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# FOREWORD

The audit profession is at a critical inflection point. Due to emerging technologies and an explosion of available data, survey respondents indicate the need for broader assurance and financial audits that yield powerful insights for audit committees, management and shareholders. The financial audit is going through a transformation that is unprecedented, thanks to new tools and technology. These tools also enable a higher quality audit that drives value in the eyes of all stakeholders.

We hope you find this Forbes Insights survey sponsored by KPMG useful. As you will see, technology consistently ranked as audit's most impactful pending force. At KPMG we are dedicated to thinking about how data and analytics and new technologies are transforming the financial audit and enabling the highest level of quality to the capital markets and other stakeholders so that they can make informed decisions.



**James P. Liddy**

U.S. Vice Chair, Audit and Regional Head of Audit,  
Americas, KPMG LLP

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# INTRODUCTION

Technology and the proliferation of data have opened up a realm of new possibilities for business growth and created an immense depth of financial information to report. Audit committees, executive management and shareholders expect their auditors to keep pace with the evolution of technology and be prepared to leverage it so that they can deliver deeper insights based on new capabilities and the increased level of data that is available.

Technology is the factor that will have the greatest impact on the audit profession, according to a Forbes Insights/KPMG survey of 151 financial executives, audit committee chairs and members, academics, audit associates and accounting students.

With the explosion of available data and the advent of more powerful capabilities to analyze it, audit is poised for profound and rapid change. From a technology perspective, the application of data and analytics (D&A) capabilities in the audit represents a major step forward in terms of the quality and insight that can be obtained.

“Technology is a tool that has to be second nature to auditors,” says James A. Unruh, former chairman of the audit committee at Prudential Financial and Tenet Healthcare. “Technology, however, is only an enabler. Only critical thinking by the auditor can lead to the analysis of more dimensions of issues.”

Audit professionals can deliver the most value by focusing not on individual tools or the extraction of data, but rather on the application of professional judgment resulting from the enhanced information

made available by technology. From this perspective, the role of technology in the audit is to empower auditors to bring their skills, experience and judgment to bear in new and more impactful ways.

Indeed, there is a need for audit to examine more dimensions and provide deeper insights. The Forbes Insights/KPMG survey reveals that the majority of respondents (93%) believe that audit needs to do more.

In order to deliver such a holistic, high-quality audit, the profession must evolve in aspects other than technology, including culture, status of the profession and skill sets.

This report analyzes the areas in which the audit needs to evolve and the main challenges and factors affecting this transformation. It also discusses how visions about the future of audit vary depending on the respondents’ years of experience.

Looking forward, a vast majority of surveyed audit associates and accounting students (83%) are clearly open to change: they define audit quality as constant improvement.

## KEY FINDINGS



**Ninety-three percent of respondents believe that the audit profession needs to evolve.** A third believe that auditors should go beyond certifying numbers, and 59% think that while auditors' role should stay the same, how they perform it should evolve.



**Culture (66%) and the regulatory environment (59%) are seen as the biggest challenges to enhancing the role of the audit.** These two factors are intertwined, as the intense regulation of the audit leads to a highly structured, process-oriented working environment, which can create resistance to change.



**Becoming more proactive** is the key characteristic crucial for the auditor of the future. That enhanced level of proactivity is required in providing more insights (50%), more quality (48%) and more value (41%).



**An increase in the profession's status (60%) is the most important way for audit to evolve,** according to young auditors and accounting students. Audit should be perceived as a profession, not a job, and career tracks should become more rewarding.



**Technology has the biggest impact on the audit profession (58%).** For young auditors, the top-ranked benefit of technology is that it provides tools for more sophisticated analysis (80%), while survey respondents overall value most highly the efficiency it brings (59%).



**A trio of skills are equally essential for future auditors:** experience in the client's industry (52%), investigative financial skills (52%) and critical thinking (52%). Underlying them is the need for adaptability, which is indispensable in a profession based on learning and change.

# AUDIT NEEDS TO CHANGE

The Forbes Insights/KPMG survey reveals the need for audit to do more. Ninety-three percent of respondents believe that audit needs to evolve. A third believe that auditors should go beyond certifying numbers, and 59% think that while auditors' role should stay the same, how they perform it should evolve.

These possibilities come from technology advancements as well as the gathering and analysis of new data. While companies are embracing data and analytics in their financial reporting and growth strategies, these methods create the need for new types of controls and risk assessment. Audit needs to evolve and expand to meet clients' needs.

To this end, the analysis of audit evidence needs to utilize more-sophisticated technologies to enhance quality and effectiveness, and auditors should perform deeper analysis in the areas they already cover (Figure 1.1). The scope of audit needs to expand as well—to include fraud analytics, risk management and IT systems analysis. Audit should become continuous and ongoing to provide real-time analysis.

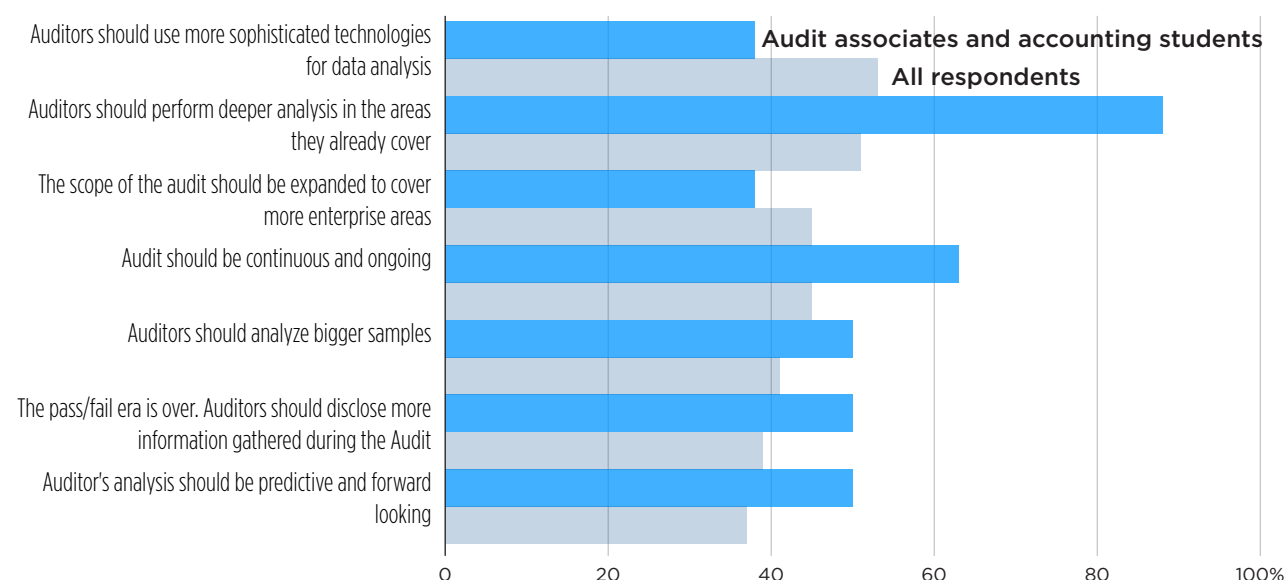
Survey respondents expressed some differences

about how they think audit should evolve depending on their own experience. More audit associates and accounting students recognize the need for deeper analysis of the areas currently covered than do all survey respondents. Half of audit associates and accounting students believe that the era of the pass/fail audit report is over and that audit should become forward-looking and predictive, while more experienced professionals do not rank these changes with such significance (Figure 1.1).

“Technology is a big driver to which the auditors are now responding. The audit process is continuing to change. In terms of the role and the scope, it will happen more slowly,” says Michael Bamber, accounting professor at the J. M. Tull School of Accounting, University of Georgia.

The next generation of auditors seems to

## 1.1 How should the role of the auditor evolve?

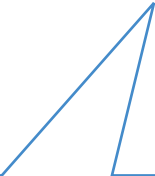


be convinced that parts of the audit scope need to expand. Bamber's students feel that uncovering fraud is a natural part of the auditor's responsibility. Sanaz Aghazadeh, an assistant accounting professor at Lehigh University, also reports that her students are surprised that an auditor wouldn't be responsible for fraud at all levels.

"There's sometimes a disconnect between what the audit actually provides and investor expectations," says Aghazadeh.

She believes the auditor's role could expand to include assessment of data integrity, as well as fraud prevention and detection.

"Auditors are in such a unique position that there is missed opportunity in terms of what they ultimately report. They should and could be providing more beneficial insights and recommendations to the companies they're auditing," sums up Christopher Brinkerhoff, a former accounting student at the W. P. Carey School of Business at Arizona State University.



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former accounting student at  
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at Arizona State University**

# HOW WILL AUDIT CHANGE?

Culture and the regulatory environment are seen as the biggest challenges to enhancing the role of the audit (Figure 2.1). These two factors are intertwined, as the intense regulation of the audit leads to a highly structured, process-oriented working environment, which can create resistance to change.

Eldar Maksymov, assistant professor of accounting at Arizona State University, disagrees with the stereotype that the audit profession is resistant to change. “The one constant in audit is change, and auditors constantly think about how to respond to their clients’ evolving financial statement risks in these changed environments,” he says.

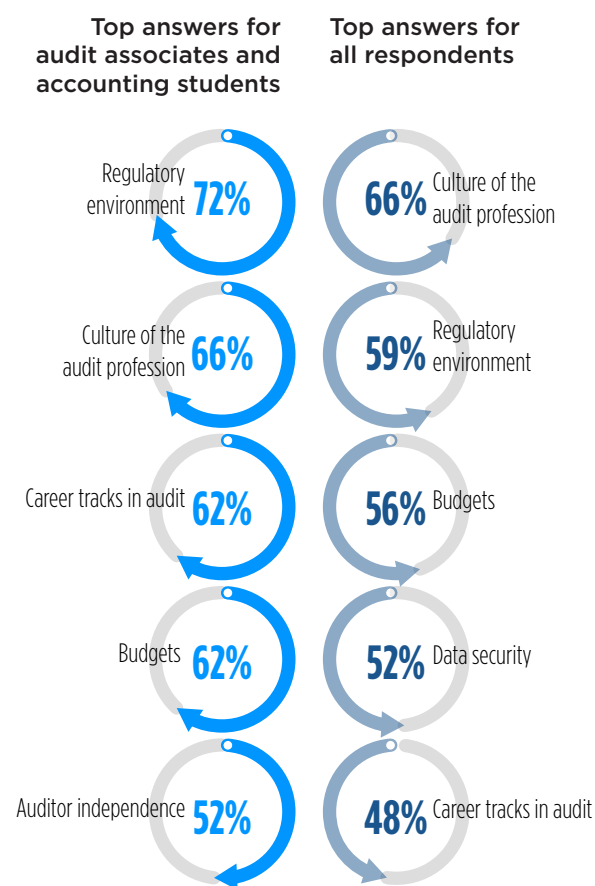
But because audit, unlike other professions, is regulated, it needs to evolve within the auditing standards. Before auditors can implement changes and start doing things differently, the auditing standards need to catch up with those new actions. “The perception might be that auditors don’t change very quickly, but it’s because different constituents need to inform the process,” Maksymov says.

A proactive attitude from the auditors is needed to spearhead the change and to start and maintain the conversation with all audit constituents. In fact, according to the survey, being more proactive appears in three of the five top responses as a way that audit should evolve (Figure 2.2).

Becoming proactive starts with communicating with audit constituents, an area in which future auditors may not yet meet expectations. Academics stress the need for teaching accounting students business writing, presentation skills and data visualizations.

Communication and interaction skills lead to deeper audit insights and an understanding of client needs. “Auditing is an interaction that involves gathering various types of information. While some of it is highly structured and can be sourced from spreadsheets and records, there is also valuable unstructured information that can only be gleaned from face-to-face interaction,” says Lehigh’s Aghazadeh. To this end, she advises students to avoid the temptation of “hiding behind the technology” and communicating via email only, for example. Instead, they should opt for in-person interactions. Auditors need to possess emotional intelligence to balance the necessary

## 2.1 What are the biggest challenges to enhancing the role of audit and auditor?



exercise of skepticism with maintaining a positive client relationship.

Former accounting student Brinkerhoff believes that the traditional stereotype of the auditor as an introverted number cruncher is outdated. “Current accounting students tend to be outgoing and better equipped to communicate, and these are the people that firms are currently hiring,” he says. While leading



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**- Sanaz Aghazadeh,**  
Assistant accounting professor, Lehigh University

the accounting club, Brinkerhoff co-organized several activities aimed at improving communications and presentation skills. He notes that accounting students fully appreciate the importance of such skills. “We can interact with people well. We can think on our feet,” he says.

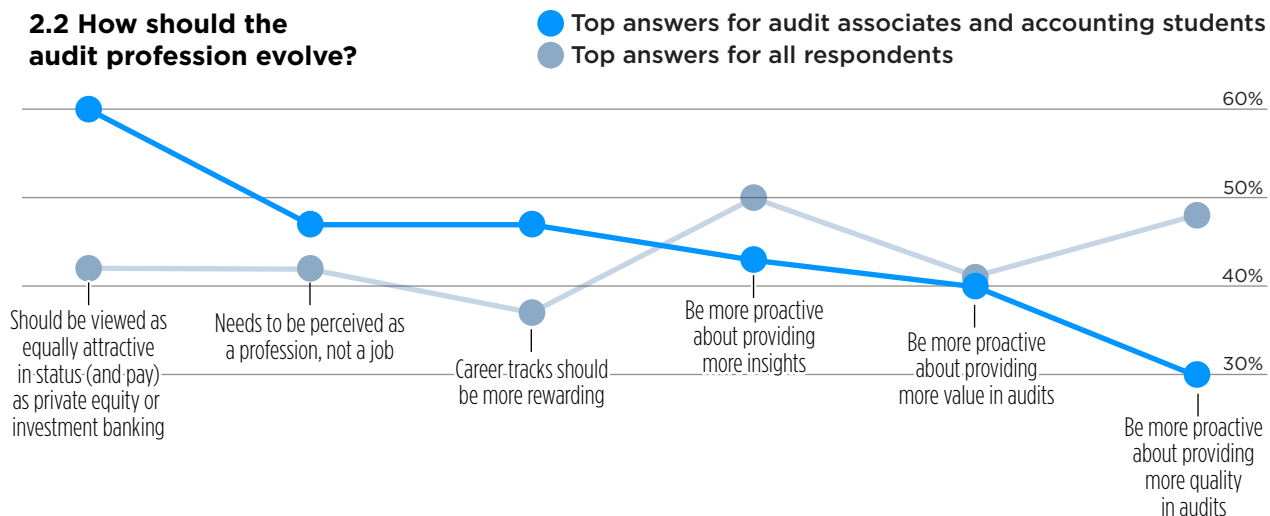
An increase in the profession’s status is the most important way for audit to evolve, according to young auditors and accounting students (Figure 2.2).

Academics we spoke with report that some 95% of accounting students intend to work for accounting firms, with half of them aiming to make partner and the other half viewing the valuable experience gained as an auditor as a step into other functions. “The

current progression is technically unlimited. There is a lot of growth potential, and there is a very structured avenue for it, especially in public accounting firms,” says Brinkerhoff.

However, Aghazadeh has noticed that over time, fewer students have been declaring their desire to become audit partners, a state of affairs she attributes partly to the increased regulatory burdens and to the perception of other careers as more enticing. One way to elevate the audit profession’s status is by underscoring the importance of audit as a pillar of a stable financial system and business world. “We need to remind audit associates about the value that auditors bring to the financial markets and integrate pride about that value into the audit culture,” she says.

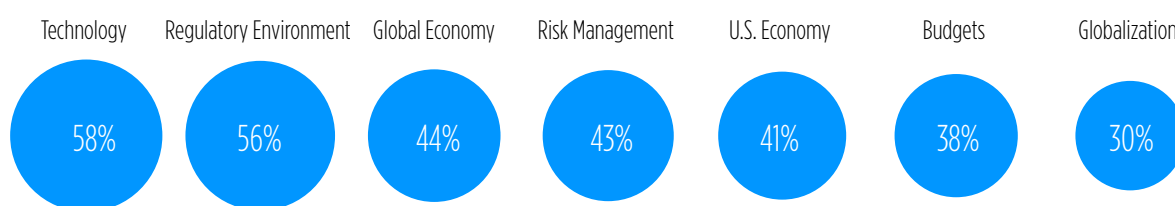
## 2.2 How should the audit profession evolve?



# TECHNOLOGY'S IMPACT ON AUDIT

According to respondents, technology will have the biggest impact on audit (Figure 3.1). “Looking five years out, we see a world where data analytics and technology continue to become more significant. Thanks to new technologies, auditors can offer insights and identify risks that may have been missed before,” says Karl Erhardt, SVP and general auditor, MetLife.

## 3.1 Which issues will have the greatest impact on the audit profession over the next three to five years?



Utilization of technology leads to enhanced audits. It allows auditors to vastly expand sampling beyond the current traditional sample sizes. Using data and high-powered analytics makes it possible to examine the majority, if not 100%, of client transactions. “Through that process, we’re seeing more deeply what is going on in the company, and should be able to provide the client with really valuable insights into potential risks that they have,” says Brinkerhoff.

For audit associates, the top-ranked benefit of technology is that it provides tools for more sophisticated analysis, while survey respondents overall value most highly the efficiency it brings (Figure 3.2). This points to the next generation’s eagerness to apply technology tools to search for deeper audit insights.

Technology is enabling access to data that auditors hadn’t previously seen. As a result, effective controls for gathering and processing data are becoming even more important. Brinkerhoff sees data breaches as the main motivation for increased audit vigilance and insights. In fact, he equates the current level of sensitivity regarding data breaches with that of the pre-Sarbanes-Oxley Act era, when investors

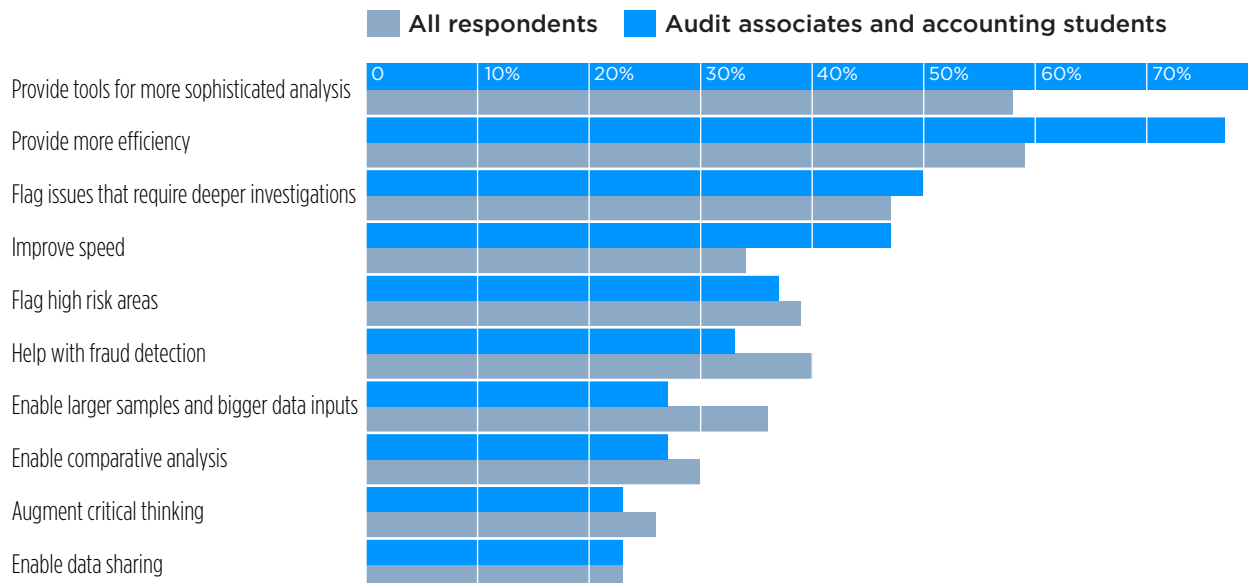
were particularly sensitive about management fraud.

“This younger generation of tech-savvy auditors is really pushing it [providing insights associated with data and technology risks] because we’re more willing to take on technology,” says Brinkerhoff.

Technology is also transforming auditors’ jobs. They spend less time looking for evidence, which allows more time for presenting the findings and making judgments. “The key role of technology has been to get rid of mundane jobs and boring tasks that our students had to endure before they got to a senior level. These days they’re assigned to interesting tasks earlier in their careers, making the job extra interesting and challenging,” says the University of Georgia’s Bamber.

With auditors facing more challenging tasks at the outset of their careers, critical thinking skills have become an absolute necessity. “For auditors, critical thinking has always been a key competency, and it may be even more so today, as businesses are more complex. New technologies will never replace the need for critical thinking,” says Erhardt.

### 3.2 What is the impact of technology on the audit process?

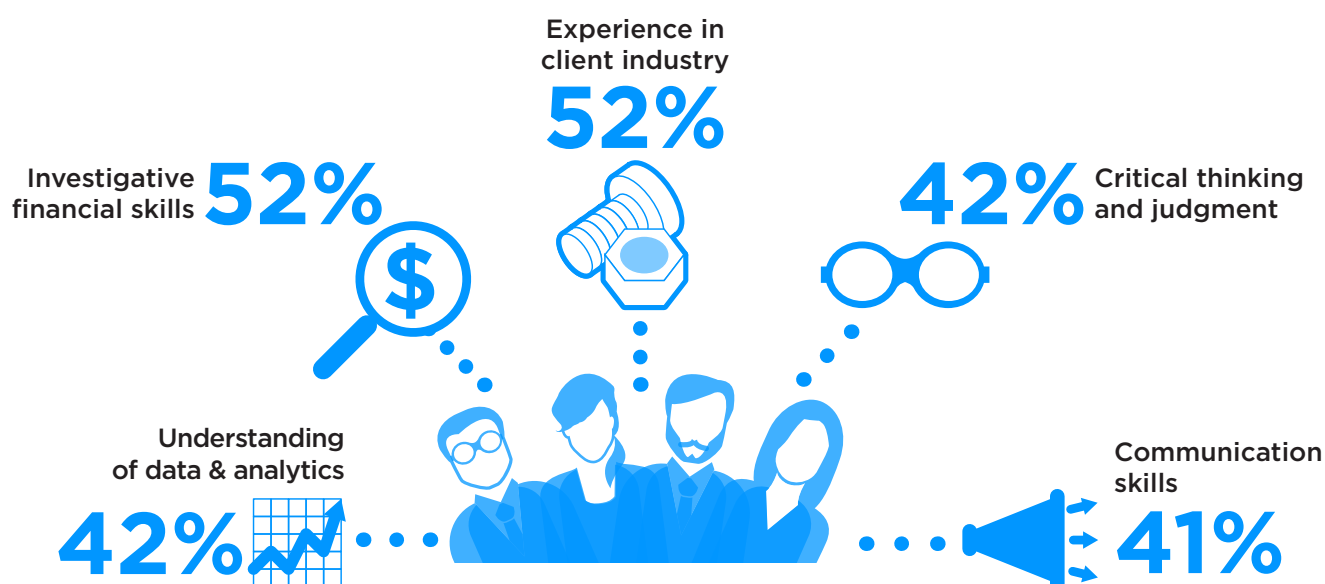


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# THE FUTURE AUDIT SKILL SETS

The evolving role and processes of the audit require auditors to develop new skills, sometimes going beyond traditional skill sets. All survey respondents, irrespective of their level of experience in the industry, agreed upon a trifecta of top skills most important for future auditors: client industry experience, investigative financial skills and critical thinking.



The need for having all of the above skills underscores the value of an audit team, which blends the business experience and subject matter expertise of experienced audit professionals with the advanced data, technical and analytical know-how of more recent arrivals to the field. It takes years to learn a business's workings, especially given the complexity of today's enterprises. The executives we spoke with emphasized continuity of knowledge within an audit team. The best way to achieve that goal is to include members with different levels of experience in each team. Seasoned auditors can pass their knowledge along while learning from the technical skills of other members.

Lehigh's Aghazadeh stresses the importance of developing intellectual curiosity and avoiding a checklist mentality. She aims to instill these qualities in her students. "A thoughtful audit is based on a holistic

view of the business, understanding how all the pieces fit together, which requires critical thinking rather than a piecemeal approach," she says.

The academics and audit professionals we spoke with also emphasized the importance of being able to navigate data gathering and analytics. With information clusters becoming ever more complex and larger, and often stored in the cloud, it is critical for auditors to know how to manipulate, analyze and query large databases, according to Arizona State's Maksymov. Aghazadeh adds that data analytics, including software courses, should be added to accounting curriculums.

The ultimate skill is adaptability. "Auditors need to be willing to adapt to changes throughout their careers," says Maksymov. "We teach them how to learn. Audit is a profession where you should value a lifetime of learning, a lifetime of change."



# LOOKING FORWARD

## CONSIDERING THE FUTURE OF AUDIT

As the survey results make clear, the audit profession is experiencing a period of historic evolution, largely driven by the proliferation of data and advancements in technology. Some would even say the profession is being fundamentally transformed, as auditors can now gain insight through the use of data in ways that were unthinkable just a few years ago.

As they move toward this data-driven and analytics-enabled future, auditors must adapt to new ways of working, learn to use new tools and cultivate new analytical skill sets. The expanding scope of audits – which is likely to include fraud analytics, risk management and IT systems analysis – represents another profound change.

But, despite all this change, the need for quality and accuracy in audits remains constant. These attributes must be the focus for all audit activities – no matter how many dimensions and petabytes of data are available for review – because they are essential to retaining investor confidence in individual audits and the profession as a whole.

After all, technology is merely an enabler. Its role is to empower auditors to bring their skills, experience and judgment to bear in new and more impactful ways. Such critical thinking can be manifested in many ways – from anticipating and meeting needs to understanding the nuances of specific industries to conducting deeper analysis and delivering insights in real time.

Ultimately, it's the combination of technology and data with professional judgment and deep industry expertise that will characterize the most successful audit teams of the future. This powerful combination results in enhanced audits, notable for higher quality and deeper insights. In this sense, the future for audit looks very bright indeed.

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# METHODOLOGY

Based on a survey of 151 respondents in the U.S. in December 2014 (13 audit committee chairs and members, 22 CEOs, 15 CFOs, 20 other C-level executives and controllers, 30 directors of financial reporting, 21 investors, 26 audit associates, two current accounting students and two audit professors).

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Christopher Brinkerhoff, Former Accounting Student, W.P. Carey School of Business at Arizona State University

Karl Erhardt, SVP and General Auditor, MetLife

Eldar Maksymov, Assistant Professor of Accounting, Arizona State University

James A. Unruh, Chairman of the Health Information Technology Committee at Tenet Healthcare

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## INSIGHTS

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**Bruce Rogers**

CHIEF INSIGHTS OFFICER

**Kasia Moreno**

EDITORIAL DIRECTOR & REPORT AUTHOR

**Brian McLeod**

COMMERCIAL DIRECTOR

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MANAGER

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MANAGER, EMEA

**Erika Maguire**

PROJECT MANAGER

**DDD Infographic**

DESIGNER