CAREER EXPERIENCE



COLLEGE DEGREE



About Global Knowledge

Global Knowledge builds skills that enable success.

Global Knowledge is the worldwide leader in IT and professional training, helping develop the skills individuals and organizations need to succeed in the ever-changing world. To meet customer needs, Global Knowledge is located in 15 countries, and has the unique flexibility to deliver a broad portfolio of courses in over 100 countries in classrooms, online, and through a worldwide partner network.

Since 1995, Global Knowledge employees and its award-winning subject matter expert instructors have been committed to enabling the success of more than 230,000 professionals each year.

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MEDIA INQUIRIES

Please contact Zane Schweer, Global Knowledge director of marketing communications and salary report lead.

Zane Schweer
Zane.Schweer@globalknowledge.com
+1 (919) 388-1054