

2012 IT Audit Benchmarking Survey

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Introduction

It is a common occurrence today to find many organizations investing more and more resources – money, time, staff, etc. – into technology. Consider a relatively small retail company, for example, that’s focusing on expanding its website and online ordering capabilities while also building web-based platforms that can function seamlessly on a variety of popular mobile devices. At the same time, this company also must manage a broad and growing range of risks related to security and privacy; regulatory compliance; federal, state and local laws; use of social media by employees; and IT infrastructure stability, among many other areas.

In this environment, understanding and managing these risks is absolutely critical for an organization to be successful. And a key element of this effort must be well-planned and organized IT audit activities that begin with the establishment, experience and capabilities of a strong IT audit function.

Do most organizations have an IT audit function in place? How are they staffed? Do they exist as an independent function or do they reside in another department? How many organizations are, in fact, conducting IT audit risk assessments on a regular basis? Is IT audit an integral component of the organization’s annual audit plan? These and many other questions are addressed in detail in Protiviti’s second annual *IT Audit Benchmarking Survey* report, in which we analyze some of the many underlying IT audit trends and gaps evident in organizations today.

Among the key findings and takeaways from the study that are discussed further in our report:

1. The top technology challenges organizations face today include information security, cloud computing, social media, risk management and governance, regulatory compliance, and technology integration and upgradation.
2. There are significant gaps in the IT audit capabilities in many organizations, and smaller companies in particular. These organizations may not be doing enough to audit their risks, and a large number of organizations, regardless of size, may be understaffed in terms of IT audit capabilities in their internal audit functions.
3. There continues to be a significant number of organizations, and small companies in particular, that are not conducting any type of risk assessment focused on the technologies supporting the business; however, there is a notable increase among EMEA/APAC-based organizations that are conducting these assessments.
4. Evaluating and assessing IT governance processes, as called for under IIA Standard 2110.A2, is not a priority for organizations, and few have plans to do so.
5. IT audit has responsibility for auditing IT general controls in virtually all organizations; however, a relatively small percentage of IT audit functions invest time in more strategic-level activities such as integrated auditing, data analytics and consultative activities.
6. Organizations may be concerned because they lack the necessary resources and skills to address specific areas of their IT audit plans sufficiently.

For the purposes of this study, we define “IT audit” as the process of collecting and evaluating evidence of the management of controls over an organization’s information systems, practices, controls and operations. The evaluation of evidence obtained through the IT audit process determines if the information systems are safeguarding assets, maintaining data integrity, and operating effectively to achieve the organization’s goals and objectives. This may include traditional audits of technology processes and components as well as integrated audits for audit activities, technology-dependent regulatory processes (e.g., privacy) or data analytics support.

We want to thank the more than 300 professionals, including chief audit executives, audit directors, and IT audit directors and managers, among many others, who participated in our *2012 IT Audit Benchmarking Survey*. We appreciate their time and the insights they provided. We also want to thank The Institute of Internal Auditors and ISACA for their continued leadership in advocating IT audit best practices. These organizations deliver strong guidance for IT auditors and provide global standards and materials to drive our profession forward.

Protiviti
October 2012

This publication reports on notable findings from our *IT Audit Benchmarking Survey* by company size (four categories) and region (North America, and Europe/Middle East/Africa and Asia-Pacific, or EMEA/APAC). For reporting purposes, organizations outside of North America were combined into one group because of the number of respondents (see Survey Demographics section). Each section includes analysis and commentary focusing on key findings and areas of interest that largely are based on these categories. Please note that, upon request, we can provide more detailed and customized data and results based on findings for specific groups – industry, company size, region, etc. – or based on the overall results from all respondents.



Top Technology Challenges Faced by Organizations

Survey participants were asked, in a verbatim question, to name the top technology-related challenges that their organizations face. Not surprisingly, IT issues that are top-of-mind for most companies and organizational functions today were ranked as key issues by the respondents. From an IT audit perspective, information security (including data privacy and management), cloud computing, social media, and risk management and governance were among the most-cited technology challenges.

Top IT Challenges

1	Information security (including data privacy, storage and management)
2	Cloud computing
3	Social media
4	Risk management and governance
5	Regulatory compliance
6	Technology integration and upgradation
7	Resource management
8	Infrastructure management
9	Fraud monitoring
10	Business continuity/disaster recovery
11	System implementation
12	Performance management/measurement



IT Audit in Relation to the Internal Audit Department

SMALLER AND MIDSIZE ORGANIZATIONS MAY NOT BE DOING ENOUGH TO AUDIT CRITICAL IT AREAS.

Existence of IT Audit Function and Leader

Interestingly, while the overall results generally are comparable to last year's survey, there is a small but noticeable decline in the number of IT audit functions (that exist in the internal audit department) within companies in the Americas.

Does an IT audit function exist within your internal audit department?

	2012		2011	
	Yes	No	Yes	No
Company Size (Annual Revenue)				
Greater than \$5 billion	91%	9%	94%	6%
\$1 billion - \$4.99 billion	77%	23%	86%	14%
\$100 million - \$999.99 million	61%	39%	71%	29%
Less than \$100 million	69%	31%	57%	43%
Region				
Americas	77%	23%	84%	16%
EMEA/APAC	73%	27%	74%	26%

These results also suggest that smaller and midsize organizations (less than \$5 billion in revenue) may not be doing enough to audit critical IT areas. Specifically, there is a noticeable drop in the number of companies at the \$1 billion to \$5 billion and \$100 million to \$999.99 million levels that have an IT audit function within their internal audit department.

Do you have a designated IT audit director (or equivalent position)?

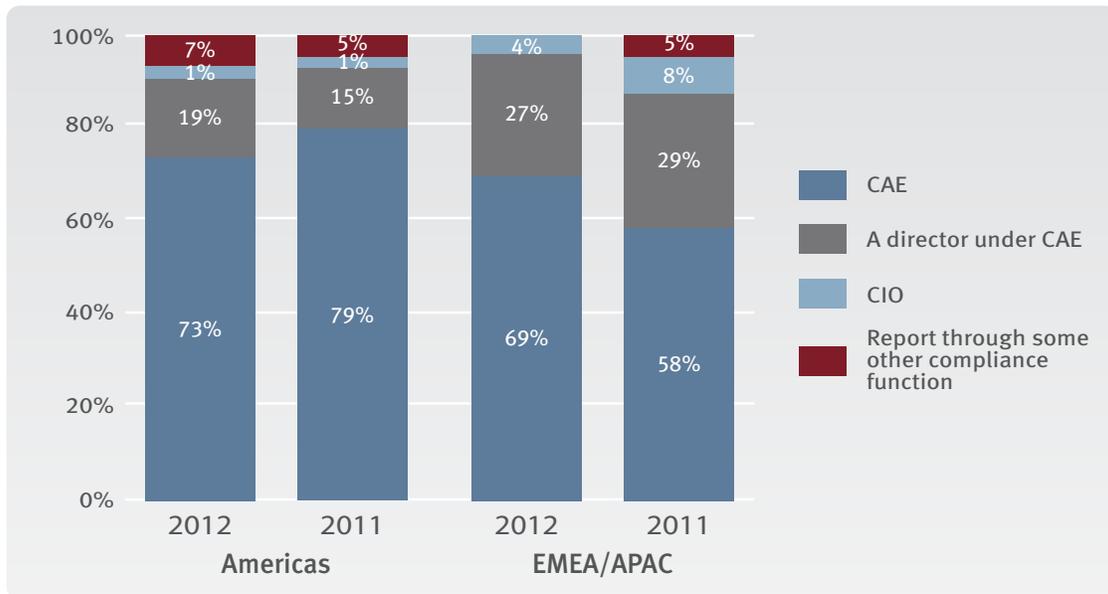
	2012		2011	
	Yes	No	Yes	No
Company Size (Annual Revenue)				
Greater than \$5 billion	56%	44%	49%	51%
\$1 billion - \$4.99 billion	25%	75%	36%	64%
\$100 million - \$999.99 million	23%	77%	18%	82%
Less than \$100 million	31%	69%	25%	75%
Region				
Americas	34%	66%	35%	65%
EMEA/APAC	31%	69%	30%	70%

These results are generally comparable to last year. As expected, a majority of large companies have an IT audit director in place (as do 59 percent of large public companies), although given the scope of their organizations and the volume of IT risks within them, it is surprising to see this number is not higher.

On the other hand, it is encouraging to see smaller companies (less than \$1 billion) with these roles – in fact, the results suggest there is an increase in the number of smaller companies that have a designated IT audit director or equivalent role in their organizations.

Respondents that reported having an IT audit director (or equivalent position) also were asked about the reporting hierarchy.

To whom within the organization does your IT audit director report?*



*Respondents are those organizations that have a designated IT audit director (or equivalent position).

WHILE THE PERCENTAGES OF ORGANIZATIONS WITH THE IT AUDIT DIRECTOR REPORTING TO THE CIO ARE LOW, THIS REPORTING RELATIONSHIP IS USUALLY NOT ADVISABLE, AS IT MAY RESULT IN LIMITATIONS RELATED TO OBJECTIVITY.

Given the importance of the IT audit function remaining independent, it is encouraging to find a high percentage of IT audit directors and equivalent positions reporting to the CAE. The numbers are slightly lower among organizations in the EMEA/APAC regions, although there was a positive 11 percent increase year-over-year in the number of organizations with this reporting relationship.

It is important to note that while the percentages of organizations with the IT audit director reporting to the CIO are low, this reporting relationship is usually not advisable, as it may result in limitations related to objectivity. Such a structure could call into question the independence of the IT audit process, as in many cases the IT function may be in the position of auditing itself.

One slightly disturbing trend is that, in looking at a year-over-year comparison of results regarding whether the IT audit director regularly attends audit committee meetings, there is a drop in the 2012 response. Given the high and growing level and scope of risks organizations are facing today that rely on critical IT components, it is advisable for the IT audit director (or equivalent position) to be a regular attendee and contributor at audit committee meetings.

Does the IT audit director (or equivalent position) regularly attend the audit committee meetings?*

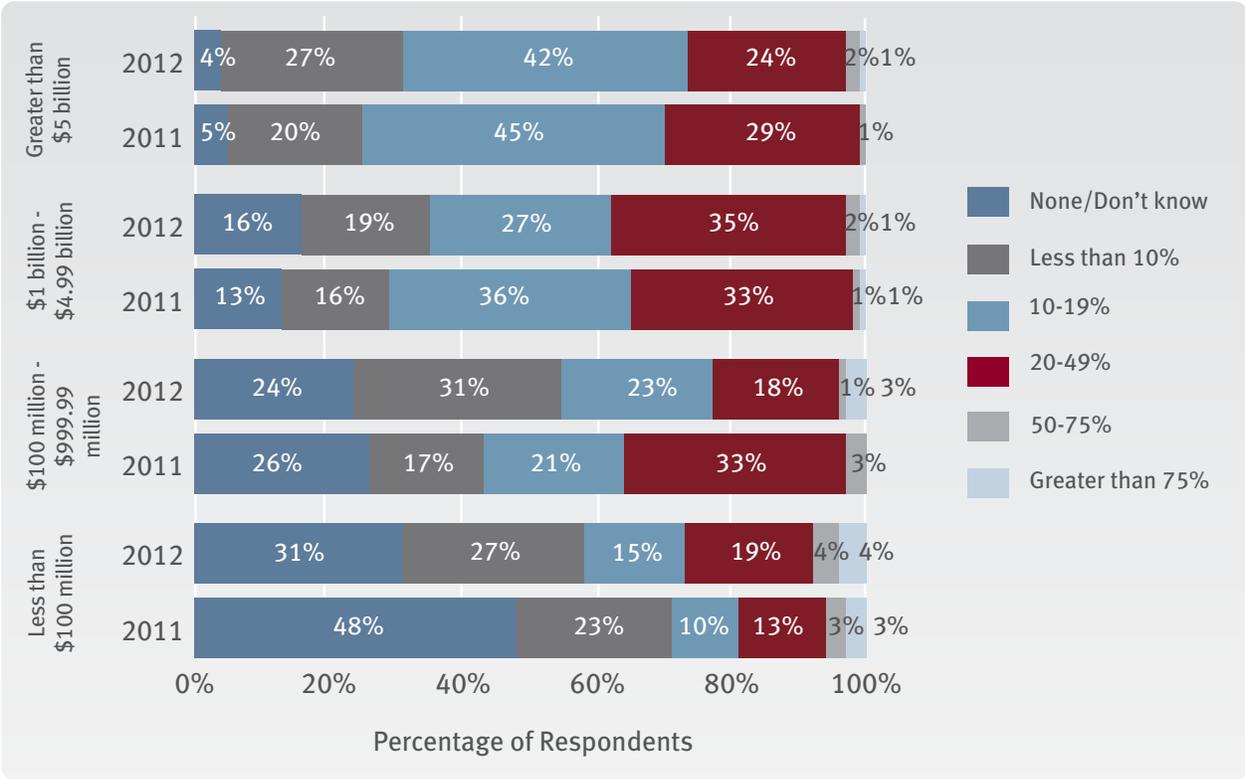
	2012	2011
Yes	27%	33%
No	73%	67%

*Respondents are those organizations that have a designated IT audit director (or equivalent position).

Resourcing

A LARGE NUMBER OF ORGANIZATIONS MAY BE UNDERSTAFFED IN TERMS OF IT AUDIT CAPABILITIES IN THEIR INTERNAL AUDIT FUNCTIONS.

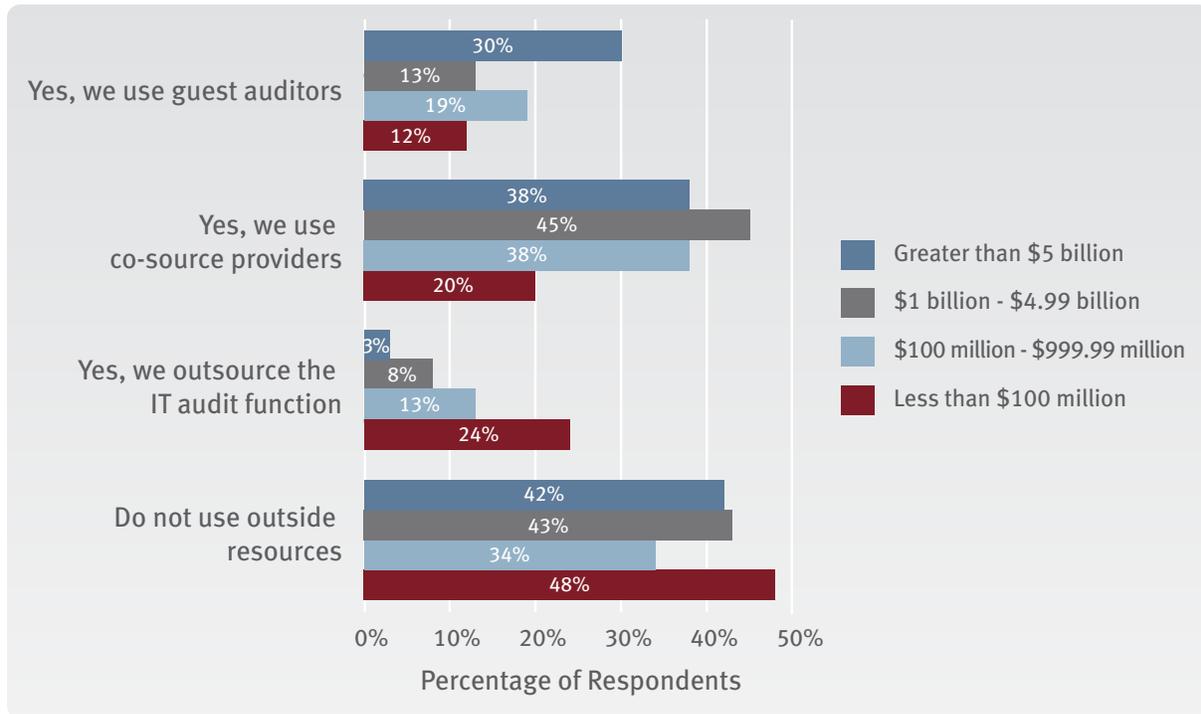
What percentage of the internal audit department headcount is designated as IT audit?



These responses, which are comparable to those in the 2011 study, show that a large number of organizations, regardless of size, may be understaffed in terms of IT audit capabilities in their internal audit functions. It certainly is possible that many of these companies rely on outside assistance (see related results on following pages). Still, a percentage of IT audit staff that is approximately 20 percent or more of the internal audit department might be considered optimal in order to ensure IT audits are conducted in a thorough and effective manner.

THERE IS A SIGNIFICANT GAP IN THE IT AUDIT CAPABILITIES OF MANY ORGANIZATIONS TODAY.

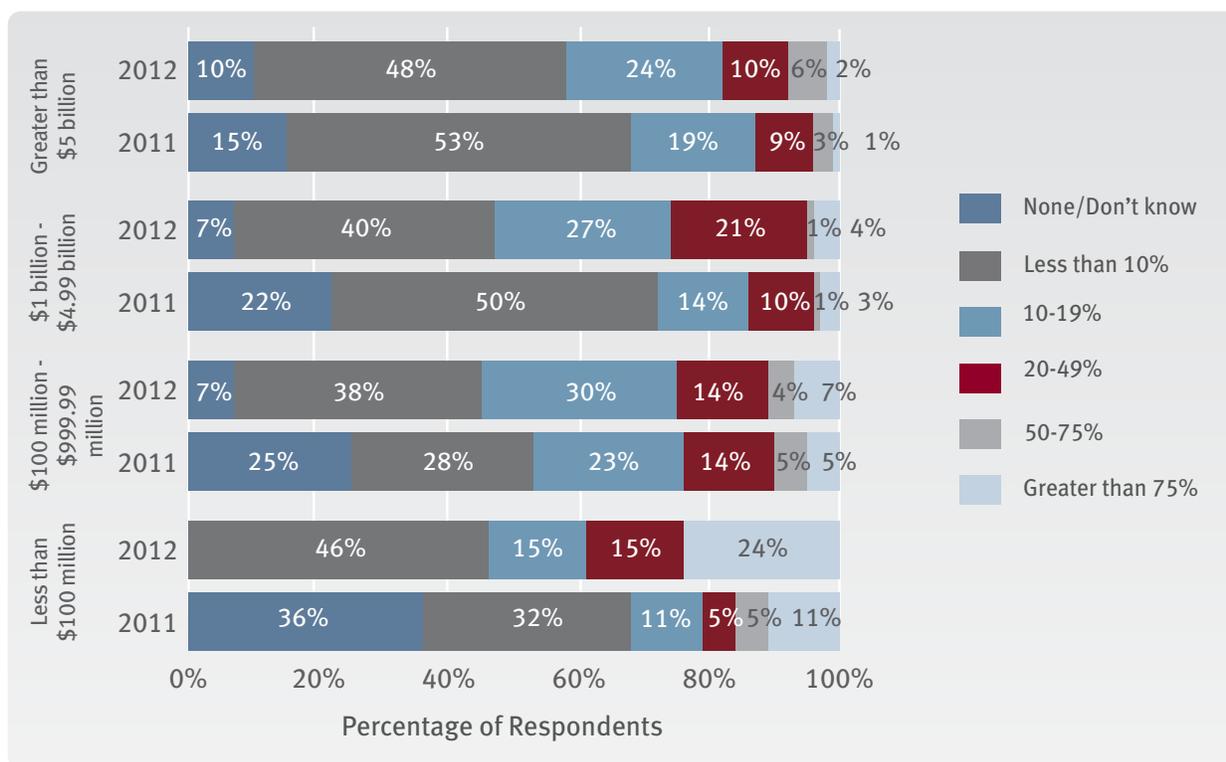
Do you use outside resources to augment/provide your IT audit skill set?



The key findings here are in the “Do not use outside resources” response. As noted on the previous page, a large percentage of companies are under a suggested baseline of 20 percent or greater of designated IT audit staff within the internal audit department. Yet as noted above, a large percentage of companies do not use outside resources to either provide or augment their in-house IT audit skill set.

This suggests there is a significant gap in the IT audit capabilities of many organizations today. In particular, given the large number of small companies (48 percent) that are not using any outside resources, it is likely that these organizations lack the necessary skills and resources to manage and monitor their IT risks effectively.

What is the percentage of outside IT audit resource hours used compared to total audit hours?



Please indicate the primary reasons your company uses outside resources to augment IT audit skills:

	2012	2011
In-house internal audit department lacks specific skill sets	67%	62%
Variable resource modeling	21%	12%
Different/outside perspectives	28%	29%
Lack of resources	46%	48%
Provides the opportunity for people to learn from the experiences of outside resources (e.g., knowledge transfer, etc.)	38%	36%

This year's results are comparable to those from the 2011 study. Of note, however, more organizations appear to be using variable resource modeling to address IT audit priorities and workloads that likely fluctuate throughout the year.

Also, for nearly half of all organizations, lack of resources is a primary reason why they leverage outside resources. This likely is due not only to limited full-time headcount, but also access to qualified and experienced IT auditors.

How are IT audit resources organized within your organization?

	2012	2011
Part of the internal audit department, not a separate function	59%	60%
Part of the internal audit department, but considered to be a separate function	23%	26%
Embedded in the organization as a separate audit function, e.g., line of business teams, process teams, etc.	5%	5%
No IT audit resources are available within the organization	13%	9%

It is troubling to see that 13 percent of companies do not have IT audit resources available within the organization (a slight increase from 2011), and 5 percent have these assets embedded in the organization as a separate audit function. The latter result indicates organizations are taking a less-than-effective approach to IT auditing, as it establishes an environment in which departments, teams and other professionals are auditing their own work.

There are very few companies today that conduct business without relying on some sort of technology. As these organizations execute their risk management processes, it is highly unlikely that technology is not at least in some way related to or underpinning the business risks that are key to the organization. Without skilled IT audit resources, how does the organization ensure these risks are being addressed adequately?

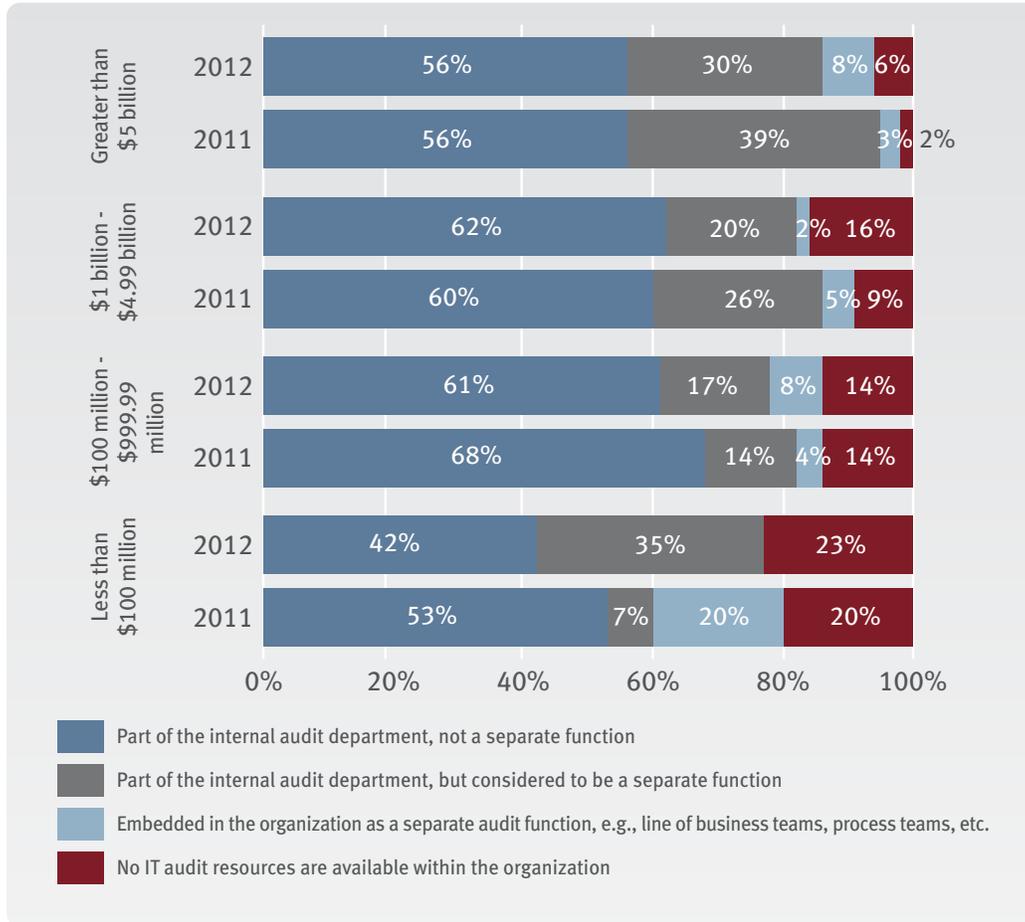
It is appropriate to note here that The IIA has a specific Standard, 1210.A3, that addresses the responsibility of the CAE to understand the organization's IT risks:

Internal auditors must have sufficient knowledge of key information technology risks and controls and available technology-based audit techniques to perform their assigned work. However, not all internal auditors are expected to have the expertise of an internal auditor whose primary responsibility is information technology auditing.

Considering that the results above as well as the findings reported earlier indicate that a significant number of companies have limited or no resources devoted to IT audit, it is clear that a number of organizations currently are not in compliance with this Standard.

IT AUDIT NEEDS THE ABILITY TO EVALUATE THE ORGANIZATION FROM AN INDEPENDENT VIEW, FREE FROM THE OVERSIGHT THAT REPORTING TO A MANAGEMENT ORGANIZATION WOULD MANDATE.

Results by Company Size



The good news is that in a majority of larger organizations, IT audit is embedded in the internal audit department, where it best functions. However, the results suggest small companies need to do a better job of organizing their IT audit resources. Too many either lack IT audit capabilities or have them embedded in the organization as a separate audit function in other departments.

Situations that result in IT audit reporting to anyone other than the audit organization should be reviewed to ensure the IT audit function is afforded appropriate independence, objectivity and effectiveness. Simply put, if you direct the activity, you control the outcome. IT audit needs the ability to evaluate the organization from an independent view, free from the oversight that reporting to a management organization would mandate.

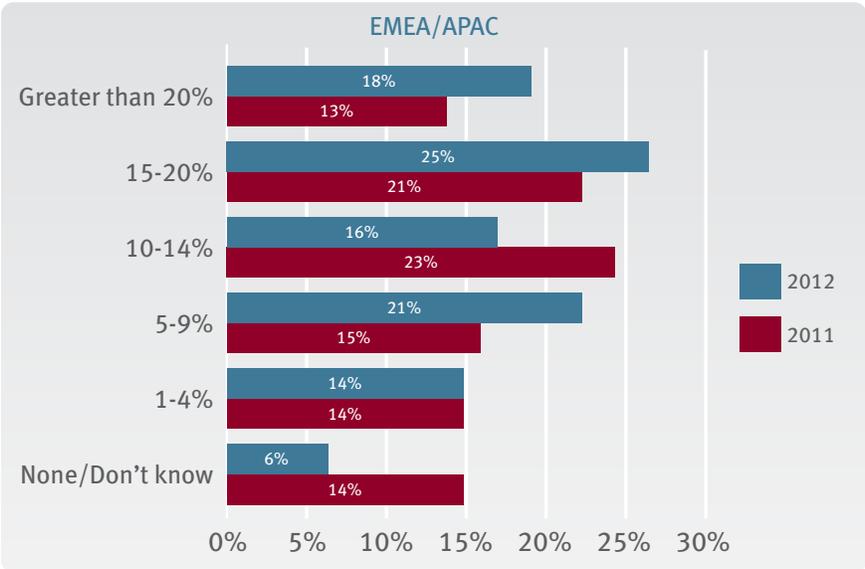
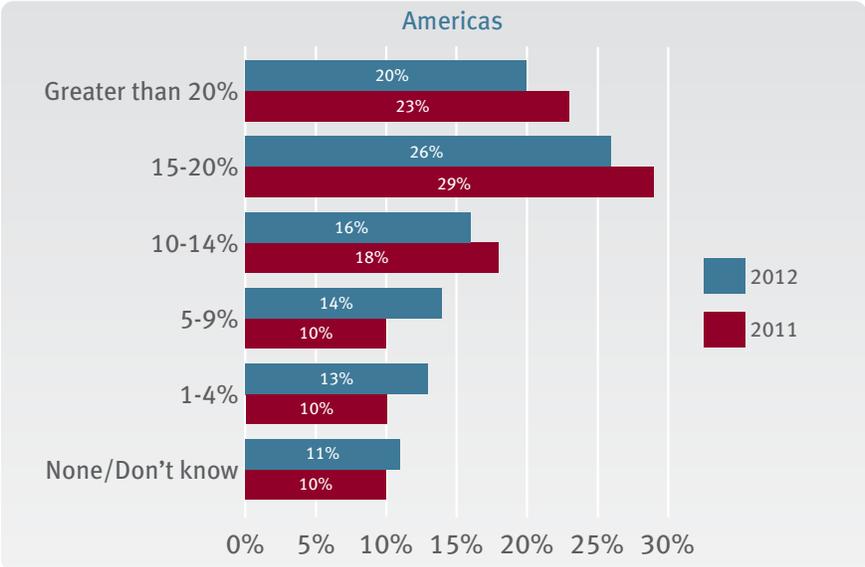
Reporting

Results by Region

Interestingly, the results suggest that the volume of IT audit reports (and by extension, IT auditing activities) are increasing within organizations in the EMEA/APAC regions. As noted below, there were notable jumps in the 15 to 20 percent and greater than 20 percent levels for these companies. Conversely, there were slight decreases in these categories among companies in the Americas. Most other year-over-year data for these organizations is relatively flat.

Our point of view is that the number of IT audit reports compared to the total number of audit reports issued by the internal audit department should be approximately 20 percent and ideally should be more given the growth and prevalence of technology in organizations today.

Please indicate the number of IT audit reports issued as a percentage of the total reports issued by the internal audit department:

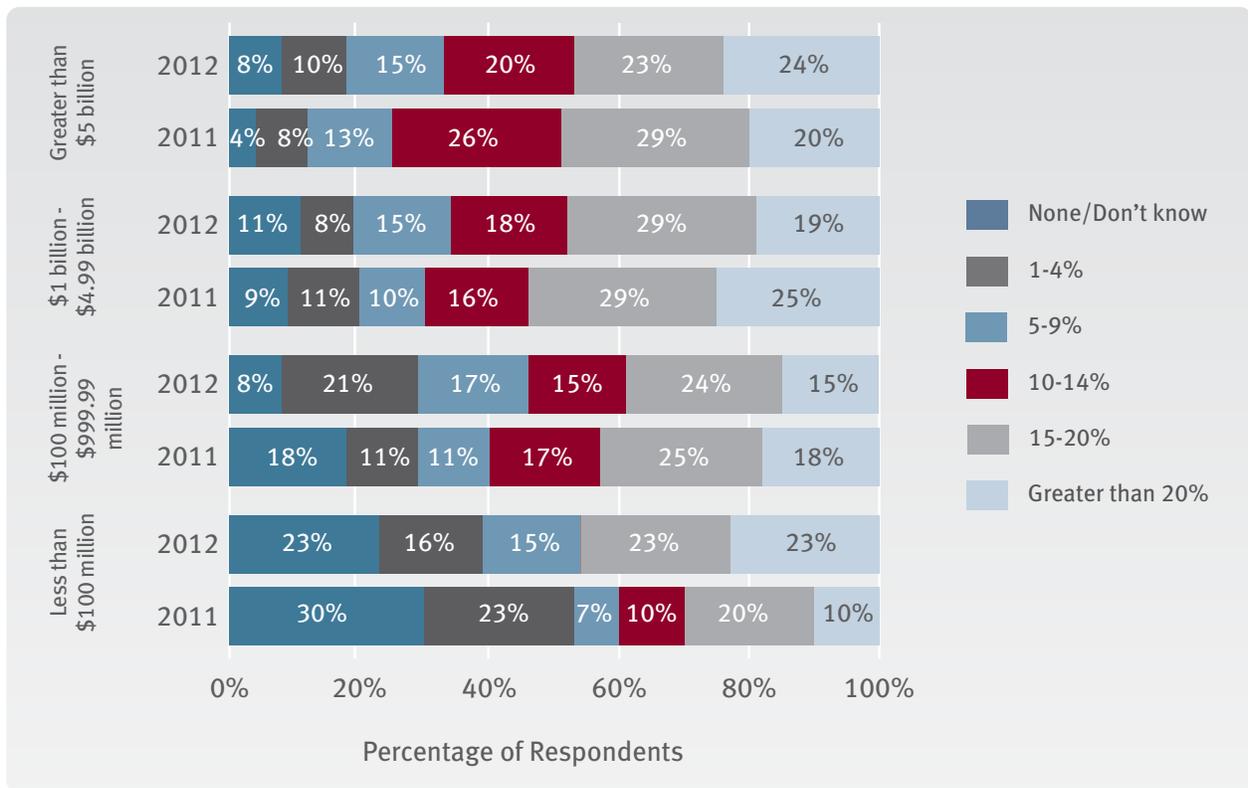


THE NUMBER OF IT AUDIT REPORTS COMPARED TO THE TOTAL NUMBER OF REPORTS ISSUED BY THE INTERNAL AUDIT DEPARTMENT SHOULD BE APPROXIMATELY 20 PERCENT AND IDEALLY SHOULD BE MORE GIVEN THE GROWTH AND PREVALENCE OF TECHNOLOGY IN ORGANIZATIONS TODAY.

Results by Company Size

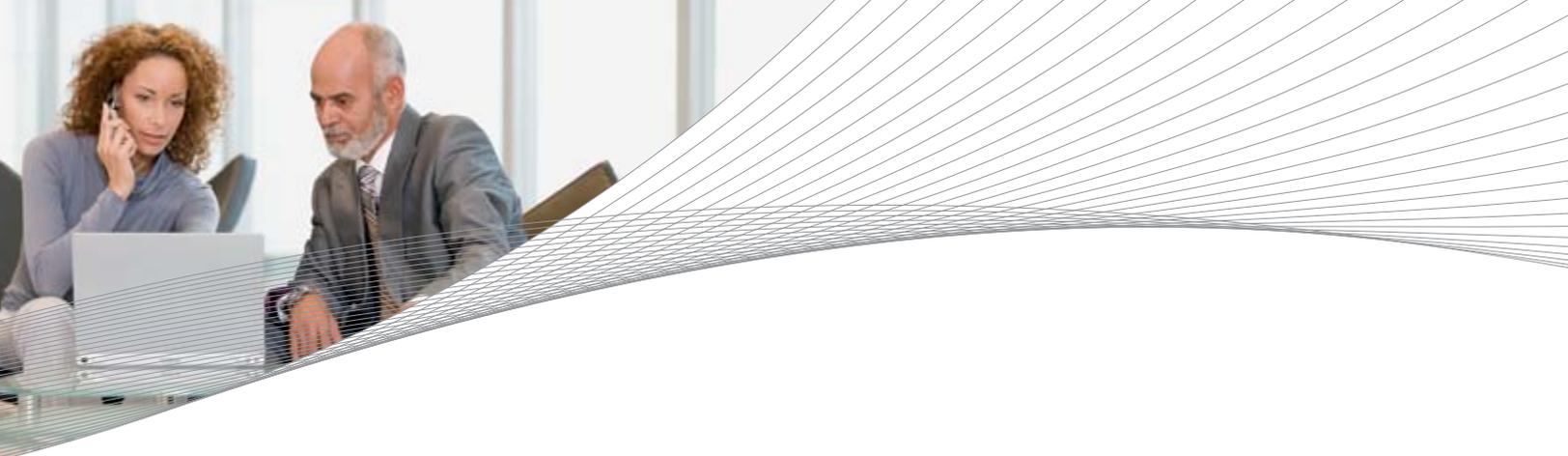
In most company size categories, there are no significant differences in the year-over-year results. However, in a positive trend, small companies (less than \$100 million in annual revenue) show the greatest growth with regard to the number of IT audit reports issued as a percentage of total audit reports. Specifically, in 46 percent of these organizations, IT audit reports comprise 15 percent or more of all internal audit reports, compared to just 30 percent reported in 2011.

Among all companies, and small organizations in particular, the percentage of “None/Don’t know” responses is troubling. IT auditing activities and reporting should be articulated clearly in the annual audit plan. These responses suggest that some IT audit and internal audit functions may not be as familiar with this plan as they should be or simply are not performing the activity.



Key Questions to Consider

- Is the IT audit organization structured effectively relative to the size and composition of the organization? How do IT audit costs compare to other comparable organizations?
- Can IT audit meet established service levels and maximize audit efficiency with new and emerging technology?
- How are IT audits staffed? Are specialists used for auditing various technologies (e.g., applications versus infrastructure technologies)? If not, why?
- Have staff reductions or attrition caused management to view outsourcing and offshoring as options for an increasing number of IT audit activities? Has the organization established a clear strategy and approach with regard to outsourcing/offshoring IT audit-related activities?
- What processes are in place to evaluate and choose external IT audit service providers? Who is involved with these processes?
- How is performance within the IT audit function measured? Has the department established quantifiable metrics and/or key performance indicators (KPIs)? How is this information being communicated to senior-level management?
- Are the organization's IT audit areas of responsibility documented?
- Has the audit function benchmarked the IT audit function against industry best practices?
- Are IT audit workpapers reviewed for quality and accuracy?
- Are KPIs used by senior management to measure and monitor the effectiveness of the IT audit function?



Assessing IT Risks

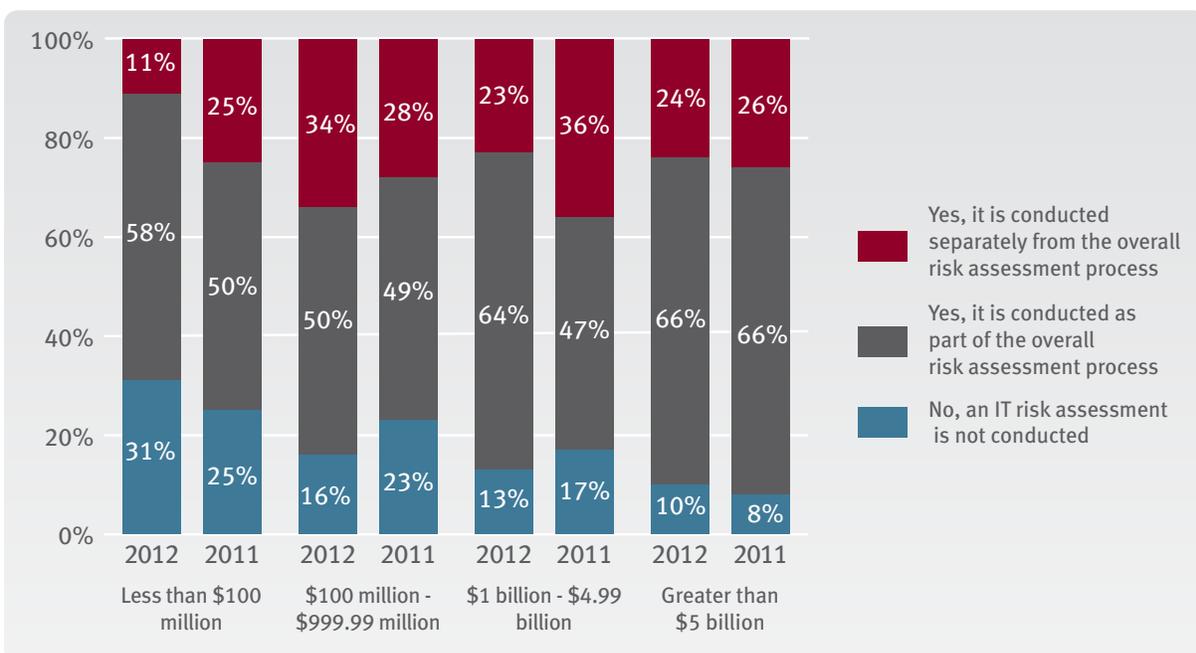
Conducting an IT Audit Risk Assessment

Results by Company Size

This year's results were relatively comparable to those from 2011. It is encouraging to see some improvement among smaller companies (\$100 million to \$999.99 million in annual revenue), which show a 7 percent increase among those conducting an IT audit risk assessment.

There continues to be a significant number of organizations, and small companies in particular, that are not conducting any type of IT audit risk assessment. Other results in this survey suggest these organizations are investing time in IT auditing. However, if some or many of these companies are not conducting an IT audit risk assessment, it begs the question, "What are we auditing in terms of our IT risks?"

Does your organization conduct an IT audit risk assessment?

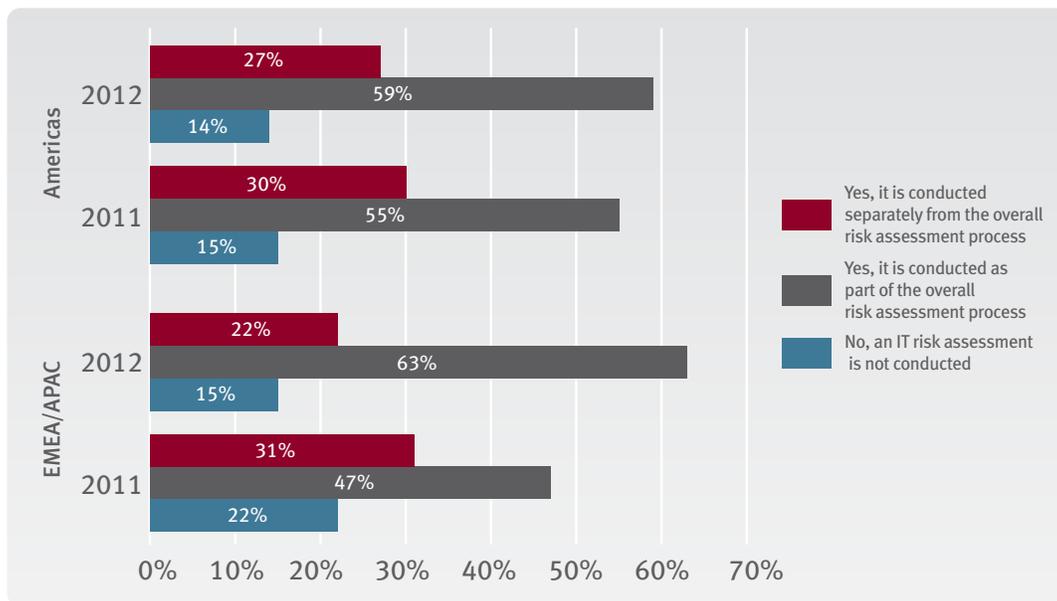


THERE CONTINUES TO BE A SIGNIFICANT NUMBER OF ORGANIZATIONS, AND SMALL COMPANIES IN PARTICULAR, THAT ARE NOT CONDUCTING ANY TYPE OF IT AUDIT RISK ASSESSMENT.

Results by Region

According to the results, there is an increase among organizations in the EMEA/APAC regions that are conducting IT audit risk assessments – 85 percent reported doing so this year compared to 78 percent in 2011.

Risk assessments are a critical activity for the organization to perform in order to prioritize the areas that should be reviewed. In the absence of a risk assessment, it can be assumed that the organization does not perform IT audits, is focused solely on integrated auditing, or executes a series of audits that are purely rotational. In any of these cases, the result is that critical IT components and process areas supporting the business are not being reviewed sufficiently.



Organizational Engagement/Involvement

Indicate the level of involvement of each of the following individuals/groups in your organization's IT audit risk assessment process:¹

	Significant		Moderate		Minimal		None	
	2012	2011	2012	2011	2012	2011	2012	2011
Americas								
Audit committee	3%	8%	20%	22%	46%	43%	31%	27%
Executive management (e.g., CIO)	31%	35%	43%	40%	22%	21%	4%	4%
Management and/or process owners	32%	41%	45%	40%	19%	16%	4%	3%
Line of business executives	16%	32%	40%	39%	34%	24%	10%	5%
Company IT organization representatives	49%	42%	37%	39%	13%	14%	1%	5%
Internal audit/IT audit	72%	72%	18%	20%	6%	5%	4%	3%
Risk management (separate from IA)	15%	15%	24%	19%	24%	22%	37%	44%
External auditor	8%	6%	20%	17%	38%	40%	34%	37%
Third-party service provider	6%	6%	9%	8%	22%	15%	63%	71%
EMEA/APAC								
Audit committee	14%	10%	32%	18%	35%	47%	19%	25%
Executive management (e.g., CIO)	36%	33%	43%	40%	20%	20%	1%	7%
Management and/or process owners	39%	27%	44%	47%	16%	22%	1%	4%
Line of business executives	25%	30%	45%	39%	23%	23%	7%	8%
Company IT organization representatives	46%	43%	38%	35%	12%	15%	4%	7%
Internal audit/IT audit	59%	70%	22%	12%	12%	10%	7%	8%
Risk management (separate from IA)	32%	20%	36%	27%	14%	28%	18%	25%
External auditor	6%	7%	29%	23%	43%	37%	22%	33%
Third-party service provider	7%	7%	19%	18%	25%	22%	49%	53%

Among organizations in the EMEA/APAC regions, there appears to be greater involvement in the IT audit risk assessment process from the audit committee, management and process owners, and the risk management function. Interestingly, internal audit/IT audit appears to have more significant involvement in the IT audit risk assessment process within companies in the Americas compared to those in the EMEA/APAC regions. One possible explanation is that, in these organizations, each business unit conducts its own risk assessment on which the audit department then relies. On the other hand, the audit committee appears to have more significant involvement in this process within EMEA/APAC companies compared to those in the Americas. In fact, the audit committee appears to have no involvement in 31 percent of organizations in the Americas.

¹ Respondents are those organizations that conduct IT audit risk assessments as noted in answers to the previous question.

FOR MANY ORGANIZATIONS, A QUESTION TO CONSIDER MIGHT BE WHETHER THEY SHOULD CONDUCT AN IT AUDIT RISK ASSESSMENT MORE FREQUENTLY.

Frequency in which IT audit risk assessment is updated:

	2012	2011
Continually	7%	8%
Monthly	1%	1%
Quarterly	13%	9%
Semi-annually	8%	7%
Annually	65%	67%
Less than annually	5%	8%
Never	1%	0%

This year’s results are comparable to those in 2011, though there is a small increase (4 percent) in the quarterly response.

For many organizations, a question to consider might be whether they should conduct an IT audit risk assessment more frequently. Considering the speed of technology proliferation in organizations and their business models, even an annual IT audit risk assessment – which 65 percent of organizations are doing – may not be adequate to keep pace with the rate of technology change and innovation in organizations today.

Frameworks

Not surprisingly, COBIT is a framework on which a majority of organizations base their IT audit risk assessments. The COSO Internal Control – Integrated Framework also is used by close to half of all organizations.

Of note, 14 percent of companies do not use any type of framework. There are a number of reasons why this may be the case, ranging from an IT audit risk assessment process that is informal or ad hoc (and therefore not at a mature stage) to the belief that a framework simply isn't necessary. Regardless of the reason, however, it is highly advisable to leverage some type of proven framework to ensure the IT audit risk assessment is most effective.

On which of the following accepted industry frameworks is the IT audit risk assessment based?

	2012	2011
COBIT	63%	67%
COSO	46%	41%
SOGP	0%	1%
ISO	19%	15%
Other	7%	11%
None	14%	13%

Industry Frameworks

COBIT – ISACA’s globally accepted framework provides an end-to-end business view of the governance of enterprise IT that reflects the central role of information and technology in creating value for enterprises. (ISACA recently released COBIT 5.)

COSO Internal Control - Integrated Framework – This framework, produced as part of a landmark report from the Committee on Sponsoring Organizations of the Treadway Commission (COSO), establishes a common definition of internal control that serves the needs of different parties for assessing and improving their control systems. It provides principles-based guidance for designing and implementing effective internal controls. COSO is expected to release an updated internal control framework in 2013.

ISO – The International Organization for Standardization is the world’s largest developer of voluntary International Standards. International Standards give state-of-the-art specifications for products, services and good practice, helping to make industry more efficient and effective. Developed through global consensus, they help to break down barriers to international trade.

Standard of Good Practice (SOGP) for Information Security – From the Information Security Forum, this is a business-focused, practical and comprehensive guide for identifying and managing information security risks in an organization.

Key Questions to Consider

- Does the audit function perform an effective IT audit risk assessment annually? Are knowledgeable specialists in infrastructure technologies, application systems and IT processes all involved in that assessment?
- Does the IT audit risk assessment consider the specific technological architecture and configuration employed by that organization?
- How are IT audit risks quantified? What industry benchmarks and best practices are used to support these estimates?
- Is your IT audit department collaborating effectively with the business to manage shifting priorities or changes in the regulatory landscape?
- Does IT audit have a clear understanding of the company's short- and long-term IT objectives? Are the IT audit department's priorities and activities aligned with these objectives?
- Does IT audit have the visibility into major events planned in the near- or long-term, such as a merger or acquisition, initial public offering, divestiture or business expansion?
- Is the audit department aware of the degree to which the organization's IT environment changes every year?
- Has the organization implemented any IT control frameworks or standards? If so, which ones? If not, have security and control baselines been established internally? If not, has the CAE recommended the implementation of an IT control framework and security and control baselines as part of the audit of IT governance and management?
- Does the IT audit risk assessment process appropriately coordinate with, and consider the results of, other risk assessment dimensions, such as financial, operational, compliance and geography?

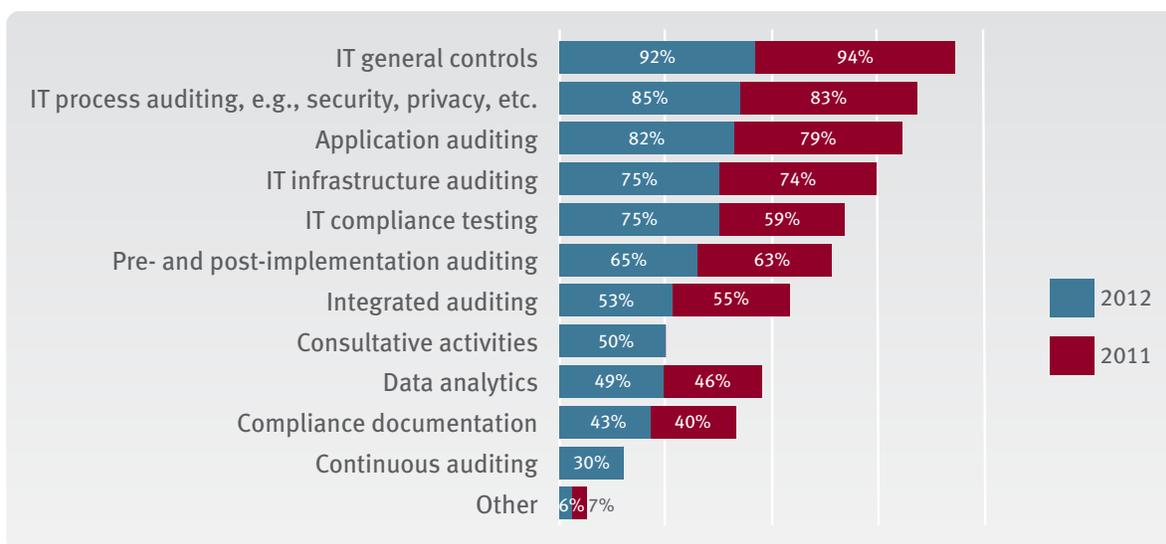


Audit Plan

AS AUDIT LEADERS CONTINUE TO CONSIDER HOW THEY CAN INCREASINGLY ADD VALUE TO THE ORGANIZATION, THEY SHOULD ALLOCATE TIME FOR THEIR TEAMS TO PERFORM MORE STRATEGIC DUTIES.

Focus of IT Audit Hours

Which activities are included within the responsibility of IT audit?



Consistent with last year's results, IT audit has responsibility for reviewing IT general controls in virtually all organizations. Respondents indicated that one-quarter of their total IT audit hours were spent testing IT general controls. IT audit responsibilities in other categories closely mirror those of the prior year, with the exception of IT compliance testing.

MARKET TRENDS SUCH AS “BRING YOUR OWN DEVICE,” SOCIAL MEDIA AND CLOUD COMPUTING CONTINUE TO INCREASE THEIR PRESENCE WITHIN ORGANIZATIONS. THESE EMERGING AREAS ARE CREATING NUMEROUS NEW IT RISKS THAT MUST BE ADDRESSED PROACTIVELY.

IT general controls are the easiest and most commonly understood components of IT. They lend themselves to being audited and can be audited with general technology skill sets. They also are standard requirements for Sarbanes-Oxley and FDICIA. Because of this, it is not unexpected that most organizations would execute some type of IT general controls testing.

Almost half of the respondents working in public companies report that they spend 20 percent or more of their total IT audit hours on SOX-related activities.

As audit leaders continue to consider how they can increasingly add value to the organization, they should allocate time for their teams to perform more strategic duties. This will help the IT audit plan move beyond “the basics” and answer questions about the strategic performance of IT. Market trends such as “bring your own device,” social media and cloud computing continue to increase their presence within organizations. These emerging areas are creating numerous new IT risks that must be addressed proactively.

CAEs and their audit organizations are aware that they need to spend time on strategic activities. This is indicated clearly in the results of Protiviti’s *2012 Internal Audit Capabilities and Needs Survey*, in which social media, cloud computing and data analysis technologies stand out as high priorities.²

Another way for IT auditors to become a strategic business partner is to increase their involvement in significant technology projects. Regardless of size, most respondents reported that IT audit has moderate involvement in these projects. More than half indicate that they are involved in the planning and design project phases; however, just 25 percent are involved during post-implementation. These results indicate opportunity for improvement when it comes to increasing IT audit’s strategic responsibilities.

² For more information, visit www.protiviti.com/IASurvey.

AUDIT DEPARTMENTS MUST MANAGE THE DEMANDS FOR RISK ASSURANCE VERSUS THE DEMANDS FOR CONTROLS EXPERTISE TO ENSURE THAT WHILE PROVIDING CONSULTATIVE ADVICE, THEY DO NOT FALL BEHIND IN FULFILLING THEIR ASSURANCE REQUIREMENTS.

What percentage of planned IT audit hours are dedicated to consultative activities versus assurance activities?

Results by Company Size

	Greater than 75%	50 - 75%	25 - 49%	15 - 24%	1 - 14%	None/Don't know
Greater than \$5 billion						
Assurance	26%	32%	21%	9%	4%	8%
Compliance	1%	11%	25%	28%	20%	15%
Consulting	0%	4%	12%	27%	39%	18%
\$1 billion - \$4.99 billion						
Assurance	9%	27%	27%	17%	6%	14%
Compliance	4%	13%	32%	23%	15%	13%
Consulting	0%	2%	16%	24%	41%	17%
\$100 million - \$999.99 million						
Assurance	13%	30%	27%	8%	13%	9%
Compliance	8%	16%	30%	18%	19%	9%
Consulting	1%	1%	13%	28%	32%	25%
Less than \$100 million						
Assurance	5%	30%	10%	10%	25%	20%
Compliance	10%	14%	5%	29%	24%	18%
Consulting	0%	5%	10%	15%	45%	25%

IT audit functions in large companies continue to spend more time on assurance and less on consulting. Similar to the 2011 results, assurance percentages trend down as company sizes become smaller, while the percentage of time spent on consultative activities is relatively consistent across company size.

One cause for this could be the maturity of the IT organizations in larger companies and the resources available to them. In many cases, smaller organizations lack the talent and resources embedded within IT to address sufficiently the myriad of regulatory and compliance requirements affecting them. To resolve this,

they rely on the company's internal or third-party IT audit resources to partner with them and provide the needed skills and capabilities. While this is positive for the organization, audit departments must manage the demands for risk assurance versus the demands for controls expertise to ensure that while providing consultative advice, they do not fall behind in fulfilling their assurance requirements.

Results by Region

	Greater than 75%	50 - 75%	25 - 49%	15 - 24%	1 - 14%	None/Don't know
Americas						
Assurance	13%	27%	25%	14%	10%	11%
Compliance	5%	12%	32%	22%	17%	12%
Consulting	0%	2%	13%	27%	38%	20%
EMEA/APAC						
Assurance	19%	36%	20%	5%	7%	13%
Compliance	4%	16%	16%	27%	21%	16%
Consulting	0%	4%	15%	21%	40%	20%

The results suggest that companies in the EMEA/APAC regions have shifted their focus when dividing time between assurance, compliance and consulting activities. Specifically, they appear to be spending more time on assurance and compliance compared to the 2011 results. Not surprisingly, companies in the Americas continue to dedicate most of their hours to assurance and compliance activities.

IT Governance

THE RESULTS SUGGEST THAT THE EVALUATION AND ASSESSMENT OF IT GOVERNANCE PROCESSES IS NOT A PRIORITY FOR ORGANIZATIONS.

Has your audit activity completed an evaluation and assessment of your organization's IT governance process in accordance with IIA Standard 2110.A2?

Results by Company Size

	2012		2011	
	Yes	No	Yes	No
Company Size (Annual Revenue)				
Greater than \$5 billion	45%	55%	36%	64%
\$1 billion - \$4.99 billion	23%	77%	32%	68%
\$100 million - \$999.99 million	22%	78%	24%	76%
Less than \$100 million	14%	86%	23%	77%

Results by Region

	2012		2011	
	Yes	No	Yes	No
Region				
Americas	28%	72%	32%	68%
EMEA/APAC	26%	74%	22%	78%

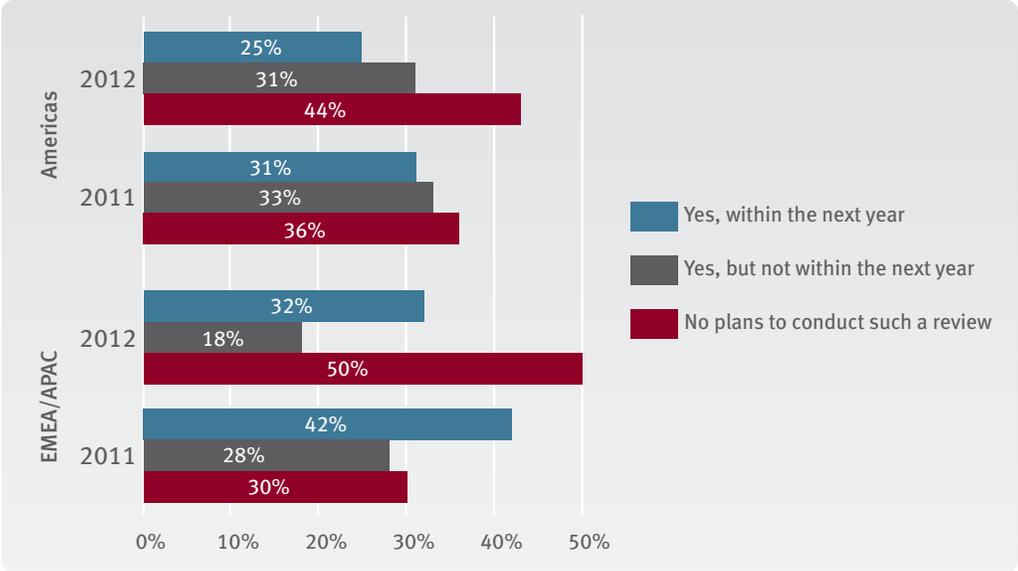
IIA Standard 2110.A2 requires internal audit to assess whether the IT governance of the organization sustains and supports the organization's strategies and objectives. Unfortunately, this year's results (which largely mirror those from the 2011 survey) suggest that the evaluation and assessment of IT governance processes is not a priority for organizations, regardless of size or region.

It is important for audit leaders to remember that evaluating IT governance processes is a requirement for internal audit functions. The IIA emphasized the importance of this aspect of the audit plan by releasing *GTAG 17: Auditing IT Governance*.³ It provides helpful guidance on how to start including IT governance in the audit plan. This publication also provides example controls that address IT governance risks, audit planning, verification, testing and reporting actions to assist in the development of practical audit programs. In addition, it offers guidelines to facilitate audits of IT governance by outlining how to scope the engagement, define audit objectives, and evaluate related risks and controls.

³ Available at www.theiia.org.

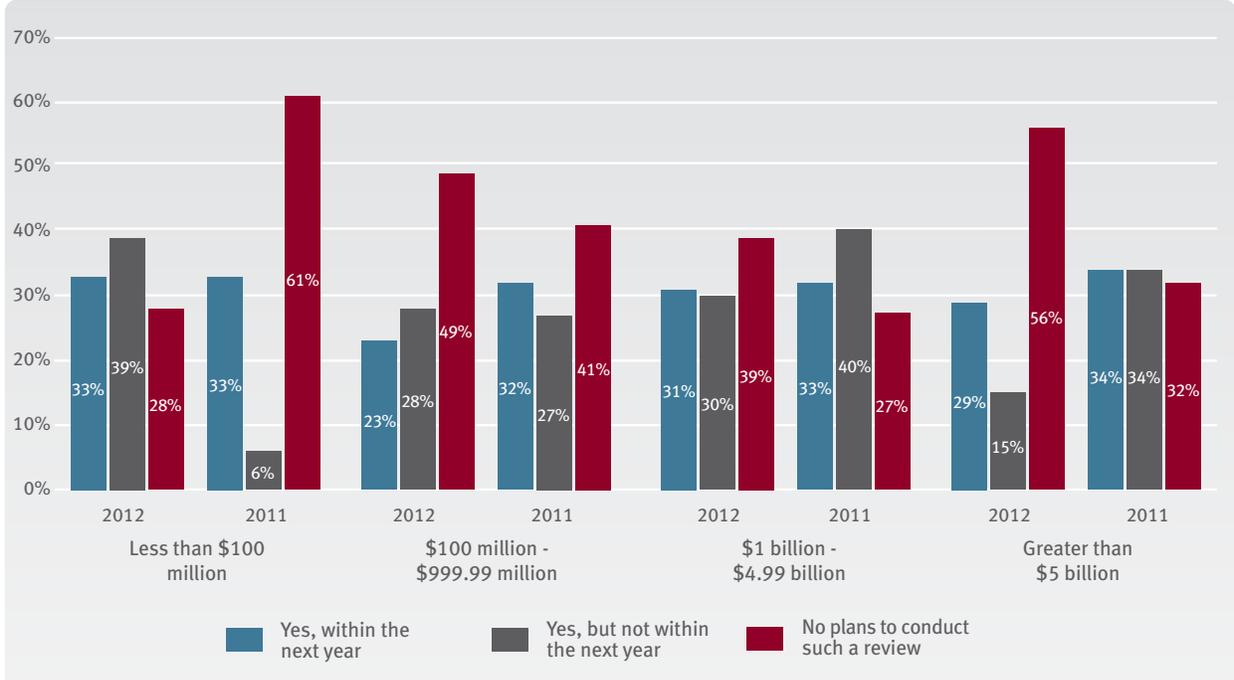
Please indicate whether you intend to complete an evaluation and assessment of your organization's IT governance process:*

Results by Region



*Respondents are those organizations that have not completed an evaluation and assessment of the organization's IT governance process in accordance with IIA Standard 2110.A2.

Results by Company Size



Those who reported they have not completed an evaluation and assessment of the IT governance process were asked if they intended to do so. The continued high level of “no” responses to this follow-up question is troubling – the large number of companies that have failed to complete an evaluation and assessment of their IT governance process (regardless of region or size) also have no plans to do so in the near future. CAEs should look to The IIA’s GTAG 17 to help facilitate discussions and planning around assessing and evaluating IT governance.

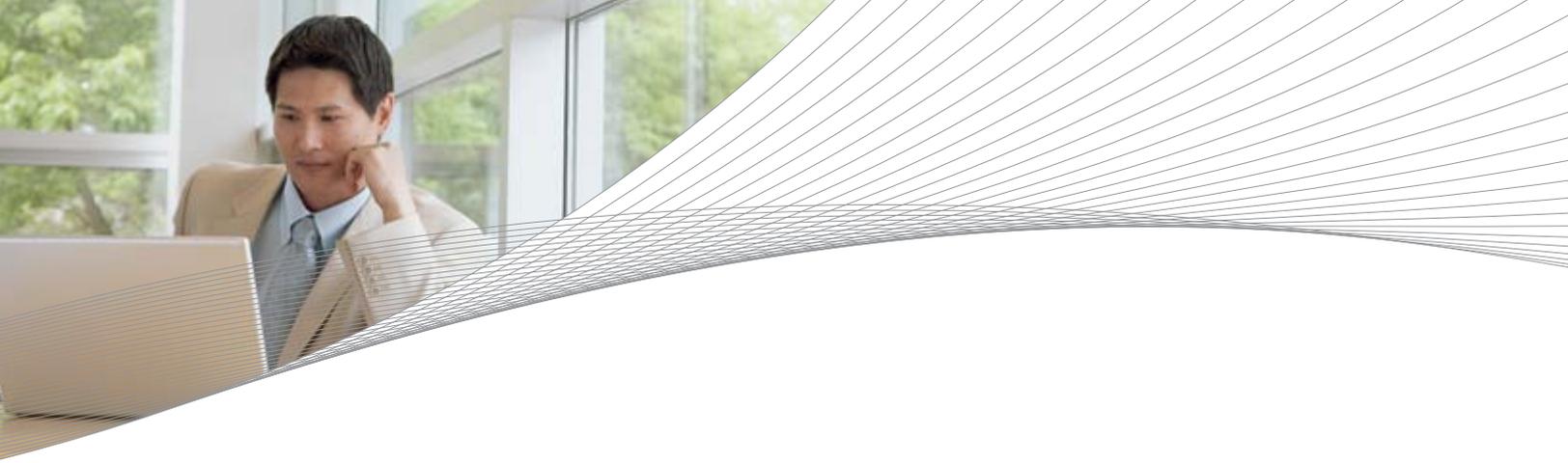
More on GTAG 17: Auditing IT Governance

According to The IIA’s GTAG 17, some of the key areas of IT governance that internal auditors should address are:

- Chief IT officer (e.g., CIO, chief technology officer, chief information security officer) related roles and responsibilities
- Accountability and decision-making
- IT performance monitoring and reporting metrics, including financial management of IT operations and projects
- Level of understanding at the C-suite level of how IT supports and enables the achievement of the organization’s strategy and objectives
- Alignment between IT and the organization
- IT governance risks and controls
- Assisting and educating the board and management team on the role(s) of the internal audit activity within the governance processes and how to maximize the value to the organization

Key Questions to Consider

- How often is the IT audit plan reviewed and what is the process used to maintain it?
- How is the IT audit plan addressing demands for faster organizational performance?
- What process does IT audit have to ensure its practices align with business expectations?
- How can the CAE and other IT audit leaders be more integrated into the planning and other activities of the business units and departments?
- Does the IT audit universe plan for audits at each layer of the IT environment? If not, why not? Are there special circumstances that apply, or is the IT audit plan suboptimal?
- How are budgets for IT audits estimated? Was enough information gathered on the front end of the audit to support an accurate estimation? Was the specific configuration of the technology considered?
- How are IT audit procedures defined? Are they developed internally for the organization’s specific environment, or are marketplace checklists used?
- Are any tools used to accelerate IT audits (e.g., testing accelerators or facilitators)? If not, why not? If so, have they been tested fully and approved by IT management?
- Is the audit strategic plan supported by individual tactical operating plans that take into account IT audit requirements and deliverables?



Skills and Capabilities

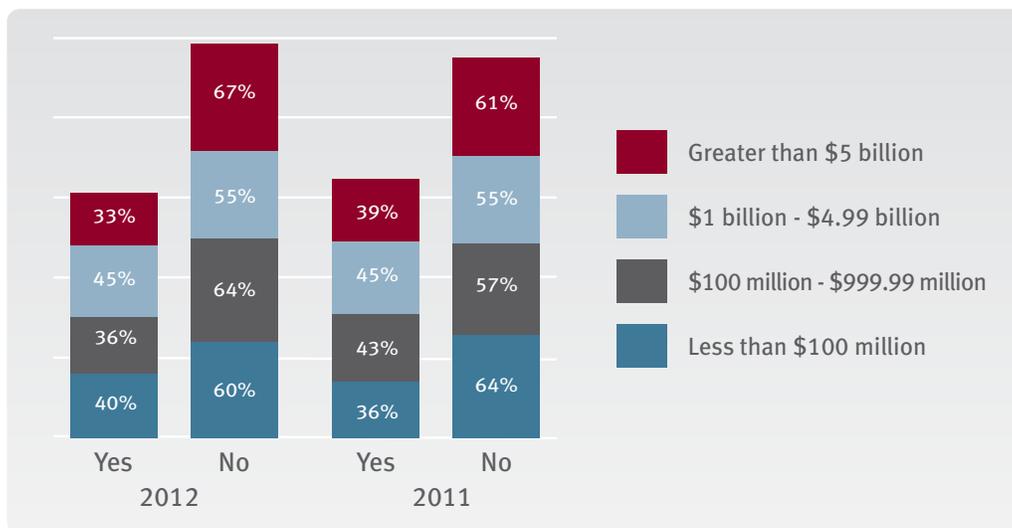
ORGANIZATIONS MAY BE CONCERNED BECAUSE THEY LACK THE NECESSARY RESOURCES AND SKILLS TO ADDRESS SPECIFIC AREAS OF THE IT AUDIT PLAN SUFFICIENTLY.

Gaps in IT Audit Plan

The results suggest organizations may be concerned because they lack the necessary resources and skills to address specific areas of the IT audit plan sufficiently. Of note, the lack of resources and skills does not appear to be associated with software tools – 80 percent of respondents indicated this to be the case.

Are there specific areas of your current IT audit plan that you are not able to address sufficiently due to lack of resources/skills?

Results by Company Size



There is an interesting comparison between the concern over not being able to address specific areas of the IT audit plan sufficiently and the survey results related to the use of outside resources and in-house IT audit staff (see page 8). While 40 percent of small companies (less than \$100 million in annual revenue) lack the

resources and/or skills to address specific areas of their IT audit plans, 48 percent do not use any outside resources to augment their IT audit efforts. This capability gap is even more troublesome when coupled with the realization that smaller companies usually have IT organizations that are less mature and have fewer resources to address their own needs. One might expect that such organizations require more auditing, not less as the survey indicates. This relates directly to the mission of many small audit departments that are largely focused on financial reporting risk to the exclusion of other risk areas in the organization.

There are a number of options available to supply outside resources to the audit function, including outsourcing, co-sourcing or utilizing guest auditors. Large organizations appear to be the most open to leveraging guest auditors from within the organization as a way to provide the necessary skills to IT audit projects.

Training

How many hours of specific IT skills training do IT audit staff members attend annually?

	Less than 40 hours	40-80 hours	More than 80 hours	None/Don't know
Company Size (Annual Revenue)				
Greater than \$5 billion	32%	54%	7%	7%
\$1 billion - \$4.99 billion	27%	48%	6%	19%
\$100 million - \$999.99 million	36%	37%	1%	26%
Less than \$100 million	50%	30%	0%	20%

The positive news is that among companies with \$1 billion or more in annual revenue, a majority are ensuring their IT audit staff members obtain more than 40 hours of training per year. It is typical for more than half of an organization's IT audit staff to be Certified Information Systems Auditors (CISAs).

Because evaluating and assessing IT governance appears to be an area in which knowledge is needed, audit leaders should consider integrating this concept into their departments' training plans. Once the audit team increases its knowledge around IT governance, steps can be taken to integrate it into the strategic audit plan.

Key Questions to Consider

- With regard to IT infrastructure and existing management tools, has IT audit identified opportunities for greater efficiencies and cost savings?
- Can a better understanding and improvement in IT audit processes help your audit staff add more value and improve its effectiveness?
- Has a training strategy been established for IT auditors? Does it consider all layers of the IT environment?
- Does your organization offer adequate training for IT audit staff in technical as well as interpersonal and communication skills so they can work more effectively with various departments?
- Have you observed interactions between the company's IT audit professionals and management that might have been handled more effectively from a communication standpoint?
- What sort of leadership training is offered to IT audit personnel?

Survey Methodology

More than 300 respondents participated in Protiviti's second annual *IT Audit Benchmarking Survey*, which was conducted in the first and second quarters of 2012. The survey consisted of a series of questions grouped into four divisions: IT Audit in Relation to the Internal Audit Department; Assessing IT Risk; Audit Plan; and Skills and Capabilities.

Survey participants also were asked to provide demographic information about the nature, size and location of their businesses, and their titles or positions within the internal audit department. All demographic information was provided voluntarily by respondents.

Sources of Respondents

- **Web-based survey at KnowledgeLeader®** – Electronic surveys were made available online to KnowledgeLeader (www.knowledgeleader.com) subscribers, including those with trial subscriptions. KnowledgeLeader is a subscription-based Protiviti website designed to assist internal audit professionals with finding information, tools and best practices they can use to improve the efficiency and quality of their work.
- **Electronic surveys** – Surveys also were forwarded to other internal audit professionals who expressed an interest in participating.

Survey Demographics

Position

Chief Audit Executive (or equivalent)	29%
IT Audit Director	10%
Audit Director	9%
IT Audit Manager	23%
Audit Manager	12%
Audit Staff	12%
Other	5%

Certification

Certified Information Systems Auditor	55%
Certified Internal Auditor	38%
Certified Public Accountant/Chartered Accountant	35%
Certified in Risk and Information Systems Control (CRISC)	13%
Certified Fraud Examiner (CFE)	11%
Certified Information Security Manager (CISM)	5%
Certified in the Governance of Enterprise IT (CGEIT)	3%
Certified Financial Services Auditor (CFSA)	3%
Other	31%

Type of Organization

Public	53%
Private	26%
Not-for-profit	12%
Government	6%
Other	3%

Size of Organization (by Gross Annual Revenue)

\$20 billion or greater	6%
\$10 billion - \$19.99 billion	6%
\$5 billion - \$9.99 billion	15%
\$1 billion - \$4.99 billion	38%
\$500 million - \$999.99 million	11%
\$100 million - \$499.99 million	17%
Less than \$100 million	7%

Industry

Financial Services	19%
Manufacturing	16%
Government/Education/Not-for-profit	9%
Insurance	8%
Services	7%
Healthcare Provider	6%
Utility	6%
Energy	6%
Technology	6%
Retail	4%
Life Sciences/Biotechnology	3%
Distribution	2%
Media	1%
Hospitality	1%
Telecommunications	1%
Healthcare Payer	1%
Real Estate	1%
Other	3%

Experience (in Current Position)

Greater than 10 years	15%
5-10 years	28%
1-4 years	45%
Less than 1 year	12%

Company Location

North America	73%
Europe	13%
Asia/Pacific	8%
Africa	2%
India	2%
Middle East	2%

About Protiviti

Protiviti (www.protiviti.com) is a global consulting firm that helps companies solve problems in finance, technology, operations, governance, risk and internal audit. Through our network of more than 70 offices in over 20 countries, we have served more than 35 percent of FORTUNE® 1000 and Global 500 companies. We also work with smaller, growing companies, including those looking to go public, as well as with government agencies.

Protiviti is a wholly owned subsidiary of Robert Half International Inc. (NYSE: RHI). Founded in 1948, Robert Half International is a member of the S&P 500 index.

About Our IT Internal Audit Services

Protiviti's IT internal audit services help organizations understand their key technology risks and how well they are mitigating and controlling those risks. We also provide insight into the threats inherent in today's highly complex technologies. Protiviti provides a wide range of services for IT internal audit outsourcing and co-sourcing. The Protiviti methodology, which is both COSO- and COBIT-based, facilitates an overall IT internal audit management team (either Protiviti-led, client-led, or in combination) with the execution of individual projects by subject-matter experts in each IT audit area.

Other Thought Leadership from Protiviti

Visit www.protiviti.com to obtain copies of these and other thought leadership materials from Protiviti.

- *Using High Value IT Audits to Add Value and Evaluate Key Risks and Controls*
- Powerful Insights (Protiviti's podcast series)
 - IT Audit – Assessing and Managing Risks Effectively within the IT Environment
 - The Importance of Strong IT Governance During a Financial Crisis
 - Social Media Use in Companies – Managing the Risks Effectively
 - Technology-enabled Audits – Increasing Productivity and Delivering More Timely and Reliable Results
 - Internal Audit Quality Assessment Reviews – Required as well as Beneficial
 - Sarbanes-Oxley Compliance: Where U.S.-listed Companies Stand Today
 - The Benefits of Outsourcing the Internal Audit Function
- *2012 Internal Audit Capabilities and Needs Survey*
- *Testing the Reporting Process – Validating Critical Information*
- *Guide to Internal Audit: Frequently Asked Questions about Developing and Maintaining an Effective Internal Audit Function* (Second Edition)
- *2012 Sarbanes-Oxley Compliance Survey – Where U.S.-Listed Companies Stand: Reviewing Cost, Time, Effort and Processes*
- *Guide to the Sarbanes-Oxley Act: Internal Control Reporting Requirements* (Fourth Edition)
- *Guide to the Sarbanes-Oxley Act: IT Risks and Controls*
- *Internal Auditing Around the World* (Volumes 1-8)

KnowledgeLeader[®] is a subscription-based website that provides information, tools, templates and resources to help internal auditors, risk managers and compliance professionals save time, stay up to date and manage business risk more effectively. The content is focused on business risk, technology risk and internal audit. The tools and resources available on KnowledgeLeader include:

- **Audit Programs** – A wide variety of sample internal audit and IT function audit work programs are available on KnowledgeLeader. These work programs, along with the other tools listed below, are all provided in downloadable versions so they can be repurposed for use in your organization.
- **Checklists, Guides and Other Tools** – More than 1,000 checklists, guides and other tools are available on KnowledgeLeader. They include questionnaires, best practices, templates, charters and more for managing risk, conducting internal audits and leading an internal audit department.
- **Policies and Procedures** – KnowledgeLeader provides more than 300 sample policies to help in reviewing, updating or creating company policies and procedures.
- **Articles and Other Publications** – Informative articles, survey reports, newsletters and booklets produced by Protiviti and other parties (including *Compliance Week* and Auerbach) about business and technology risks, internal audit and finance.
- **Performer Profiles** – Interviews with internal audit executives who share their tips, techniques and best practices for managing risk and running the internal audit function.

Key topics covered by KnowledgeLeader:

- Audit Committee and Board
- Business Continuity Management
- Control Self-Assessment
- Corporate Governance
- COSO
- Fraud and Ethics
- IFRS
- Internal Audit
- IT Audit
- IT Governance
- Sarbanes-Oxley

KnowledgeLeader also has an expanding library of methodologies and models – including the robust Protiviti Risk ModelSM, a process-oriented version of the Capability Maturity Model, the Six Elements of Infrastructure Model, and the Sarbanes-Oxley 404 Service Delivery Model.

Furthermore, with a KnowledgeLeader membership, you will have access to AuditNet Premium Content; discounted certification exam preparation material from ExamMatrix; discounted MicroMash CPE Courses to maintain professional certification requirements; audit, accounting and technology standards and organizations; and certification and training organizations, among other information.

To learn more, sign up for a complimentary 30-day trial by visiting www.knowledgeleader.com. Protiviti clients and alumni, and members of The IIA, ISACA and AHIA, are eligible for a subscription discount. Additional discounts are provided to groups of five or more.

KnowledgeLeader members have the option of upgrading to KLplusSM. KLplus is the combined offering of KnowledgeLeader's standard subscription service plus online CPE courses and risk briefs. The courses are a collection of interactive, Internet-based training courses offering a rich source of knowledge on internal audit and business and technology risk management topics that are current and relevant to your business needs.

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