



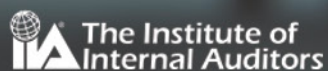
INTERNAL AUDIT FOUNDATION

PREMIER GLOBAL RESEARCH STUDY **2021**

Assessing Internal Audit Competency: Minding the Gaps to Maximize Insights



Deloitte.





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EXECUTIVE SUMMARY

The Internal Audit Foundation, in collaboration with Deloitte, conducted a global survey, Assessing Internal Audit Competency, to complement the launch of The IIA's Internal Audit Competency Framework and to identify areas in which internal auditors were highly developed and those where gaps existed. Responses were received from 1,181 internal auditors across 90 countries.

Five themes related to professional development and resource allocation emerged from the survey data, pointing to several areas where improvement is needed and where internal auditors have an opportunity to contribute more insights to the organization:

1. Assessed internal audit competencies are highly relevant and provide practitioners with a firm foundation to support organizations in achieving their strategic objectives.
2. Competency levels for critical technologies and emerging risks do not align with the perceived relevance of these areas for adding value to the organization.
3. Resource allocations need to remain adequate in core knowledge areas where internal auditors already have a high degree of competency.
4. Auditing emerging or innovative knowledge areas should be a priority.
5. Digital maturation remains slow, giving internal auditors an opportunity to advocate for change by articulating the value they could add if adequately enabled by technology.

To address the remaining competency gaps, internal audit functions may need to shift their thinking about resource allocation and talent development to place greater emphasis on innovative and emerging knowledge areas.



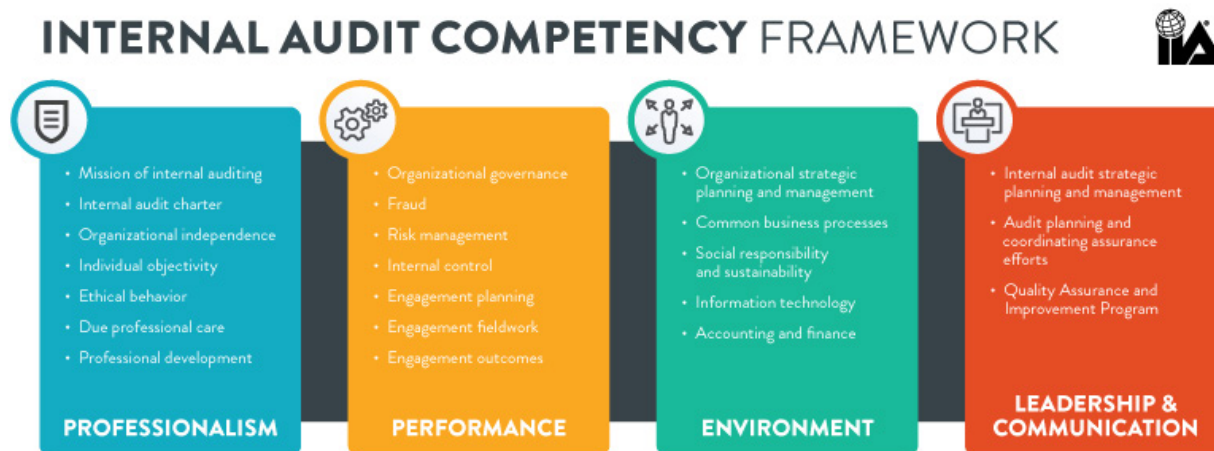


ABOUT THE STUDY

Internal auditors are constantly faced with new challenges and opportunities in evolving their competencies and enhancing their value to their organizations. To keep pace with the exponential growth of stakeholder expectations, a renewed focus on professional development is crucial for internal auditors to challenge the status quo, provide independent and objective perspectives, and deliver high-impact results. In addition, a foundation of core competencies helps internal auditors to realize their passions and personal goals, and to stay competitive and relevant throughout their career journeys.

In September 2020, The IIA released a new, comprehensive framework for the professional development of internal auditors. (See Figure 1.) [The IIA's Internal Audit Competency Framework](#) helps auditors acquire the knowledge and skills necessary to navigate those challenges and opportunities, while focusing on leading practices and practical applications. The framework comprises 22 core knowledge areas across four professional pillars: Professionalism, Performance, Environment, and Leadership & Communication. It focuses on various standards, key proficiencies, and situationally specific competency levels: General Awareness, Applied Knowledge, and Expert.

Figure 1: Framework



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In October 2020, the Internal Audit Foundation, in collaboration with Deloitte, conducted a global survey to complement the launch of The IIA's Internal Audit Competency Framework and to identify areas in which internal auditors were highly developed and those where gaps existed. More specifically, the global Assessing Internal Audit Competency survey sought to gain insight into the following:

- Current state of internal audit competencies in the field.
- Relevance of those competencies in the workplace.
- Perceptions of individual performance.
- Gaps in competence and target areas for additional development.
- Availability of resources and training to support practitioner advancement.

The survey asked internal auditors to assess their level of competency on a scale of 0 to 5, with 0 being no awareness of the topic and 5 being an expert (see Appendix A for details). The survey included a total of 28 competencies representing the 22 core knowledge areas and also asked questions related to innovation in emerging areas, such as environmental, social, and governance (ESG) programs, automation, agile auditing, and cybersecurity.

The survey spanned 1,181 respondents across 90 different countries and 30 IIA global affiliates. Respondents represented all levels in internal audit, including chief audit executives (CAEs), directors, managers, and practitioners. Respondents had about 12 years of internal audit experience on average, and they hailed from many types of organizations, including those that are publicly traded, privately held, in the public sector, or nonprofit/not-for-profit.



30 IIA Global Affiliates / 90 Countries Represented / 1,181 Respondents

The complete list of survey questions may be obtained by contacting Foundation@theiia.org. Survey methodology, demographics, and regional information may be viewed in Appendix A, Appendix B, and Appendix C.

EXPLORING KEY INSIGHTS

Firm Foundation

Insight 1: Assessed internal audit competencies are highly relevant and provide practitioners with a firm foundation to support organizations in achieving their strategic objectives.

Relevance Ratings

Results from the global Assessing Internal Audit Competency survey position The IIA's Internal Audit Competency Framework as a valuable assessment tool for internal audit practitioners. Survey respondents perceived all 28 competencies within the framework as being more than moderately relevant, with all competencies receiving an average relevance score of 3.3 or greater. Moreover, 21 out of 28, or 75%, of the assessed competencies were viewed as being highly relevant, receiving average scores ranging from 4.0 to 4.6. (See Figure 2.)

Figure 2: Average Relevance Levels

Competency Area	Average Relevance Rating (scale of 0 to 5)	Knowledge Area
Professionalism	4.6	Ethical behavior
Professionalism	4.5	Due professional care
Professionalism	4.5	Individual objectivity
Professionalism	4.4	Organizational independence
Performance	4.4	Internal control
Leadership and Communication	4.3	Reporting
Professionalism	4.3	Professional development
Leadership and Communication	4.3	Soft skills
Performance	4.2	Risk management
Professionalism	4.2	Mission of internal auditing
Leadership and Communication	4.2	Audit plan and coordinating assurance efforts
Performance	4.2	Engagement outcome
Leadership and Communication	4.2	Relationship building
Performance	4.2	Engagement field work
Performance	4.2	Engagement planning
Professionalism	4.2	Internal audit charter
Environment	4.1	Common business processes
Leadership and Communication	4.1	Internal audit strategic planning and management
Performance	4.0	Organizational governance
Environment	4.0	Accounting and finance
Environment	4.0	Security and privacy
Environment	3.9	Strategic planning and management
Environment	3.9	Data analytics
Environment	3.8	IT control frameworks
Performance	3.8	Fraud (e.g., assessment and investigation)
Leadership and Communication	3.8	Quality assurance and improvement program
Performance	3.5	Agile auditing methodologies
Environment	3.3	Social responsibility and sustainability

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. Response options: 1 - Not at all relevant, 2 - Slightly relevant, 3 - Moderately relevant, 4 - Very relevant, 5 - Extremely relevant. $n = 1,181$

Competency Ratings

Results of the survey revealed that internal auditors are generally well-equipped to support the business in meeting its strategic goals and objectives. All seven competencies related to Professionalism received an average rating greater than 4. Additionally, three Performance-related competencies and one Leadership & Communication competency also received an average score of 4 or greater. A total of 11 out of 28 competencies, nearly 40% of the core areas, are perceived to be advanced, (“You can perform the actions associated with this skill without assistance. You are certainly recognized within your immediate organization as ‘a person to ask’ when difficult questions arise regarding this skill.”) This suggests that internal audit organizations have built a strong foundation for providing high-quality insights in areas that are essential to the business. (See Figure 3.)

Figure 3: Average Competency Levels

Competency Area	Average Competency Level (scale of 0 to 5)	Knowledge Area
Professionalism	4.4	Ethical behavior
Professionalism	4.3	Individual objectivity
Professionalism	4.2	Mission of internal auditing
Professionalism	4.2	Due professional care
Professionalism	4.2	Organizational independence
Performance	4.2	Internal control
Professionalism	4.1	Internal audit charter
Performance	4.1	Engagement field work
Professionalism	4.0	Professional development
Leadership and Communication	4.0	Reporting
Performance	4.0	Engagement planning
Performance	3.9	Engagement outcome
Leadership and Communication	3.9	Audit plan and coordinating assurance efforts
Leadership and Communication	3.9	Soft skills
Environment	3.9	Common business processes
Leadership and Communication	3.9	Relationship building
Leadership and Communication	3.8	Internal audit strategic planning and management
Performance	3.8	Risk management
Performance	3.8	Organizational governance
Environment	3.7	Accounting and finance
Environment	3.6	Strategic planning and management
Leadership and Communication	3.5	Quality assurance and improvement program
Performance	3.4	Fraud (e.g., assessment and improvement program)
Environment	3.3	Security and privacy
Environment	3.1	Social responsibility and sustainability
Performance	3.1	Agile auditing methodologies
Environment	3.1	Data analytics
Environment	2.9	IT control frameworks

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. *n* = 1,181



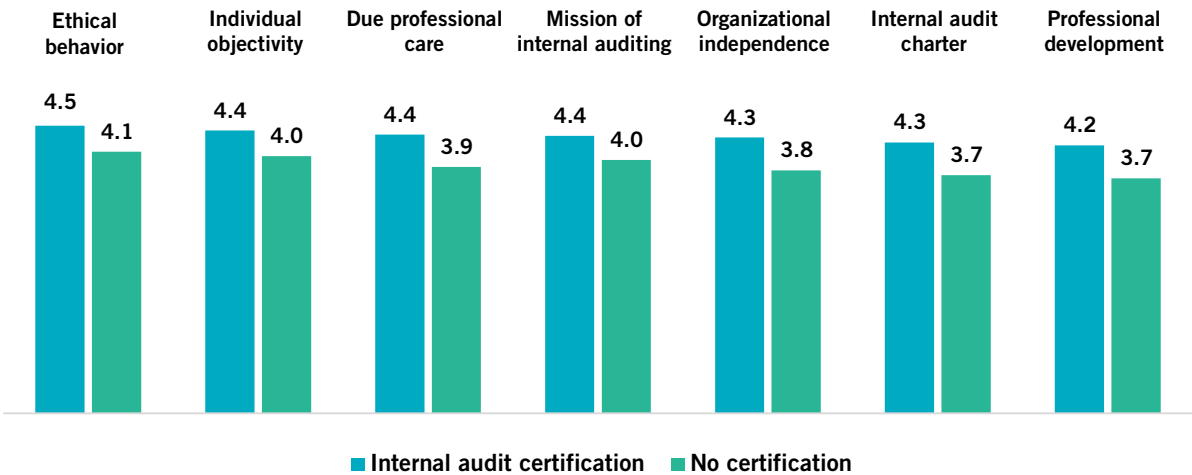
Regional Differences

These insights are essential for the development of organizational strategy and career development. Also important is how relevance and competency ratings differ globally. The current survey discovered regional similarities and differences in relevance and competency ratings. For example, across all regions—Africa, Asia Pacific, Europe, Latin America and Caribbean, North America, and the Middle East—professionalism competencies (individual objectivity and ethical behavior) were rated 4.2 or higher in both relevance and competence. Relevance and competence data for each region can be viewed in Appendix C.

Certification Differences

It is also worth noting the differences in competency level ratings between certified and non-certified respondents. Certified respondents reported higher overall competence in each of the four knowledge areas in the framework. This highlights the value of obtaining certification in the profession and warrants further reporting on the individual competencies and competency levels as they relate to certification. Building on the theme of developing a firm foundation, the following figure shows how certification influences competency levels within the Professionalism knowledge area. (See Figure 4.)

Figure 4: Average Competency Levels for the Professionalism Area (Compared to Certification)



Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. *n* = 1,181

Despite this strong foundation, the survey data pointed to some burgeoning gaps—mainly in resource allocation for core areas and competency development for critical technologies and emerging risks. By minding these gaps, internal auditors have an opportunity to enhance the scope and quality of their assurance and advisory services and contribute more insights to the organization.



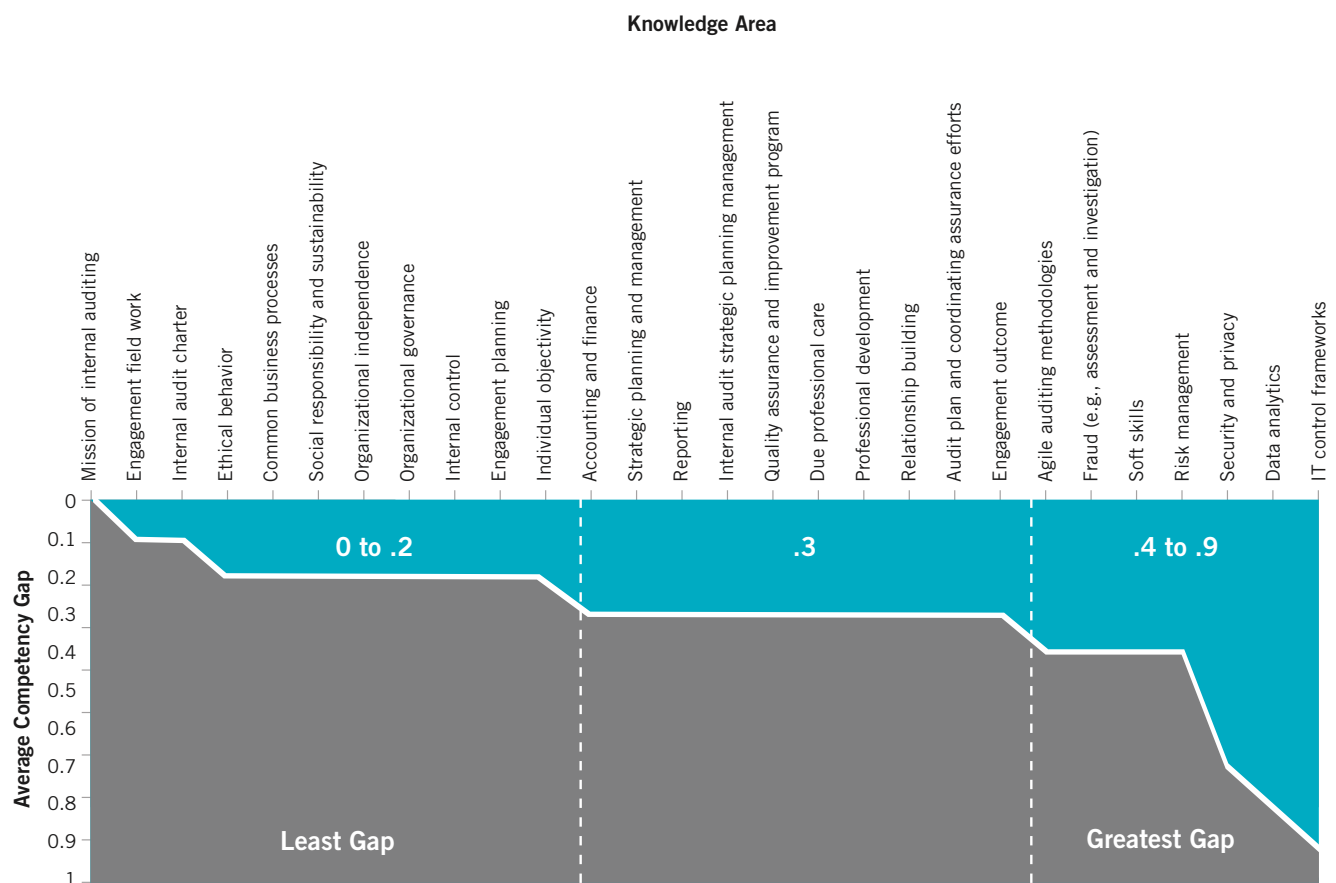
Relevance-to-Competence Gap

Insight 2: Competency levels for critical technologies and emerging risks do not align with the perceived relevance of these areas for adding value to the organization.

Business strategy and technology strategy are converging. Today, many business models could not exist without digital technologies, such as cloud-based platforms, automation, machine learning, advanced analytics, and blockchain. Despite the criticality of these technologies, many auditors do not believe they have the skills needed to provide effective assurance and advisory services in these areas. This misalignment can be quantified as a “competency gap” (i.e., the difference between the respondent’s competency level in a specific knowledge area and the perceived relevance of that area to their duties).

Survey findings revealed competency gaps in the technology areas of Information Technology (IT) Control Frameworks, Data Analytics, Security and Privacy, and Agile Auditing Methodologies. The findings also revealed similar skill gaps in the areas of Fraud (assessment and investigation) and Risk Management. (See Figure 5.)

Figure 5: Relevance to Competency Gap



Note: Internal Audit Foundation/The IIA/Deloitte - Assessing Internal Audit Competencies survey. Questions: Please indicate your personal competency level related to the knowledge area listed, and, Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. The competence gaps are calculated by subtracting the competence score from the relevance score. $n = 1,181$

Social Responsibility and Sustainability also ranked low in competency. However, respondents perceived this area to be less relevant than the others, ranking it the lowest of the 28 competencies, with an average relevance score of 3.3. Although it technically does not have a significant competence gap, this area warrants greater attention due to the increasing priority of ESG issues in today's dynamic business environment.

ESG's Increasing Priority for Today's Companies

There is mounting pressure for companies to respond to climate change and to meet an expanding range of environmental, social, and governance (ESG) criteria. For instance, nearly 30% of surveyed executives in the [Deloitte 2021 Climate Check](#) report say their organizations are already feeling the operational impacts of climate-related disasters and more than a quarter are facing a scarcity of resources due to climate change.¹ More than 80% of surveyed executives in the same report say they are concerned about climate change, but the pandemic and economic downturn have stalled ambitious actions.²

There is also evidence that consumers and other business stakeholders are more likely to take their business elsewhere if a company does not meet their expectations concerning social responsibility and sustainability. According to the 2020 [#GetOutInFront](#) global research report from Deloitte, 42% of surveyed consumers have changed their consumption habits because of the environment, and 35% have altered their purchasing patterns specifically because of climate change.³ In addition, 44% of consumers surveyed in the global [Deloitte State of the Consumer Tracker](#) on April 28, 2021, intend to buy more locally sourced items moving forward even if they cost a little more, while 42% intend to purchase more from brands that responded well to the pandemic.⁴

Even as stakeholder demands mount and institutional investors face intensifying pressure to invest in ESG-friendly or “green” funds and projects, The IIA’s 2020 North American Pulse of Internal Audit report found that only 4% of respondents rated Sustainability/Nonfinancial Reporting high or very high as a risk to be covered. Furthermore, Sustainability/Nonfinancial Reporting received only 1% of audit plan allocations on average.⁵

This body of research suggests that social responsibility and sustainability pose growing risks to the business for which auditors may not be prepared. And, the risk exposure doesn’t stop there. The IIA’s [2020 North American Pulse of Internal Audit](#) also indicated that less than one quarter (14%–18%) of respondents rated Fraud, Governance and Culture, and Enterprise Risk Management (ERM) and Related Processes—three of the competency gaps identified in this survey—high or very high as risks to be covered.⁶ Furthermore, the survey indicated that Fraud, Governance and Culture, and ERM and Related Processes each accounted for less than one tenth (4%–6%) of audit plan allocations on average.

1 Deloitte, “2021 Climate Check: Business’ Views on Environmental Sustainability,” <https://www2.deloitte.com/global/en/pages/risk/articles/2021-climate-check-business-views-on-environmental-sustainability.html>.

2 Ibid.

3 Deloitte, “#GetOutInFront,” Global Research Report, <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Risk/gx-get-out-infront-final.pdf>.

4 Deloitte, “State of the Consumer Tracker,” March 31, 2021, <https://www2.deloitte.com/us/en/insights/industry/retail-distribution/consumer-behavior-trends-state-of-the-consumer-tracker.html>, accessed May 24, 2021.

5 The Institute of Internal Auditors, “2020 North American Pulse of Internal Audit: Bridging Critical Gaps,” <https://dl.theiia.org/AECPublic/2020-0118-CAE-2020-Pulse-Report-FNLonline.pdf>.

6 Ibid.

As new risks emerge and businesses turn to new technologies and methodologies to help them adapt to a rapidly changing environment, the internal audit function must keep pace. If internal auditors do not continuously evolve their capabilities, the internal audit function risks not being able to fulfill its mission.

Key Actions to Help Close the Gap

- Grasp the “now or never” nature of getting up to speed in the rapidly evolving and critically important knowledge areas of IT Control Frameworks, Data Analytics, Security and Privacy, Agile Auditing Methodologies, Risk Management, Fraud, and Social Responsibility and Sustainability.
- Familiarize yourself with the updated IIA Internal Audit Competency Framework to identify these and other competency gaps within your own role and within the function as a whole. (See Figure 6.)
- Discuss high-risk areas not currently covered within the audit plan with the CAE, C-suite, and audit committee during the budget/audit planning process.
- Determine if additional resources, such as subject matter experts or co-sourcing arrangements, should be allocated to mitigate the risk associated with competency gaps.
- Decide which gaps should be closed immediately to meet the needs of stakeholders. Ascertain how frequently and against which criteria the gaps should be reassessed in the future.

Figure 6: Internal Audit Competency Planning: Steps to Success

	Internal Audit Function	Individually
	Reconcile relevant competencies against new competency framework	Visit The IIA Competency Framework to identify the competencies that apply to your career and role
	Assess current skills and competencies against the framework and needs	Self-assess your current competency and skill levels related to the relevant competency areas that you identified
	Select and implement methods to fill competency gaps	Select and implement methods to fill competency gaps
	Reassess and monitor for potential gaps	Schedule periodic check-ins with your team/mentor on your progress developing your competencies

“Chief audit executives must demonstrate that their functions are prepared to communicate risks and opportunities by embracing new technologies and methods. It is essential that the internal audit function assess staff competencies and identify opportunities to fill skills gaps as a continuous process. In this way, the internal audit function is well-positioned to add value in today’s technologically advanced world.”

Charlie T. Wright, CIA
2021-22 IIA Chairman of the Global Board



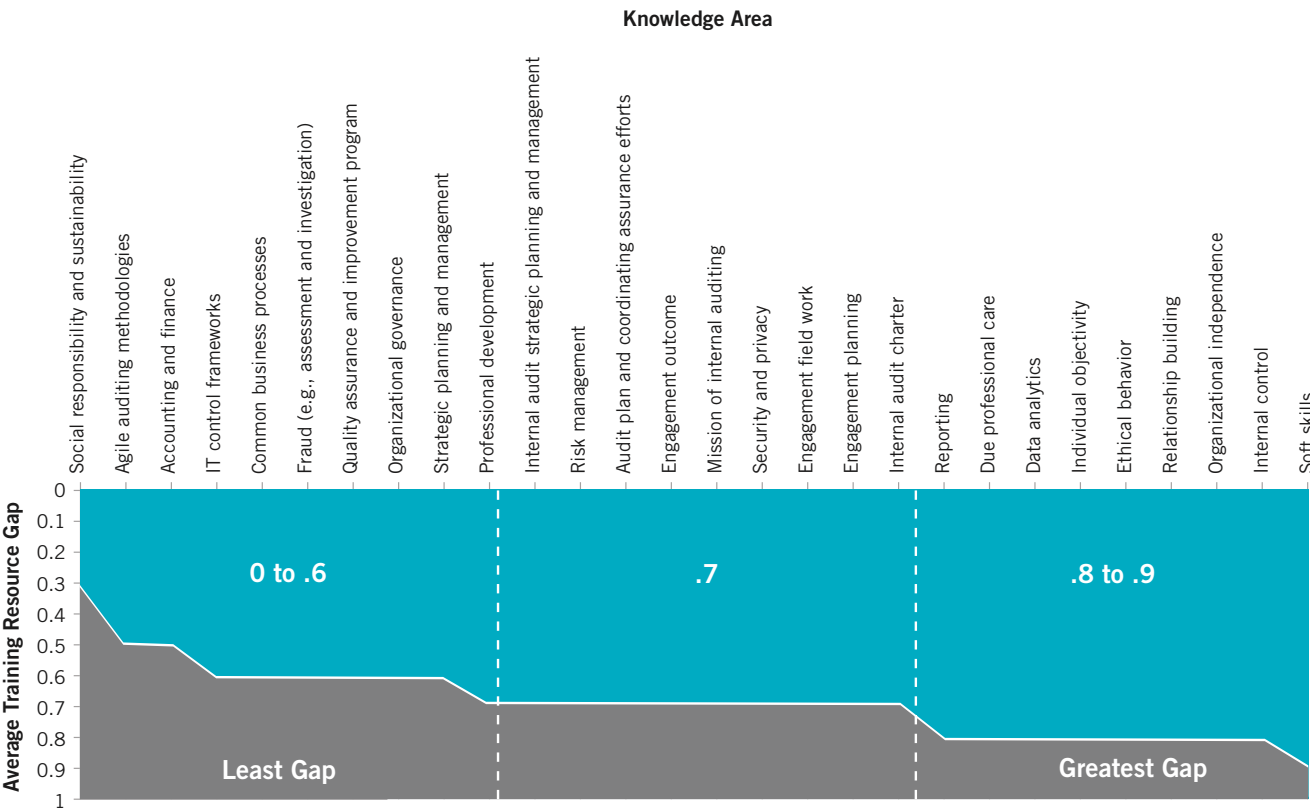
Relevance-to-Resources Gap

Insight 3: Resource allocations need to remain adequate in core knowledge areas where internal auditors already have a high degree of competency.

Like the insights generated around competency gaps, the survey also sought to illuminate areas where more training and development may be needed. These “resource gaps” can be quantified as the difference between the respondent’s belief that resource allocations are adequate in a specific knowledge area and the perceived relevance of that area to their duties.

The survey found that large resource gaps exist in five core knowledge areas that are perceived to be highly relevant to an internal audit function’s ability to add value to the business: Risk Management; Internal Control; Communications (including Soft Skills, Relationship Building, and Reporting); Organizational Independence; and Due Professional Care. (See Figure 7.)

Figure 7: Relevance to Training Resources Gap



Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Questions: Please indicate the level of resources (i.e., training, subject matter experts, seminars, etc.) you feel your audit function and/or organization provides to allow you to pursue mastery of the following areas, and, Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. The Resource Gaps are calculated by subtracting the competence score from the relevance score. $n = 1,181$

Resource deficiencies in areas that are central to an auditor's ability to perform their fundamental duties pose a number of risks. Take internal control, for example. Internal audit functions are generally expected to have strong competencies in internal control, in alignment with the 2013 Committee of Sponsoring Organizations of the Treadway Commission's (COSO's) Internal Control – Integrated Framework. Despite having a firm grasp on the subject matter, many internal audit functions do not have the resources to perform the work effectively and efficiently. This can create bottlenecks and cause auditors to work additional hours, which can ultimately impact quality. If resource shortages in terms of training, talent development, and staffing continue for an extended period of time, the organization risks not being able to evolve and grow, possibly reaching a plateau or even backsliding in areas that were once viewed as a bedrock of competency and integrity.

Key Actions to Help Close the Gap

- Avoid taking core knowledge areas for granted and assess staff competencies to identify areas for development.
- Prioritize resource allocation toward the largest critical competency gaps first, then pivot to consider core knowledge areas that may not be receiving the necessary resources to sustain and evolve over time.
- Consider options for reallocating resources, such as training, mentorship programs, or engaging subject matter experts or co-sourcing activities to access the latest thinking on how to perform core internal audit activities in a way that produces greater job satisfaction and delivers more value to the business.

What are your biggest constraints around resource allocation?

Support from the C-suite? Support from the audit committee?

Limitation of resources or uncertainty about where to allocate them?

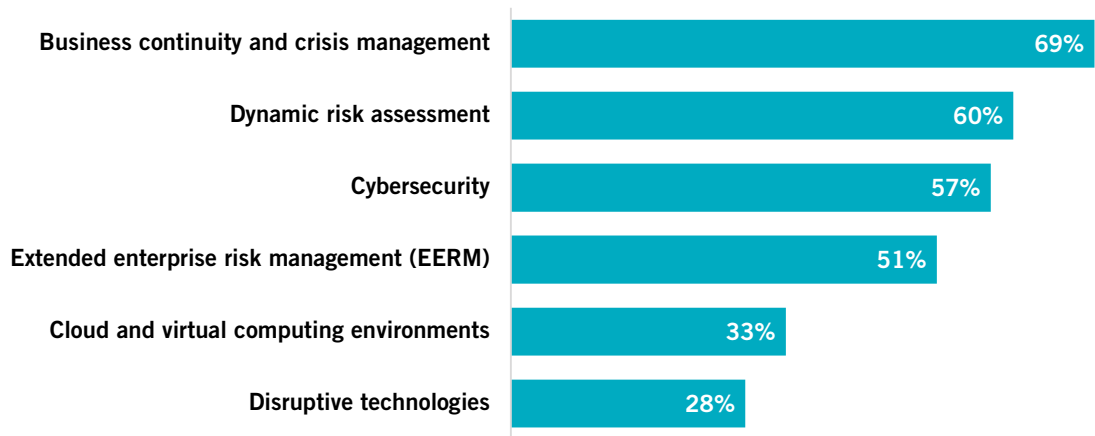


Emerging Areas

Insight 4: Auditing emerging or innovative knowledge areas should be a priority.

A component of the survey focused on assessing the profession's capacity to audit six emerging or innovative areas that are becoming increasingly important. More specifically, respondents self-identifying as a CAE/head of internal audit were asked to indicate which of the following areas their internal audit functions would have the necessary skills and capabilities to effectively audit over the next 12 months:

Figure 8: Ability to Audit Emerging and Innovative Areas



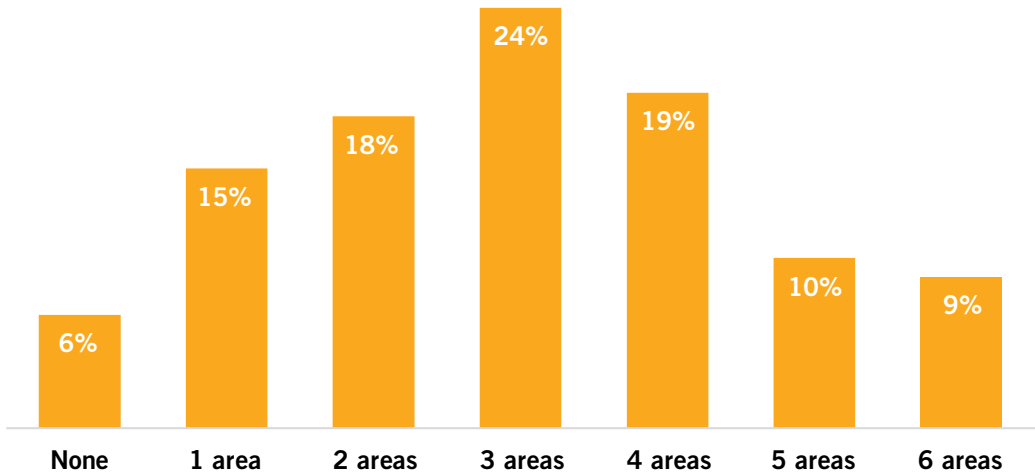
Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate which of the following areas your internal audit function would have the necessary skills and capabilities to effectively audit. Choose all that apply. CAEs only. n = 373

Staff-Level Differences

Survey findings show internal audit functions are least equipped to audit Cloud and Virtual Computing Environments and Disruptive Technologies. (See Figure 8.) Further analysis of responses indicated that only 38% of those leading internal audit functions felt their staff had the skills and capabilities to audit **more than three** of these innovative and emerging areas. (See Figure 9.) When comparing respondents' perspectives by title, 23% of those with a manager title indicated their functions would be capable of auditing **more than three** areas. In comparison, 44% of respondents with a vice president title felt their teams could audit more than three areas. The most significant differences are related to a function's ability to audit Cybersecurity and Extended Enterprise Risk Management.

What accounts for the divergent perspectives of CAEs with different levels of authority within organizations? Organizational size, as well as the importance placed on and resources allocated to internal audit functions may factor in, leaving those leading audit functions at the manager level struggling to keep pace with innovation.

Figure 9: Number of Emerging and Innovative Areas Functions Possess Skills to Audit



Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate which of the following areas your internal audit function would have the necessary skills and capabilities to effectively audit. CAEs only. n = 373

Regional Differences

In addition to disparities at the CAE level, analysis revealed some geographical differences in functions' abilities to audit innovative and emerging areas. For areas of least ability, Cloud and Virtual Computing Environments (33% average) and Disruptive Technologies (28% average), North American (56%) and Latin American (38%) functions expressed greater confidence in their abilities to audit these two areas, respectively. (See Figure 10.)

Figure 10: Ability to Audit Emerging and Innovative Areas (Compared to Region)

	Africa	Latin America & Caribbean	Asia Pacific	Middle East	Europe	North America	All
Business continuity and crisis management	69%	64%	69%	68%	66%	85%	69%
Dynamic risk assessment	82%	64%	64%	55%	52%	48%	60%
Cybersecurity	54%	58%	53%	55%	49%	78%	57%
Extended enterprise risk management (EERM)	49%	49%	55%	66%	39%	59%	51%
Cloud and virtual computing environments	31%	33%	25%	29%	26%	56%	33%
Disruptive technologies	21%	38%	27%	24%	25%	24%	28%
None of the above	3%	3%	7%	16%	7%	7%	6%
Number of respondents	39	95	55	38	92	54	373

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate which of the following areas your internal audit function would have the necessary skills and capabilities to effectively audit. Choose all that apply. CAEs only. *n* = 373

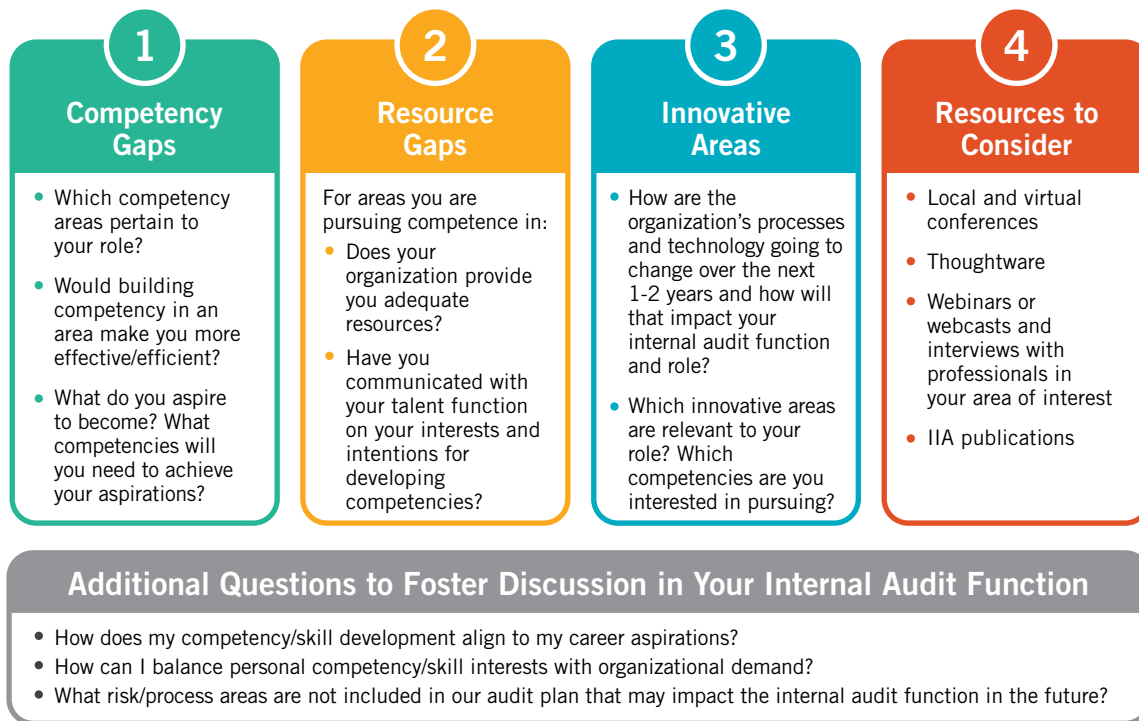
“As more and more internal audit functions modernize, the focus moves beyond simply providing assurance on traditional risks and executing in a manual fashion. As the function enhances its own capabilities in terms of leveraging innovative techniques such as analytics and automation, it is equally important that they understand the risks associated with these disruptive technologies in order to incorporate these risks in their audit activities. Internal audit functions should consider the upskilling of their departments as having two significant benefits—improving their own operations and enhancing the impact of their audit activities.”

Mike Schor
Deloitte & Touche

Key Actions for Closing the Gap

- Get everyone in the same room, or in the same virtual forum, and have a conversation to assess the current state of the function's competencies and determine who has what skill. (See Figure 11.)
- Agree upon priority areas that the function should audit. Identify competencies that are necessary to perform those audits and candidly assess if the function has those skills or if they need to be acquired through training, guest auditor programs, or co-sourcing/outsourcing arrangements.
- Consult with business unit leaders to gauge future needs and see if they understand what internal audit currently has to offer.
- Establish a communications program to update business leaders on how internal audit can support them and keep all members of the internal audit function up to date on skill additions and training and development opportunities.

Figure 11: Conversation Guide





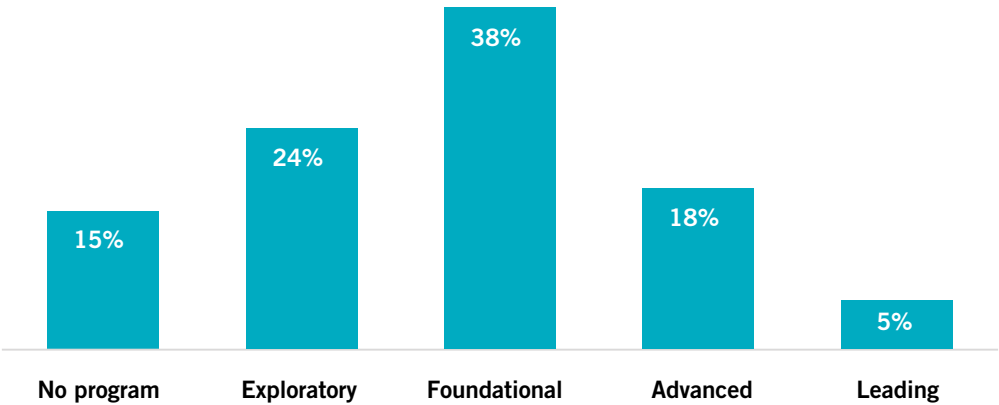
Innovation Programs

Insight 5: Digital maturation remains slow, giving internal auditors an opportunity to advocate for change by articulating the value they could add if adequately enabled by technology.

The survey also explored the state of innovation within internal audit functions by asking respondents to rate the maturity of their methodologies, tools, and processes pertaining to agile auditing, analytics, process automation, and cybersecurity. The rating scale ranged from “none” to “leading”:

- None (no established program for innovation).
- Exploratory (i.e., setting a vision for innovation).
- Foundational (i.e., vision and road map for innovation; team roles assigned to innovation).
- Advanced (i.e., dedicated team with key innovation objectives achieved, such as agile, talent and workforce of the future, automation, artificial intelligence (AI)).
- Leading (i.e., innovation is part of the culture of the function coupled with continuous improvement and leading capabilities in agile, analytics, automation, workforce).

Figure 12: Innovation Program Maturity (Internal Audit)



Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate how mature your internal audit function's innovation program is today. *n* = 1,181

The results provide a snapshot of the progress internal audit functions worldwide have made in advancing their digital tools and techniques. For instance, 15% of respondents reported their functions have no innovation programs. Of those that do have programs, 62% indicated their capabilities are foundational or below. (See Figure 12.) This implies that the majority of internal audit functions are just beginning the process of exploring state-of-the-art tools and techniques, which could affect their ability to keep pace with digitalization in other areas of the business. It also suggests that many functions may not be fully leveraging the skills of their highly trained audit professionals, because they have not made significant strides in digitalization. This represents an opportunity for internal audit professionals to advocate for change by communicating with their CAEs and articulating the value they could add if adequately enabled by digital technology. More tenured audit professionals also have an opportunity to move their functions forward by raising the bar on the digital proficiencies expected among new hires.



Key Actions to Help Close the Gap

- Elevate the expectations for new hires to include a broader range of technology competencies.
- Revamp acquisition strategies to attract talent with specific technological and analytical skillsets.
- Create talent development paths to achieving digital proficiency across all levels, from staff to CAEs.
- Experiment with technology on a small scale and implement one or more pilot projects.
- Collaborate with the chief innovation officer (CIO) and business unit leaders to stay abreast of their digital progress, learn from their initiatives, and leverage their tools.
- Position internal audit as a leader in adopting technology, tools, and methodologies in an effort to improve efficiency and effectiveness.
- Consider engaging gig workers or co-sourced services for highly specialized talent—a technique that may be particularly useful for smaller internal audit functions (i.e., 71% of survey respondents report being part of internal audit functions with less than 25 full-time equivalents).

CONCLUSION

It is not news that skill gaps and resource constraints exist within internal audit functions, but the survey findings imply that a fresh approach is needed for dealing with them. Even as the profession has generally become stronger in its core competencies, some critical knowledge areas—particularly those pertaining to digital technologies and emerging risks—are lagging behind considering their relevance. Also, data analytics has been discussed within internal audit circles for years, yet many internal audit functions have not made much progress in advancing their capabilities beyond the foundational level.

Far from fading into the background, the survey findings stress that the call to move internal audit deeper into the digital age is getting louder. Internal audit needs to be ahead of the curve in implementing technology tools to improve efficiency and effectiveness of audit services. Such tools are increasingly necessary to provide timely advice to stakeholders and help management identify emerging risks and responses. To address the remaining competency gaps, internal audit functions may need to shift their thinking about resource allocation and talent acquisition and development to place greater emphasis on innovative or emerging knowledge areas and on some core areas they believe to be adequate “as is.” It becomes even more important to anchor the internal audit function across all of its core competencies as turnover occurs and reliance upon contracted auditors and technical consultants increases.

The business environment today makes such a shift essential. Despite the economic and personal strains of the pandemic, the remote work model has freed internal audit from traditional constraints in acquiring skills. There is a whole different dynamic in how to access and develop human capital. Resources no longer need to be in close physical proximity to the office. Internal audit functions can potentially access supplemental talent such as subject matter experts and technical specialists from around the world. Even full-time employees can now be sourced hours away from headquarters as hybrid physical/remote working models lessen commuting demands. Plus, training and development can be delivered equally well from a laptop or in a classroom. Because internal audit functions generally have a firm grasp on their core competencies, today’s environment is ripe for the function to up their ability to drive business value by minding the remaining gaps and responding to challenges created by these new dynamics.

APPENDIX A: METHODOLOGY

General Assumptions

1. For the purpose of consistency, most of the analysis used globally aggregated data, which considered input from the entire survey population.
2. The survey was conducted online in October 2020.

Key Data Attributes

1. **Competency** – Self-reported level of competence regarding the specific knowledge area (*see Competence-Level Descriptions below*).
2. **Relevance** – Personal perception of how relevant a specific knowledge area is to the respondent's day-to-day/job duties (*not at all relevant to extremely relevant*).
3. **Resources** – Personal view of how the respondent's internal audit function is distributing resources, such as training, talent development, etc., to build competency in the specific knowledge area (*no resources to abundant resources*).

Metrics and Definitions

Competency Gap – The difference between the respondent's perceived relevance of a knowledge area to their duties and their competency levels for that specific knowledge area.

Resource Gap – The difference between the perceived relevance of the knowledge area to the respondent's duties and their function's allocation of resources for development of that competency.

Example: On a scale of 1 to 5, if a respondent gave Data Analytics a 5 on relevance and a 4 on competency level, the resulting competency gap would be 1.

Competence-Level Descriptions

- 0 - No Knowledge/Awareness.
- 1 - General Awareness: You have common knowledge or an understanding of basic techniques and concepts.
- 2 - Novice: You have the level of experience gained in a classroom and/or experimental scenarios or as a trainee on the job. You are expected to need help when performing this skill.
- 3 - Applied Awareness: You are able to successfully complete tasks in this competency as requested. Help from an expert may be required from time to time, but you can usually perform the skill independently.
- 4 - Advanced: You can perform the actions associated with this skill without assistance. You are certainly recognized within your immediate organization as "a person to ask" when difficult questions arise regarding this skill.
- 5 - Expert: You are known as an expert in this area. You can provide guidance, troubleshoot, and answer questions related to this area of expertise and the field where the skill is used.



APPENDIX B: SURVEY DEMOGRAPHICS

Figure B.1: Administrative Titles

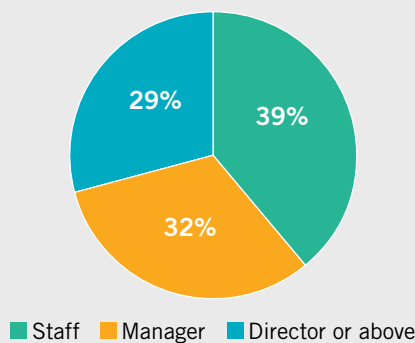


Figure B.2: Organization Type

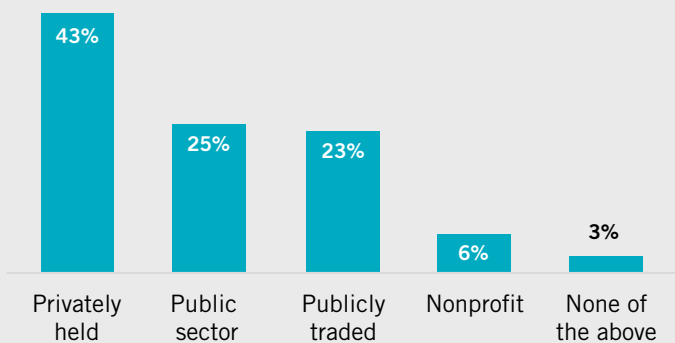


Figure B.3: Internal Audit Function Size

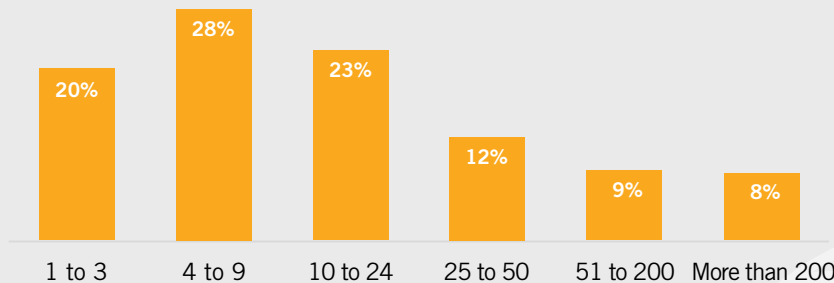


Figure B.4: Regional Response Rate

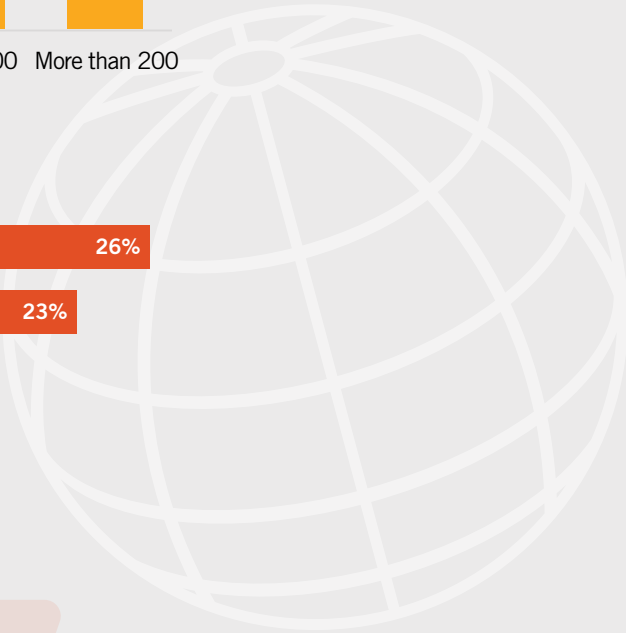
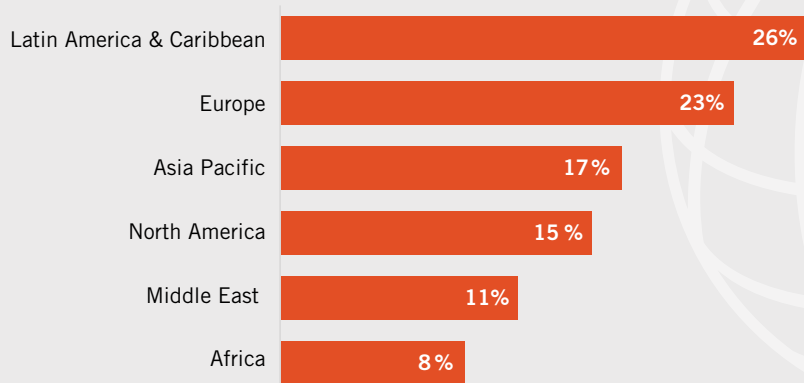


Figure B.5: Certifications Held

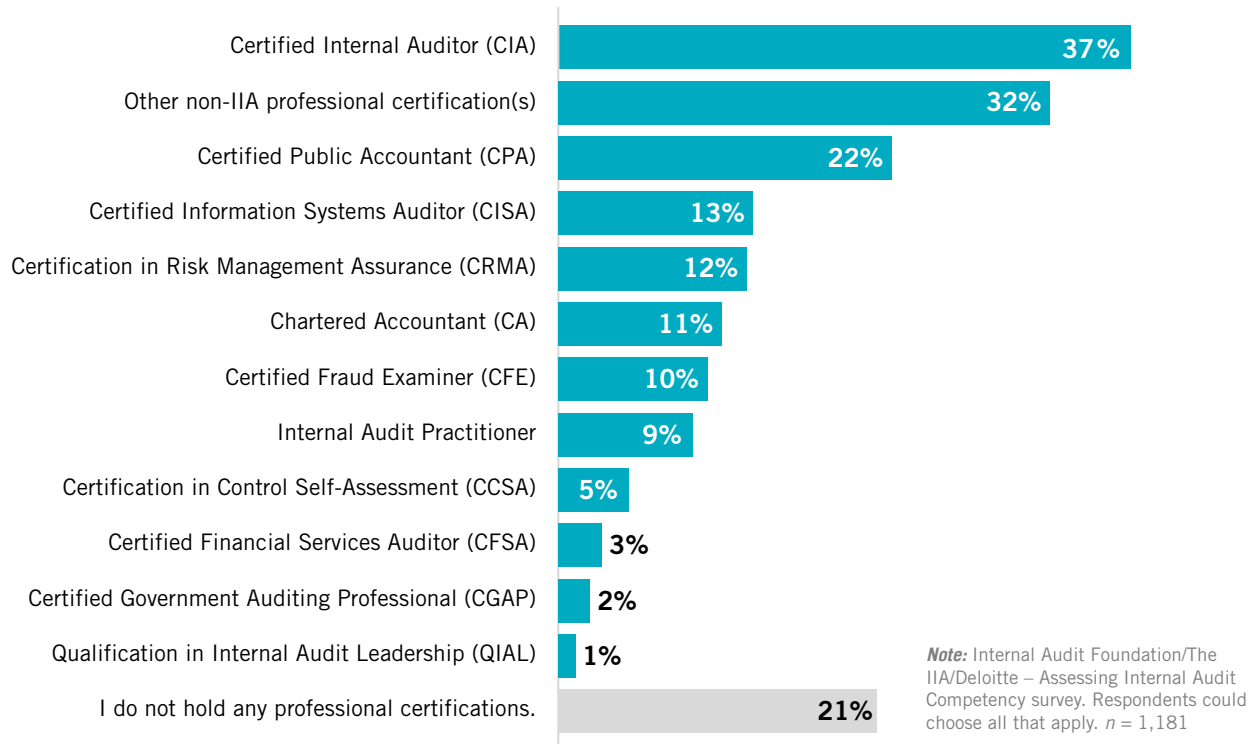
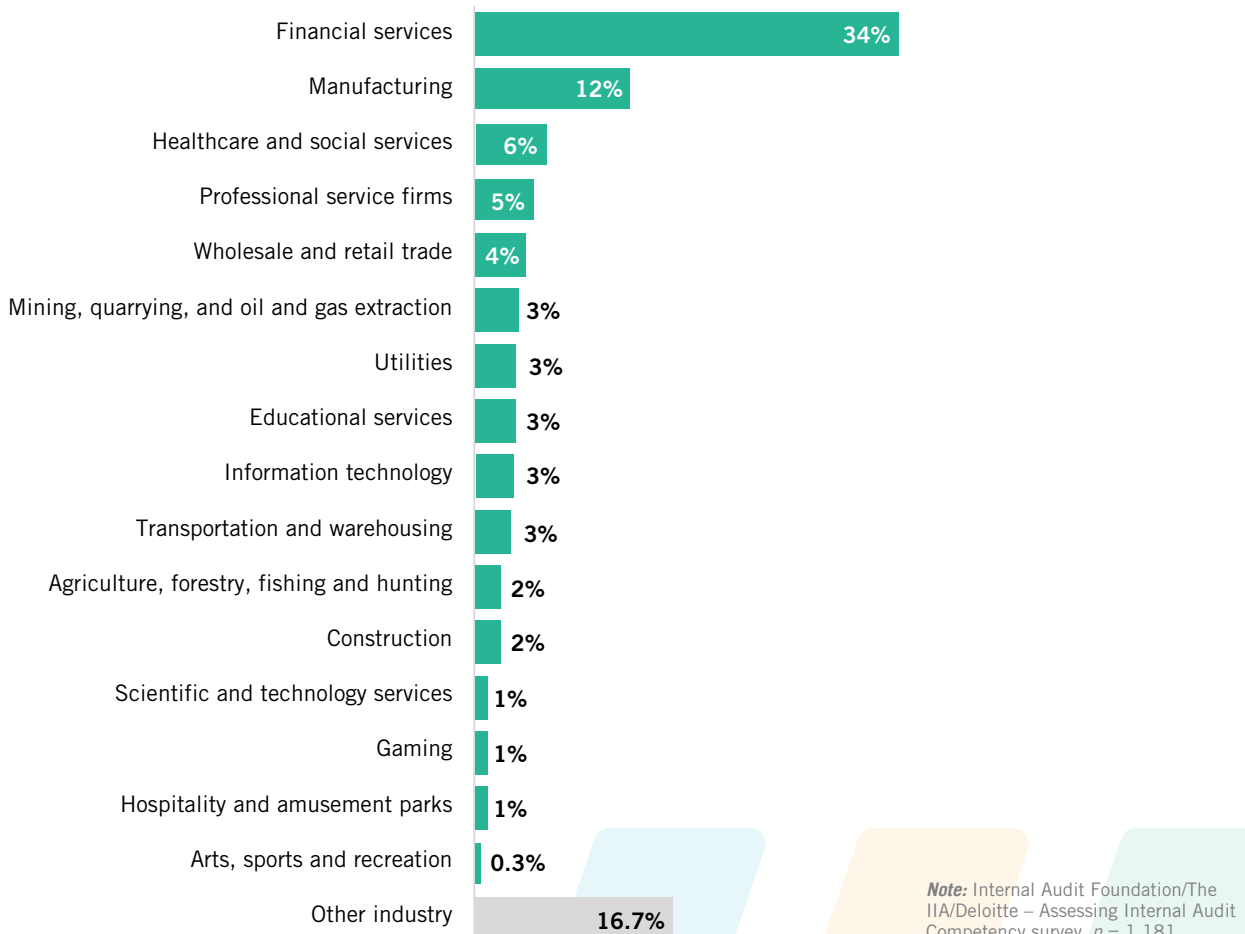


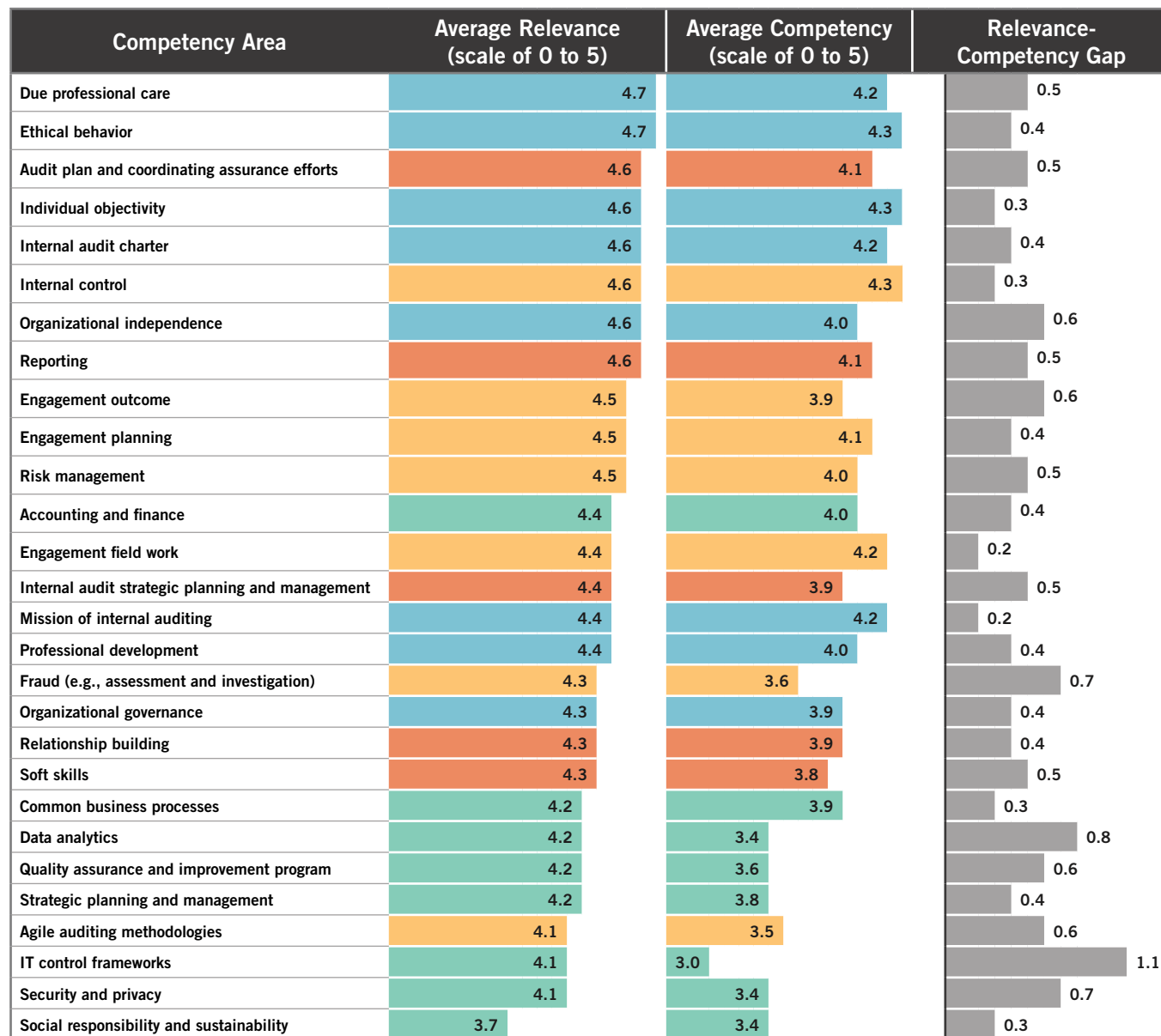
Figure B.6: Industry Representation



APPENDIX C: REGIONAL RESULTS

Africa

Figure C.1: Average Relevance and Competency Ratings With Gap - Africa



Professionalism Performance Environment Leadership and Communication

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Questions: Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. Response options: 1 - Not at all relevant, 2 - Slightly relevant, 3 - Moderately relevant, 4 - Very relevant, 5 - Extremely relevant. Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. *n* = 97

Asia Pacific

Figure C.2: Average Relevance and Competency Ratings With Gap - Asia Pacific

Competency Area	Average Relevance (scale of 0 to 5)	Average Competency (scale of 0 to 5)	Relevance- Competency Gap
Ethical behavior	4.5	4.2	0.3
Internal control	4.5	4.1	0.4
Due professional care	4.4	4.0	0.4
Reporting	4.4	3.9	0.5
Individual objectivity	4.4	4.1	0.3
Organizational independence	4.4	3.9	0.5
Engagement outcome	4.4	3.8	0.6
Soft skills	4.3	3.7	0.6
Professional development	4.3	3.8	0.5
Risk management	4.3	3.6	0.7
Engagement field work	4.3	4.0	0.3
Mission of internal auditing	4.2	4.0	0.2
Relationship building	4.2	3.7	0.5
Audit plan and coordinating assurance efforts	4.2	3.7	0.5
Engagement planning	4.2	3.9	0.3
Internal audit charter	4.2	3.9	0.3
Common business processes	4.2	3.8	0.4
Internal audit strategic planning and management	4.0	3.6	0.4
Organizational governance	4.0	3.6	0.4
Accounting and finance	4.0	3.6	0.4
Security and privacy	3.9	3.2	0.7
IT control frameworks	3.9	2.9	1.0
Data analytics	3.9	2.9	1.0
Fraud (e.g., assessment and investigation)	3.9	3.3	0.6
Strategic planning and management	3.8	3.4	0.4
Quality assurance and improvement program	3.8	3.3	0.5
Agile auditing methodologies	3.6	3.0	0.6
Social responsibility and sustainability	3.3	3.0	0.3

■ Professionalism
 ■ Performance
 ■ Environment
 ■ Leadership and Communication

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Questions: Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. Response options: 1 - Not at all relevant, 2 - Slightly relevant, 3 - Moderately relevant, 4 - Very relevant, 5 - Extremely relevant. Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. *n* = 198

Europe

Figure C.3: Average Relevance and Competency Ratings With Gap - Europe

Competency Area	Average Relevance (scale of 0 to 5)	Average Competency (scale of 0 to 5)	Relevance- Competency Gap
Individual objectivity	4.5	4.3	0.2
Ethical behavior	4.4	4.4	0.0
Organizational independence	4.4	4.2	0.2
Due professional care	4.4	4.2	0.2
Internal control	4.3	4.2	0.1
Reporting	4.2	4.1	0.1
Common business processes	4.2	4.0	0.2
Soft skills	4.1	3.9	0.2
Professional development	4.1	4.0	0.1
Engagement outcome	4.1	3.9	0.2
Risk management	4.0	3.8	0.2
Audit plan and coordinating assurance efforts	4.0	3.9	0.1
Engagement field work	4.0	4.1	-0.1
Relationship building	4.0	3.8	0.2
Mission of internal auditing	4.0	4.2	-0.2
Organizational governance	4.0	3.9	0.1
Engagement planning	3.9	4.0	-0.1
Internal audit charter	3.9	4.1	-0.2
Accounting and finance	3.9	3.6	0.3
Security and privacy	3.9	3.3	0.6
Internal audit strategic planning and management	3.9	3.8	0.1
Data analytics	3.7	3.0	0.7
Strategic planning and management	3.7	3.6	0.1
Quality assurance and improvement program	3.6	3.6	0.0
IT control frameworks	3.6	2.9	0.7
Fraud (e.g., assessment and investigation)	3.6	3.4	0.2
Agile auditing methodologies	3.1	2.9	0.2
Social responsibility and sustainability	3.1	3.1	0.0

■ Professionalism
 ■ Performance
 ■ Environment
 ■ Leadership and Communication

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Questions: Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. Response options: 1 - Not at all relevant, 2 - Slightly relevant, 3 - Moderately relevant, 4 - Very relevant, 5 - Extremely relevant. Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. $n = 270$

Latin America and Caribbean

Figure C.4: Average Relevance and Competency Ratings With Gap - Latin America and Caribbean

Competency Area	Average Relevance (scale of 0 to 5)	Average Competency (scale of 0 to 5)	Relevance- Competency Gap
Ethical behavior	4.7	4.5	0.2
Due professional care	4.5	4.3	0.2
Individual objectivity	4.5	4.3	0.2
Organizational independence	4.5	4.3	0.2
Internal control	4.4	4.1	0.3
Professional development	4.4	4.1	0.3
Risk management	4.4	3.8	0.6
Internal audit strategic planning and management	4.3	3.9	0.4
Mission of internal auditing	4.3	4.3	0.0
Reporting	4.3	4.0	0.3
Audit plan and coordinating assurance efforts	4.2	3.8	0.4
Internal audit charter	4.2	4.0	0.2
Relationship building	4.2	3.8	0.4
Soft skills	4.2	3.8	0.4
Accounting and finance	4.1	3.6	0.5
Data analytics	4.1	3.0	1.1
Engagement field work	4.1	3.9	0.2
Engagement outcome	4.1	3.8	0.3
Engagement planning	4.1	3.9	0.2
Organizational governance	4.1	3.7	0.4
Strategic planning and management	4.1	3.7	0.4
Common business processes	4.0	3.7	0.3
Fraud (e.g., assessment and investigation)	4.0	3.3	0.7
IT control frameworks	4.0	2.9	1.1
Quality assurance and improvement program	4.0	3.5	0.5
Security and privacy	4.0	3.3	0.7
Agile auditing methodologies	3.8	3.1	0.7
Social responsibility and sustainability	3.6	3.2	0.4

■ Professionalism
 ■ Performance
 ■ Environment
 ■ Leadership and Communication

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Questions: Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. Response options: 1 - Not at all relevant, 2 - Slightly relevant, 3 - Moderately relevant, 4 - Very relevant, 5 - Extremely relevant. Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. $n = 314$

Middle East

Figure C.5: Average Relevance and Competency Ratings With Gap - Middle East

Competency Area	Average Relevance (scale of 0 to 5)	Average Competency (scale of 0 to 5)	Relevance- Competency Gap
Due professional care	4.4	4.1	0.3
Ethical behavior	4.4	4.4	0.0
Individual objectivity	4.3	4.3	0.0
Internal control	4.3	4.2	0.1
Organizational independence	4.3	4.2	0.1
Reporting	4.3	4.0	0.3
Audit plan and coordinating assurance efforts	4.2	3.8	0.4
Engagement field work	4.2	4.1	0.1
Internal audit charter	4.2	4.2	0.0
Mission of internal auditing	4.2	4.2	0.0
Professional development	4.2	4.0	0.2
Soft skills	4.2	3.8	0.4
Engagement outcome	4.1	4.0	0.1
Engagement planning	4.1	4.0	0.1
Relationship building	4.1	3.8	0.3
Accounting and finance	4.0	3.7	0.3
Common business processes	4.0	3.8	0.2
Internal audit strategic planning and management	4.0	3.7	0.3
Organizational governance	4.0	3.9	0.1
Risk management	4.0	3.7	0.3
Data analytics	3.8	3.3	0.5
Quality assurance and improvement program	3.8	3.5	0.3
Security and privacy	3.8	3.4	0.4
Strategic planning and management	3.8	3.5	0.3
Agile auditing methodologies	3.7	3.3	0.4
Fraud (e.g., assessment and investigation)	3.7	3.5	0.2
IT control frameworks	3.6	3.1	0.5
Social responsibility and sustainability	3.4	3.3	0.1

■ Professionalism
 ■ Performance
 ■ Environment
 ■ Leadership and Communication

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Question: Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. Response options: 1 - Not at all relevant, 2 - Slightly relevant, 3 - Moderately relevant, 4 - Very relevant, 5 - Extremely relevant. Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. $n = 128$

North America

Figure C.6: Average Relevance and Competency Ratings With Gap - North America

Competency Area	Average Relevance (scale of 0 to 5)	Average Competency (scale of 0 to 5)	Relevance- Competency Gap
Ethical behavior	4.7	4.6	0.1
Due professional care	4.6	4.4	0.2
Internal control	4.6	4.3	0.3
Individual objectivity	4.5	4.5	0.0
Organizational independence	4.5	4.4	0.1
Relationship building	4.5	4.2	0.3
Reporting	4.5	4.2	0.3
Soft skills	4.5	4.2	0.3
Audit plan and coordinating assurance efforts	4.4	4.1	0.3
Engagement field work	4.4	4.3	0.1
Engagement outcome	4.4	4.1	0.3
Engagement planning	4.4	4.3	0.1
Mission of internal auditing	4.4	4.4	0.0
Professional development	4.4	4.2	0.2
Common business processes	4.3	4.1	0.2
Risk management	4.3	4.0	0.3
Internal audit charter	4.2	4.2	0.0
Internal audit strategic planning and management	4.2	4.0	0.2
Accounting and finance	4.0	3.7	0.3
Organizational governance	4.0	3.9	0.1
Security and privacy	4.0	3.2	0.8
Data analytics	3.9	3.1	0.8
Strategic planning and management	3.9	3.5	0.4
IT control frameworks	3.8	3.0	0.8
Quality assurance and improvement program	3.8	3.7	0.1
Fraud (e.g., assessment and investigation)	3.7	3.5	0.2
Agile auditing methodologies	3.2	3.0	0.2
Social responsibility and sustainability	2.9	2.8	0.1

■ Professionalism
 ■ Performance
 ■ Environment
 ■ Leadership and Communication

Note: Internal Audit Foundation/The IIA/Deloitte – Assessing Internal Audit Competency survey. Questions: Please indicate the relevance with which the knowledge area is critical/impacts your duties and responsibilities. Response options: 1 - Not at all relevant, 2 - Slightly relevant, 3 - Moderately relevant, 4 - Very relevant, 5 - Extremely relevant. Please indicate your personal competency level related to the knowledge area listed. Response options: 0 - No knowledge/awareness, 1 - General awareness, 2 - Novice, 3 - Applied awareness, 4 - Advanced, 5 - Expert. $n = 174$



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