



February 2015

HR Perceptions of IT Training and Certification

Table of Contents

	Slide #
About this Research	3
Key Points	4
Section 1: Hiring Overview	6
Hiring Challenges	7
Use of Hiring Tools	9
Section 2: Certification Awareness and Usage	10
Familiarity with Certifications	11
Usage of IT Certification	12
Section 3: Value of Certification	18
Value of Certification in General and IT Certifications	19
Benefits of IT Certification and Testing	21
Section 4: Organizational Support for Professional Development	28
Professional Development Policies and Budget	29
Employee Education	32
IT Staff Training and Certification	33
Cybersecurity Awareness Training	37
Appendix	39
Respondent Profile	40
IT Job Openings	41
Training Methods Diagram	43
Additional Resources	44

About this Research

CompTIA's *HR Perceptions of IT Training and Certification* was conducted to further explore how employers perceive and use certifications, more specifically from the human resources (HR) point of view. The objectives of this research include:

- Assess employer understanding and perceptions of professional certifications
- Evaluate how certifications are used in the hiring process
- Assess how certifications factor into advancement opportunities and career development
- See how perceptions compare to past findings

The study consists of four sections.

Section 1: Hiring Overview

Section 2: Certification Awareness and Usage

Section 3: Value of Certification

Section 4: Organizational Support for Professional Development

This quantitative study consisted of an online survey fielded to HR executives, managers and professionals in the U.S.* during September 2014. CompTIA employed the services of a dedicated research panel provider to procure the sample. A total of 400 organizations participated in the survey, yielding an overall margin of sampling error at 95% confidence of +/-4.9 percentage points.

Sampling error is larger for subgroups of the data. As with any survey, sampling error is only one source of possible error. While non-sampling error cannot be accurately calculated, precautionary steps were taken in all phases of the survey design, collection and processing of the data to minimize its influence.

CompTIA is responsible for all content contained in this report. Any questions regarding the study should be directed to CompTIA Research & Market Intelligence staff at research@comptia.org.

CompTIA is a member of the Marketing Research Association (MRA) and adhere's to the MRA's Code of Marketing Research Ethics and Standards.

Key Summary Points

- The Association for Talent Development (ATD, formerly known as ASTD) estimates that organizations in the U.S. spent \$164.2 billion on employee learning and development in 2012, up from \$156 billion in 2011. Note: this figure includes expenditures on things such as operations, trainer salaries, and administrative costs. More than half (\$100.2 billion) was spent on the internal learning function, such as staff salaries and internal development costs, with the remaining allocated toward external services such as workshops, vendors, and external training sessions (\$46 billion) and tuition reimbursement (\$18 billion). It also found that U.S. organizations spent \$1,195 per learner on employee training and development in 2012, slightly up from the \$1,182 reported in 2011.
- Regarding the IT education market size, IDC pegs this U.S. market at about \$6.5 billion for 2014. This includes vendor training (training provided by Microsoft, Cisco, etc.) and training offered by for-profit training companies.*
- Finding the right candidate to fill job openings continues to pose a challenge for a great majority of HR managers (93% NET). About two-thirds found the task very challenging over the past 12 months (68%); even higher among small-size organizations (83% for those with 5-99 employees). However, likely due to sheer numbers, large employers (500 or more employees) are more often impacted by factors such as finding candidates with the right level of experience or right “hard” skills. Nonetheless, the adverse effects caused by hiring delays are typically unwelcomed by organizations of any size.
- Most employers report frequently using IT certification as a requirement for certain jobs (72%), professional development / training tool (72%), measure of a candidate’s willingness to work hard and meet a goal (67%), and to confirm subject matter knowledge and expertise (60%).

Key Summary Points Cont.

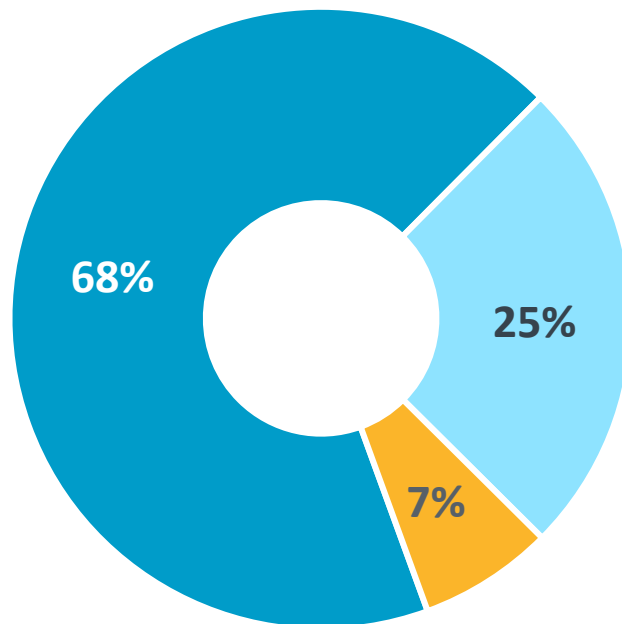
- HR executives increasingly recognize the value of IT certification. For instance, nearly two-thirds indicate IT certifications are very valuable (66%) compared to only 30% three years ago. Their outlook of IT certification importance has risen as well, as 94% NET expect it to grow significantly (43%) or somewhat (51%) over the next two years, an increase from 84% NET a few years ago (32% and 52%, respectively). Additionally, they place a higher value on IT certifications vs. certifications in general (66% vs. 53% very valuable, respectively).
- Benefits HR professionals realize of having IT job candidates with IT certification include saving time and resources in evaluating candidates, ensuring credibility, providing a baseline set of knowledge, and learning faster once starting a job. Reported benefits of having certified IT employees include longer retention, higher likelihood of being promoted, and better job performance than non-IT certified staff.*
- Furthermore, most HR managers believe it is important to test after training to confirm knowledge gains (88% NET). And nearly all (98%) cite at least one specific benefit of certification testing rather than training by itself such as a better validation of knowledge learned / skills, increased value / credibility of the training, increased / improved knowledge, demonstration of abilities / skills, and knowledge retained for a longer period of time.
- Organizations are fairly split on their level of support for employee professional development. Nearly half have a formal professional development program with a set amount of budget for it (47%), while another 46% of employers indicate professional development is handled on a more informal basis, but they cover some expenses. The remaining either recommend it without covering expenses (5%) or provide no support (2%).
- Again, nearly all employers (98%) recommend at least one type of training for IT employees to improve their IT skills. While half of HR managers report instructor-led training (ILT) off-site is encouraged, a mix of others are recommended by at least one-third such as ILT on-site (39%), conferences (36%), IT certification (34%), and tuition reimbursement (33%). Large firms (500 or more employees) are much more likely to recommend IT certification (63%) than their smaller counterparts or even other training methods.

Section 1: Hiring Overview

Most HR Professionals Report Experiencing Challenges in Filling Job Openings

About 9 in 10 (93% NET) found it challenging to fill openings with the right candidates over the past 12 months

Level of Difficulty in Finding Right Candidates Over the Past 12 Months



- Very Challenging
- Somewhat Challenging
- Manageable

Smaller organizations are much more likely than their large-size counterparts (500+) to have difficulty in filling openings with the right candidates.

Very Challenging:

83% Small (5-99 employees)

64% Medium (100-499 employees)

49% Large (500+ employees)

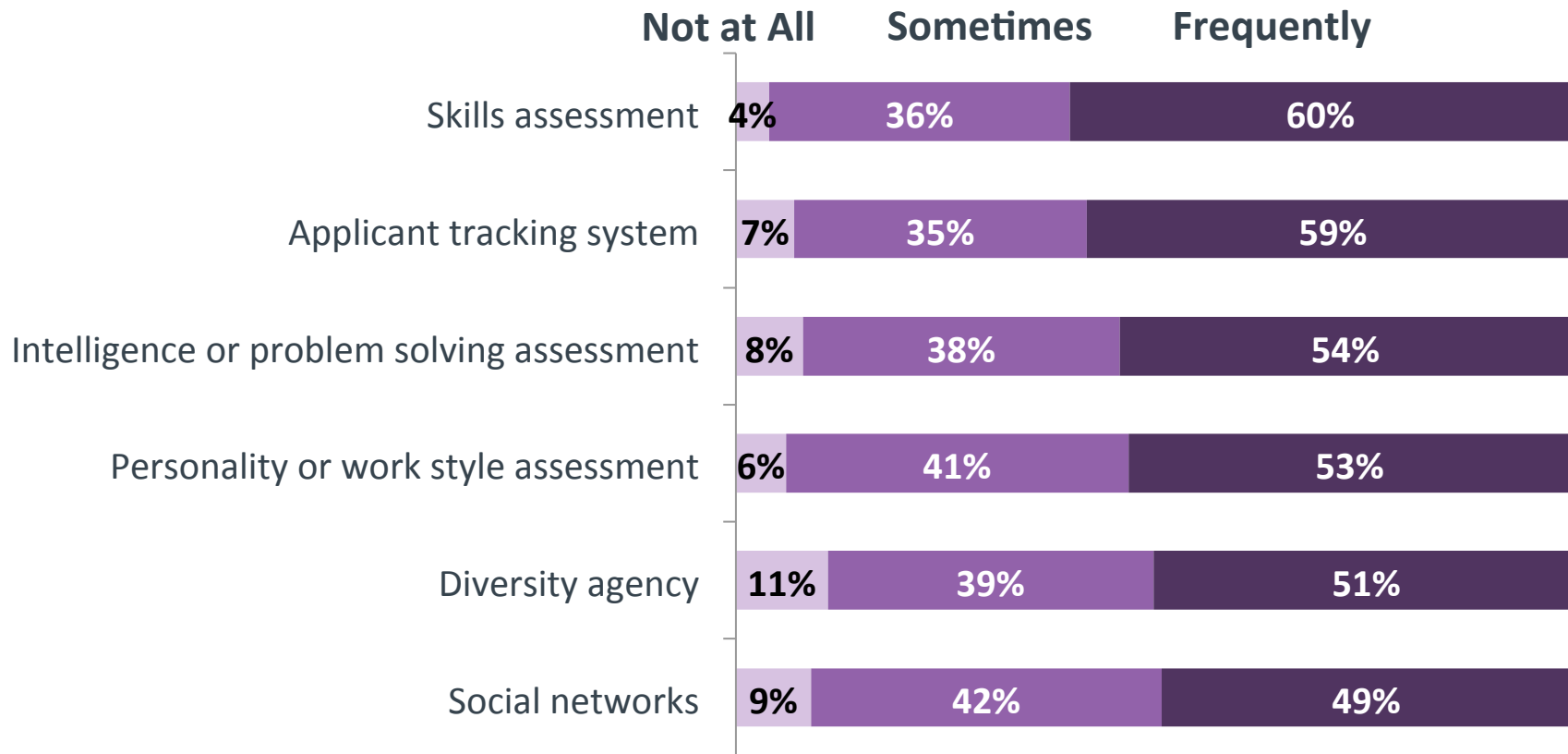
Large Organizations Are Especially Impacted by Hiring Challenges

Challenges Organizations Face in Filling Openings with the Right Candidates	Overall	Small 5-99 employees	Medium 100-499 employees	Large 500+ employees
Finding candidates with the right level of experience	44%	35%	45%	57%
Finding candidates with the right “hard” skills	37%	31%	30%	52%
Pool of quality candidates in the local region	37%	32%	37%	43%
Filling openings in a timely manner	37%	24%	40%	53%
Finding candidates in the right salary range	36%	28%	29%	53%
Finding candidates with the right “soft” skills	36%	31%	27%	49%
Competing with large employers that can make more enticing offers	33%	29%	32%	41%
Costs associated with recruiting (e.g. job board fees, headhunters)	32%	28%	35%	35%

See CompTIA’s *IT Industry Outlook 2015* for staffing and skills data specific to U.S. IT companies where 43% NET report being understaffed <http://www.comptia.org/resources/it-industry-outlook-2015>

Use of Emerging Hiring Tools / Resources on the Rise

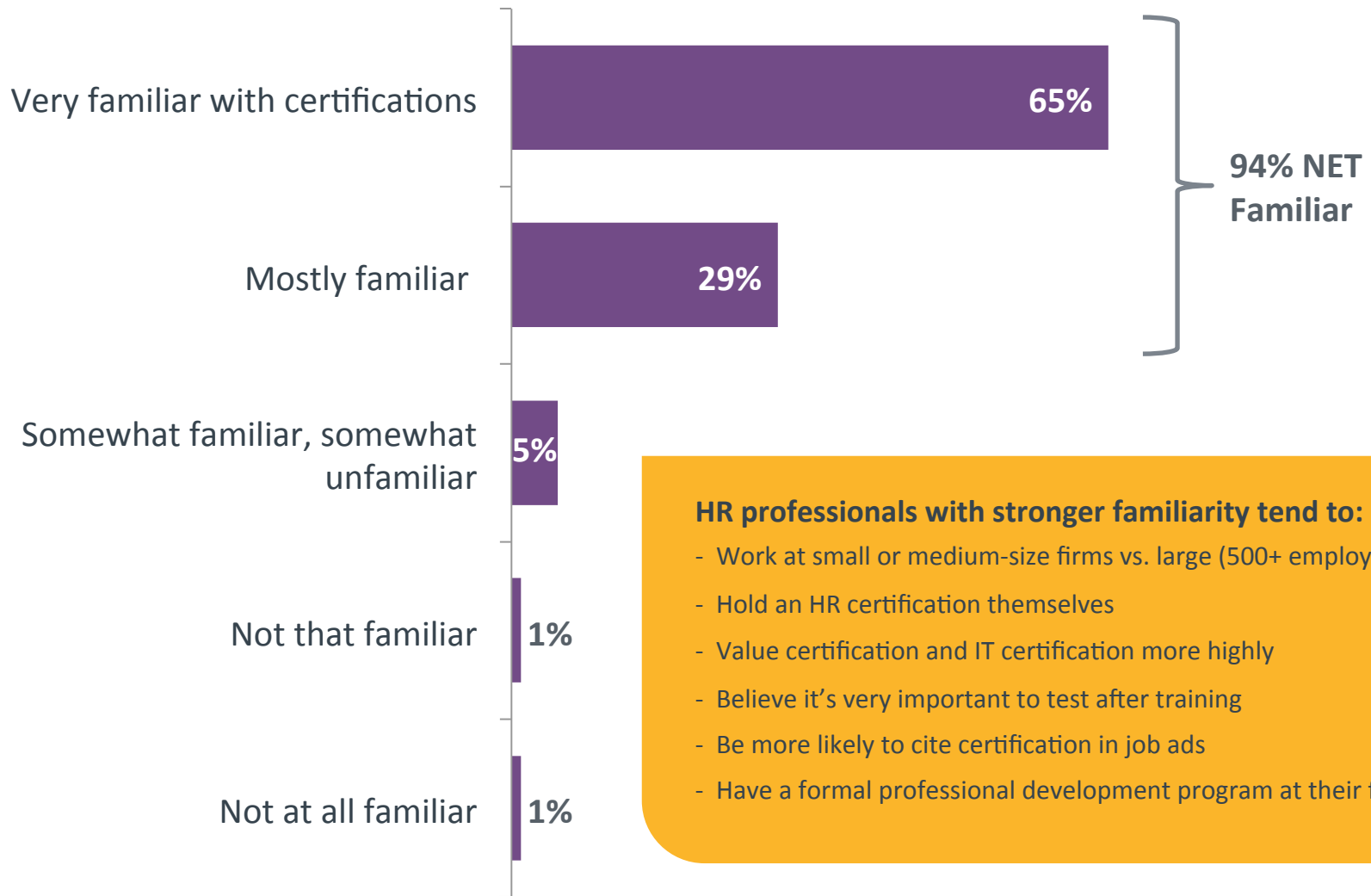
Most companies report using a range of tools to help with recruiting, screening, or identifying candidates. As the data suggests, however, HR professionals have not fully embraced all available tools yet. Small firms (5-99 employees) frequently use social networks (60%) and diversity agencies (56%) at higher rates than larger companies. While medium firms (100-499) frequently use skills assessments (50%) much less than small and large firms (63% each).



Section 2: Certification Awareness and Usage

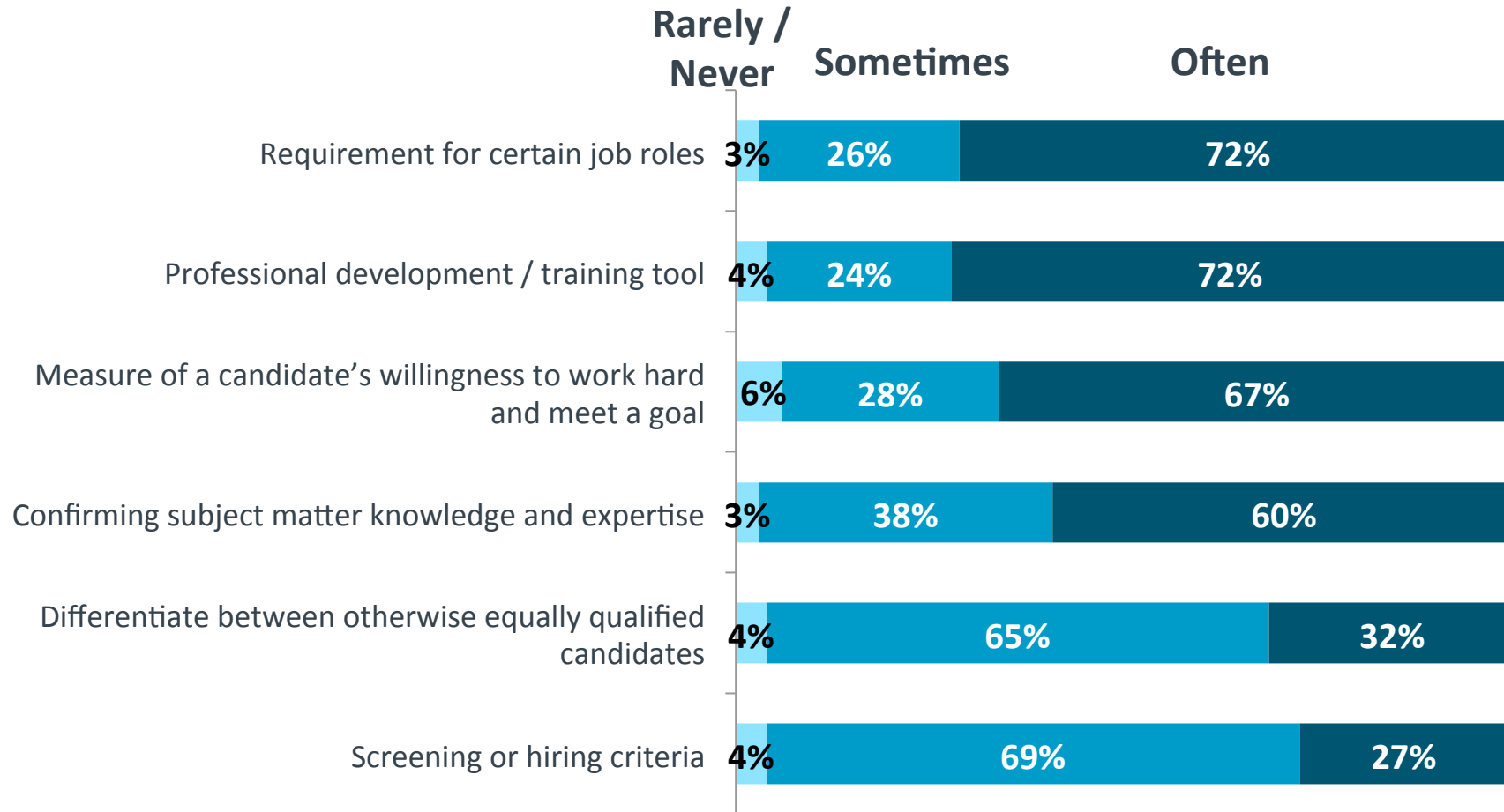
HR Professionals Very Familiar with Certifications

Note: most survey respondents (92%) hold an HR certification such as SPHR, GPHR, PHR, or CPC



How IT Certifications Factor Into Hiring

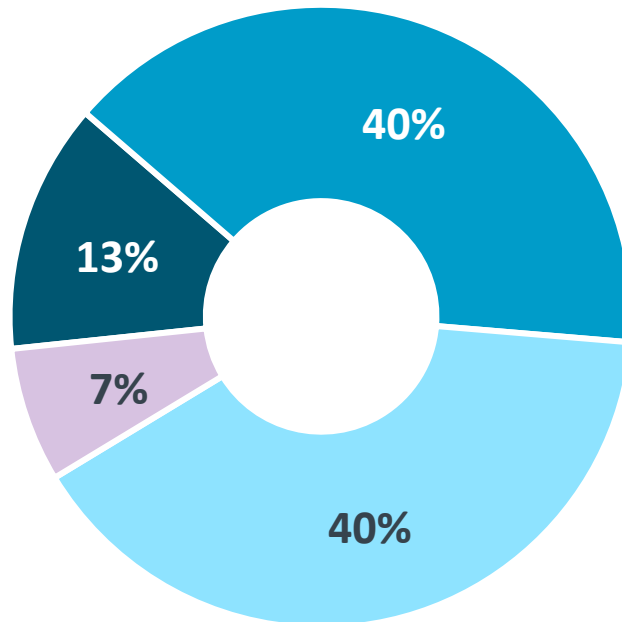
Small firms (5-99 employees) especially often use IT certifications as a requirement for certain jobs (82%), professional development (80%), to measure willingness to work (82%), and to confirm subject matter expertise (65%). Whereas medium (100-499) and large (500+) firms use IT certifications more often to differentiate between candidates (37% and 55%, respectively), and as screening criteria (32% and 50%, respectively).



Most Companies Have IT Staff that Hold IT Certifications

At least half of the IT staff at responding organizations hold one or more IT certification (53% NET)

Percentage of IT Staff Holding at Least One IT Certification



- 75% or more
- 50%-74%
- 25%-49%
- Less than 25%

Medium (100-499 employees) and large-size (500+) organizations are more likely than their smaller counterparts (5-99) to have at least half of their IT staff certified.

Most commonly, IT Directors mandate or recommend IT certifications for candidates seeking IT jobs (57%). However, this will depend on company size (see next slide).

IT Certification Decision Makers Depend on Firm Size

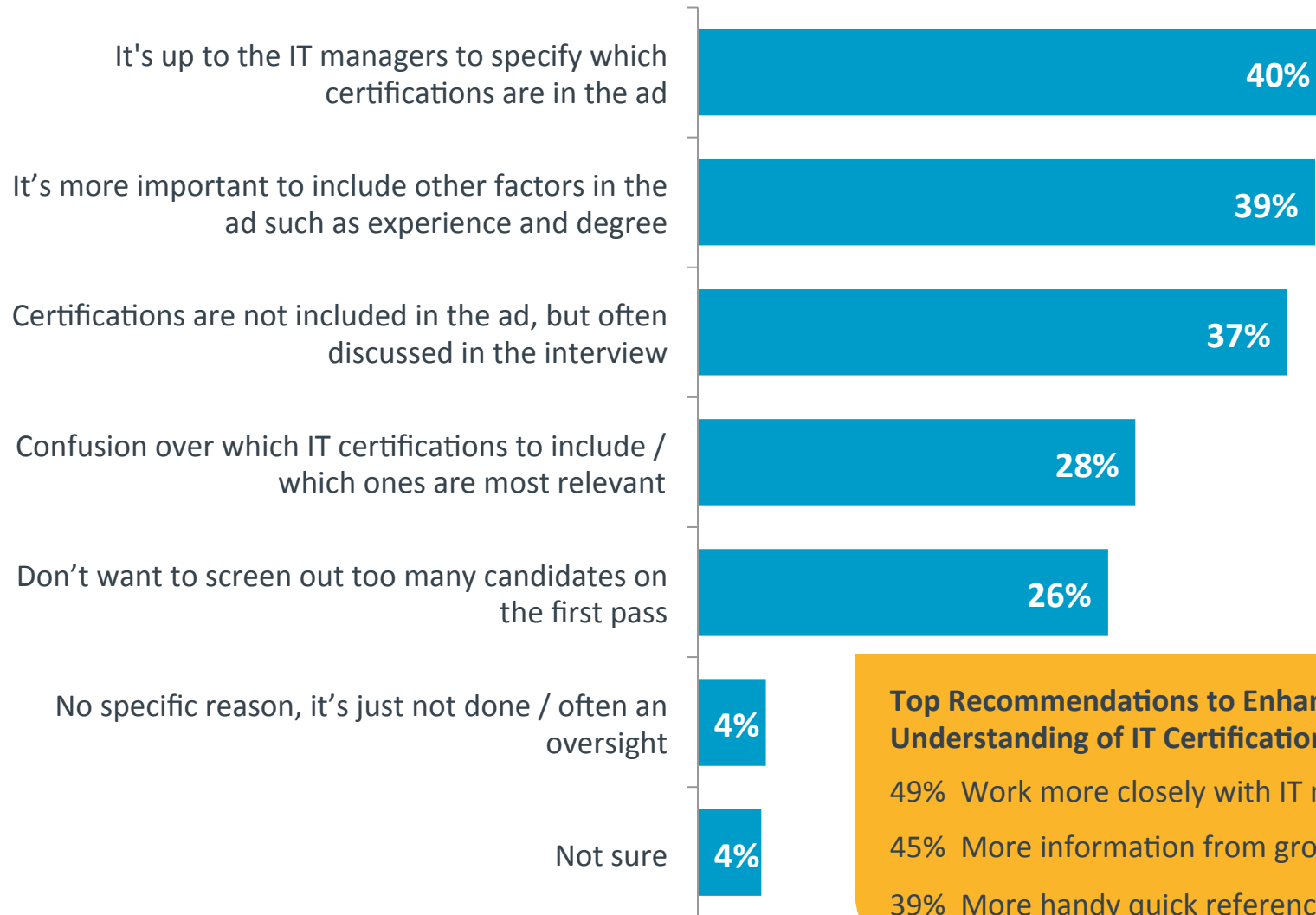
Nearly all firms (96%) have someone responsible for requiring / recommending IT certifications for candidates

Who Mandates or Recommends IT Certifications for Candidates Seeking IT Job Roles Within Company	Overall	Small 5-99 employees	Medium 100-499 employees	Large 500+ employees
CIO	34%	28%	46%	35%
IT Directors	57%	66%	48%	51%
IT Hiring Managers	32%	18%	38%	50%
Human Resources	28%	8%	30%	56%
Other	1%	--	1%	1%
IT certifications not mandated or recommended	4%	3%	4%	4%

1 in 3 HR Professionals Indicate they **Definitely** Include IT Certification Requirements in Job Postings



Reasons Given for Why IT Certifications Are Excluded or Overlooked in IT Job Postings



Top Recommendations to Enhance HR's Understanding of IT Certifications:

49% Work more closely with IT managers

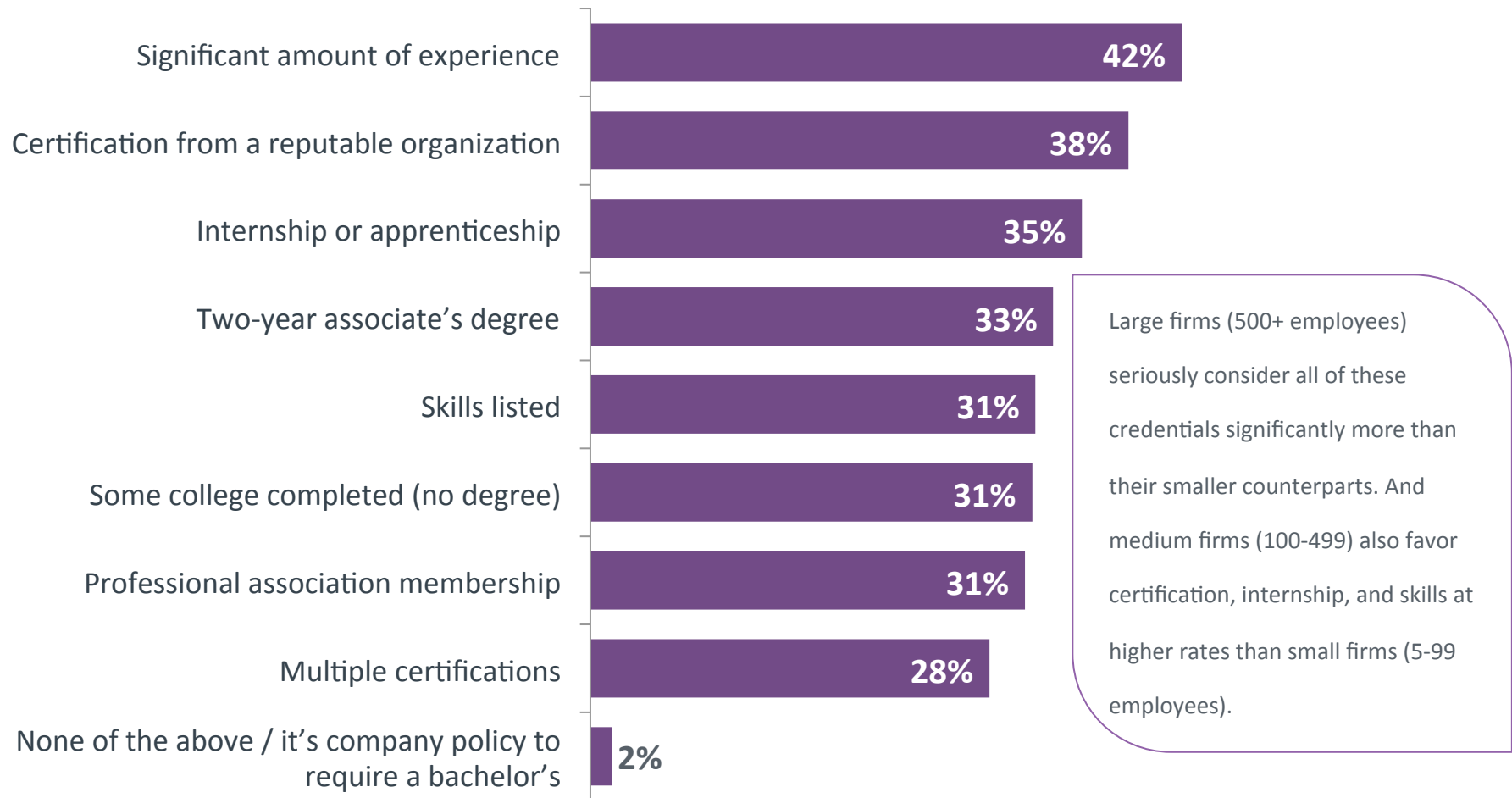
45% More information from groups like SHRM

39% More handy quick reference guides

From the perspective of HR

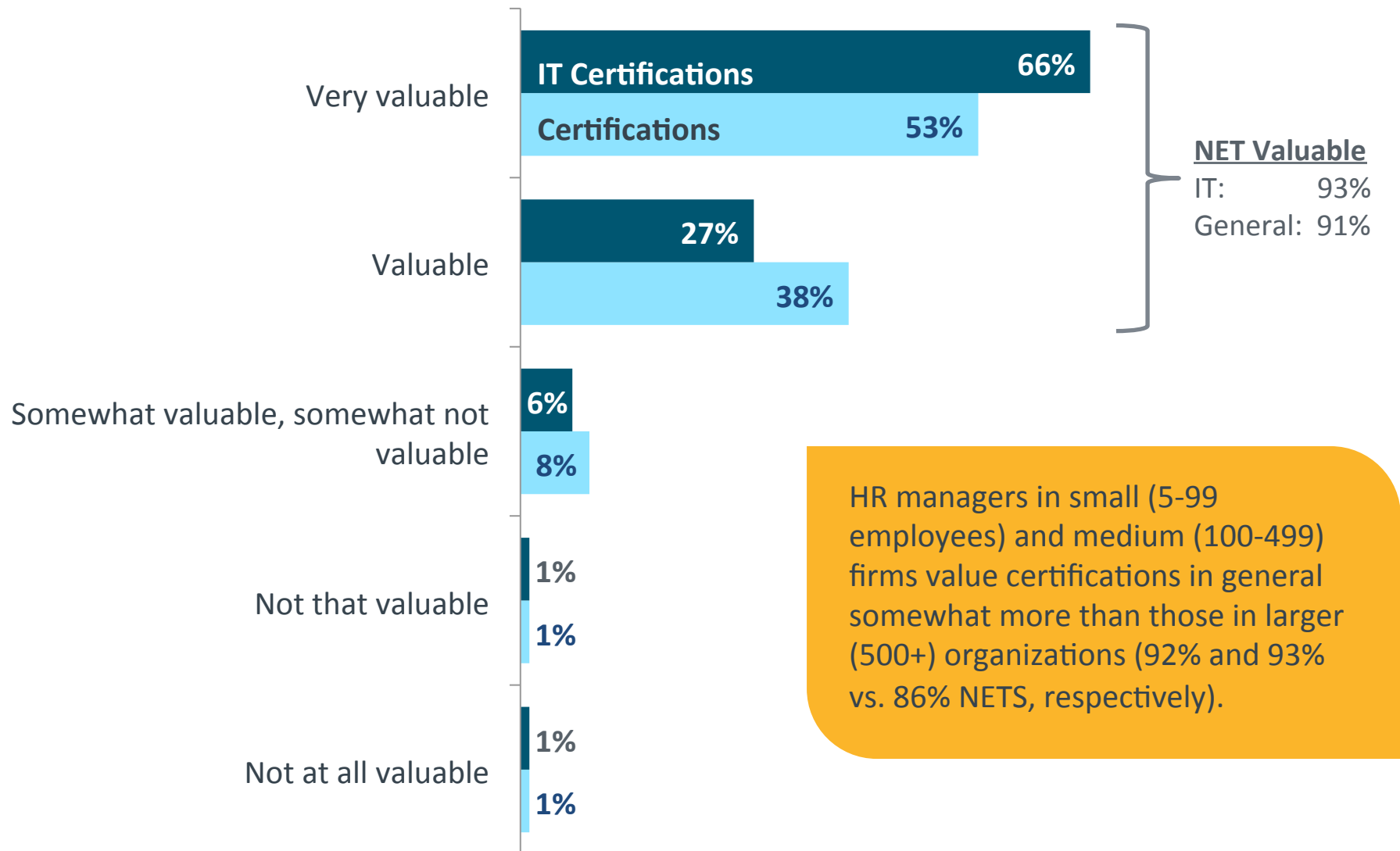
Other Types of Credentials Considered in Lieu of 4-Year Degree

In place of a bachelor's degree, 98% of HR managers are willing to seriously consider other credentials / qualifications on a candidate's resume for positions such as entry-level or staff



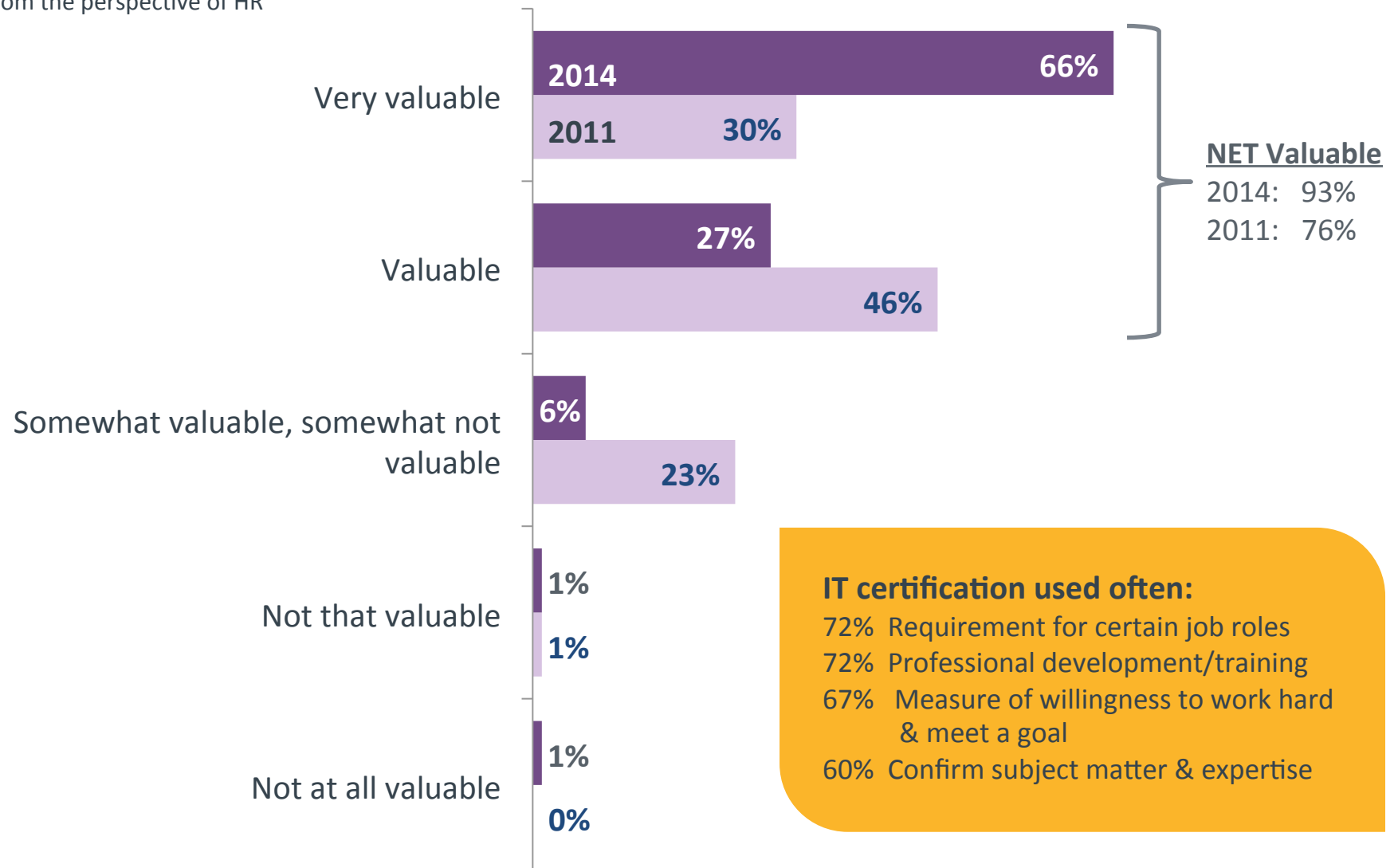
Section 3: Value of Certification

HR Values IT Certification Slightly More than Certifications in General



Value of IT Certification Increasing Over Time

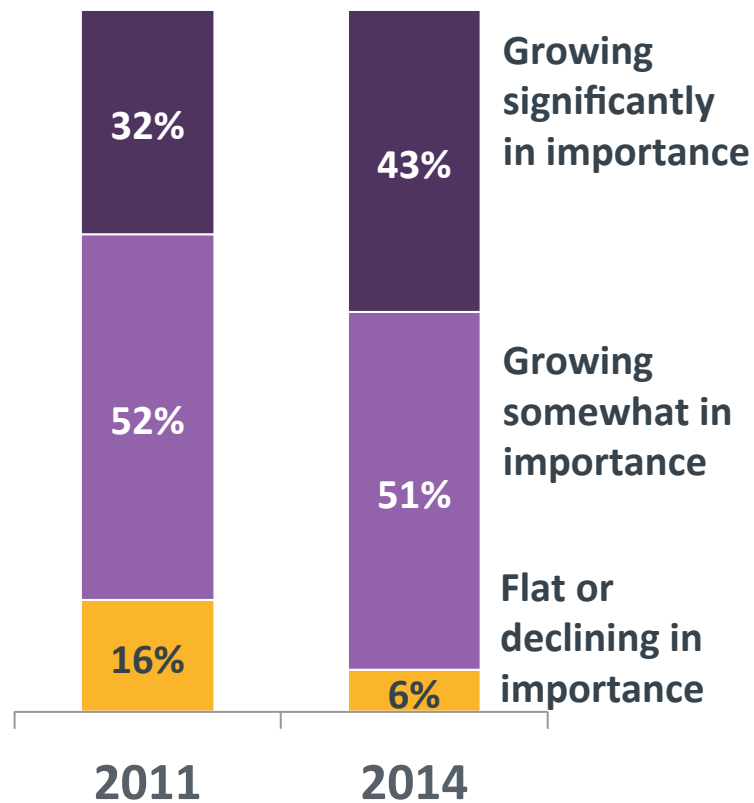
From the perspective of HR



Growing Importance of IT Certification

The great majority of HR managers expect IT certification to grow in importance over the next 2 years (94% NET), an increase by 10 percentage points over 2011 results (84% NET).

IT Certification Importance Over Next 2 Years



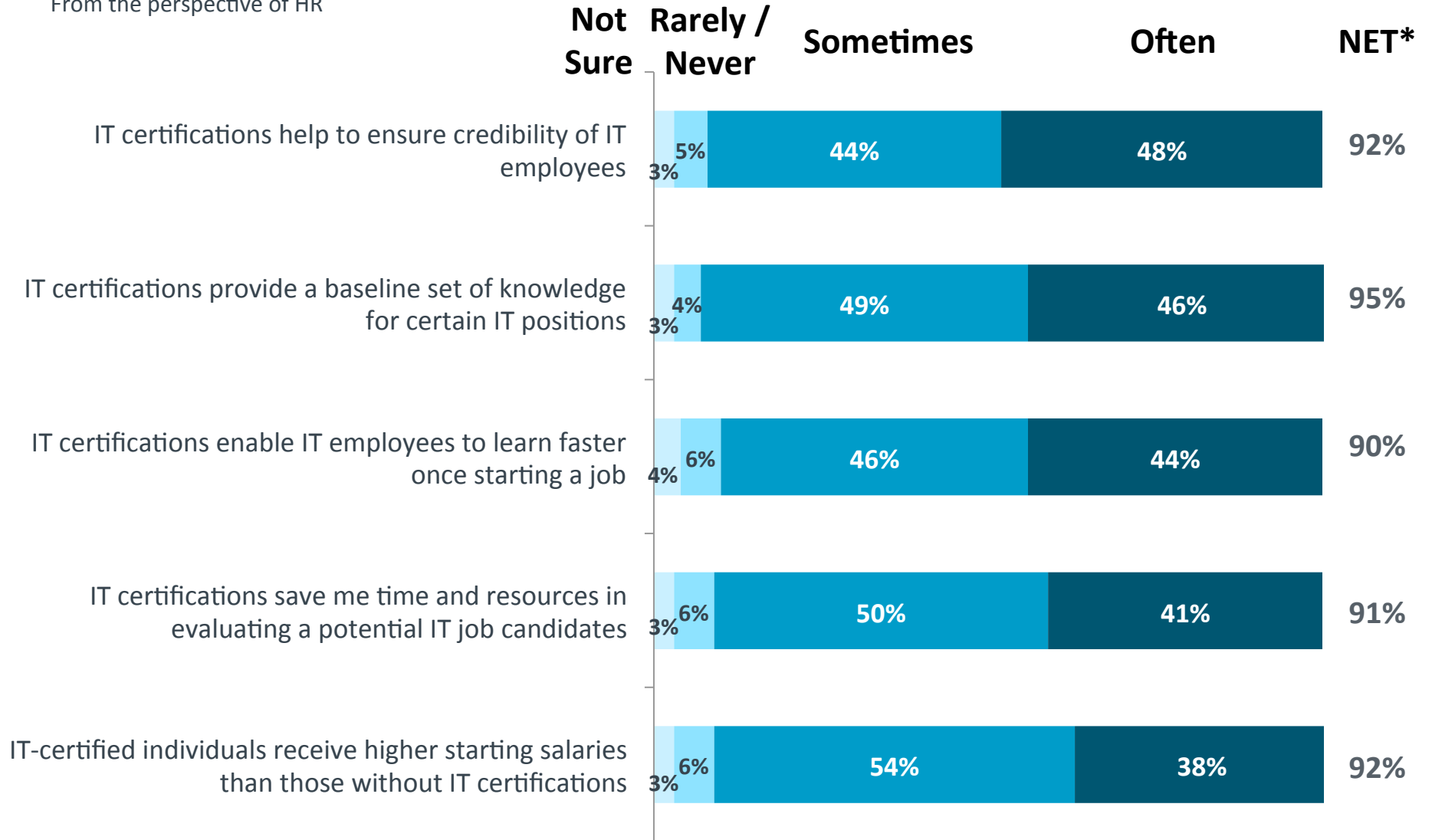
Top Benefits of Testing vs. Training Only

- 98% Cite one or more benefits to certification testing vs. training alone, such as:
- 40% Better validation of knowledge learned
- 36% Increases value/credibility of the training
- 34% Provides test taker with improved understanding of subject matter
- 33% Demonstrates test taker's abilities

"It's a good baseline validation of what was learned that can be looked at against employee's performance post certification."

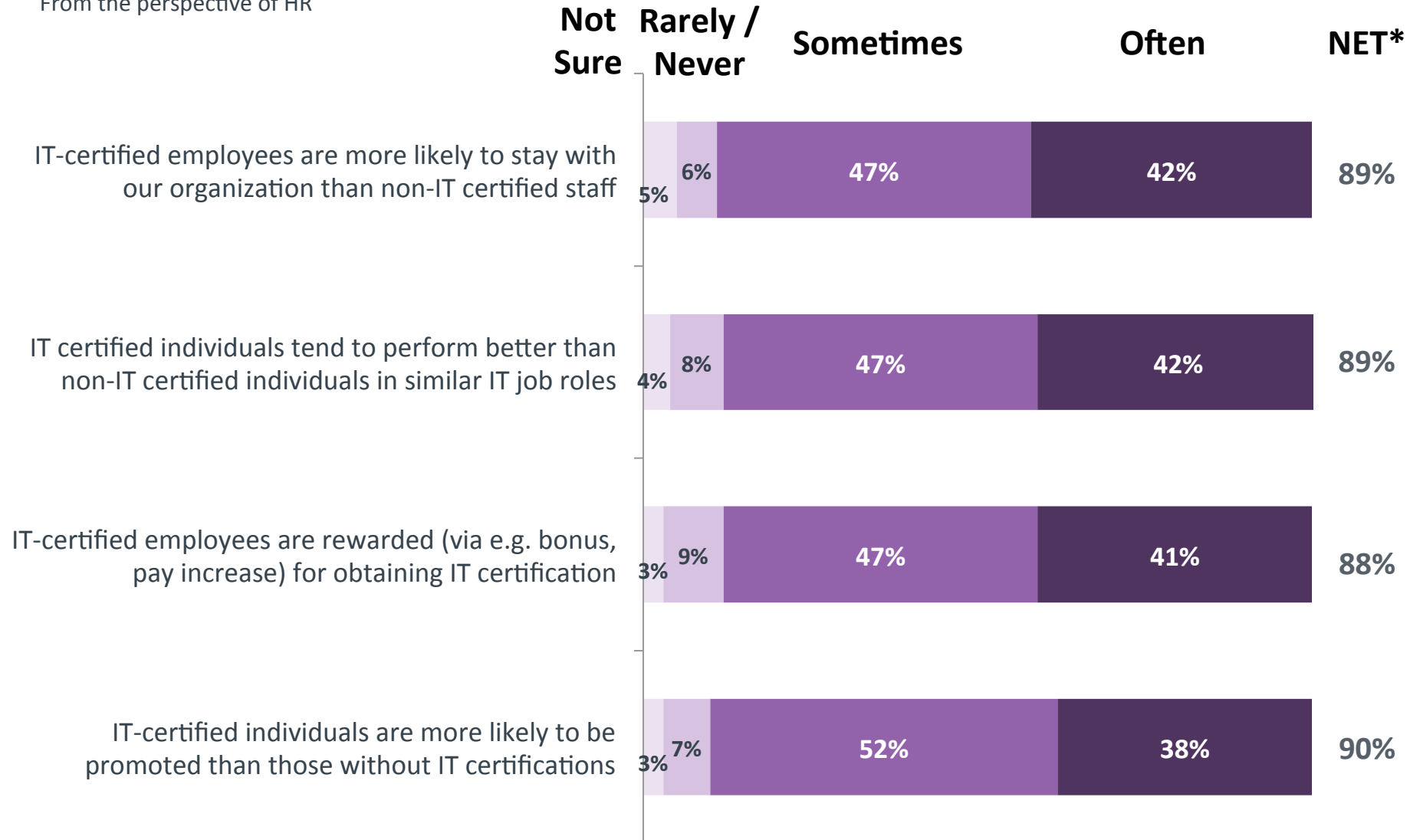
Reported Benefits of Having IT Certified Job Candidates

From the perspective of HR



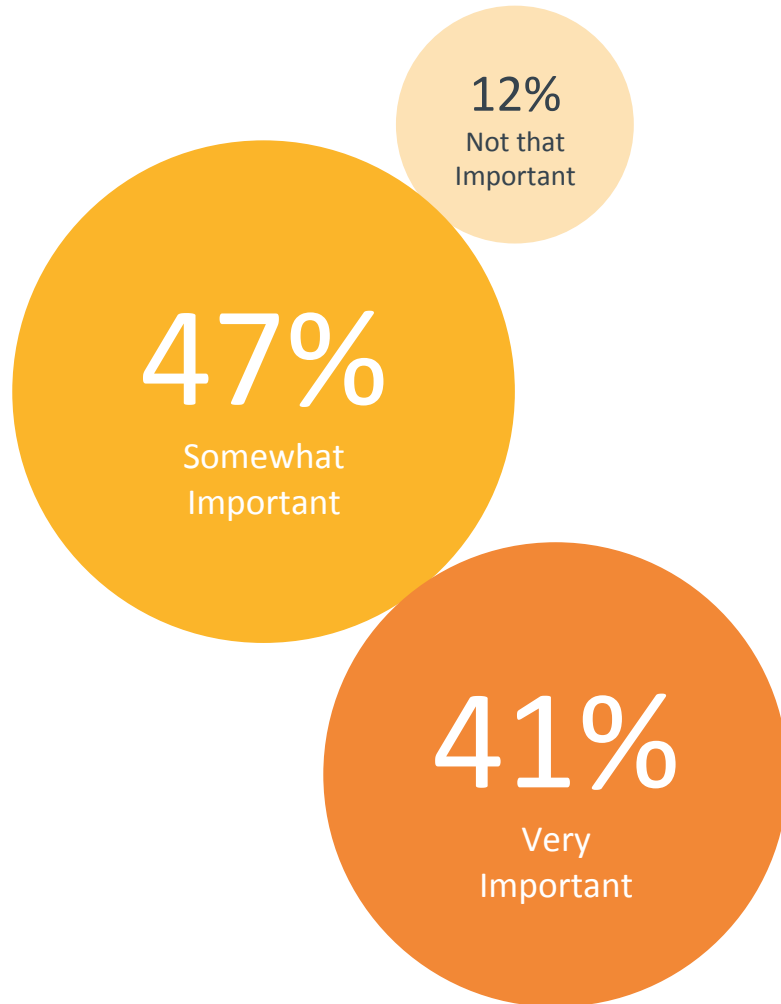
Reported Benefits of Having IT Certified Employees

From the perspective of HR

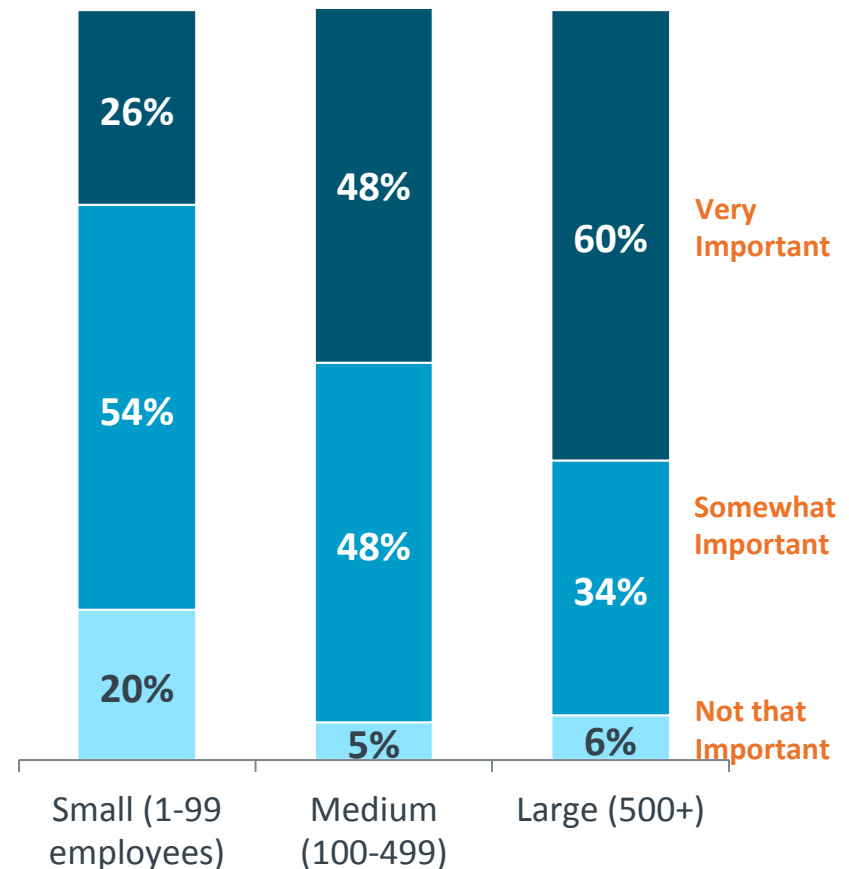


NET 88% of HR Professionals Believe It Is Important to Test After Training to Confirm Knowledge Gains

Overall Importance

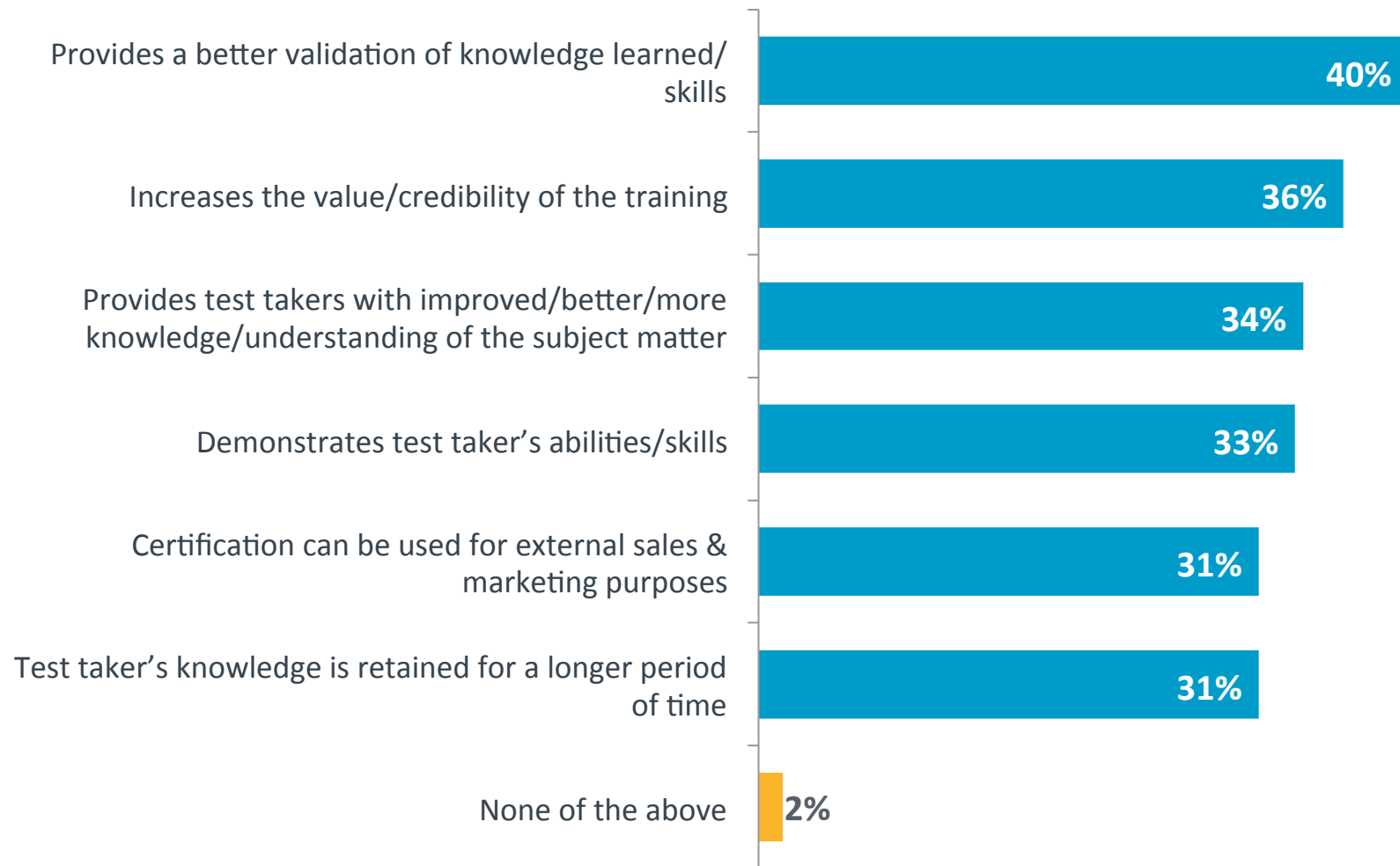


Importance by Company Size



Main Benefits of Certification Testing vs. Training Alone

Nearly all HR executives (98%) recognize one or more benefits to certification testing versus only training



Reported Benefits of IT Certifications by Company Size

From the perspective of HR

Main Benefits of Certification Testing Versus Training Alone	Small 5-99 employees	Medium 100-499 employees	Large 500+ employees
Provides a better validation of knowledge learned/skills	25%	45%	59%
Increases the value/credibility of the training	23%	32%	60%
Provides test takers with improved/better/more knowledge/understanding of the subject matter	24%	42%	42%
Demonstrates test taker's abilities/skills	24%	31%	49%
Certification can be used for external sales & marketing purposes	22%	31%	45%
Test taker's knowledge is retained for a longer period of time	23%	29%	45%
None of the above	2%	1%	2%

Top Benefits of Performance-Based Testing

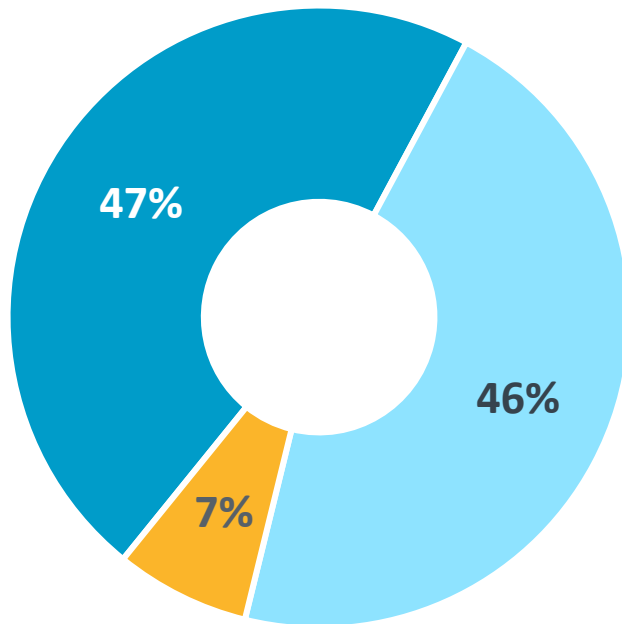
Nearly all HR managers (98%) realize one or more benefits to performance-based certification testing, especially in large organizations

Primary Benefits of Performance-Based Certification Tests	Overall	Company Size (# of employees)			Percentage of IT Staff Certified	
		Small 5-99	Medium 100-499	Large 500+	Less than 50%	50% or More
Demonstrate test taker's hands-on/real world ability/skills (vs. memorization/test taking ability)	42%	33%	44%	55%	35%	47%
Provide a better validation of knowledge/skills vs. multiple-choice questions only	41%	33%	41%	55%	37%	44%
Provide test takers with improved/better knowledge/understanding of the subject matter	40%	28%	45%	56%	34%	47%
Increases the value/credibility of the certification	40%	25%	37%	64%	28%	50%
None of the above	2%	2%	2%	3%	2%	0%

Section 4: Organizational Support for Professional Development

Professional Development Policies

Organizational Support for Professional Development



- Formal program / set budget
- Informal basis / cover some expenses
- Other / None

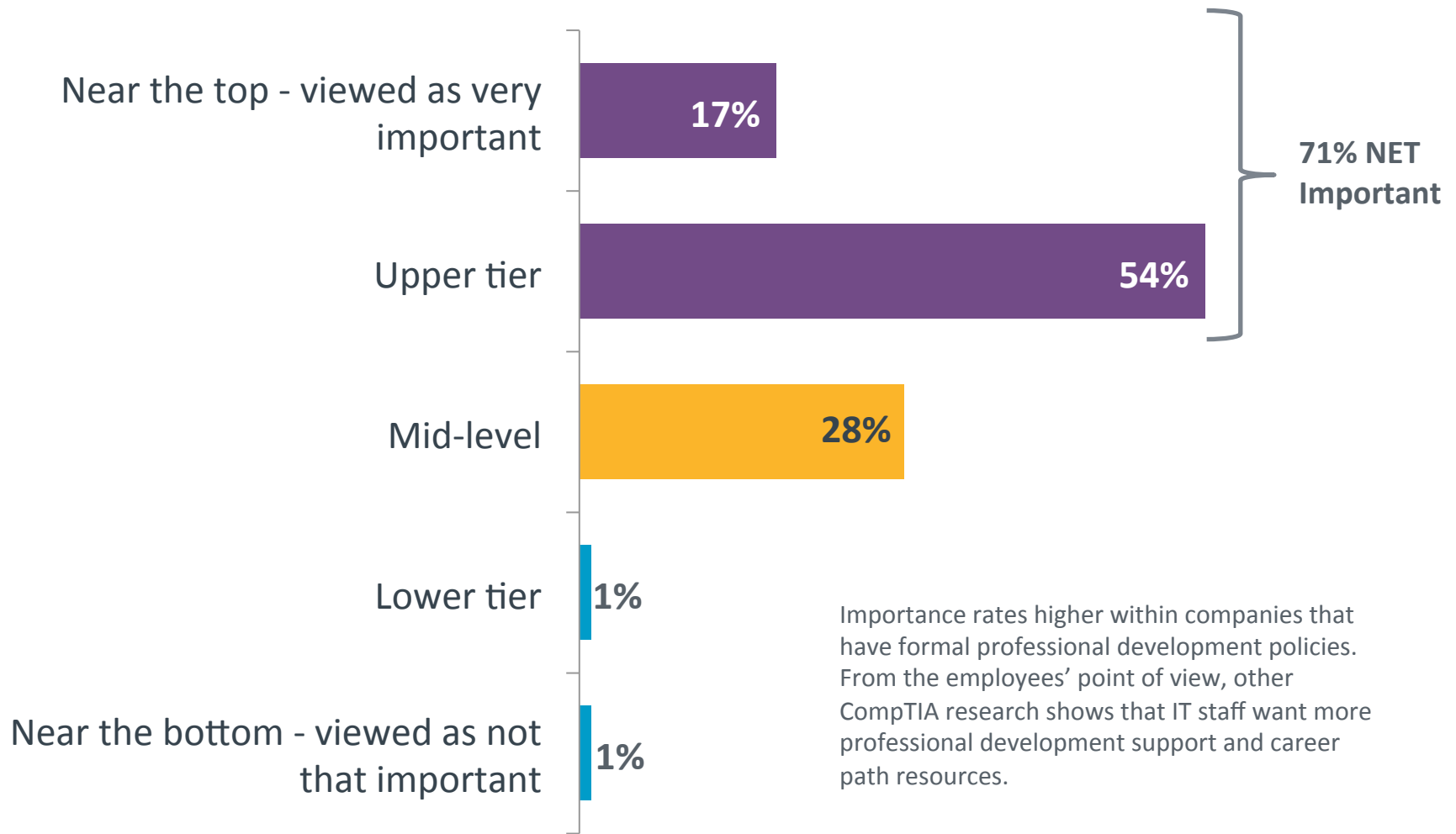
Organizations with formal professional development programs are more likely to be large (500+ employees), more than half of their IT staff certified, view both certifications in general and IT certification as very valuable, cite certification in job ads, and rate testing after training as very important.

HR Typically Responsible for Professional Development Budget

Department Primarily Responsible for the Professional Development Budget	Overall	Small 5-99 employees	Medium 100-499 employees	Large 500+ employees
Human Resources	55%	46%	64%	63%
Training	27%	32%	22%	24%
Administration, Operations or Executive	14%	20%	10%	9%
Finance / Accounting	2%	2%	2%	2%
Other functional departments, e.g. IT, Marketing	1%	0%	1%	2%

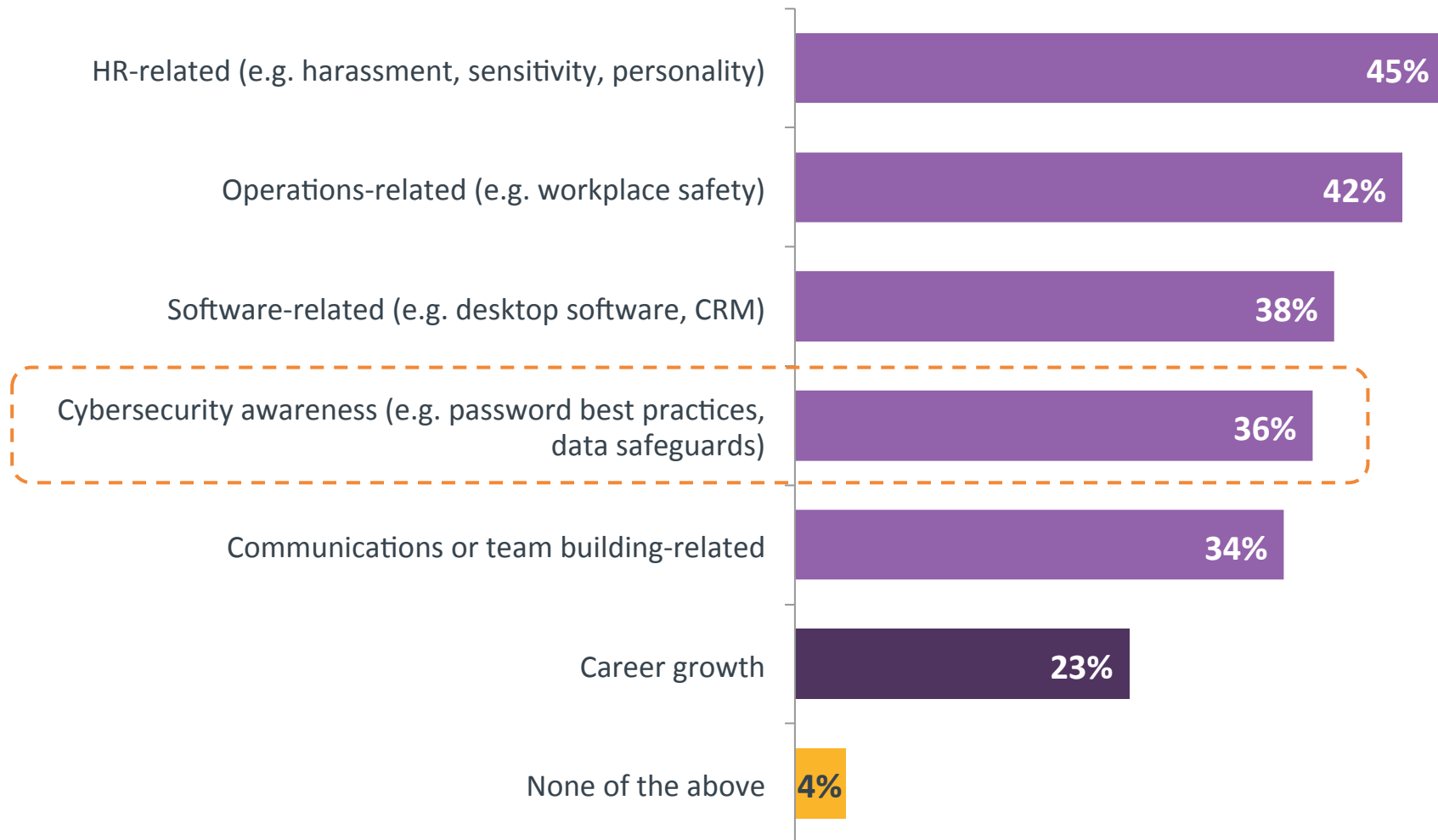
Most Employees Rate Professional Development an Important Value-Add from Their Employer

About 7 in 10 HR professionals believe employees at their organization view professional development as an important benefit and/or important to their career path in comparison to other employment benefits



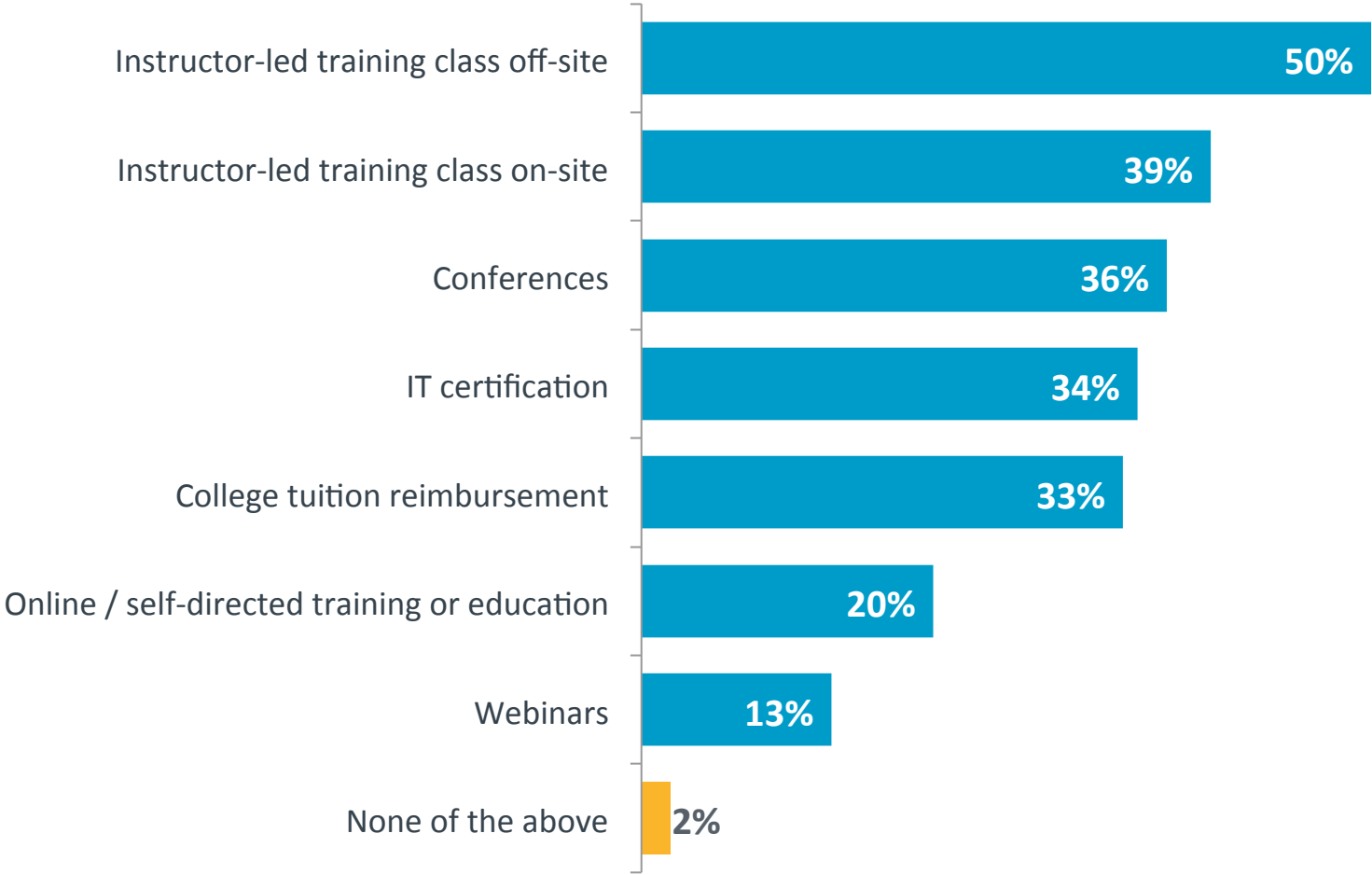
Nearly All Companies Require Some Type of Employee Education / Training

Large firms (500+ employees) tend to require training at higher rates than small (5-99) and medium (100-499) firms. Approximately 1 in 3 companies report requiring cybersecurity awareness training among staff.



Types of IT Training Encouraged for IT Staff

Nearly all organizations (98%) recommend at least one type of training/professional development for IT staff to improve their IT skills



See Appendix for primary training methods diagram

IT Staff Training Types Recommended by Firm Size and Level of Support

From the perspective of HR

Type of Training Encouraged for IT Staff	Company Size (# of employees)			Professional Development Support	
	Small 5-99	Medium 100-499	Large 500+	Formal Program	Informal / Other
Instructor-led training class off-site	45%	50%	53%	53%	45%
Instructor-led training class on-site	29%	39%	50%	44%	33%
Conferences	30%	31%	48%	38%	34%
IT certification	15%	32%	63%	42%	26%
College tuition reimbursement	19%	36%	50%	44%	22%
Online / self-directed training or education	9%	11%	43%	26%	14%
Webinars	3%	13%	29%	16%	10%
None of the above	2%	4%	2%	1%	3%

IT Directors Frequently Take the Lead in Pushing for IT Training or Certification for IT Staff

Nearly all firms (97%) require / recommend IT training or certification support for IT employees

Who Mandates or Recommends IT Training or Certification Support for IT Employees	Overall	Small 5-99 employees	Medium 100-499 employees	Large 500+ employees
CIO	35%	29%	44%	37%
IT Directors	60%	61%	56%	62%
IT Managers	31%	19%	31%	49%
Human Resources	25%	4%	33%	52%
Other	1%	0%	2%	2%
IT certifications not mandated or recommended	3%	3%	4%	3%

Support Provided to IT Staff for IT Certifications

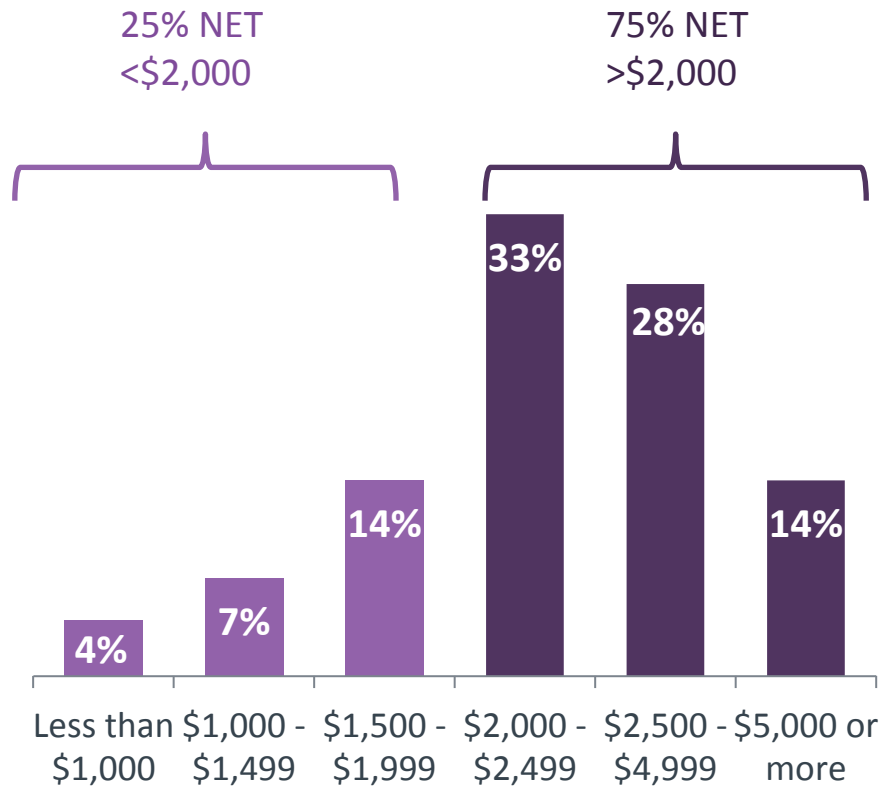
Most companies (97%) provide some type of support for IT employees obtaining IT certification

Types of Support Provided to IT Staff Pursuing IT Certification

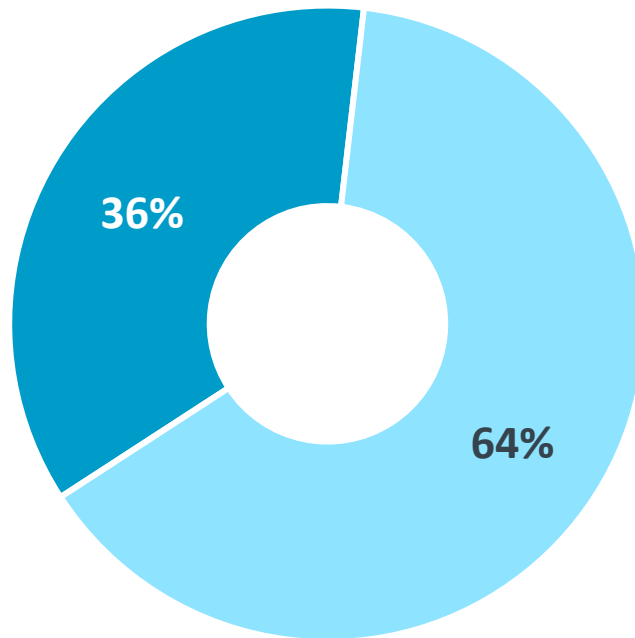
- 37% Provide training at work
- 36% Pay for all certification expenses
- 36% Pay for all training expenses
- 34% Offer paid time-off for taking the exam
- 31% Offer paid time off for studying/training
- 3% None of the above

Large firms (500+ employees) offer all of these types of support, with the exception of paid time-off, more than small (5-99) and medium (100-499) firms. Also, medium firms are more likely than small to pay for all certification fees.

Average Amount Company Pays IT Employee Annually for IT Training and/or Certification Expenses



Despite the Threat Level Growth of Cybersecurity, Only 1 in 3 HR Professionals Report Providing Cybersecurity Awareness Training to Staff



- Required
- Not Required

Cybersecurity awareness training is primarily conducted internally

57% Internally, with internal materials

20% Third-party trainer, with third-party materials

22% Combination of the above

Small firms (5-99 employees) are more likely to rely on third-party trainers than their larger counterparts.

Cybersecurity Awareness Training Is Driven Equally by Compliance Needs and Safeguard Needs

Primary Reason Why Cybersecurity Awareness Training is Conducted	Overall	Small 5-99 employees	Medium 100-499 employees	Large 500+ employees
Compliance	29%	50%	18%	24%
Safety / protect the company	24%	38%	29%	12%
Both	47%	12%	53%	64%

The CIO / head of IT is the primary decision maker about cybersecurity awareness training (54%)

38% HR

2% CEO / president

6% Joint decision among senior leadership

Appendix

Respondent Profile

All respondents are in HR roles and located in the U.S.

Staff Size

5 to 9	5%	45% Small (5-99)
10 to 49	15%	
50 to 99	25%	25% Medium (100-499)
100 to 499	25%	
500 to 999	15%	30% Large (500+)
1,000+	15%	

Job Title

HR Vice President	65%
HR Director	17%
HR Manager	9%
HR Specialist	3%
HR Consultant	3%
Other HR role	3%

How HR Function is Handled

HR department / HR staff	97%
Other (e.g. CEO, consultant)	3%

Types of Job Openings Over Past 12 Months

IT or web design	90%
Operations	87%
Sales or marketing	81%
Finance or accounting	81%
Other type of staff openings	65%
Not applicable – none during past year	2%

HR Certification/s Held

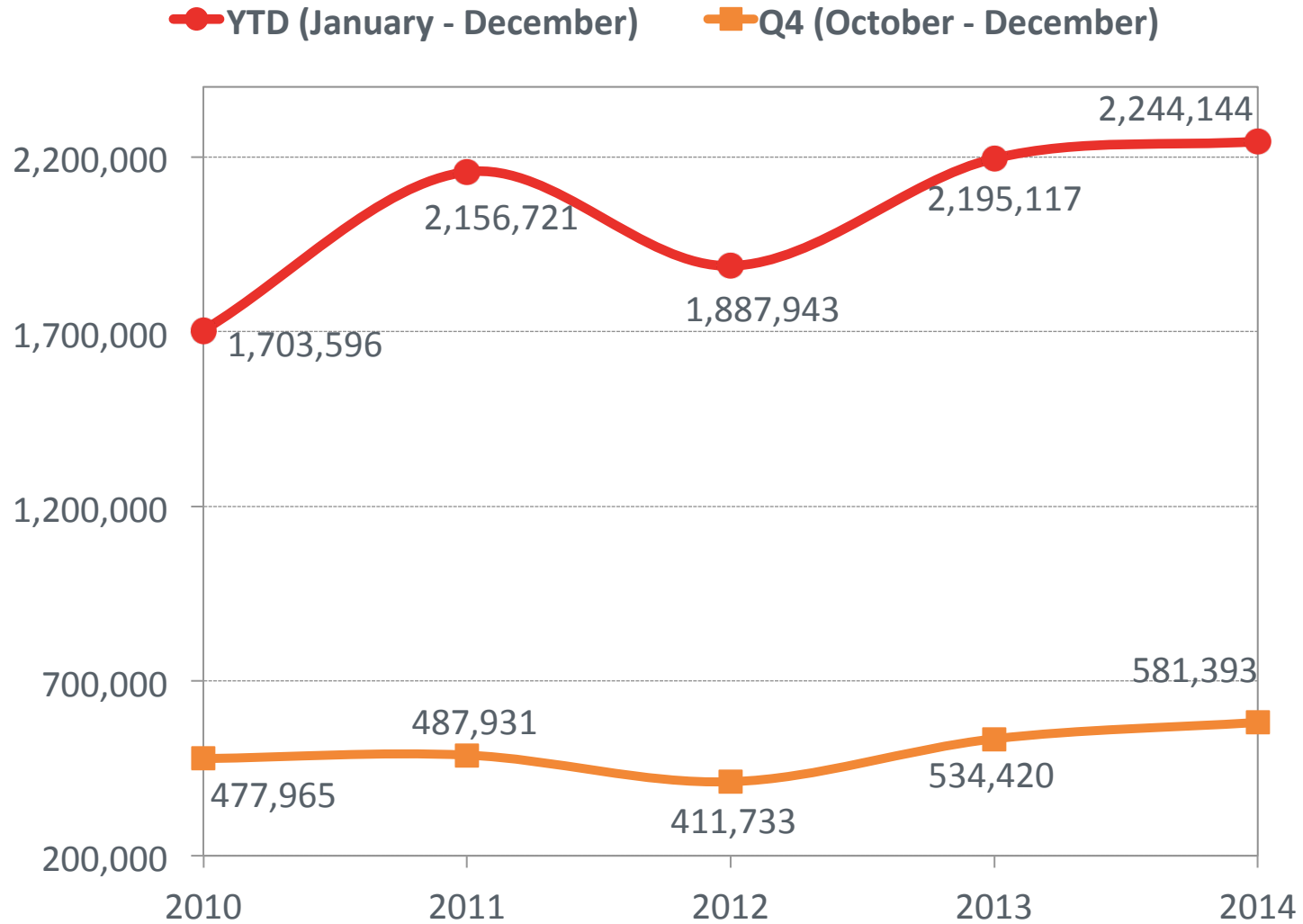
Senior Professional in HR (SPHR)	53%
Global Professional in HR (GPHR)	46%
Professional in HR (PHR)	41%
Certified Personnel Consultant (CPC)	27%
Certified Temporary-Staffing Specialist (CTS)	8%
Other certification	1%
None – no HR certification held	8%

Number of IT Job Openings – Quarter over Quarter

Current quarter vs. same quarter last year

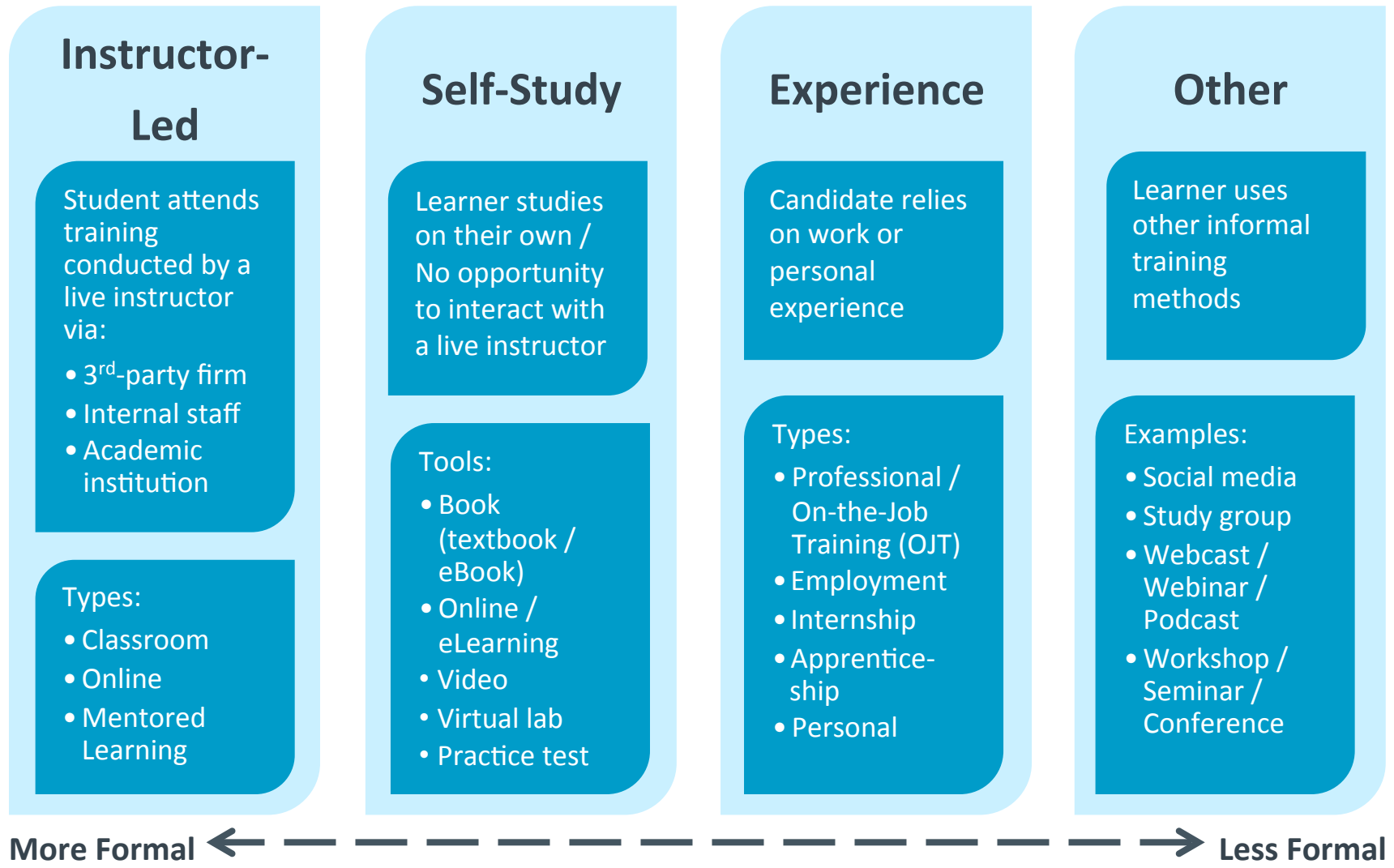
ONET Code	Core IT Occupations	# Postings Q4 2014	# Postings Q4 2013	# Change	% Change
11-3021.00	Computer & Information Systems Managers	9,446	8,903	543	6%
15-1111.00	Computer & Information Research Scientists	3,481	2,438	1,043	43%
15-1121.00-.01	Computer Systems Analysts & Informatics Specialists	69,060	45,662	23,398	51%
15-1122.00	Information Security Analysts	19,710	11,381	8,329	73%
15-1131.00	Computer Programmers	37,749	23,147	14,602	63%
15-1132.00	Software Developers, Applications	116,367	142,972	-26,605	-19%
15-1133.00	Software Developers, Systems Software	18,548	18,139	409	2%
15-1134.00	Web Developers	25,219	26,507	-1,288	-5%
15-1141.00	Database Administrators	33,096	26,403	6,693	25%
15-1142.00	Network & Computer Systems Administrators	31,793	28,459	3,334	12%
15-1143.00-.01	Computer Network Architects & Telecom Engineers	9,209	10,167	-958	-9%
15-1151.00	Computer User Support Specialists	62,678	49,027	13,651	28%
15-1152.00	Computer Network Support Specialists	2,201	3,226	-1,025	-32%
15-1199.00 -.12	Computer Occupations, All Other	139,713	135,013	4,700	3%
17-2061.00	Computer Hardware Engineers	1,484	1,567	-83	-5%
49-2011.00	Computer, Automated Teller, & Office Machine Repairers	1,639	1,409	230	16%
	Total	581,393	534,420	46,973	9%

Total Number of IT Job Openings – Year over Year



Primary Training / Exam Preparation Methods

Note: This diagram is not meant to describe all the various types of training / tools, but rather display a simplified picture of primary training buckets & defining characteristics.



Additional Resources

- CompTIA Insights and Tools: IT Workforce and HR
<http://www.comptia.org/insight-tools/business?tags=it%20workforce>
- IDC *IT Support and Security Performance: The Impact of CompTIA Certification on Organizational Performance* <http://www.comptia.org/resources/the-impact-of-comptia-certification>
- CompTIA *IT Industry Outlook 2015* <http://www.comptia.org/resources/it-industry-outlook-2015>
- CompTIA *Cyberstates 2015* <http://www.comptia.org/resources/2015-cyberstates>
- Other CompTIA Research & Market Intelligence, for example:
 - Quarterly *IT Industry Business Confidence Index*
 - *Military Career Path Study: Assessing the role of training and certifications*
 - *Information Security Trends*
 - *International Technology Adoption & Workforce Trends*
 - *Generational Research on Technology and its Impact in the Workplace*
 - *Youth Opinions of Careers in IT*
- CompTIA premier members, partners & registered users can access research materials via:
 - CompTIA website <http://www.comptia.org/insight-tools>
 - CompTIA Partner Portal <http://partners.comptia.org/delivery/research.aspx>