



East Carolina University | Board of Trustees
Audit, ERM, Compliance, and Ethics Committee Meeting
April 27, 2017 | Agenda

- | | | |
|------|---|-------------|
| I. | Approval of February 17, 2017 Minutes | Action |
| II. | Office of Internal Audit – Ms. Stacie Tronto | |
| A. | Audit Plan Changes | Action |
| B. | New Employee | Information |
| C. | Dashboard | Information |
| D. | UNC-GA Tableau Presentation | Information |
| E. | Student Intern | Information |
| III. | Health Sciences Office of Institutional Integrity -
Dr. Ken Deville and Ms. Michelle Evans | |
| A. | Update of Activities | Information |
| IV. | Enterprise Risk Management - Mr. Tim Wiseman | |
| A. | Update of Activities | Information |
| V. | Other Business | |

East Carolina University
Board of Trustees
Audit, ERM, Compliance and Ethics Committee
April 27, 2017

Session	Audit, ERM, Compliance & Ethics Committee
Responsible Person	Kel Normann, Chair
Agenda Item	I.
Item Description	Approval of minutes – February 17, 2017
Comments	
Action Requested	Approval
Disposition	
Notes	

*****DRAFT*****

**Minutes from ECU BOT Audit, Enterprise Risk Management, Compliance, and Ethics Committee
February 16, 2017
Harvey Hall**

The Audit, Enterprise Risk Management, Compliance, and Ethics Committee (formerly named and still sometimes referred to as "Audit Committee") of the ECU Board of Trustees met in regular session on February 16, 2017 at 1:30pm in Harvey Hall on the campus of East Carolina University. Committee members present included Kel Normann (Chair), Vern Davenport, Bob Plybon, and Mark Copeland.

Other board members present included Leigh Fanning, Danny Scott, Deborah Davis, and Ryan Beeson.

Others present included Donna Payne, Michael Van Scott, Steve Duncan, Nick Benson, Tim Wiseman, Kenneth DeVille, Michelle Evans, Norma Epley, Hiromi Sanders, Kevin Carraway, Amanda Danielson, Stacie Tronto, and Wayne Poole.

Kel Normann, Chair of the Committee, convened the meeting at 1:30PM. Mr. Normann read the conflict of interest provisions as required by the State Government Ethics Act. Mr. Normann asked if anyone would like to declare or report an actual or perceived conflict of interest. None were reported.

Mr. Normann asked for the approval of the minutes of the November 10, 2016 audit committee meeting.

Action Item: The minutes of the November 10, 2016 audit committee meeting were approved with no changes.

Mr. Tim Wiseman provided the **Enterprise Risk Management (ERM)** update.

Mr. Wiseman reviewed the University's enterprise risk survey and risk ranking process, and shared the "Top 10" enterprise risks list which was derived from this process. He also shared a list of other emerging risks (outside the top 10) and a list of business processes that were deemed potentially risky by the survey respondents. Mr. Wiseman stated that risk management plans will be developed for the top 10 risks, with the support and direction of the Executive Council. The committee members and other board members present asked questions and engaged in discussion regarding the involvement of additional student respondents to ensure that student-related risks are adequately considered. Mr. Wiseman agreed.

Ms. Stacie Tronto provided the **Internal Audit** update.

Ms. Tronto presented the Internal Audit dashboard for the first quarter of FY 2017. Ms. Tronto stated that as of December 31, 2016, Internal Audit had completed 31% of the audit plan, with another 50% in progress. The annual target is to complete 80% of the plan, and Internal Audit is on track to meet this target. Ms. Tronto stated that the audit staff has used 72% of their hours on direct audit and consulting activity. The target is 75%. The shortfall to date is due to the Christmas holiday. Ms. Tronto stated that Internal Audit has completed 85 consultations, accounting for 16% of the staff hours. The target is for no more than 20% of hours to be spent on consultations. Ms. Tronto stated that University management has satisfactorily addressed 100% of the recommendations that Internal Audit has followed up on so far this fiscal year. The target is 95%. Ms. Tronto noted that due to numerous recent issues that have been brought forward for Internal Audit to review (and added to the audit plan), and the upcoming loss of one auditor who is transferring to another department at the University, she may be proposing some revisions to the audit plan at the April meeting.

ProCard Data Analytics Presentation

Ms. Amanda Danielson (Auditor in the Office of Internal Audit) presented information on the office's data analytics efforts in partnership with the ProCard Office in Materials Management. Over \$17M in purchases were made using University ProCards in fiscal year 2016. The use of ProCards is expected to grow since it is more efficient and less costly than traditional purchase order processes. However, this method of purchasing requires strong review and controls after the fact. Ms. Danielson stated that Internal Audit has developed a visual reporting tool which will allow Materials Management to more efficiently fulfill its oversight and compliance responsibilities, and Internal Audit used this tool to analyze the FY 2016 purchase data. Ms. Danielson demonstrated this tool for the committee. It will be operationalized in Materials Management in March, 2017.

Ms. Norma Epley presented the **Research Compliance Report**

Ms. Epley reviewed recent changes in the federal regulations that govern the protection of human research subjects. The changes are referred to as "the common rule" since the same rule set was agreed to and adopted

*****DRAFT*****

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by 15 federal agencies. Ms. Epley provided background on the rationale for the changes and a brief summary of the changes. She advised the committee that her office is currently interpreting them and assessing the impact on the University. She also stated that ECU has been asked to take the lead on this effort for the UNC system, and will be presenting information to UNC GA in April.

Other Business

None

There being no further business, the Audit Committee meeting was adjourned at 2:55 PM.

Respectfully submitted,
Wayne Poole
ECU Office of Internal Audit and Management Advisory Services

East Carolina University
Board of Trustees
Audit, ERM, Compliance and Ethics Committee
April 27, 2017

Session	Audit, ERM, Compliance & Ethics Committee
Responsible Person	Stacie Tronto, Director of Internal Audit
Agenda Item	II.
Item Description	Office of Internal Audit
Comments	
Action Requested	Action (II.A. only) / Information
Disposition	
Notes	A. Audit Plan Changes B. New Employee C. Dashboard D. UNC-GA Tableau Presentation E. Student Intern

Internal Audit Dashboard - As of 03/31/17

Completion of Audit Plan: Completed vs. Planned Audits

<i>Status of Audit Plan</i>	<i>Number of Audits</i>	<i>Percent of Total Plan</i>
Completed	26	51%
In Process	22	43%
Pending	3	6%
Total	51	100%

Goal = 80%

Staff Utilization: Direct vs. Indirect Hours

	<i>With UPS</i>	<i>Without UPS</i>
Direct Hours	69%	74%
Indirect Hours	31%	26%

Goal = 75%

Consultations

	<i>Number</i>	<i>% of Audit Plan</i>
Consultations	102	18%

Management's Corrective Actions

<i>Observations by Division:</i>	<i>Completed</i>	<i>Outstanding</i>	<i>% Complete</i>	<i>% Outstanding</i>	<i>Pending</i>
Academic Affairs	0	0	0%	0%	0
Administration and Finance	1	0	0%	0%	29
Athletics	0	0	0%	0%	4
Chancellor	0	0	0%	0%	0
Health Sciences	11	0	100%	0%	5
Research and Graduate Studies	0	0	0%	0%	0
Student Affairs	6	0	0%	0%	0
University Advancement	0	0	0%	0%	0
Total Observations	18	0			38
Total Percentages	100%	0%			

Goal = 95%

East Carolina University
Board of Trustees
Audit, ERM, Compliance and Ethics Committee
April 27, 2017

Session	Audit, ERM, Compliance & Ethics Committee
Responsible Person	Ken Deville, Chief Institutional Integrity Officer Michelle Evans Epley, Director, Office of Institutional Integrity
Agenda Item	III.
Item Description	Health Sciences Office of Institutional Integrity
Comments	
Action Requested	Information
Disposition	
Notes	A. Update of Activities

East Carolina University
Board of Trustees
Audit, ERM, Compliance and Ethics Committee
April 27, 2017

Session	Audit, ERM, Compliance & Ethics Committee
Responsible Person	Tim Wiseman, Assistant Vice Chancellor, ERM
Agenda Item	IV.
Item Description	Enterprise Risk Management
Comments	
Action Requested	Information
Disposition	
Notes	A. Update of Activities

INFORMATION PAPER

SUBJECT: Enterprise Risk Management (ERM) Update for the BOT-Audit, Risk Management, Compliance and Ethics Committee April 2017 Meeting

1. Purpose. To advise BOT-ARMCE committee members of significant ERM and Chief Risk Officer (CRO) activities from the past two months and those planned or anticipated for the next two months.

2. Action Recapitulation:

a. Significant ERM/CRO Activities from the Past Two Months:

- Presentation of Top Risk Survey Results to University Leadership and BOT-ARMCE
- Quarterly Enterprise Risk Management Committee Meeting and Actions (Feb)
- Background Check Task Force – Initial Meeting and Process Review (ICW HR)
- Coordinated with ECU ITCS on Options for Cyber Insurance
- Annual Master Policy Renewals
- Coordination with BSOM Risk Management – Insurance and Project Unify
- FEMA Claims – Hurricane Matthew Damage
- UAS/Drones Advisory Committee Actions – Developing ECU Internal Capability
- ERM Consultations and Inquiries – Various Departments
- Top Risk Survey Results Presentation to Academic Deans and Directors
- Taught PRIMA/URMIA ERM in Higher Ed Workshop, Memphis, TN
- RIMS Annual Conference, Philadelphia, PA – Co-Presentation on ERM Best Practices
- Crisis Response Tabletop Exercise

b. Significant ERM/CRO Activities Next Two Months:

- Risk Management Plan Development for Top Risk Areas
- Risk Assessment for Expanding International Programs and Study Abroad Initiatives
- Publish ERM Five Things Executive eNewsletter
- Quarterly Enterprise Risk Management Committee Meeting and Actions (May)
- Re-Admissions Risk Case Reviews and University Behavioral Concerns Team Actions
- ERM Consultations/Research/Inquiries – Various Departments
- ERM Education and Assessment Facilitation with One-on-One Key Leader Discussions

3. Other: AICPA/NC State ERM Initiative “2017 The State of Risk Oversight” paper attached.



ACTION OFFICER: Tim Wiseman
 Assistant Vice Chancellor for ERM & Military Programs
 Spilman Bldg, Room 214, 252-737-2803

2017

THE STATE OF RISK OVERSIGHT:

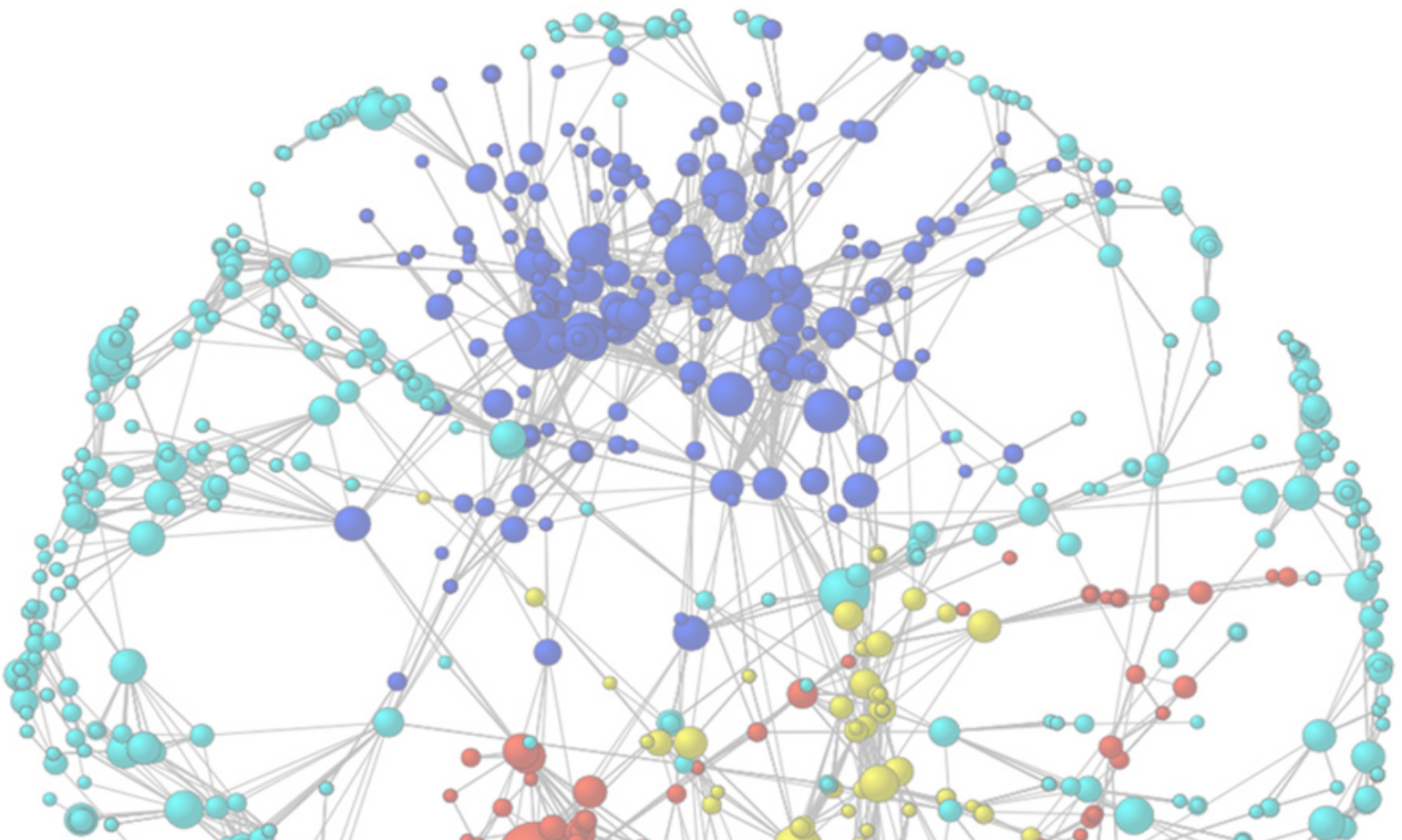
AN OVERVIEW OF ENTERPRISE RISK MANAGEMENT PRACTICES

8th Edition | March 2017

Mark Beasley
Deloitte Professor of ERM
Director, ERM Initiative

Bruce Branson
Associate Director
ERM Initiative

Bonnie Hancock
Executive Director
ERM Initiative



Overview of Study

The speed of innovation and the highly dynamic global business environment create tremendous opportunities for organizations as they pursue value. As business leaders manage the ever-changing economic, political, and technological landscape they face an exponentially increasing range of uncertainty that creates a highly complex portfolio of potential risks that, if unmanaged, can cripple an organization's business model and brand.

A number of organizations are recognizing the value that a structured and explicit focus on emerging risks can bring to the leadership of an organization by arming it with richer insights about opportunities and challenges on the horizon. Many of them are strengthening organizational processes to identify, assess, manage, and monitor those risks most likely to impact – both positively and negatively – the entity's strategic success. A number of these entities have embraced the concept of enterprise risk management (ERM) to help them strengthen their enterprise-wide risk oversight. While organizations have managed risks for decades, ERM is a process led from the top of the organization by its board and senior leaders that considers risks from a top-down, strategic perspective so that those risks can be managed proactively with an enterprise-wide lens which will make the organization more likely to achieve its core objectives.

To obtain an understanding of the current state of enterprise risk oversight among entities of all types and sizes, we have partnered over the past eight years with the American Institute of Certified Public Accountants' (AICPA) Business, Industry, and Government Team to survey business leaders about a number of characteristics related to their current enterprise-wide risk management efforts. This is the eighth report that we have published summarizing our research in partnership with the AICPA.

Data was collected during the fall of 2016 through an online survey instrument electronically sent to members of the AICPA's Business and Industry group who serve in chief financial officer or equivalent senior executive positions. In total, we received 432 fully completed surveys. This report summarizes our findings and provides a resource for benchmarking an organization's approach to risk oversight against current practices.

This year we observe that the maturity of enterprise-wide risk oversight processes remains relatively stable at levels consistent with the past few years with large organizations, public companies, and financial services organizations significantly more mature than other organizations in their enterprise-risk oversight processes. Most notably, organizations continue to struggle to integrate their risk oversight efforts with their strategic planning processes. We believe that significant opportunities remain for organizations to continue to strengthen their approaches to identifying and assessing key risks facing the entity especially as it relates to coordinating these efforts with strategic planning activities.

The following page highlights some of the key findings from this research. The remainder of the report provides more detailed information about other key findings and related implications for risk oversight.

Mark S. Beasley
Deloitte Professor of ERM
ERM Initiative

Bruce C. Branson
Associate Director
ERM Initiative

Bonnie V. Hancock
Executive Director
ERM Initiative

The ERM Initiative in the Poole College of Management at North Carolina State University provides thought leadership on enterprise risk management (ERM) and its integration with strategic planning and corporate governance, with a focus on helping boards of directors and senior executives gain strategic advantage by strengthening their oversight of all types of risks affecting the enterprise.

www.erm.ncsu.edu

Key Highlights

Risk Environment is Complex

- **Most leaders believe the risks they face are complex and numerous**

- About **70%** of large organizations, public companies, and financial services entities perceive the volume and complexities of risks have increased "mostly" or "extensively" in past 5 years
- That trend has been consistent over the past several years, suggesting the overall risk environment continues to be challenging to manage for all types of organizations
- Most organizations have dealt with significant operational surprises in past 5 years

But...Risk Management Processes Less Advanced

- **Less than half describe risk management processes as "mature" or "robust"**

- **25%** of full sample describes their risk management processes as "mature" or "robust", with large organizations, public companies, and financial services entities having more mature processes (but less than **50%** are "mature" or "robust")
- The majority of organizations do not believe their processes reflect "complete" or formal enterprise-wide risk management

Opportunities Exist to Integrate Risk Management and Strategic Planning

- **Most organizations are struggling to integrate risk management with strategic planning**

- About **one-quarter** of the respondents describe their processes as an important strategic tool with no real differences in that assessment across types of organizations
- **34%** of the full sample do no formal assessments of emerging strategic, market, or industry risks
- If an entity considers strategic risks, that mostly involves qualitative assessments of risk exposures

More Organizations are Strengthening Risk Leadership

- **More organizations are establishing management-level risk committees**

- **58%** of the full sample has a risk committee, up from 45% last year
- Management-level risk committees are more likely for larger organizations, public companies and financial services organizations (around **80%**) - an increase of about 10% points over last year
- We also saw an increase in the designation of individuals who serve as chief risk officer or equivalent

Calls for Increased Senior Management Involvement

- **Strong majority of boards are asking for increased senior executive involvement in risk oversight ("somewhat", "mostly", or "extensively")**

- **67%** of the boards for the full sample are calling for more involvement, with even higher percentages of boards asking for that at large organizations, public companies, and financial services entities
- This trend is consistent with prior years, suggesting boards continue to be interested in strengthening risk oversight

Overview of Research Approach

This is the eighth year we have conducted this study to identify trends across a number of organizations related to their enterprise risk management (ERM) processes. This study was conducted by research faculty who lead the Enterprise Risk Management Initiative (the ERM Initiative) in the Poole College of Management at North Carolina State University (for more information about the ERM Initiative please see <http://www.erm.ncsu.edu>). The research was conducted in conjunction with the American Institute of Certified Public Accountants' (AICPA) Business, Industry, and Government Team. Data was collected during the fall of 2016 through an online survey instrument electronically sent to members of the AICPA's Business and Industry group who serve in chief financial officer or equivalent senior executive positions. In total, we received 432 fully completed surveys. This report summarizes our findings.

Description of Respondents

Respondents completed an online survey consisting of over 40 questions that sought information about various aspects of risk oversight within their organizations. Most of those questions are the same across

Results are based on responses from 432 executives, mostly serving in financial leadership roles, representing a variety of industries and firm sizes.

all eight of our editions of the surveys that we have conducted each year from 2009 - 2016. This approach provides us an opportunity to observe any shifts in trends in light of more recent developments surrounding board and senior executive's roles in risk oversight.

Because the completion of the survey was voluntary, there is some potential for bias if those choosing to respond differ significantly from those who did not respond. Our study's results may be limited to the extent that such bias exists. Furthermore, there is a high concentration of respondents representing financial reporting roles. Possibly, there are others leading the risk management effort within their organizations whose views are not captured in the responses we received. Despite these limitations, we believe the results reported herein provide useful insights about the current level of risk oversight maturity and sophistication and highlight many challenges associated with strengthening risk oversight in many different types of organizations.

A variety of executives serving in financial roles responded to our survey, with 31%¹ having the title of chief financial officer (CFO), 15% serving as controller, and 9% leading internal audit. Other respondents included the chief risk officer (9%) and treasurer (1%), with the remainder representing numerous other executive positions.

Nature of Organizations Represented

The respondents represent a broad range of industries. Consistent with our prior year survey, the four most common industries responding to this year's survey were finance, insurance, and real estate (28%), followed by not-for-profit (25%), manufacturing (14%), and services (13%). The mix of industries is generally consistent with the mix in our previous reports.

¹ Throughout this report we have rounded the reported percentages to the nearest full percent for ease of discussion.

Industry (SIC Codes)	Percentage of Respondents
<u>For-Profit Entities:</u>	
Finance, Insurance, Real Estate (SIC 60-67)	28%
Manufacturing (SIC 20-39)	14%
Services (SIC 70-89)	13%
Wholesale/Distribution (SIC 50-51)	5%
Construction (SIC 15-17)	5%
Mining (SIC 10-14)	4%
Retail (SIC 52-59)	3%
Transportation (SIC 40-49)	3%
<u>Not-for-Profit (SIC N/A)</u>	
Government Agencies, Universities, Non-Profits	25%

The respondents represent a variety of sizes of organizations. As shown in the table below, two-thirds (59%) of companies that provided data about their financial performance generated revenues up to \$500 million in their most recent fiscal year.² An additional 9% generated revenues between \$500 million and \$1 billion while 32% of organizations providing revenue data earned revenues in excess of \$1 billion. Almost all (88%) of the organizations are based in the United States.

Range of Revenues in Most Recent Fiscal Year	Percentage of Respondents
\$0 < x ≤ \$10 million	14%
\$10 million < x ≤ \$100 million	27%
\$100 million < x ≤ \$500 million	18%
\$500 million < x ≤ \$1 billion	9%
\$1 billion < x ≤ \$2 billion	9%
\$2 billion < x ≤ \$10 billion	14%
x > \$10 billion	9%

Throughout this report, we highlight selected findings that are notably different for the 131 largest organizations in our sample, which represent those with revenues greater than \$1 billion. Additionally, we also provide selected findings for the 120 publicly-traded companies, 117 financial services entities, and 108 not-for-profit organizations included in our sample.

² Twenty-seven of the 432 respondents did not provide information about revenues.

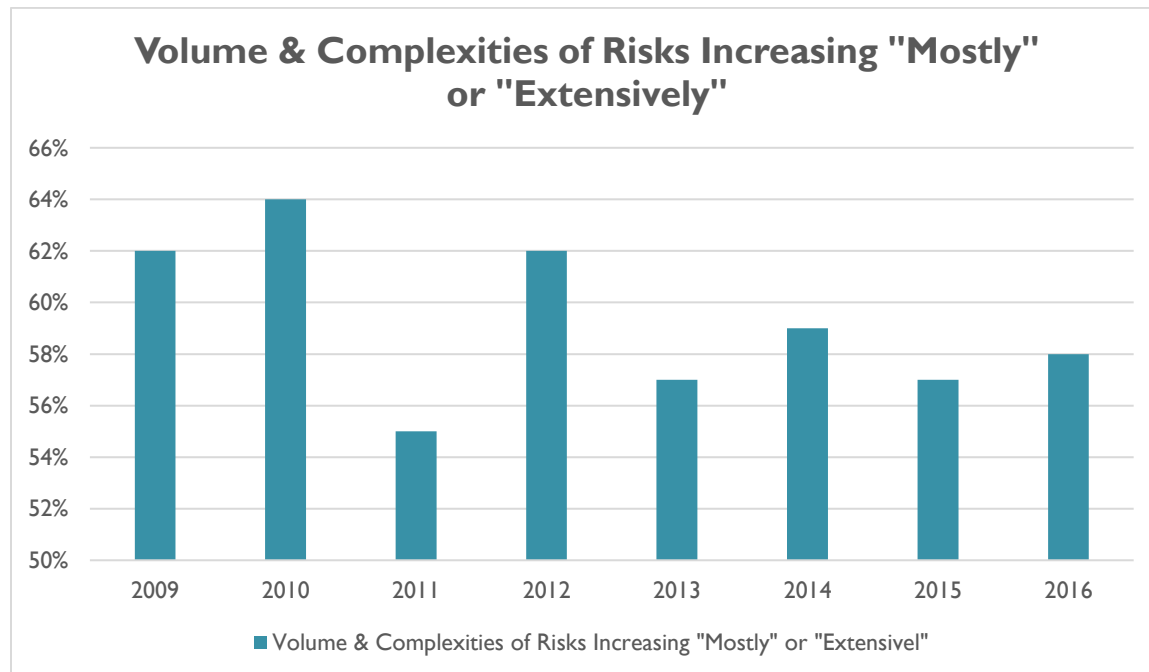
Understanding Overall Risk Landscape

Key Insight from Analysis:

Most executives believe the risk landscape is becoming increasingly challenging to manage. That reality is translating into operational surprises that require reactive versus proactive responses. Risk management is not getting easier.

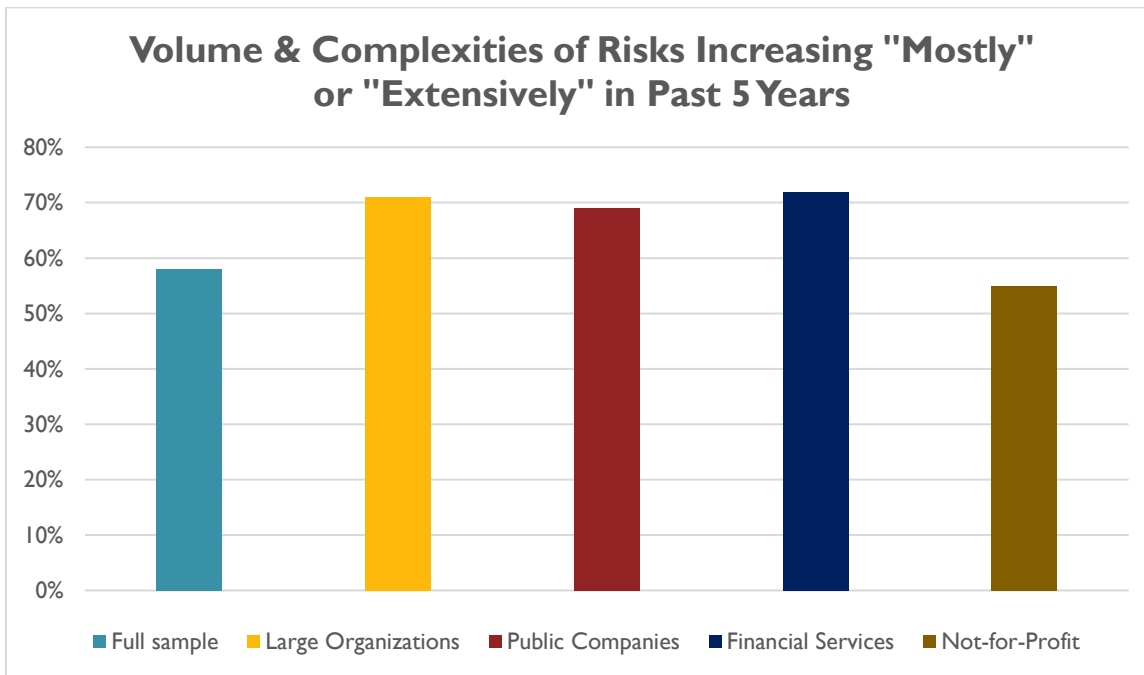
Many argue that the volume and complexity of risks faced by organizations today continue to evolve at a rapid pace, creating huge challenges for management and boards in their oversight of the most important risks. Recent events such as Brexit, the U.S. presidential election, immigration challenges, the constant threat of terrorism, and cyber threats, among numerous other issues, represent examples of challenges management and boards face in navigating an organization's risk landscape. To get a sense for the extent of risks faced by organizations represented by our respondents, we asked them to describe how the volume and complexity of risks have increased in the last five years. Twenty percent noted that the volume and complexity of risks have increased "extensively" over the past five years, with an additional 38% responding that the volume and complexity of risks have increased "mostly." Thus, on a combined basis, 58% of respondents indicate that the volume and complexity of risks have changed "mostly" or "extensively" in the last five years, which is in line with what participants noted in the most recent prior years. Only 2% responded that the volume and complexity of risks have not changed at all.

The majority of respondents believe the volume and complexity of risks have increased "mostly" or "extensively" in the past five years, and that finding is consistent across various types of organizations.



Question	Description of Response (Full Sample)				
	Not at All	Minimally	Somewhat	Mostly	Extensively
To what extent has the volume and complexity of risks increased over the past five years?	2%	7%	33%	38%	20%

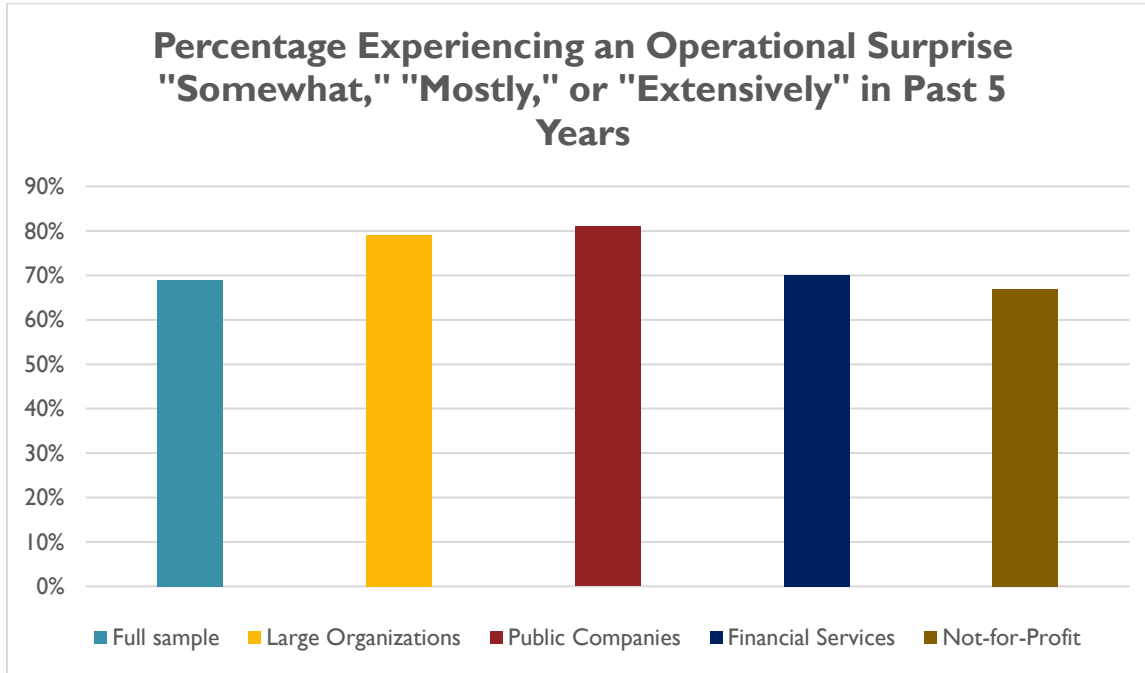
We separately analyzed responses to this question for various subgroups of respondents. As shown below, the percentage of respondents indicating an increase in the volume and complexity of risks is even higher for large organizations, public companies, and financial services. Collectively, this indicates that the overall business environment is perceived as relatively risky across all types of entities.



Some risks have actually translated into significant operational surprises for the organizations represented in our survey. About 11% noted that they have been affected by an operational surprise “extensively” within the last five years and an additional 23% of respondents noted that they have been affected “mostly” in that same time period. An additional 35% responded “somewhat” to this question. Collectively, this data indicates that the majority of organizations (69%) are being affected by real risk events (e.g., a competitor disruption, an IT systems breach, loss of key talent, among numerous others possible events) that have emerged in their organizations that have affected how they do business, consistent with what we found in our prior studies.

Question	Description of Response (Full Sample)				
	Not at All	Minimally	Somewhat	Mostly	Extensively
To what extent has your organization faced an operational surprise in the last five years?	5%	26%	35%	23%	11%

The rate of operational surprises is even higher for large organizations and publicly-traded entities, with close to 80% of those responding as “somewhat,” “mostly,” or “extensively.” The reality is that all organizations are dealing with unexpected risks. About 70% of the financial services entities and 67% not-for-profit organizations in our sample responded with “somewhat” or higher to this question about the presence of operational surprises in the past five years.



Relative to our earlier studies, we do not observe a notable reduction in the rate of operational surprises affecting organizations “mostly” or “extensively.” The responses to questions about the nature and extent of risks organizations face indicate that executives are experiencing a noticeably high volume of risks that are also growing in complexity, which ultimately results in significant unanticipated operational issues. The reality that unexpected risks and uncertainties occur and continue to “surprise” organizational leaders suggests that opportunities to improve risk management techniques still exist for most organizations.

Maturity of Risk Management Processes

Key Insight from Analysis:

The percentage of organizations with relatively mature risk management processes increased over recent years, although the majority of organizations still do not believe their processes reflect a “complete” or robust ERM process. Just under half of larger companies and public companies describe their risk management oversight as “mature” or “robust.” While progress is being made, there is still room for significant improvement in risk oversight for many organizations. This is especially relevant given views about the growing volume and complexities of risks organizations face.

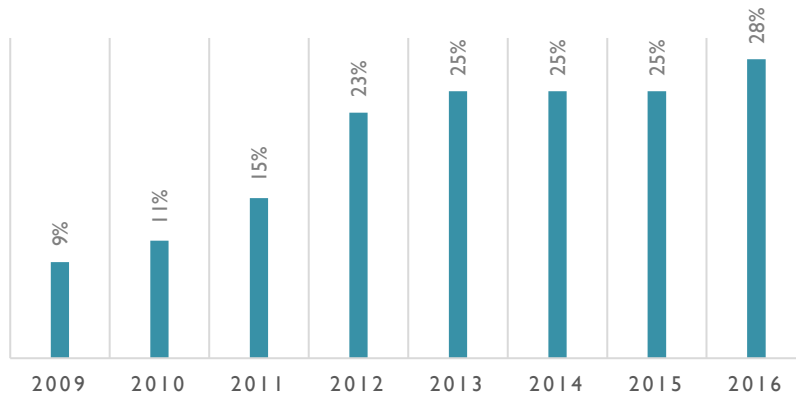
There have been growing calls for more effective enterprise risk oversight at the board and senior management levels in recent years. Many corporate governance reform experts have called for the adoption of a holistic approach to risk management widely known as “enterprise risk management” or “ERM.” ERM is different from traditional approaches that focus on risk oversight by managing silos or distinct pockets of risks. ERM emphasizes a top-down, enterprise-wide view of the inventory of key risk exposures potentially affecting an entity’s ability to achieve its objectives. See Appendix A for more information about the concept of ERM.

To obtain a sense for the current state of ERM maturity, we asked survey participants to respond to a number of questions to help us get a sense for the current level of risk oversight in organizations surveyed. One of the questions asked them to select from the following the best description of the state of their ERM currently in place:

- No enterprise-wide process in place
- Currently investigation concept of enterprise-wide risk management, but have made no decisions yet
- No formal enterprise-wide risk management process in place, but have plans to implement one
- Partial enterprise-wide risk management process in place (i.e., some, but not all, risk areas addressed)
- Complete formal enterprise-wide risk management process in place

Over the past three years, there appears to have been a leveling off of the percentage of organizations in the full sample that believe they have a “complete formal enterprise-wide risk management process in place.” As illustrated by the chart on the next page, we did see a small increase in the number of organizations at that level of maturity for 2016.

COMPLETE ERM IN PLACE: FULL SAMPLE



The above chart shows an increase from 2009 through 2012 with a leveling off for the subsequent three years in the percentage of organizations that claim they have a “complete formal enterprise-wide risk management process in place.” In our 2009 report, only 9% of organizations claimed to have complete ERM processes in place; however, in 2016 the percentage is just above 28% for the full sample. That suggests that there continues to be significant opportunity for improvement in most organizations, given that just below three-fourths of organizations surveyed cannot yet claim they have “complete ERM in place.” The adoption of ERM is greatest for larger companies and public companies as summarized in the table on the next page.

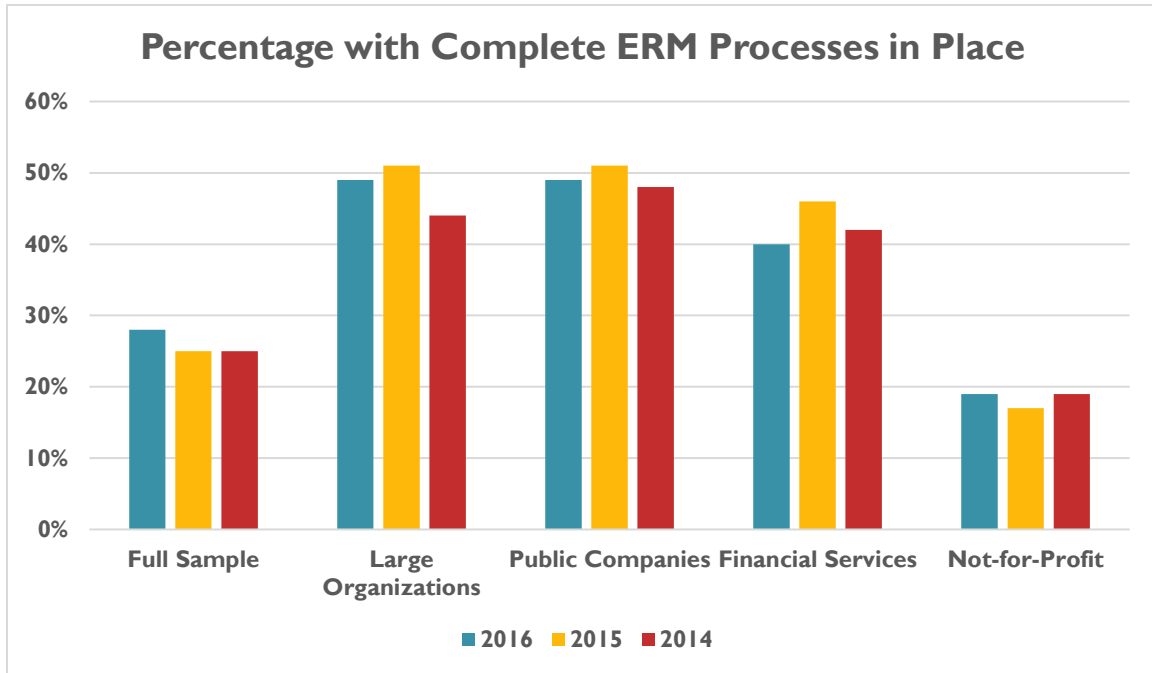
The adoption of ERM is much further along for large organizations, public companies, and financial institutions.

Description of the State of ERM Currently in Place	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-For-Profit Organizations
No enterprise-wide management process in place	17%	1%	4%	6%	17%
Currently investigating concept of enterprise-wide risk management, but have made no decisions yet	9%	3%	3%	6%	11%
No formal enterprise-wide risk management process in place, but have plans to implement one	9%	4%	3%	9%	9%
Partial enterprise-wide risk management process in place (i.e., some, but not all, risk areas addressed)	37%	43%	41%	39%	44%
Complete formal enterprise-wide risk management process in place	28%	49%	49%	40%	19%

For the full sample, we found that under one-fifth (17%) of the respondents have no enterprise-wide risk management process in place. An additional 9% of respondents without ERM processes in place indicated that they are currently investigating the concept, but have made no decisions to implement an ERM approach to risk oversight at this time. Thus, on a combined basis, 26% of respondents have no formal enterprise-wide approach to risk oversight and are currently making no plans to consider this form of risk oversight. That is a bit surprising as you consider the growing level of uncertainty in today’s marketplace.

The chart on the next page shows that larger organizations, public companies, and financial services organizations are more likely to have complete ERM processes in place and that has been the case for the past few years. The variation in results highlights that the level of ERM maturity can differ greatly across organizations of various sizes and types. While variations exist, the results also reveal that there are a substantial number of firms in all categories that have no ERM processes or are just beginning to investigate the need for those processes.

These findings suggest that ERM is still of significance and importance, especially in the largest organizations and those that are public companies.



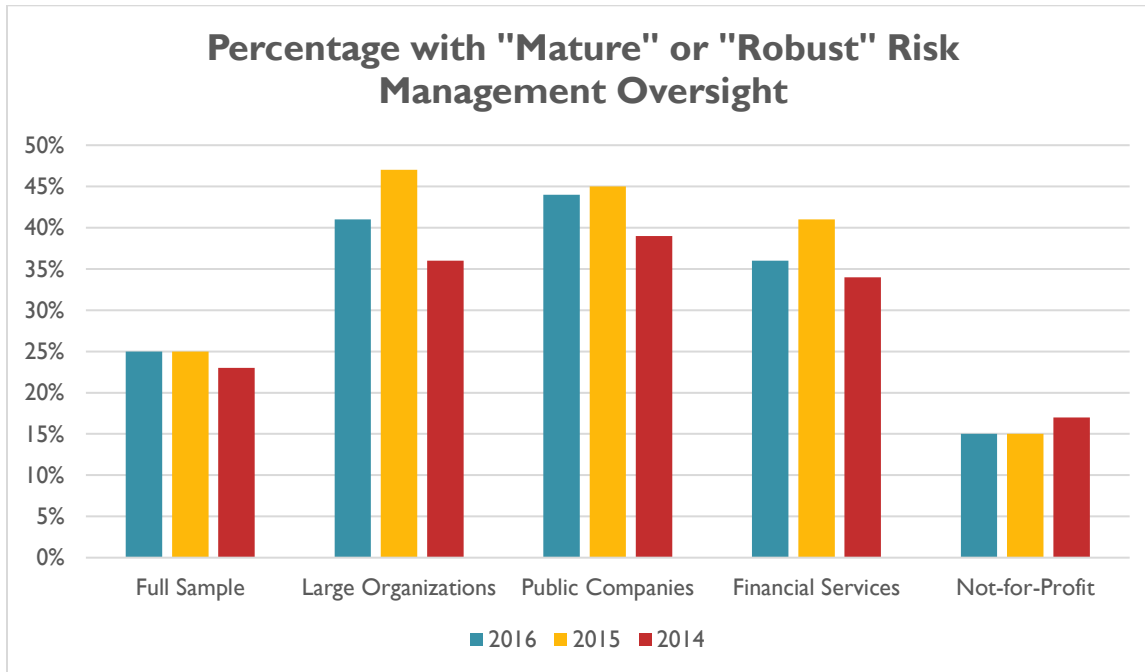
We also asked respondents to provide their assessment of the overall level of their organization’s risk management maturity using a scale that ranges from “very immature” to “robust.” We found that the level of sophistication of underlying risk management processes still remains fairly immature for about one-third of those responding to our survey. When asked to describe the level of maturity of their organization’s approach to risk oversight, we found that 15% described their organization’s level of functioning ERM processes as “very immature” and an additional 23% described their risk oversight as “developing.” So, on a combined basis 38% self-describe the sophistication of their risk oversight as immature to developing (this is mostly unchanged from the 40% reported in our 2015 study). Only 5% responded that their organization’s risk oversight was “robust,” consistent with responses noted in all six of our prior reports.

Most organizations describe the level of ERM maturity as very immature to evolving. Few describe their processes as robust.

that their organization’s risk oversight was “robust,” consistent with responses noted in all six of our prior reports.

What is the level of maturity of your organization’s risk management oversight?	Very Immature	Developing	Evolving	Mature	Robust
Full Sample	15%	23%	37%	20%	5%
Largest Organizations	5%	15%	39%	31%	10%
Public Companies	3%	20%	33%	33%	11%
Financial Services	7%	20%	37%	29%	7%
Not-for-Profit Organizations	14%	24%	47%	13%	2%

In general, the largest organizations, public companies, and financial services entities believe their approach to ERM is more mature relative to the full sample. As shown in the table on the prior page and the bar graph below, respondents in larger organizations, public companies, and financial services organizations are more likely to describe their organization’s approach to ERM as either “mature” or “robust” relative to the full sample and to not-for-profit organizations. That has been the case for the past few years.



While the level of risk oversight maturity is higher for these subsets of organizations than the full sample, it is important to note that a significant percentage of these subsets of organizations still do not describe their approaches to ERM as being “mature” or “robust.” When you consider the results concerning the changing complexity and volume of risks facing most organizations, along with growing expectations for improved risk oversight, opportunities remain for all types of organizations to increase the level of their enterprise-wide risk management maturity.

This is especially intriguing given a majority of the respondents in the full sample indicated that their organization’s risk culture is one that is either “strongly risk averse” (11%) or “risk averse” (45%). The overall lack of ERM maturity for the full sample is somewhat surprising. About two-thirds of the largest organizations, public companies, and financial services companies indicated their risk culture is “strongly risk averse” or “risk averse.” The relatively lower appetite for risk taking in those organizations may explain the more advanced ERM processes as compared to the full sample. Interestingly, 56% of not-for-profit organizations express their risk culture as “strongly risk averse” or “risk averse;” however, those organizations appear to be the least mature in their enterprise-wide risk oversight processes.

Integration of Risk Oversight and Strategic Planning

Key Insight from Analysis:

Despite the fact that most executives understand an organization must take risks to generate returns, most organizations are struggling to integrate risk management with strategic planning efforts. Output from ERM processes should provide rich insights about emerging risks that may impact the strategic success of the organization; however, a relatively small percentage of respondents view their organization’s ERM process as a strategic tool. Some risk management efforts are not explicitly prompting executives to think about strategic, market, and industry risks.

The increasingly competitive business landscape highlights the importance of having a more explicit focus on the interrelationship of risk-taking and strategy development and execution. We asked several questions to obtain information about the intersection of risk management and strategy in the organizations we surveyed.

Better understanding of risks facing the organization should provide rich input to the strategic planning process so that management and the board can design strategic goals and initiatives with the risks in mind. If functioning effectively, a robust ERM process should be an important strategic tool for management.

Responses to the question about the extent to which respondents believe the organization’s risk management process is a proprietary strategic tool that provides unique competitive advantage shed insight about how risk management is viewed in those organizations. Just over half (51%) responded to that question by indicating “not at all” or “minimally.” On a positive note, this is somewhat lower than the 56% reported in the prior year’s report.

	Not at All	Minimally	Somewhat	Mostly	Extensively
To what extent do you believe the organization’s risk management process is a proprietary strategic tool that provides unique competitive advantage?	26%	25%	29%	16%	4%

Furthermore, as shown by the bar graph on the next page, the assessment of the strategic value of the organization’s risk management process was relatively low and not significantly different for the largest organizations, public companies, and financial services organizations. Thus, there may still be a lack of understanding of how an effective ERM process can be informative to management as they execute their strategic plan, and/or the organization has not developed its process well enough to consider it a proprietary strategic tool.



We found that 34% of organizations in our full sample currently do only minimal or no formal assessments of emerging strategic, market, or industry risks. The lack of these emerging risk assessments is greatest for not-for-profit organizations where we found that 45% of those organizations have no formal assessments of those types of risks. The largest organizations, public companies, and financial services organizations are much more likely to consider emerging strategic, market, and industry risks, where only 16%, 17%, and 21% of those organizations, respectively, have no or only minimal formal assessments of these kinds of emerging risks.

About one-third of organizations in our survey do no or only minimal formal assessments of strategic, market, or industry risks.

Of those in the full sample that do attempt to assess strategic risks, most do so in a predominantly qualitative (18%) manner or by using a blend of qualitative and quantitative assessment tools (54%). This dominance of a qualitative approach holds true for the subgroups (largest organizations, public companies, and financial services firms) as well.

Even though the majority of organizations appear to be fairly unstructured, casual, and somewhat *ad hoc* in how they identify, assess, and monitor key risk exposures, responses to several questions indicate a high level of confidence that risks are being strategically managed in an effective manner. We asked several questions to gain a sense for how risk exposures are integrated into an organization’s strategy execution. Almost half (45%) of our respondents believe that existing risk exposures are considered “mostly” or “extensively” when evaluating possible new strategic initiatives and about one-third (34%) of the respondents believe that their organization has articulated its appetite for or tolerance of risks in the context of strategic planning “mostly” or “extensively.” In addition, 29% of the respondents indicate that risk exposures are considered “mostly” or “extensively” when making capital allocations to functional units.

Extent that	Percentage of Respondents Saying “Mostly” or “Extensively”				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
Existing risk exposures are considered when evaluating possible new strategic initiatives	45%	53%	58%	56%	43%
Organization has articulated its appetite for or tolerance of risks in the context of strategic planning	34%	43%	41%	52%	30%
Risk exposures are considered when making capital allocations to functional units	29%	39%	38%	42%	25%

These results suggest that there is still opportunity for improvement in better integrating risk oversight with strategic planning. Given the importance of considering the relationship of risk and return, it would seem that all organizations should “extensively” consider existing risk exposures in the context of strategic planning. Similarly, about one-third of organizations in our full sample have not articulated an appetite for risk-taking in the context of strategic planning. Without doing so, how do boards and senior executives know whether the extent of risk-taking in the pursuit of strategic objectives is within the bounds of acceptability for key stakeholders?

In a separate question, we asked about the extent that the board formally discusses the top risk exposures facing the organization when the board discusses the organization’s strategic plan. We found that only 30% indicated those discussions about top risk exposures in the context of strategic planning are “mostly” or “extensively.” When we separately analyzed this for the largest organizations, public companies, and financial services firms, we did find that those boards were somewhat more likely to integrate their discussions of the top risk exposures as part of their discussion of the organization’s strategic plan as documented in the table below.

Extent to which top risk exposures are formally discussed by the Board of Directors when they discuss the organization’s strategic plan	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
“Extensively”	9%	17%	18%	17%	1%
“Mostly”	21%	31%	37%	27%	17%
Combined	30%	48%	55%	44%	18%

Despite the higher percentages of boards that discuss risk exposures in the context of strategic planning for the largest organizations and public companies, the fact that more than half of those organizations are not having these kinds of discussions suggests that there is still room for marked improvement in how risk oversight efforts and strategic planning are integrated. Given the fundamental relationship between risk and return, it would seem that these kinds of discussions should occur in all organizations. Thus, there appears to be a continued disconnect between the oversight of risks and the design and execution of the organization's strategic plan.

Risk Oversight Leadership

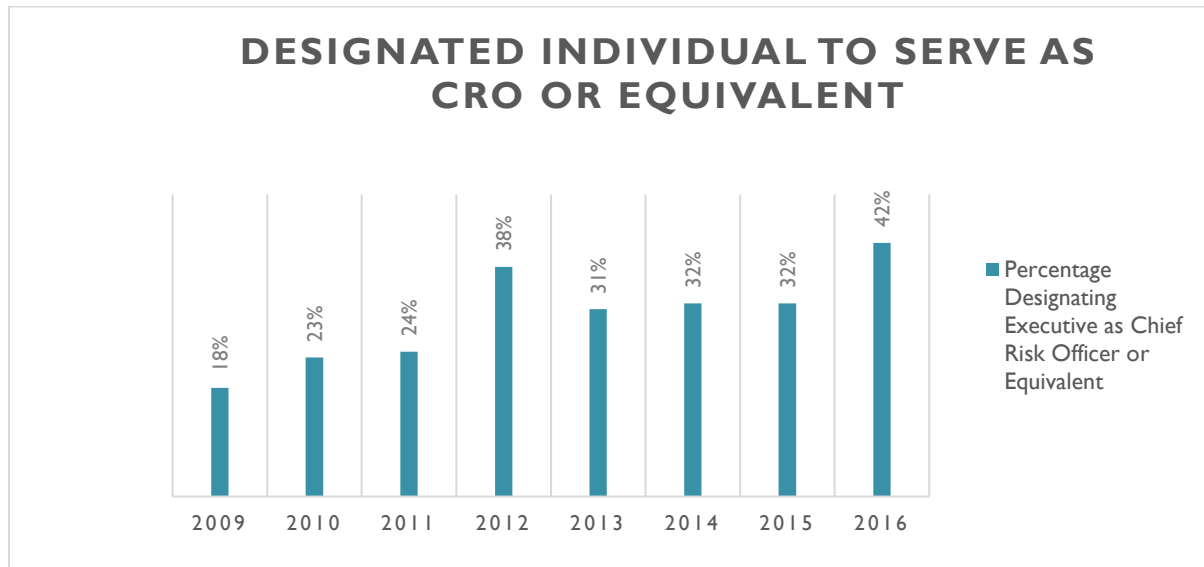
Key Insight from Analysis:

We observe a noticeable increase in the strengthening of risk leadership within the organization. Higher percentages of organizations are appointing individuals to lead the organization’s risk management process. Even higher percentages of organizations are creating management-level risk committees. Board of directors continue to delegate risk oversight to a board committee, which is most often the audit committee. The exception is for boards of financial institutions that often delegate risk oversight to board-level risk committees.

Part of the challenge of ensuring that the risk management process is effectively integrated with strategy may be linked to the extent of executive leadership of the risk function. If risk management leaders are not at a level that is engaged in strategic planning, there may be a strategy and risk disconnect.

Large organizations, public companies, and financial services entities are similarly likely to appoint individuals to serve as Chief Risk Officer (CRO) or equivalent than other organizations.

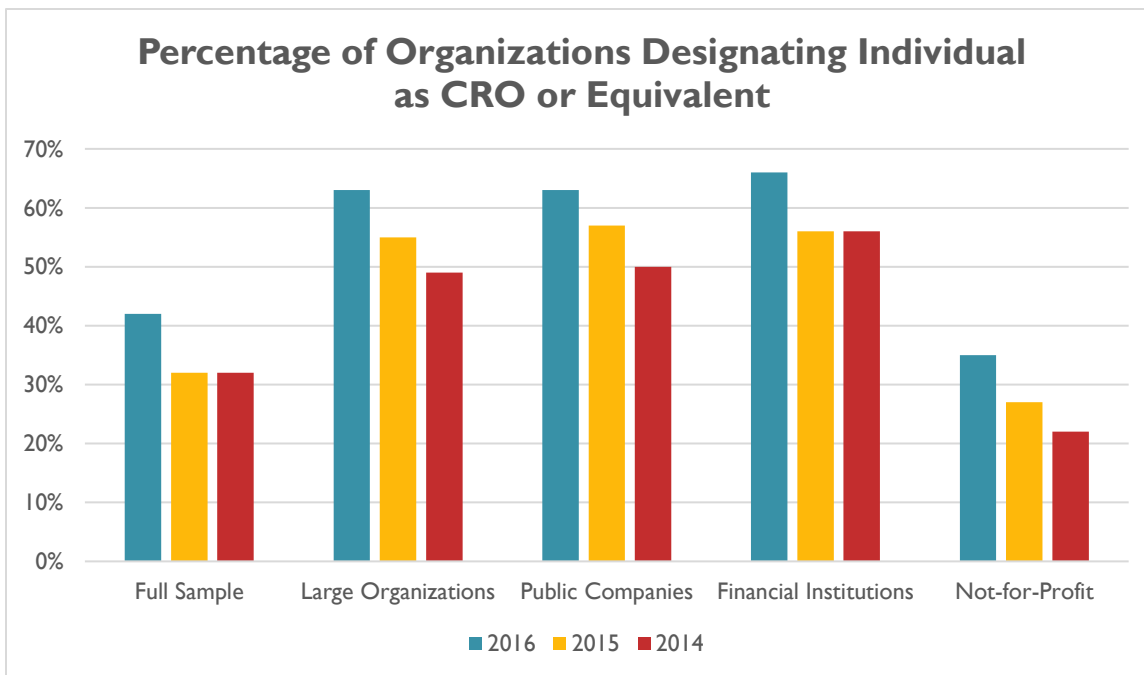
While in the initial years of our surveys, we found an increasing percentage of firms formally designating an individual to serve as the Chief Risk Officer (CRO) or equivalent senior risk executive, it appeared that the trend remained unchanged over the past three years. However, this year saw an increase of 10 percentage points in the designation. As illustrated by the bar chart below, 42% of organizations responding indicated that they have made that kind of designation for 2016, which is an increase over 2015 and 2014.



Large organizations, public companies, and financial services organizations are more likely to have designated an individual to serve as CRO or equivalent, with more than half of those organizations doing so, as shown in the table on the next page.

Percentage of Respondents					
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-For-Profit Organizations
Percentage designating individual to serve as CRO or equivalent	42%	63%	63%	66%	35%

The increase in the percentage of organizations designating an individual to serve as CRO or equivalent occurred across all types of organizations as shown in the bar graph below. Perhaps the growing realities associated with a number of significant potential risks that may be triggered by events such as the Brexit exit, emerging shifts in policies resulting from the U.S. presidential election, and the constant threat of cyber security, among numerous other risk drivers, may provide some explanation for this increase in CRO designations.



For firms with a chief risk officer position, the individual to whom the CRO most often reports is the CEO or President (51% of the instances for the full sample). Interestingly, for 21% of the organizations with a CRO position, the individual reports formally to the board of directors or its audit committee while an additional 15% report to the chief financial officer. These lines of reporting are similar to what we noted in our prior year reports.

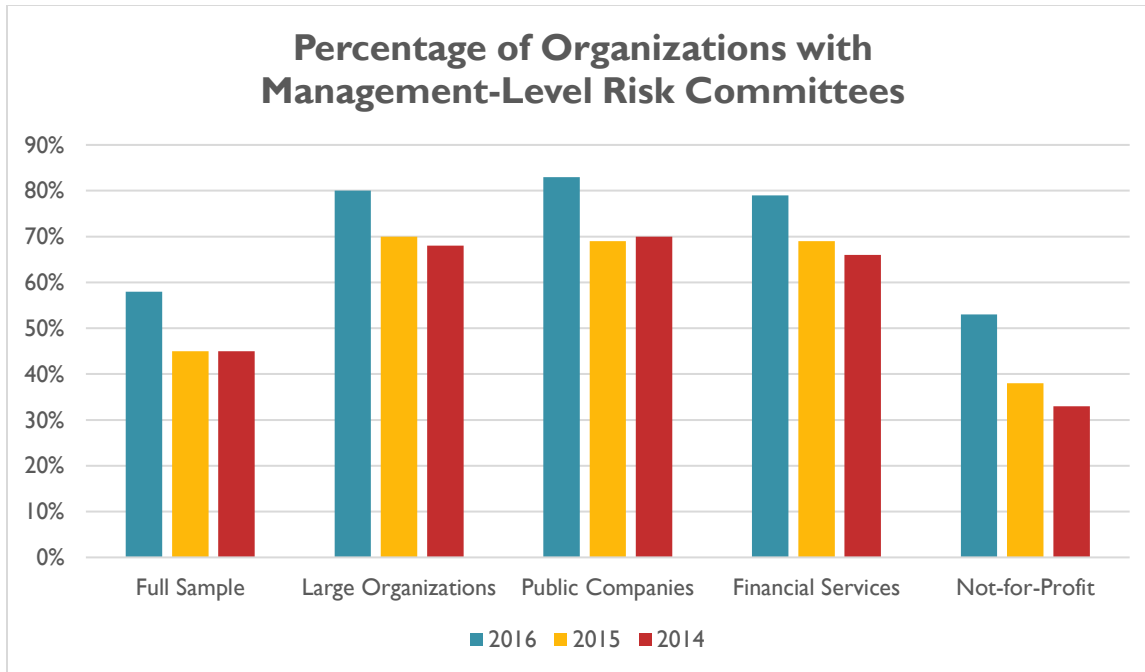
When you examine the largest organizations, public companies, and financial services entities separately, there are some notable differences as shown in the table below. Direct reporting to the CEO and/or President is most common.

To Whom Does the CRO Formally Report?	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
Board of Directors or Committee of the Board	21%	18%	27%	22%	16%
Chief Executive Officer or President	51%	45%	51%	58%	47%
Chief Financial Officer	15%	18%	13%	12%	13%

Similar to our observation that almost half (42%) of organizations are designating an executive to lead the risk oversight function (either as CRO or equivalent) in 2016, we also observed that a number of organizations have a management-level risk committee or equivalent. For 2016, 58% of the full sample has a risk committee as compared to 45% in 2015, 45% in 2014, 43% in 2013, 49% in 2012, 35% in 2011, 30% in 2010, and 22% in 2009.



The presence of an internal risk committee was noticeably more likely to be present in the largest organizations, public companies, and financial services entities where 80%, 83%, and 79%, respectively, of those organizations had an internal risk committee. And, the increased use of a management-level risk committee was observed across all types of organizations as illustrated by the chart on the next page.



For the organizations with a formal executive risk oversight committee, those committees met most often (44% of the time) on a quarterly basis, with an additional 31% of the risk committees meeting monthly. These results did not differ notably for the subsets of largest organizations, public companies, or financial services entities.

The officer most likely to serve on the executive risk committee is the chief financial officer (CFO) who serves on 82% of the risk committees that exist among organizations represented in our survey. The CEO/President serves on 64% of the risk committees while the chief operating officer serves on 53% of the risk committees. In around half of the organizations surveyed, the general counsel and the internal audit officer also sit on the risk committee along with other executives from different positions.

It will be interesting to monitor whether overall ERM maturity advances in the next few years, given the increase in the percentage of entities creating a risk committee or designating someone to serve in a CRO role.

Regulators and other corporate governance proponents have placed a number of expectations on boards for effective risk oversight. The New York Stock Exchange (NYSE) Governance Rules place responsibility for risk oversight on the audit committee, while credit rating agencies, such as Standard & Poor’s, evaluate the engagement of the board in risk oversight as part of their credit rating assessments. The SEC requires boards of public companies to disclose in proxy statements to shareholders the board’s role in risk oversight, and the Dodd-Frank legislation imposes requirements for boards of the largest financial institutions to create board-level risk committees. While many of these are targeted explicitly to public companies, expectations are gradually being recognized as best practices for board governance causing a trickle-down effect on all types of organizations, including not-for-profits.

For about half of the organizations, the board has delegated risk oversight to a committee, with most delegating to the audit committee.

To shed some insight into current practices, we asked respondents to provide information about how their organization’s board of directors has delegated risk oversight to board level committees. We found that 55% of the respondents in the full sample indicated that their boards have formally assigned risk oversight responsibility to a board committee. This is noticeably different from the largest organizations, public companies, and financial services organizations where 81%, 83%, and 73% respectively, of those organizations’ boards have assigned to a board committee formal responsibility for overseeing management’s risk assessment and risk management processes. For those boards that have assigned formal risk oversight to a committee, half (51%) are assigning that task to the audit committee. Almost one third of firms assign oversight to a risk committee. The largest organizations and not-for-profit organizations are most likely to assign formal risk oversight to the audit committee.

If board delegates formal responsibility of risk oversight to a subcommittee, which committee is responsible?	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
Audit committee	51%	54%	53%	35%	63%
Risk committee	29%	27%	37%	49%	14%
Executive committee	6%	2%	0%	4%	9%

Key Elements of a Risk Management Process

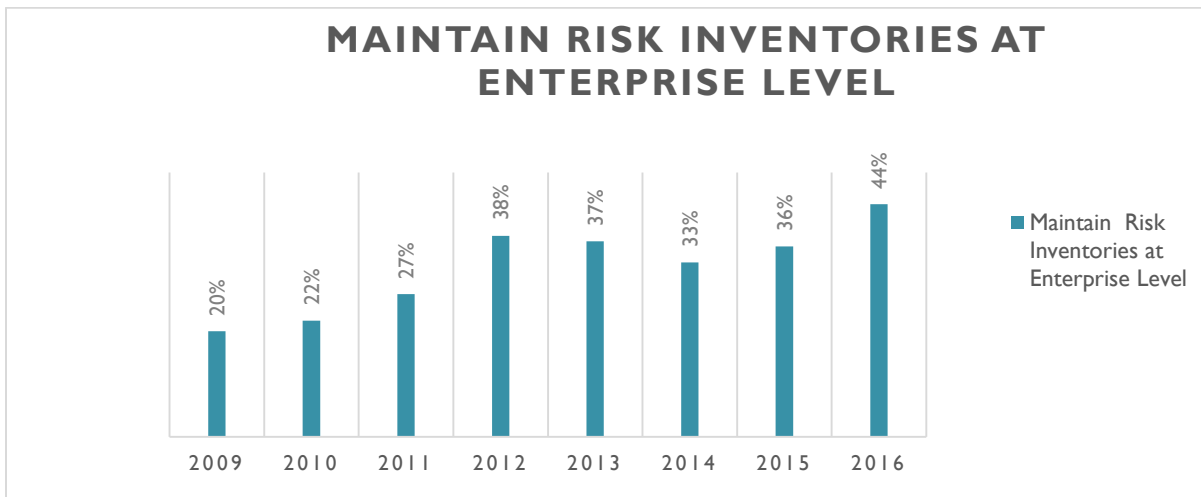
Key Insight from Analysis:

Larger companies, public companies, and financial services organizations have more formalized risk management processes, although there are signs this is increasing for other types of organizations as well. More organizations are maintaining inventories of risks at the enterprise level and most organizations are attempting to update their understanding of key risks at least annually.

Just over half of the organizations in the full sample (57%) do not have a formal policy statement regarding its enterprise-wide approach to risk management. The presence of a formal policy is more common in the largest organizations (64%), public companies (68%), and financial services entities (66%), where regulatory and best practice expectations have a greater influence. Not-for-profit organizations are least likely to have a formal policy in place, which may be partially attributable to the lack of regulatory or other external influences related to risk management.

Percentage of Respondents					
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-For-Profit Organizations
Has formal policy statement regarding enterprise-wide approach to risk management	43%	64%	68%	66%	34%

A higher percentage of organizations now maintain inventories of risks at the enterprise level than in prior years, as illustrated by the bar graph below. The percentage increased to 44% of the organizations now maintaining enterprise-level risk inventories compared to 36% last year and 20% in 2009. By 2016 almost half of organizations claim to be maintaining an inventory of risks at the enterprise level.



A greater percentage of large organizations, public companies, and financial services firms maintain risk inventories at the enterprise level as shown below. Fewer not-for-profit organizations do so.

	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-For-Profit Organizations
Percentage that maintain risk inventories at enterprise level	44%	63%	66%	56%	44%

Just under half (46%) of the full sample has formally defined the meaning of the term “risk” for employees to use as they identify and assess key risks. When they do so, about one-third focus their definition on “downside” risks (threats to the organization) and about one-third focus on both the “upside” (opportunities for the organization) and “downside” of risk.

A large majority of the full sample *do not* provide explicit guidelines or measures to business unit leaders on how to assess the probability and impact of a risk event (62% and 58%, respectively). We found similar results for not-for-profit organizations. However, consistent with 2015 almost two-thirds of the largest organizations and public companies provide explicit guidelines or measures to business unit leaders for them to use when assessing risk probabilities and impact. The public companies are the most likely to provide this guidance. In 2016, 62% and 68% of public companies provide guidelines for assessing risk probabilities and impact, respectively.

	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-For-Profit Organizations
Provide explicit guidelines to assess risk					
- Probability	38%	61%	62%	46%	38%
- Impact	42%	63%	68%	51%	36%

We also asked whether organizations go through a dedicated process to update their key risk inventories. As shown in the table on the next page, there is substantial variation as to whether they go through an update process. But, when they do update their risk inventories, it is generally done annually, although a noticeable percentage of organizations update their risk inventories quarterly or semi-annually. Not-for-profit organizations are less likely to be going through a process to update their risk inventories.

Frequency of Going Through Process to Update Key Risk Inventories	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
Not at all	27%	9%	6%	12%	29%
Annually	38%	47%	40%	48%	42%
Semi-Annually	13%	19%	20%	12%	13%
Quarterly	15%	19%	24%	21%	12%
Monthly, Weekly, or Daily	7%	6%	10%	7%	4%

The majority of the large organizations (77%) and public companies (79%) have a standardized process or template for identifying and assessing risks, while 72% of the financial services organizations have those kinds of procedures in place. In contrast, only 48% of not-for-profit organizations structure their risk identification and assessment processes in that manner.

Aggregating Risk Information for Enterprise View

Key Insight from Analysis:

There are varying practices for communicating risk information to executives and the board. A majority of larger organizations, public companies, and financial services organizations prepare formal written reports on a regular basis. We observed a higher percentage of organizations reporting risk information at least annually to the board, with most organizations reporting less than 20 risks. Despite that, less than half of the respondents are satisfied with the key risk metrics they use to monitor risks.

We asked respondents about their current stage of risk management processes and reporting procedures. More than one-third (38%) either have no structured process for identifying and reporting top risk exposures to the board or they track risks by silos with minimal reporting of aggregate risk exposures to the board. An additional 27% describe their risk management processes as informal and unstructured with *ad hoc* reporting of aggregate risk exposures to the board.

Interestingly, however, just over one-third (35%) of the full sample believe their enterprise risk oversight processes are systematic, robust, and repeatable with regular reporting of top risk exposures to the board. This percentage is slightly higher than the results reported in our 2015 report (33%).

Percentage of Respondents					
Percentage who describe their ERM implementation as	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-For-Profit Organizations
<i>“Our process is systematic, robust, and repeatable with regular reporting of top risk exposures to the board.”</i>	35%	56%	61%	53%	25%

Thus, while a majority of organizations do not claim to have systematic, robust, and repeatable ERM processes with regular reporting to the board, the trends suggest that more organizations are moving in that direction over time. As demonstrated by the data in the table above, a noticeably higher percentage of large organizations, public companies, and financial services organizations believe they have a systematic, robust, and repeatable ERM process.

There is notable variation across organizations of different sizes and types in how key risks are communicated by business unit leaders to senior executives. According to the data in the table below, about half (51%) of organizations communicate key risks merely on an *ad hoc* basis at management meetings. Only 30% of the organizations surveyed scheduled agenda time to discuss key risks at management meetings. The percentage of organizations scheduling agenda discussions about risks at management meetings has been relatively flat over the last seven years we have tracked this data point (27% in 2015, 27% in 2014, 34% in 2013, 33% in 2012, 33% in 2011, 29% in 2010 and 2009).

The majority of organizations communicate risk information to senior executives on an ad hoc basis.

Percentage of Respondents					
How are risks communicated from business unit leaders to senior executives?	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
<i>Ad hoc</i> discussions at management meetings	51%	35%	32%	40%	51%
Scheduled agenda discussion at management meetings	30%	41%	38%	29%	35%
Written reports prepared either monthly, quarterly, or annually	45%	60%	72%	76%	31%

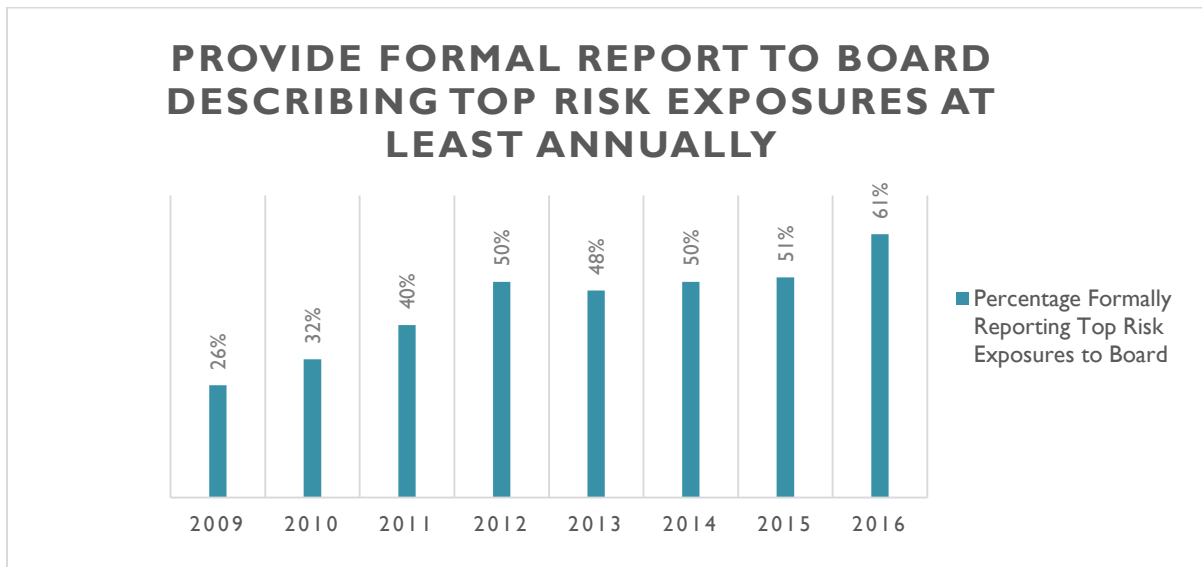
Note: Respondents could select more than one choice. Thus, the sum of the percentages exceeds 100%.

The communication of key risks is more likely to be scheduled for discussion at management meetings for the largest organizations or financial services organizations, as shown on the next page. Written reports

prepared on a monthly, quarterly, or annual basis are most likely to be prepared by the largest organizations, public companies, and financial services organizations. The largest organizations are more likely to enter risk data into a risk management database at least quarterly. Surprisingly, just over half (56%) of those in the full sample indicate that the full board has those discussions on a formal basis. However, as shown by the table below, boards of the largest organizations, public companies and financial services organizations are much more likely to discuss in a specific meeting the top risk exposures facing the organization.

Percentage of organizations where the	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
<i>Board of Directors reviews and discusses in a specific meeting the top risk exposures facing the organization</i>	56%	67%	77%	68%	48%

As illustrated by the graph below, almost two-thirds (61%) of the organizations provide a formal report at least annually to the board of directors or one of its committees describing the entity’s top risk exposures. This is noticeably higher than the percentages doing so over the past four years as shown below. In 2009, we found that only 26% of organizations provided that kind of information to the board at least annually. For the past four years that percentage was around 50% but in 2016 that rose to 61% of organizations surveyed.

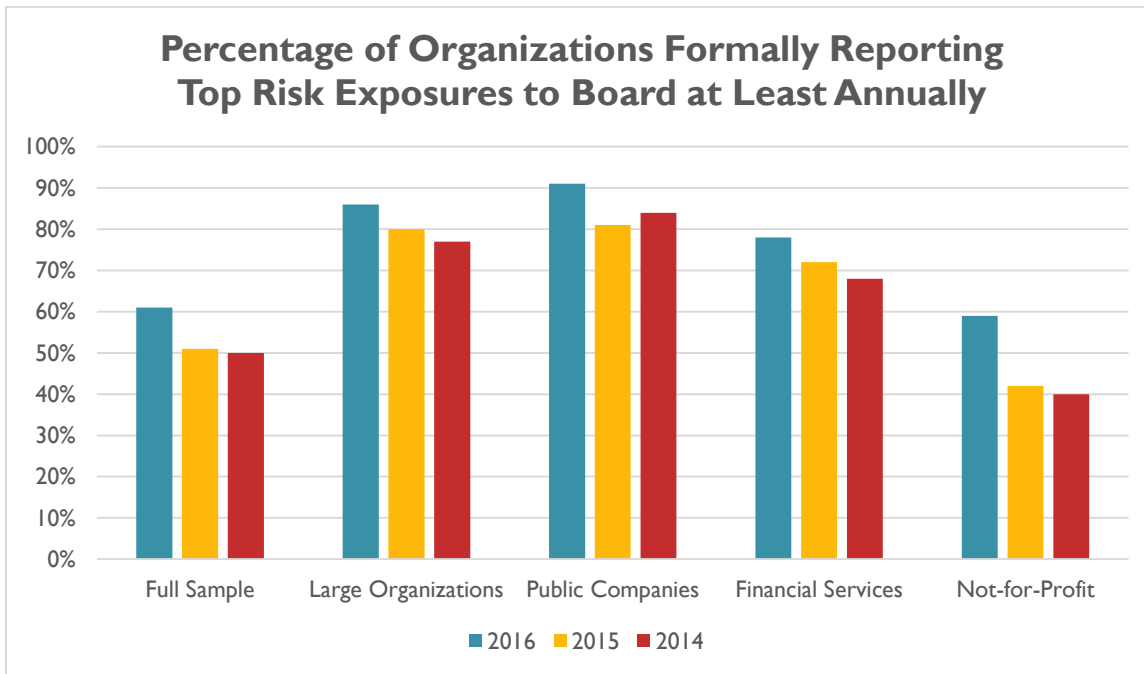


As illustrated by the table on the next page, an overwhelming percentage (86%) of large organizations and public companies (91%) formally report top risk exposures to the board of directors or one of its committees at least annually. Like the full sample, the percentages of large organizations and public companies doing so increased over 2015 where 80% of large organizations and 81% of public companies

provided those reports to the board. In 2016, over to three-fourths (78%) of financial services organizations formally report top risk exposures to the board; also 59% of not-for-profit organizations do so.

Percentage of Respondents					
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-For-Profit Organizations
Percentage that formally report top risk exposures to the board at least annually	61%	86%	91%	78%	59%

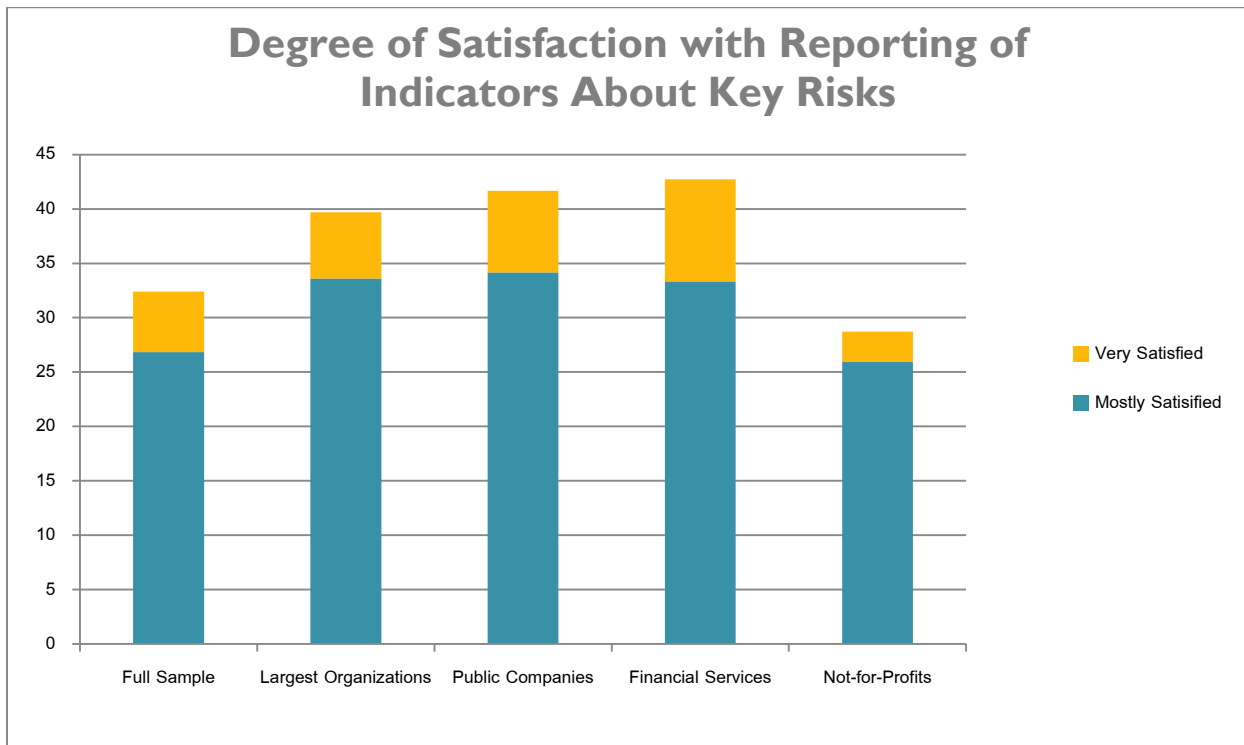
Formal reporting of top risks to the board at least annually has been increasing in frequency across all organizations over the past three years. In light of this, boards and management teams may benefit from evaluating the robustness of the underlying risk management processes that they use to identify and assess risk for reporting to the board.



We also asked about the number of risk exposures that are typically presented to the board or one of its committees. As illustrated in the table below, just over one third of the full sample and 43% of not-for-profit organizations report less than five risk exposures to the board. However, about two-thirds of the large organizations, public companies, and financial services organizations formally report between 5 and 19 risks to the board.

Percentage of organizations reporting the following number of risk exposures to the board of directors or one of its committees:	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
Less than 5 risks	39%	15%	11%	20%	43%
Between 5 and 9 risks	25%	27%	28%	29%	25%
Between 10 and 19 risks	27%	44%	43%	38%	26%
More than 20 risks	9%	14%	18%	13%	6%

Overall, there seems to be room for improvement in the nature of risk information being reported to senior executives. Almost half (41%) of our respondents admitted that they were “not at all satisfied” or were “minimally” satisfied with the nature and extent of the reporting of key risk indicators to senior executives. Similar levels of dissatisfaction, 40% and 41%, were observed in our 2015 and 2014 reports, respectively. In contrast, only 32% are “mostly satisfied” or “very satisfied” with the nature and extent of reporting of key risk indicators to senior executives.



While respondents for the largest organizations, public companies, and financial services organizations signal a greater level of satisfaction about the nature and extent of reporting of key risk indicators, that level of satisfaction is around 40%, which suggests that majority of all types of organizations see room for improvement in their key risk indicators.

For the subset of publicly traded companies, we asked about the extent to which the organization's public disclosures of risks in their Form 10-K filing had increased in the past five years. We found that just under one-third (28%) believed their disclosures had changed "mostly" while an additional 20% believed their disclosures had changed "extensively." We find these rates of change in disclosure noteworthy given that those same organizations indicated that the extent to which the volume and complexity of risks had increased over the past five years was "mostly" for 45% and "extensively" for 24%. When taken together, these findings are interesting in that 69% of respondents perceive that the volume and complexity of risks has changed mostly or extensively in the past five years, but only 48% have seen changes in the nature of their risk disclosures to investors. That may cause some to wonder whether the required Form 10-K Item 1.A risk factor disclosures that describe key risks affecting the company provide a realistic view of the risk profiles of the organizations.

Calls for Improved Enterprise-Wide Risk Oversight

Key Insight from Analysis:

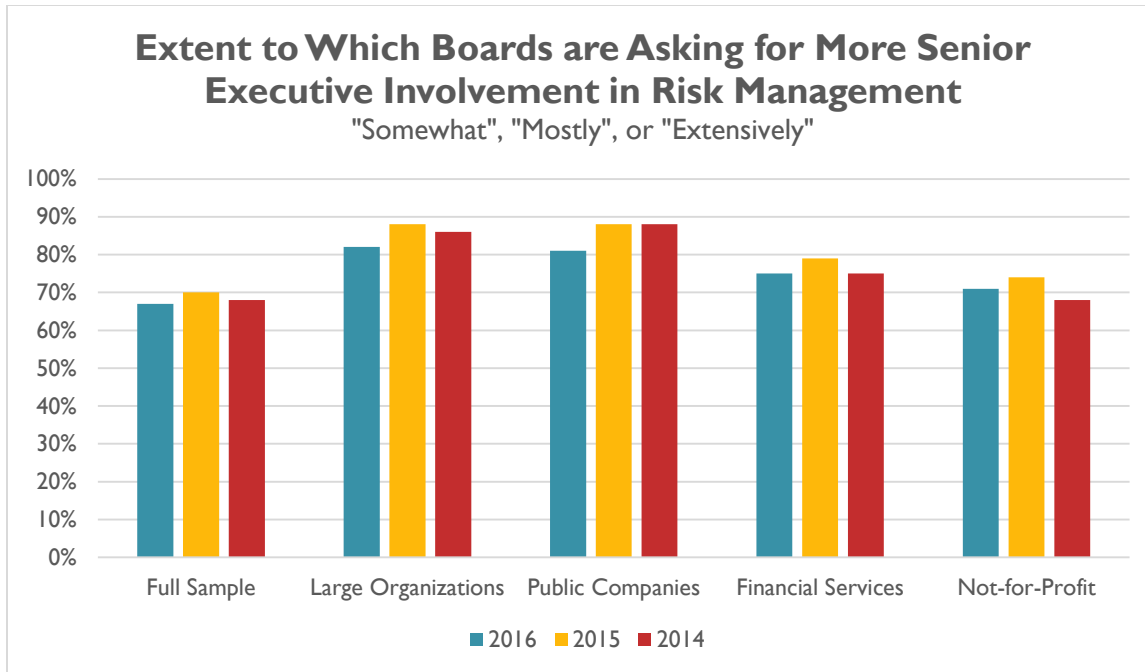
Expectations for enhanced risk oversight continue to be placed on management. Effective enterprise-wide risk management is becoming an expected best practice as regulators and boards of directors continue to call on organizational leaders to strengthen risk management processes. That, in turn, is leading CEOs to put greater pressure on the rest of the executive team to strengthen their risk management efforts.

Our survey results indicate that board of director expectations for improving risk oversight in these organizations is strong, especially for the largest organizations, public companies, and financial services entities. Respondents noted that for 12% of the organizations surveyed, the board of directors is asking senior executives to increase their involvement in risk oversight “extensively,” another 27% of the organizations report “mostly,” and an additional 28% have boards that are asking for increased oversight “somewhat.”

Extent to which the board of directors is asking for increased senior executive involvement in risk oversight	Percentage of Respondents				
	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
“Extensively”	12%	20%	23%	17%	8%
“Mostly”	27%	34%	28%	34%	31%
“Somewhat”	28%	28%	30%	24%	32%
Combined	67%	82%	81%	75%	71%

Board expectations for increased senior executive involvement in risk oversight is most dramatic for the largest organizations, public companies, and financial services organizations, as shown in the table above. Interestingly, requests from the board of directors for increased risk oversight are high for not-for-profit organizations, too. And, as illustrated by the chart on the next page, the board’s level of interest in more senior executive engagement in risk management has been holding strong for the past three years. This suggests that effective risk management is a priority among boards for management to consider.

Most executives note there is “somewhat” to “extensive” external pressure to provide more information about risks.



These expectations are possibly being prompted by increasing external pressures that continue to be placed on boards. In response to these expectations, boards and audit committees may be challenging senior executives about existing approaches to risk oversight and demanding more information about the organization’s top risk exposures.

In addition, and perhaps due to the board’s interest in strengthened risk oversight, the chief executive officer (CEO) is also calling for increased senior executive involvement in risk oversight. Almost half (43%) of the respondents indicated that the CEO has asked “mostly” or “extensively” for increased management involvement in risk oversight, which is a decrease from the 48% we saw in our 2015 report. An additional 31% of our respondents indicated that the CEO has expressed “somewhat” of a request for increased senior management oversight of risks.

We also asked respondents to describe to what extent external factors (e.g., investors, ratings agencies, emerging best practices) are creating pressures on senior executives to provide more information about risks affecting their organizations. As illustrated in the table on the next page, while a small percentage (12%) of respondents described external pressures as “extensive,” an additional 22% indicated that

Corporate governance trends, regulatory demands, and board of directors are all placing pressure on executives to engage more in risk oversight.

external pressures were “mostly” and another 26% described that pressure as “somewhat.” Thus, on a combined basis almost two-thirds (60%) of our respondents believe the external pressure to be more transparent about their risk exposures is “somewhat” to “extensive.” That result is slightly less than the 66% noted in last year’s report.

External pressures are notably stronger for financial services entities, likely from regulators who are becoming more vocal proponents of ERM in banks. These organizations perceived the external pressures to provide more information about risks facing the organization to be much greater than the overall sample of firms.

Percentage of Respondents					
Extent that external parties are applying pressure on senior executives to provide more information about risks affecting the organization	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
“Extensively”	12%	16%	21%	26%	3%
“Mostly”	22%	28%	28%	36%	14%
“Somewhat”	26%	32%	31%	21%	31%
Combined	60%	76%	80%	83%	48%

Several other factors are prompting senior executives to consider changes in how they identify, assess, and manage risks. For the overall sample, respondents noted that unanticipated risk events, emerging best practice expectations, and regulator demands are the three most frequently cited factors for increasing senior executive involvement. However, as illustrated by the table below, regulator demands seem to be putting even greater pressure on senior executives in financial services organizations along with emerging corporate governance requirements. Board of director requests for enhanced risk oversight is particular strong for the largest organizations and public companies. Not-for-profit organizations are also experiencing pressure to increase senior executive focus on risk management activities, although to a lesser extent than other organizations.

Percentage of Respondents Selecting “Mostly” or “Extensively”					
Factors “Mostly” or “Extensively” Leading to Increased Senior Executive Focus on Risk Management Activities	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
Regulator Demands	34%	34%	43%	66%	22%
Unanticipated risk events affecting organization	36%	44%	44%	38%	37%
Emerging best practice expectations	36%	37%	39%	53%	41%
Emerging corporate governance requirements	31%	37%	44%	52%	20%
Board of Director requests	26%	40%	42%	34%	25%

Linkage of Risk Oversight and Compensation

Key Insight from Analysis:

Most organizations are not explicitly incorporating risk management activities into compensation and performance evaluations in spite of regulations requiring disclosures in this area.

The linkage between executive compensation and risk oversight is also receiving more attention. In fact, the SEC’s proxy disclosure rules require public companies to provide information about the relation between compensation policies, risk management, and risk-taking incentives that can affect the company’s risks, if those compensation policies and practices create risks that are reasonably likely to have a material adverse effect on the company. Shareholder activism and negative media attention are also creating more pressure for boards of directors to consider how existing compensation arrangements might contribute to excessive risk-taking on the part of management.

Emerging best practices are identifying ways in which boards can more explicitly embed risk oversight into management compensation structures. Ultimately, the goal is to link risk management capabilities to individual performance assessments so that the relationship between risk and return is more explicit. For enterprise-wide risk oversight to be sustainable for the long term, members of the management team must be incentivized to embrace this holistic approach to risk oversight. These incentives should be designed to encourage proactive management of risks under their areas of responsibility as well as to enhance timely and transparent sharing of risk knowledge.

Most organizations do not include risk management activities as an explicit component in determining management compensation.

We asked respondents about the extent to which risk management activities are an explicit component of determining management performance compensation. We found that in 33% of the organizations surveyed, risk management is “not at all” a component of the performance compensation and for another 29% the component is only “minimally” considered. Thus, in almost two-thirds of the organizations surveyed (62%), the extent that risk management activities are an explicit component in determining management compensation is non-existent or minimal. These findings are similar to what we observed last year.

Percentage of Respondents Selecting “Not-at-All” or “Minimally”					
To what extent are risk management activities an explicit component in determining management performance compensation?	Full Sample	Largest Organizations (Revenues >\$1B)	Public Companies	Financial Services	Not-for-Profit Organizations
Not at All	33%	27%	23%	21%	40%
Minimally	29%	33%	23%	27%	29%
Combined	62%	60%	46%	48%	69%

While the largest organizations, public companies, and financial services firms are more likely to factor risk management activities into performance compensation, generally around one-half of those subsets in our sample are “not at all” or only “minimally” doing so as illustrated by the table on the prior page. The increasing focus on compensation and risk-taking should lead more organizations over time to consider modifications to their compensation policies and procedures.

Barriers to Progress

Key Insight from Analysis:

Strengthening risk management within an organization faces the normal challenges associated with any organizational change. Respondents identified a number of common barriers to strengthening their ERM processes that may need to be addressed before real advancement in risk oversight is realized.

While our analysis suggests that organizations have made significant progress in how they identify, assess, and manage key risks, there is still plenty of room for improvement. In some ways it is encouraging to see the progress; however, given the significant global financial, economic, and political challenges that have been in play in recent years, it is discouraging not to see more organizations making more rapid advances in developing robust, systematic processes to oversee an entity's most significant risk exposures. There appear to be several perceived impediments that prevent management from taking the necessary actions to strengthen their approach to risk oversight.

We asked respondents whose organizations have not yet implemented an enterprise-wide risk management process to provide some perspective on that decision. While respondents could indicate more than one impediment, the most common response (in 51% of the cases) was that they believe "risks are monitored in other ways besides ERM." This strikes us as interesting and paradoxical, given the lack of risk oversight infrastructure highlighted by the data discussed in the prior pages of this report. It begs the question, "so what processes are in place to help management and the board keep its eyes on emerging, strategic risks?"

Other responses were "no requests to change our risk management approach" and "do not see benefits exceeding costs," noted by 32% and 20%, respectively, of respondents in the full sample. Thirty-four percent of those same respondents also noted that there are "too many pressing needs" while 18% reported a belief that they had "no one to lead the effort."

These findings are similar to those reported in our earlier reports. So, there has been little change in the nature of barriers to embracing an ERM approach to risk oversight. Instead, there appears to be a strong confidence that existing risk management processes are adequate to address the risks that may arise. This is somewhat surprising given 38% of the full sample describe their risk oversight processes as very immature or just developing, and a large proportion of our respondents indicated an overall dissatisfaction with their current approach to the reporting of information to senior executives about top risk exposures.

Respondents provided more depth about some of the primary barriers. The table on the next page contains a summary of those that the respondents described as a "barrier" or "significant barrier." Competing priorities and a lack of sufficient resources appear to be the most common barriers to adopting an ERM approach to risk oversight. A lack of perceived value and a lack of visible ERM leadership among boards and senior executives also affect ERM implementation decisions. The ordering of these most common barriers is consistent with the ordering of results provided in all our prior years' reports. The results are also very similar for each of the subsets we examined (largest organizations, public companies only, and financial services firms). A higher percentage of not-for-profits (50%) related to the full sample noted that competing priorities are the primary barrier to their embrace of ERM.

Description of Barrier	Percentage Believing Barrier is		
	“Barrier”	“Significant Barrier”	Combined Percentage
Competing priorities	29%	16%	45%
Insufficient resources	27%	17%	44%
Lack of perceived value	22%	15%	37%
Perception ERM adds bureaucracy	18%	10%	28%
Lack of board or senior executive ERM leadership	18%	9%	27%
Legal or regulatory barriers	4%	1%	5%

Most organizations (59%) have not provided or only minimally provided training and guidance on risk management in the past two years for senior executives or key business unit leaders. This is slightly lower for the largest organizations (46%), public companies (43%), and financial services (41%). Thus, while improvements have been made in the manner in which organizations oversee their enterprise-wide risks, the lack of robustness in general may be due to a lack of understanding of the key components of an effective enterprise-wide approach to risk oversight that some basic training and education might provide.

Summary

While organizations agree that the volume and complexity of risks they face continue to increase over time and they often encounter significant operational surprises, the maturity of risk oversight varies widely across organizations. We observe that the largest organizations, public companies, and financial services firms are more advanced in their risk oversight processes than the full sample of organizations, but there remain noticeable gaps in a number of key risk management processes. Only about one-quarter of respondents describe their organization's risk management process as "mature" or "robust," just over 40% maintain risk inventories at an enterprise level, less than half provide guidance for management to prioritize their most important risks, and most reporting of risk information to senior executives is *ad hoc*. Most importantly, organizations continue to struggle to effectively integrate their oversight of risks with their strategic planning processes. Less than half believe existing risk exposures are considered "mostly" or "extensively" when evaluating new strategic initiatives, and less than half view their organization's risk management process as providing strategic value. Before ERM can effectively add value, organizations need to find ways to center their ERM efforts from a strategic lens to ensure the organization's risk oversight is focusing on the most important emerging risks for the enterprise.

Results from all eight years of our surveys continue to find that the approach to risk oversight in many organizations continues to be *ad hoc* and informal, with little recognized need for strengthened approaches to tracking and monitoring key risk exposures, especially emerging risks related to strategy. Even the large organizations, public companies, and financial services organizations admit that their risk management oversight processes are less than mature. The results from the survey suggest there may be a need for some entities to evaluate existing risk management processes in light of perceived increases in the volume and complexity of risks and operational surprises being experienced by management.

There are a number of resources available to executives and boards to help them understand their responsibilities for risk oversight and effective tools and techniques to help them in those activities (see for example, the NC State ERM Initiative's Web site – <http://www.erm.ncsu.edu>). As expectations for more effective enterprise-wide risk oversight continue to unfold, it will be interesting to continue to track changes in risk oversight procedures over time.

Appendix A: Description of Enterprise Risk Management (ERM)

An enterprise risk management (ERM) approach emphasizes a top-down view of the inventory of key risk exposures potentially affecting an enterprise's ability to achieve its objectives. Boards and senior executives seek to obtain knowledge of these risks with the goal of preserving and enhancing stakeholder value.

Committee of Sponsoring Organizations of the Treadway Commission's (COSO's) **Enterprise Risk Management – Integrated Framework** defines ERM as follows:

“Enterprise risk management is a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.”

COSO's **Enterprise Risk Management – Integrated Framework** (2004)

ERM is a formal process that is enterprise-wide and addresses risks in a portfolio manner, where interactions among risks are considered.

Because the term “ERM” is used often, but not necessarily consistently understood, we provided respondents (as we did for the 2009 - 2015 reports) COSO's definition of enterprise risk management.

Author Bios

All three authors serve in leadership positions within the Enterprise Risk Management (ERM) Initiative at NC State University (<http://www.erm.ncsu.edu>) The ERM Initiative provides thought leadership about ERM practices and their integration with strategy and corporate governance. Faculty in the ERM Initiative frequently work with boards of directors and senior management teams helping them link ERM to strategy and governance.

Mark S. Beasley, CPA, Ph.D., is the Deloitte Professor of Enterprise Risk Management and Director of the ERM Initiative at NC State University. He specializes in the study of enterprise risk management, corporate governance, financial statement fraud, and the financial reporting process. He completed over seven years of service as a board member of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and has served on other national-level task forces related to risk management issues. He advises boards and senior executive teams on risk governance issues, is a frequent speaker at national and international levels, and has published over 90 articles, research monographs, books, and other thought-related publications. He earned his Ph.D. at Michigan State University.

Bruce C. Branson, Ph.D., is an Alumni Distinguished Professor of Accounting and Associate Director of the ERM Initiative in the Poole College of Management at NC State University. His teaching and research is focused on enterprise risk management and financial reporting, and includes an interest in the use of derivative securities and other hedging strategies for risk reduction/risk sharing. He also has examined the use of various forecasting and simulation tools to form expectations used in financial statement audits and in earnings forecasting research. He earned his Ph.D. at Florida State University.

Bonnie V. Hancock, M.S., is the Executive Director of the ERM Initiative at NC State University where she also teaches graduate and undergraduate courses in the Poole College of Management. Her background includes various executive positions at Progress Energy where she has served as president of Progress Fuels (a Progress Energy subsidiary with more than \$1 billion in assets), senior vice president of finance and information technology, vice president of strategy and vice president of accounting and controller. She currently serves on the following corporate boards: AgFirst Farm Credit Bank where she chairs the risk policy committee, Office of Mortgage Settlement Oversight where she chairs the audit committee, and Powell Industries, a publicly traded company based in Houston, Texas, where she serves on the compensation committees.

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Responsible Person	Kel Normann, Committee Chair
Agenda Item	V.
Item Description	Other Business
Comments	
Action Requested	
Disposition	
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