

Benchmarking SOX Costs, Hours and Controls

*Leverage the results of Protiviti's
2018 Sarbanes-Oxley Compliance Survey
to gear up and automate key processes*

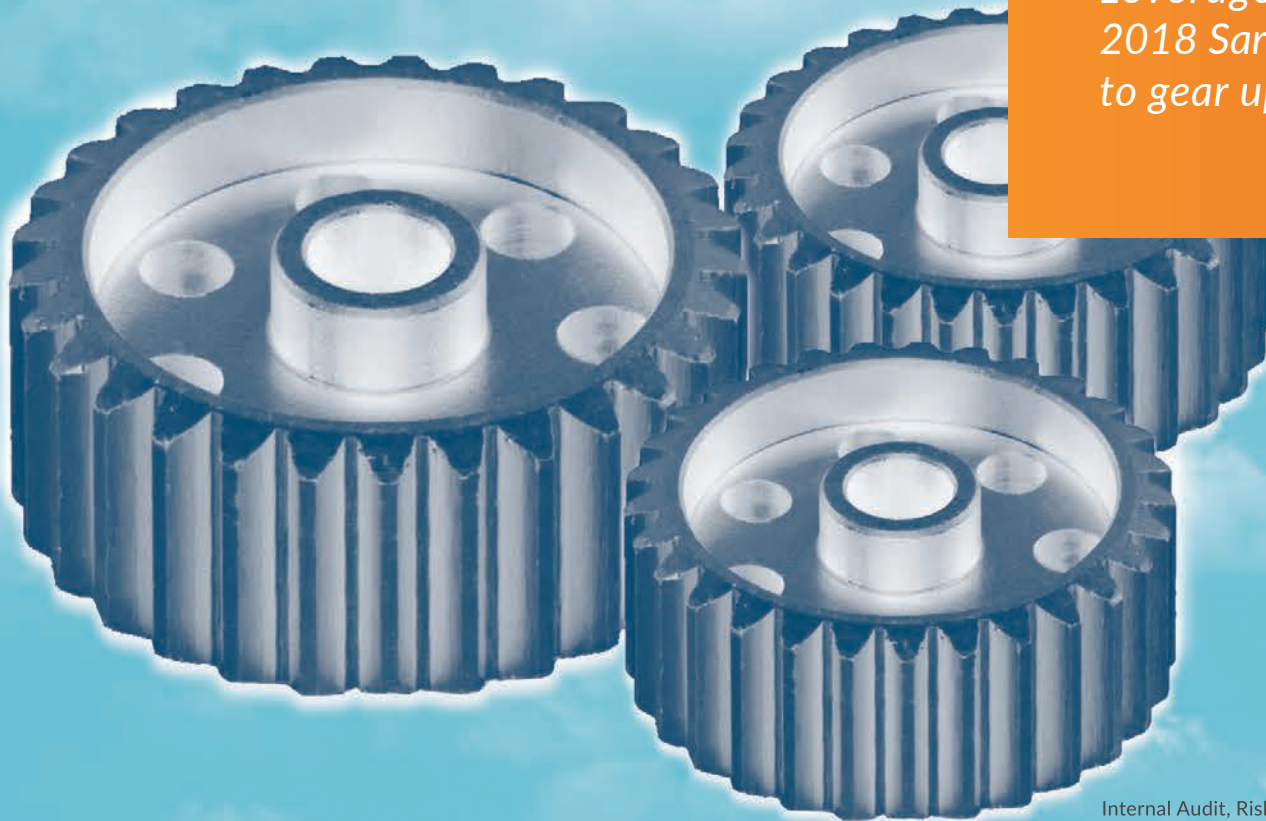


Table of Contents

Executive Summary.....	2
SOX Compliance Costs: Up for Some, Down for Others.....	3
SOX Compliance and External Audit Costs.....	7
SOX Hours Continue Their Climb.....	9
Benchmarking the SOX Control Environment.....	12
Testing IPE.....	22
Cyber Security	24
Perceptions of the SOX Compliance Process and Internal Control Over Financial Reporting.....	25
Appendix.....	27
Methodology and Demographics.....	34
About Protiviti.....	36



Protiviti would like to thank AuditBoard for promoting our 2018 Sarbanes-Oxley Survey questionnaire to qualified benchmarking participants.

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Executive Summary

The changes keep coming

The Sarbanes-Oxley Act, a watershed law that affected nearly all publicly held companies soon after it was enacted in 2002, continues to make waves for organizations, particularly given the broad range of changes and influences impacting compliance efforts.

From new accounting standards for revenue recognition and lease accounting to ongoing inspections of external auditors by the Public Company Accounting Oversight Board (PCAOB), the landscape for SOX compliance continues to shift for a law that was expected to evolve into one requiring a relatively stable compliance exercise for affected companies.

Changes continue to influence SOX compliance efforts, but the areas of most significant concern have been consistent for years: costs, hours and control counts. In addition, organizations are asking more questions about opportunities to increase their use of automated controls and employ more robotic process automation (RPA) in their compliance efforts. We present data points and insights on these and numerous other SOX issues in our **2018 Sarbanes-Oxley Compliance Survey**.

Yet for many organizations, this information only scratches the surface. They are most interested in how they compare to peer organizations in the market. To that end, upon request, Protiviti can provide more detailed results on where other organizations in similar industries and of comparable size, filer status and more stand in relation to the company's own SOX compliance program.

Key Findings

Compliance costs continue to rise for many organizations but remain dependent on size, SOX year, filer status and more – Many organizations experienced increases in their internal SOX compliance costs during their last fiscal year, and those spending \$2 million or more grew as well. However, annual compliance costs did decrease from the prior year for certain groups of companies.

SOX compliance hours have increased significantly – There are likely many factors at play here, including changing organizational structures resulting from ongoing digital transformation efforts, as well as continuing PCAOB inspections of external auditors that are placing increased demands on their clients to perform more rigorous SOX compliance testing and reporting.

The use of automated controls testing and RPA remains low – Implementing these technologies represents a significant opportunity for organizations to build efficiencies into the SOX compliance process and, over the long term, potentially reduce the costs and hours incurred, as well as introduce overall improvements to the control environment.

SOX Compliance Costs: Up for Some, Down for Others

Costs to comply with SOX remains the area of greatest interest to executives and compliance leaders, who continue to seek information on how they might reduce their expenditures while increasing the value that the organization derives from these activities.

which went into effect this year. Organizations should expect further significant accounting preparation and SOX compliance program changes in the coming fiscal year, when the new lease accounting standard becomes effective.¹

Many organizations are seeing their SOX compliance costs continue to increase. It is possible at least some of this can be attributed to the new revenue recognition accounting standard

As we discuss later in our report, organizations have an opportunity to achieve greater efficiency and cost savings in their SOX compliance efforts by employing more automated controls and testing methods, including RPA.

1. Chris Wright and Charles Soranno, "A Sea Change Is Coming – Transitioning to FASB's New Lease Accounting Standard," The Protiviti View, May 30, 2017: <https://blog.protiviti.com/2017/05/30/a-sea-change-is-coming-transitioning-to-fasbs-new-lease-accounting-standard/>.

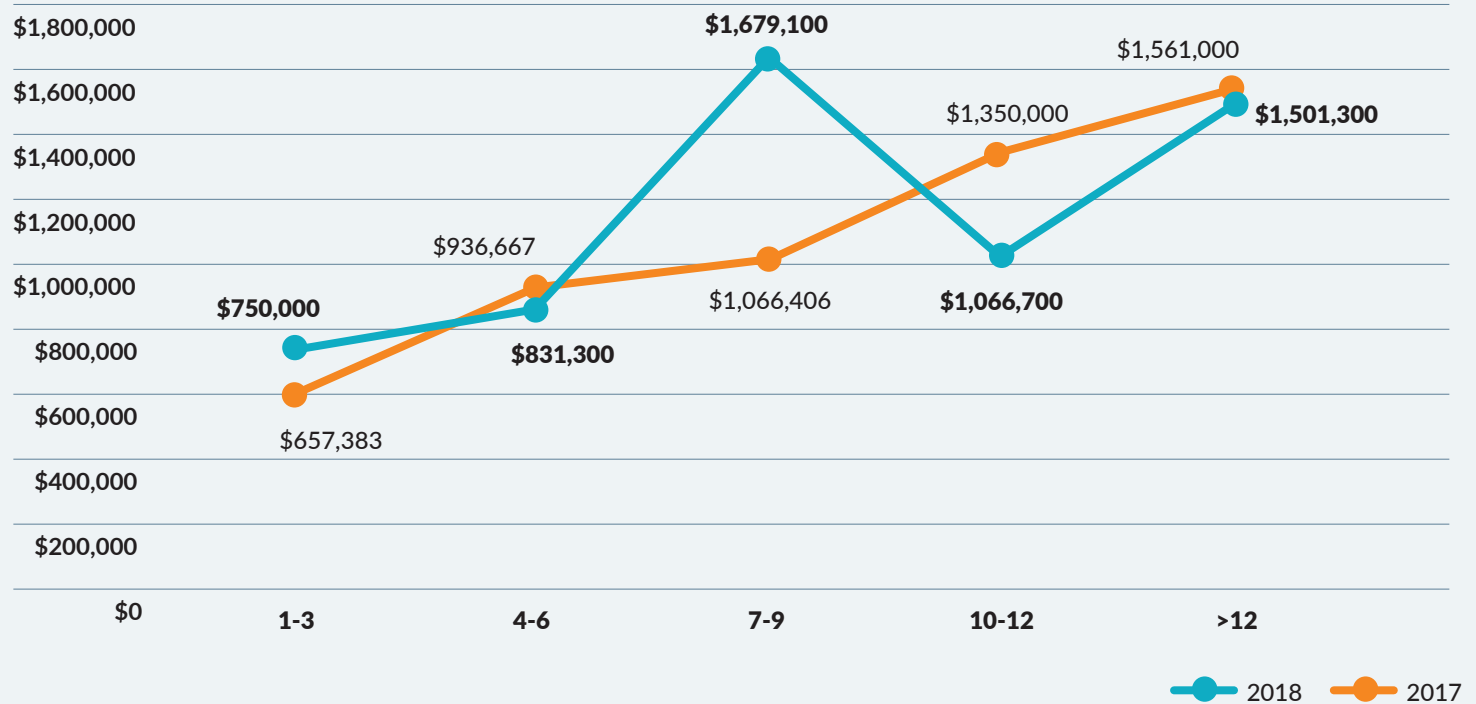
In this section:

Average Annual SOX Compliance Costs (Internal)

Who Spent \$2 Million or More?

Who Spent \$500,000 or Less?

Average Annual SOX Compliance Costs (Internal) by Number of Unique Locations*



* Excludes external audit-related fees

SOX Compliance Costs – Internal (continued)*

SOX Filer Status	Average Annual SOX Compliance Costs (Internal)		
	2018	2017	2016
Large accelerated filer	\$1,338,900	\$1,142,000	\$1,335,000
Accelerated filer	\$ 997,000	\$ 802,000	\$ 914,000
Nonaccelerated filer	\$ 560,700	\$ 700,000	\$1,219,000
Emerging growth company	\$1,391,500	\$1,222,000	\$1,430,000
Size of Organization	Average Annual SOX Compliance Costs (Internal)		
	2018	2017	2016
\$20 billion or greater	\$1,832,600	\$1,983,000	\$2,050,000
\$10 billion to \$19.99 billion	\$1,500,000	\$1,158,000	\$1,382,000
\$5 billion to \$9.99 billion	\$1,358,000	\$1,174,000	\$1,342,000
\$1 billion to \$4.99 billion	\$ 801,800	\$ 933,000	\$1,241,000
\$500 million to \$999.99 million	\$1,438,400	\$ 684,000	\$1,124,000
\$100 million to \$499.99 million	\$ 657,600	\$ 656,000	\$ 474,000
Less than \$100 million	\$ 282,900	\$ 785,000	\$ 367,000
SOX Compliance Year	Average Annual SOX Compliance Costs (Internal)		
	2018	2017	2016
Beyond 2nd year of SOX compliance	\$1,105,300	\$1,033,000	\$1,183,000
2nd year of SOX compliance	\$1,816,300	\$1,117,000	\$1,549,000
1st year of SOX compliance	\$ 853,400	\$ 982,000	\$ 925,000
Pre-1st year of SOX compliance	\$ 819,200	\$1,514,000	\$1,020,000
Industry	Average Annual SOX Compliance Costs (Internal)		
	2018	2017	2016
Healthcare – Provider	\$1,318,400	\$1,190,000	\$1,293,000
Financial Services	\$1,176,100	\$1,292,000	\$1,225,000
Manufacturing	\$1,129,400	\$1,023,000	\$1,001,000
Technology	\$1,157,900	\$ 966,000	\$1,069,000
Energy	\$ 818,900	\$1,009,000	\$ 943,000
Insurance	\$1,087,800	\$1,200,000	\$1,458,000
Consumer Products/Retail	\$ 955,000	\$ 960,500	\$ 953,500

* Excludes external audit-related fees

More than ever, SOX compliance costs appear to hinge on an organization's unique circumstances and structure, including but not limited to the number of controls and locations, as well as the number of regions in which they operate.

Who Spent \$2 Million or More? (Internal Costs)*

SOX Filer Status	2018	2017	Trend
Large accelerated filer	28%	18%	↑
Accelerated filer	28%	10%	↑
Nonaccelerated filer	4%	5%	↓
Emerging growth company	7%	18%	↓
Size of Organization	2018	2017	Trend
\$20 billion or greater	45%	53%	↓
\$10 billion to \$19.99 billion	35%	15%	↑
\$5 billion to \$9.99 billion	28%	18%	↑
\$1 billion to \$4.99 billion	8%	9%	↓
\$500 million to \$999.99 million	49%	4%	↑
\$100 million to \$499.99 million	10%	7%	↑
Less than \$100 million	3%	20%	↓
SOX Compliance Year	2018	2017	Trend
Beyond 2nd year of SOX compliance	21%	16%	↑
2nd year of SOX compliance	81%	17%	↑
1st year of SOX compliance	2%	9%	↓
Pre-1st year of SOX compliance	15%	29%	↓
Industry	2018	2017	Trend
Healthcare - Provider	53%	NA	
Financial Services	25%	22%	↑
Manufacturing	17%	15%	↑
Technology	27%	10%	↑
Energy	8%	18%	↓
Insurance	20%	NA	
Consumer Products/Retail	14%	NA	
Number of Unique Locations	2018	2017	Trend
More than 12	35%	32%	↑
10-12	21%	21%	↔
7-9	51%	9%	↑
4-6	10%	12%	↓
1-3	10%	6%	↑

* Excludes external audit-related fees

How does your organization compare?

Who Spent \$500,000 or Less? (Internal Costs)*

SOX Filer Status	2018	2017	Trend
Large accelerated filer	33%	33%	↔
Accelerated filer	55%	56%	↓
Nonaccelerated filer	57%	57%	↔
Emerging growth company	22%	35%	↓
Size of Organization	2018	2017	Trend
\$20 billion or greater	17%	20%	↓
\$10 billion to \$19.99 billion	24%	27%	↓
\$5 billion to \$9.99 billion	28%	34%	↓
\$1 billion to \$4.99 billion	63%	39%	↑
\$500 million to \$999.99 million	22%	54%	↓
\$100 million to \$499.99 million	62%	63%	↓
Less than \$100 million	89%	80%	↑
SOX Compliance Year	2018	2017	Trend
Beyond 2nd year of SOX compliance	41%	43%	↓
2nd year of SOX compliance	8%	21%	↓
1st year of SOX compliance	72%	41%	↑
Pre-1st year of SOX compliance	54%	36%	↑
Industry	2018	2017	Trend
Healthcare – Provider	43%	NA	
Financial Services	39%	36%	↑
Manufacturing	40%	42%	↓
Technology	41%	38%	↑
Energy	43%	45%	↓
Insurance	49%	NA	
Consumer Products/Retail	44%	NA	
Number of Unique Locations	2018	2017	Trend
More than 12	29%	20%	↑
10-12	33%	30%	↑
7-9	11%	31%	↓
4-6	64%	44%	↑
1-3	63%	60%	↑

* Excludes external audit-related fees

How does your organization compare?

SOX Compliance and External Audit Costs

External audit costs are rising for many organizations – often by a significant amount. Numerous factors likely are contributing to this, from annual compensation increases for staff to greater demands on auditors by the PCAOB. Many of the areas of focus by the PCAOB, including areas such as reliance on the work of others, information produced by entity, and deeper analysis of control deficiencies, translate directly to additional effort required of the external auditor.

organizational structures and processes undergoing digital transformation that, in turn, call for changes in SOX compliance practices. One other possible influence on costs is an increase in merger and acquisition activity, which has been building steadily over the past year. Many merger, acquisition or divestiture activities come with the potential for material changes to a company’s SOX compliance work, with some requiring extensive changes to scope and underlying control activities that its auditors need to assess.

Organizations today are subject to more frequent, significant and fast-moving changes. These include changing

In this section:

For fiscal year 2017, what change, if any, did you experience in your external audit fees?

If you reported an increase in your external audit fees, please indicate the percentage of increase.

For fiscal year 2017, what change, if any, did you experience in your external audit fees?

	SOX Filer Status			
	Large accelerated filer	Accelerated filer	Nonaccelerated filer	Emerging growth company
Our external audit fees increased	50%	23%	39%	25%
Our external audit fees decreased	6%	6%	11%	58%
Our external audit fees stayed the same	44%	71%	50%	17%

	Organization Size (Gross Revenue)						
	\$20 billion or greater	\$10 billion - \$19.99 billion	\$5 billion - \$9.99 billion	\$1 billion - \$4.99 billion	\$500 million - \$999.99 million	\$100 million - \$499.99 million	Less than \$100 million
Our external audit fees increased	40%	36%	51%	33%	24%	57%	55%
Our external audit fees decreased	7%	7%	9%	8%	39%	13%	13%
Our external audit fees stayed the same	53%	57%	40%	59%	37%	30%	32%

If you reported an increase in your external audit fees, please indicate the percentage increase.

	SOX Filer Status			
	Large accelerated filer	Accelerated filer	Nonaccelerated filer	Emerging growth company
Increased > 20%	9%	16%	0%	32%
Increased 16-20%	6%	7%	0%	7%
Increased 11-15%	9%	11%	18%	7%
Increased 6-10%	43%	41%	36%	27%
Increased 1-5%	33%	25%	46%	27%

	Organization Size (Gross Revenue)						
	\$20 billion or greater	\$10 billion - \$19.99 billion	\$5 billion - \$9.99 billion	\$1 billion - \$4.99 billion	\$500 million - \$999.99 million	\$100 million - \$499.99 million	Less than \$100 million
Increased > 20%	13%	12%	4%	9%	12%	18%	9%
Increased 16-20%	5%	4%	13%	6%	6%	5%	24%
Increased 11-15%	11%	16%	11%	11%	8%	24%	5%
Increased 6-10%	31%	44%	39%	38%	46%	29%	38%
Increased 1-5%	40%	24%	33%	36%	28%	24%	24%

External audit firms are investing in technology to support audits and their fees may reflect these costs. Over time, these technologies should enable more cost-effective audits. We already are seeing file-sharing platforms rolled out for clients to upload their documentation. In addition, as the Critical Audit Matters PCAOB disclosure requirement comes into effect, we anticipate some increase in external audit fees as firms implement processes to pilot these on clients in 2018 in preparation for the 2019 requirement.

SOX Hours Continue Their Climb

As we have observed in results from the prior few years of our study, hours required for SOX compliance continue to increase for many organizations. And in a majority of companies, hours appear to have risen by 10 percent or more.

Similar to our findings on costs reported earlier, there are many factors at play that are contributing to these increases. These include changing organizational structures resulting from digital transformation and greater demands from external auditors as a result of increased scrutiny from the PCAOB.

Another contributing factor is revenue recognition. After implementing the new ASC 606 Revenue Recognition Standard, companies were required to document their transition controls.

In addition, a growing number of organizations are outsourcing software and business processes. While this offers numerous advantages, there are assurance activities that need to take place around the SOC reports these vendors provide, along with the related management review controls that are required.

Over the long term, emerging SOX compliance practices such as automated controls testing and RPA bring significant potential to help organizations reduce overall hours required for SOX compliance. To this point, as noted later in our report, the current use of RPA is relatively low. However, we anticipate that its use will rise in the coming years.

In this section:

For fiscal year 2017, how did the total amount of hours your organization devoted to Sarbanes-Oxley compliance change?

During fiscal year 2017, how many hours, on average, would you estimate your organization spent on each key control as it relates to the following activities?

For fiscal year 2017, how did the total amount of hours your organization devoted to Sarbanes-Oxley compliance change?

SOX Filer Status	Hours devoted to SOX compliance increased	Hours devoted to SOX compliance increased more than 10 percent*	Hours devoted to SOX compliance decreased more than 10 percent**
Large accelerated filer	49%	49%	34%
Accelerated filer	20%	57%	96%
Nonaccelerated filer	43%	42%	80%
Emerging growth company	34%	65%	94%
Number of Unique Locations			
More than 12	49%	49%	27%
10-12	54%	62%	33%
7-9	21%	45%	98%
4-6	22%	58%	95%
1-3	45%	54%	52%
Size of Organization			
\$20 billion or greater	47%	52%	30%
\$10 billion to \$19.99 billion	46%	61%	13%
\$5 billion to \$9.99 billion	56%	65%	50%
\$1 billion to \$4.99 billion	32%	50%	84%
\$500 million to \$999.99 million	25%	49%	90%
\$100 million to \$499.99 million	48%	70%	50%
Less than \$100 million	53%	65%	50%
SOX Filer Status			
Beyond 2nd year of SOX compliance	46%	49%	39%
2nd year of SOX compliance	11%	78%	98%
1st year of SOX compliance	9%	67%	100%
Pre-1st year of SOX compliance	69%	88%	100%

* Among organizations in which Sarbanes-Oxley compliance hours increased.
 ** Among organizations in which Sarbanes-Oxley compliance hours decreased.

Over the long term, emerging SOX compliance practices such as automated controls testing and RPA bring significant potential to help organizations reduce overall hours required for SOX compliance.

During fiscal year 2017, how many hours, on average, would you estimate your organization spent on each key control as it relates to the following activities?*

	Average no. of hours	Less than 1 hour	1-2 hours	3-4 hours	5-6 hours	7-8 hours	9-10 hours	Over 10 hours
Creating or updating control documentation	4.4	12%	18%	26%	22%	5%	1%	10%
Evaluating control design	4.2	13%	21%	20%	26%	4%	1%	8%
Time to analyze a SOC report	4.5	9%	17%	20%	29%	6%	2%	8%
Testing for control operating effectiveness	5.8	2%	11%	23%	31%	10%	4%	13%
Testing management review controls	5.3	5%	15%	20%	27%	12%	3%	11%
Testing information produced by entity (IPE) for data used to execute key controls	5.1	6%	16%	14%	34%	9%	3%	8%

* Not shown: "Don't know" responses

How does your organization compare?

Benchmarking the SOX Control Environment

Across company size and filer status, external auditors are relying on a significant percentage of the organization's controls testing. We also see nearly one in three organizations using technology tools such as automated process approval workflow, access controls and user provisioning – including segregation of duties review tools and data analytics.

Interestingly however, nearly three out of four organizations are still not using technology tools in the testing of their controls. This represents a substantial area for growth as the company seeks to achieve greater efficiency in its SOX compliance efforts.

In addition, when considering the long-term promise of RPA to automate currently manual and repetitive tasks while achieving a higher rate of accuracy, we expect to see a much higher use of tools like this in our future SOX surveys.

Not surprisingly, among those organizations that are using technology tools when testing their SOX Section 404 controls, the financial close process is by far the area for which these tools are used most frequently, followed by the financial reporting process.

In addition to providing more consistent and accurate transactional testing results, data analytics and RPA will help to eliminate sampling error as more and more of testing of full populations is done, yielding a more definitive conclusion on operating effectiveness. Based on the survey results, the majority of those surveyed said that they are planning to embed technology in their SOX activities in 2018. As companies begin to explore the use of artificial intelligence and predictive analytics in their control structure, there may be significant changes yet to come.

In this section:

Controls Testing

Use of Technology Tools

Automated Controls

Entity-Level Controls

Process-Level Controls

What percentage of your controls testing do the external auditors rely upon?

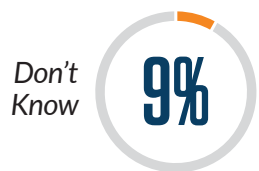
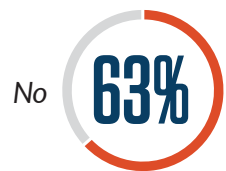
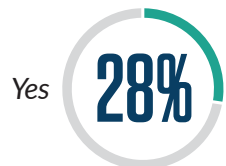
	SOX Filer Status			
	Large accelerated filer	Accelerated filer	Nonaccelerated filer	Emerging growth company
10% or less	14%	22%	17%	29%
11%-20%	11%	29%	26%	15%
21%-30%	14%	11%	10%	14%
31%-40%	8%	6%	7%	14%
41%-50%	18%	9%	21%	8%
51%-75%	22%	16%	3%	14%
76%-100%	13%	7%	16%	6%

“As our SOX landscape matures and evolves, so will our testing techniques. We’re now in our second year, so we’re still getting the foundation and fundamentals correct.”

Chief audit executive,
large consumer products company

	Organization Size (Gross Revenue)						
	\$20 billion or greater	\$10 billion - \$19.99 billion	\$5 billion - \$9.99 billion	\$1 billion - \$4.99 billion	\$500 million - \$999.99 million	\$100 million - \$499.99 million	Less than \$100 million
10% or less	18%	9%	9%	11%	33%	24%	24%
11%-20%	11%	18%	8%	21%	30%	19%	18%
21%-30%	12%	22%	14%	14%	7%	13%	13%
31%-40%	8%	9%	12%	8%	7%	7%	2%
41%-50%	18%	20%	19%	14%	6%	8%	21%
51%-75%	21%	15%	24%	21%	12%	18%	11%
76%-100%	12%	7%	14%	11%	5%	11%	11%

For the 2017 fiscal year, did your organization utilize technology tools in the testing of controls (for example, robotic process automation) to comply with Sarbanes-Oxley Section 404?



Which of the following technology tools is your organization using as part of the Sarbanes-Oxley compliance process? (Multiple responses permitted)

	Total
Automated process approval workflow tools (e.g., expense report approval process)	31%
Access controls/user provisioning/segregation of duties review tools	30%
Data analytics	30%
Automated reconciliation tools	29%
Process mining/analytics	27%
Continuous controls monitoring	27%
Technical security assessment/scanning tools	14%
Robotic process automation (RPA)	11%
Advanced data analytics	8%
Visualization tools	8%
Machine/deep learning	2%

If “Yes”: For which of the following processes do you use technology tools in the testing of controls to comply with SOX Section 404? (Multiple responses permitted)

Top 5	Total
Financial close process	61%
Financial reporting process	36%
Accounts payable process	30%
Account reconciliations process	29%
Accounts receivable process	25%

If “No”: Does your organization plan to use technology tools in the testing of controls to comply with SOX Section 404 in the future?

	Total
Yes, we plan to use technology tools in fiscal year 2018	23%
No, but we plan to introduce the use of technology tools in fiscal year 2019	26%
No, we do not plan to use technology tools	20%
Don't know	31%

“[Automating SOX testing] is clearly a future state that we need to migrate toward sooner rather than later.”

Chief audit executive,
large life sciences/biotechnology
company

Notable Findings

- A strong majority of organizations in their first year of SOX compliance – 83 percent – are using process mining/analytics.
- Overall, only 11 percent of organizations use RPA; however, certain segments show higher usage, specifically:
 - 27 percent of organizations that have \$500 million – \$999.99 million in annual revenue
 - 57 percent of organizations in their second year of SOX compliance
 - 38 percent of organizations with 7–9 unique locations
- 65 percent of organizations with 10–12 locations use continuous controls monitoring and 61 percent use process mining/analytics.
- Organizations with \$5 billion or more in annual revenue are more likely to use data analytics.
- Overall, 25 percent more organizations use technology tools when testing controls for the financial close process than when testing controls for any other process.
 - 85 percent of organizations with \$1 billion – \$4.99 billion in annual revenue use technology tools when testing controls for their financial close process, but only 14 percent or fewer of these companies use technology tools when testing controls for all other processes assessed in our survey.
 - Similarly, 85 percent of accelerated filers use technology tools when testing controls for their financial close process, but only 18 percent or less of these same companies use technology tools when testing controls for all other processes assessed in our survey.
- Overall, one in four organizations use technology tools when testing controls for their accounts receivable process; more than three out of four organizations with less than \$100 million in revenue do so.

Has your organization discussed with the external auditor the organization's plan to use technology tools in the testing of controls to comply with Sarbanes-Oxley Section 404?

	Total
Yes, we held this discussion with our external auditors during fiscal 2017	22%
Yes, we plan to discuss this topic with our external auditors during fiscal 2018	23%
No, we have not discussed this topic with our external auditor	40%
Don't know	15%

Does your organization's external auditor use, or plan to use, technology tools in their testing of controls related to Sarbanes-Oxley Section 404?

	Total
Yes, our external auditor used technology tools during fiscal 2017	19%
Yes, our external auditor plans to use technology tools during fiscal 2018	33%
No, our external auditor does not plan to use technology tools	9%
Don't know	39%

Notable Findings

- Two out of three organizations with 10-12 unique locations discussed their plan to use technology tools for testing controls with their external auditors during fiscal year 2017, compared to just over one in five organizations overall.
- 64 percent of organizations in their second year of SOX compliance and 61 percent of organizations with 7-9 unique locations plan to discuss this topic with their external auditors during fiscal year 2018, compared to just over one in five organizations overall.
- While the external auditors for one in three organizations overall plan to use technology tools in their testing of controls related to SOX Section 404 in fiscal year 2018, 87 percent of organizations in their first year of SOX compliance and 60 percent of organizations with \$500 million - \$999.99 million in annual revenue plan for their external auditors to use technology tools for this testing. Additionally, 65 percent of organizations in their second year of SOX compliance and 64 percent of organizations with 10-12 locations plan for their external auditors to use technology tools for controls testing.

How does your organization compare?

Automating Controls

For fiscal year 2017, what percentage of your organization's total key controls would you estimate are automated key controls?

	Large accelerated filer	Accelerated filer	Nonaccelerated filer	Emerging growth company
0%-5%	19%	16%	25%	13%
6%-10%	26%	21%	25%	12%
11%-25%	33%	35%	20%	35%
26%-50%	18%	18%	24%	31%
51%-75%	4%	10%	6%	9%

Assessing our SOX Compliance Survey results over the past few years, there has been minimal movement in the percentages of key controls that are automated key controls. In addition, fewer companies indicate significant plans to automate a broad range of IT processes and controls. For those not planning to pursue embedded automation within enterprise systems, RPA offers an opportunity to deliver automation without significant system integration efforts.

To what extent does your organization plan to further automate its manual processes and controls within fiscal year 2018?

	Large accelerated filer	Accelerated filer	Nonaccelerated filer	Emerging growth company
We have significant plans to automate a broad range of IT processes and controls	14%	7%	14%	17%
We have moderate plans to automate numerous IT processes and controls	38%	70%	25%	63%
We have minimal plans to automate selected IT processes and controls	34%	16%	37%	17%
We have no plans to automate any further	14%	7%	24%	3%

Which of the following technology tools is your external auditor using (or planning to use) as part of the SOX compliance process? (Multiple responses permitted)

	Total
Robotic process automation (RPA)	38%
Data analytics	27%
Process mining/analytics	22%
Access controls/user provisioning/segregation of duties review tools	21%
Automated reconciliation tools	14%
Technical security assessment/scanning tools	14%
Automated process approval workflow tools	12%
Advanced data analytics	12%
Machine/deep learning	12%
Continuous controls monitoring	10%
Visualization tools	7%

With the availability of RPA software, we anticipate that more companies will start to use “bots” to automate manual controls that rely on a range of human-driven activities, such as reconciliations and data entry. While this will not fall under the purview of automated controls, it will result in the automation of certain manual and system-dependent process steps. We advise, however, that organizations evaluate those activities and controls that lend themselves to high automation potential and high value through automation.

Entity-Level Controls

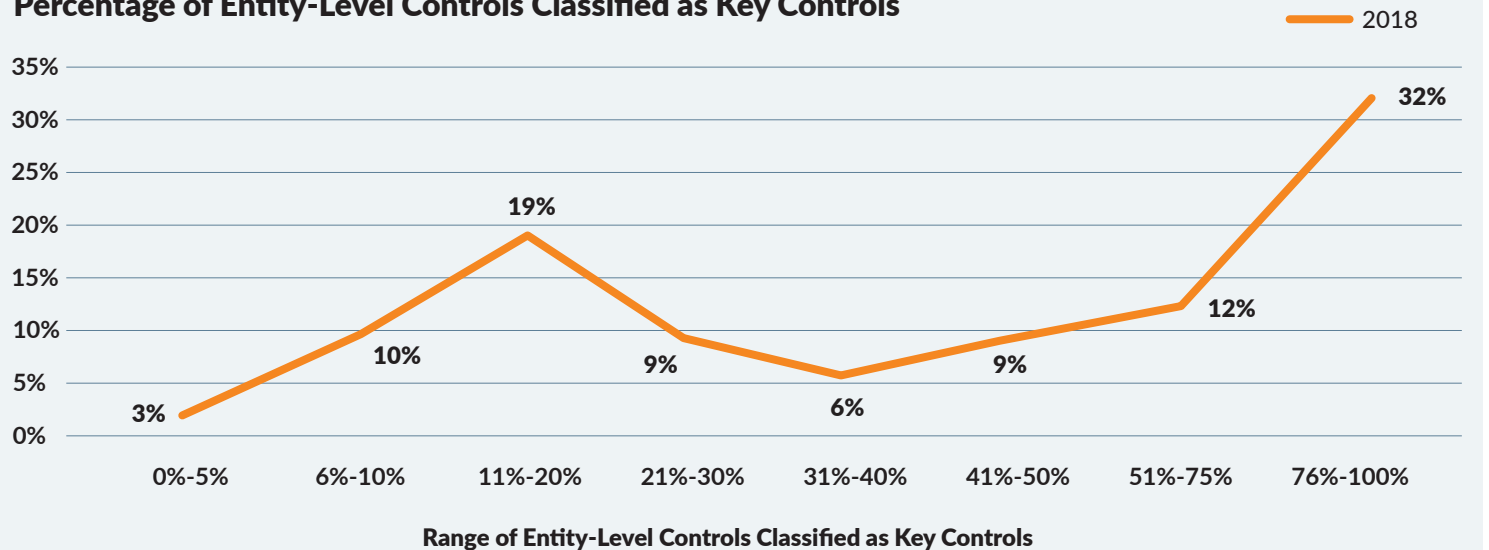
Number of Entity-Level Controls – By Number of Organization Locations

	1-3 locations	4-6 locations	7-9 locations	10-12 locations	More than 12 locations
Less than 15	17%	16%	28%	66%	12%
16 to 25	28%	23%	30%	7%	14%
26 to 35	17%	14%	10%	5%	10%
36 to 45	8%	10%	10%	5%	10%
46 to 55	7%	11%	7%	7%	10%
56 to 75	3%	14%	2%	3%	5%
76 to 95	1%	2%	1%	0%	3%
96 to 115	7%	3%	4%	1%	10%
More than 115	12%	7%	8%	6%	26%

“Using a GRC tool facilitates the ability to link to existing controls or deficiencies, rather than duplicate them in different areas of the company. We’ve enhanced our coordination efforts between GRC groups to be more efficient to the business areas.”

Corporate SOX leader,
large healthcare payer

Percentage of Entity-Level Controls Classified as Key Controls



Percentage of Entity-Level Controls Classified as Key Controls - By Number of Organization Locations

	1-3 locations	4-6 locations	7-9 locations	10-12 locations	More than 12 locations
0%-5%	6%	2%	0%	3%	5%
6%-10%	6%	3%	5%	56%	1%
11%-20%	8%	18%	49%	14%	8%
21%-30%	11%	11%	11%	5%	7%
31%-40%	5%	10%	2%	3%	8%
41%-50%	9%	10%	9%	2%	12%
51%-75%	9%	19%	8%	5%	14%
76%-100%	46%	27%	16%	12%	45%

“[Our] process leaders have become more involved in understanding how controls actually help them perform their duties at a lower error rate, which increases productivity.”

Audit director,
midsize manufacturing company

Process-Level Controls

Number of Process-Level Controls - By Number of Organization Locations

	1-3 locations	4-6 locations	7-9 locations	10-12 locations	More than 12 locations
<35	7%	28%	51%	67%	6%
35-55	8%	15%	11%	1%	3%
56-75	5%	13%	2%	3%	4%
76-95	5%	4%	3%	4%	2%
96-115	11%	2%	3%	2%	8%
116-135	9%	2%	0%	0%	4%
136-155	7%	2%	4%	2%	4%
156-175	3%	1%	2%	1%	1%
176-195	5%	2%	0%	0%	1%
196-215	6%	5%	2%	2%	7%
216-235	2%	2%	0%	1%	1%
236-255	6%	2%	4%	2%	12%
256-300	8%	2%	2%	0%	8%
>300	18%	20%	16%	15%	39%

Do you baseline test system-generated reports used in key SOX controls?

Yes, all reports for key controls annually



Yes, all reports for key controls on a rotational basis



Yes, for some but not all reports



Yes, but only for new reports as they are developed



No



Percentage of Process-Level Controls Classified as Key Controls – By Number of Organization Locations

	1-3 locations	4-6 locations	7-9 locations	10-12 locations	More than 12 locations
0%-5%	3%	0%	0%	33%	2%
6%-10%	2%	2%	3%	26%	4%
11%-20%	6%	17%	51%	13%	2%
21%-30%	6%	12%	7%	1%	9%
31%-40%	3%	7%	5%	2%	5%
41%-50%	12%	7%	7%	2%	12%
51%-75%	20%	26%	7%	7%	18%
76%-100	48%	29%	20%	16%	48%

Percentage of Process-Level Controls Classified as IT General Controls – By Number of Organization Locations

	1-3 locations	4-6 locations	7-9 locations	10-12 locations	More than 12 locations
0%-5%	8%	3%	2%	28%	4%
6%-10%	18%	8%	10%	38%	13%
11%-20%	25%	28%	51%	13%	19%
21%-30%	22%	17%	13%	6%	21%
31%-40%	9%	10%	6%	4%	11%
41%-50%	7%	7%	8%	6%	13%
51%-75%	4%	21%	8%	3%	10%
76%-100%	7%	6%	2%	2%	9%

Testing IPE

To what extent do you test information produced by entity (IPE) for data used to execute key controls?

	Large accelerated filer	Accelerated filer	Nonaccelerated filer	Emerging growth company
We test IPE every time we test a control that uses or relies upon it	34%	16%	28%	24%
We test IPE once a year for each key control that uses or relies upon it, and do not test it again if its source has not changed	33%	47%	35%	49%
We test IPE on a rotational basis with coverage every 2-3 years	12%	27%	4%	12%
Not sure	21%	10%	33%	15%

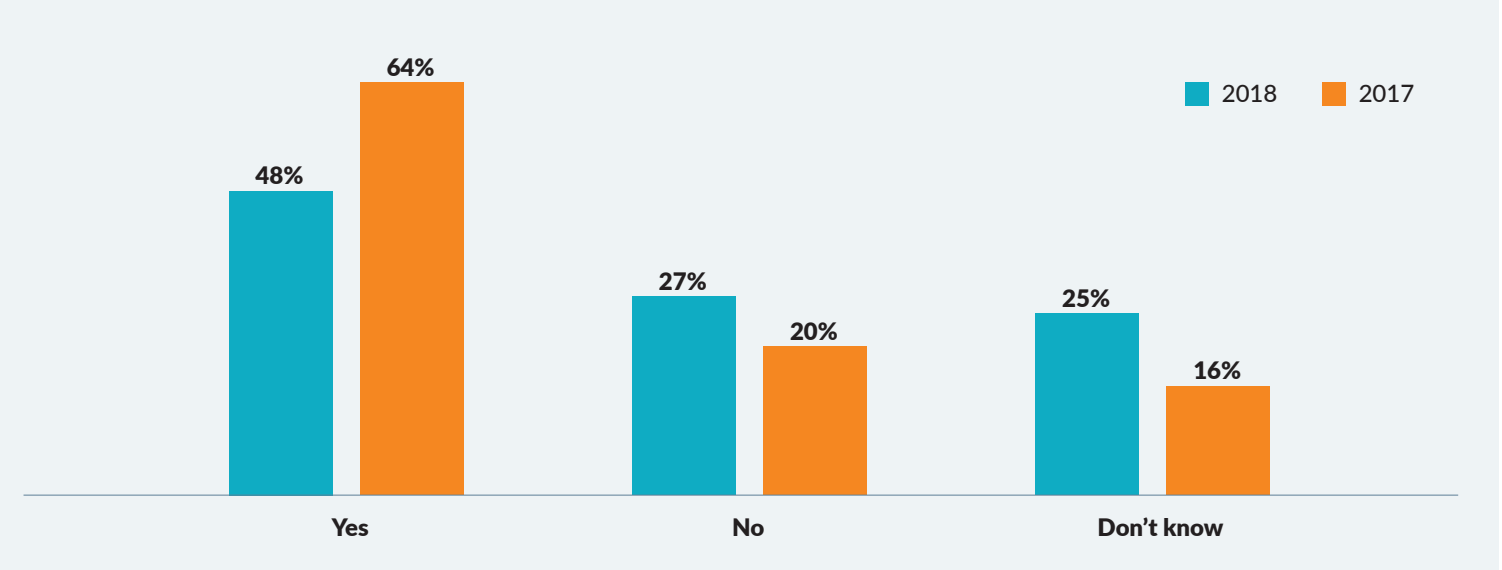
In this section:

To what extent do you test information produced by entity for data used to execute key controls?

Is your external audit firm placing more focus on evaluating deficiencies?

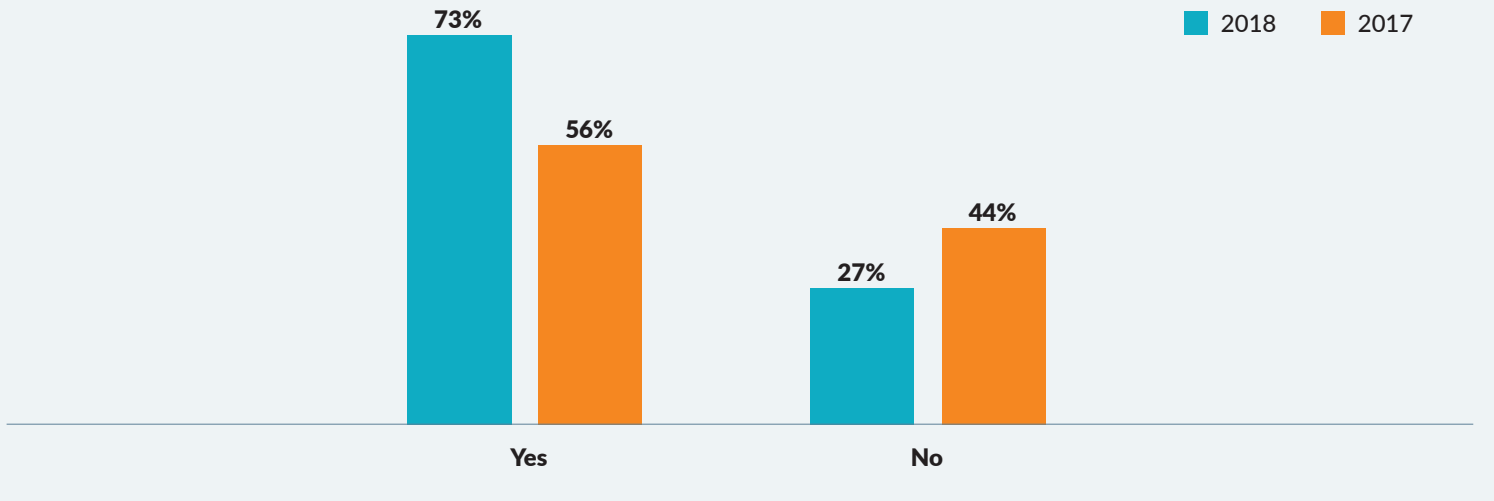
Has your organization started updating its controls documentation to reflect the implementation of the revenue recognition accounting standard?

Is your external audit firm placing more focus on evaluating deficiencies?



The new revenue recognition standard is now effective and external auditors will be asking to see the updated controls in their testing. Time has run out to complete this, so companies that have yet to do this may find themselves facing detailed questions from their auditors.

Has your organization started updating its controls documentation to reflect the implementation of the revenue recognition accounting standard?

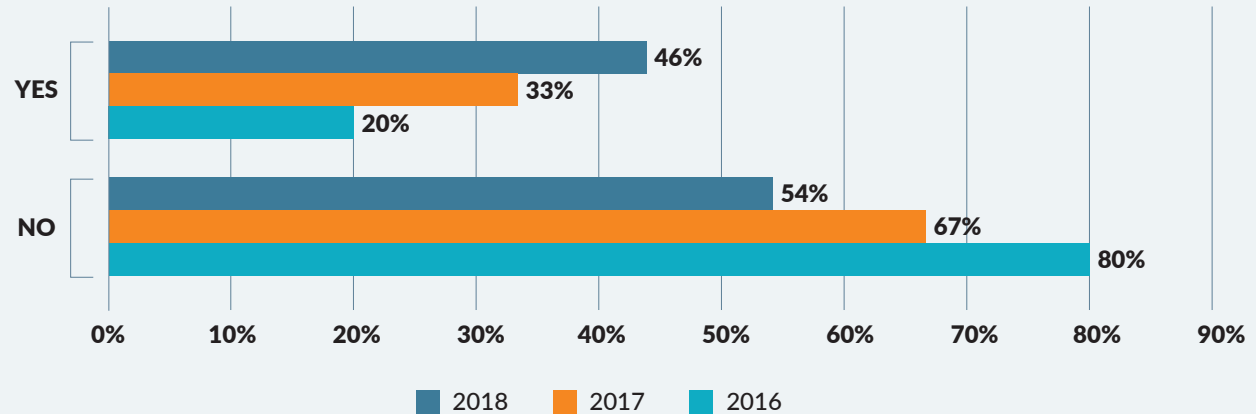


Notable Findings

- Compared to 2017, 16 percent fewer organizations' external audit firms are placing more focus on evaluating deficiencies.
- Compared to 2017, 17 percent more organizations have started updating their controls documentation to reflect the implementation of the revenue recognition accounting standard.

Cyber Security

Was your organization required to issue a cyber security disclosure (according to CF Disclosure Guidance: Topic No. 2)?



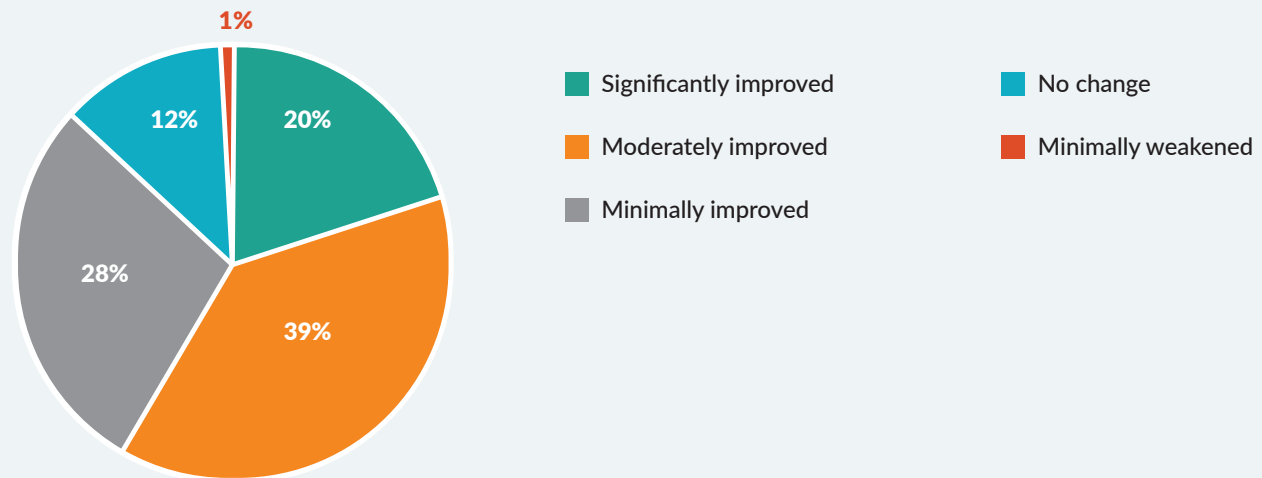
If “Yes”: What was the impact on the total number of hours your organization devoted to Sarbanes-Oxley compliance during the fiscal year?

	2018	2017	2016
Increased > 20%	2%	15%	5%
Increased by 16-20%	39%	17%	19%
Increased by 11-15%	36%	22%	23%
Increased by 6-10%	5%	23%	14%
Increased by 1-5%	8%	10%	23%
No change in hours	10%	13%	16%

The percentage of organizations that report they are required to issue a cyber security disclosure continues to increase, rising 13 percent for the second consecutive year. The PCAOB continues to monitor the impact of cyber incidents on companies’ internal control over financial reporting. While the PCAOB has not found any that have resulted in financial misstatements or material weaknesses in ICFR, we expect the board as well as auditors to continue to scrutinize cyber disclosures.

Perceptions of the SOX Compliance Process and Internal Control Over Financial Reporting

How has the internal control over financial reporting (ICFR) structure changed since Sarbanes-Oxley Section 404(b) was required for your organization?



In this section:

How has the internal control over financial reporting structure changed since Sarbanes-Oxley Section 404(b) was required for your organization?

Considering the lifecycle of your Sarbanes-Oxley program until now, what are the primary benefits your organization has achieved through its Sarbanes-Oxley compliance process?

Is internal audit involved in Sarbanes-Oxley activities in your organization?

How is internal audit involved in Sarbanes-Oxley activities in your organization?

Who in your organization supports Sarbanes-Oxley testing efforts?

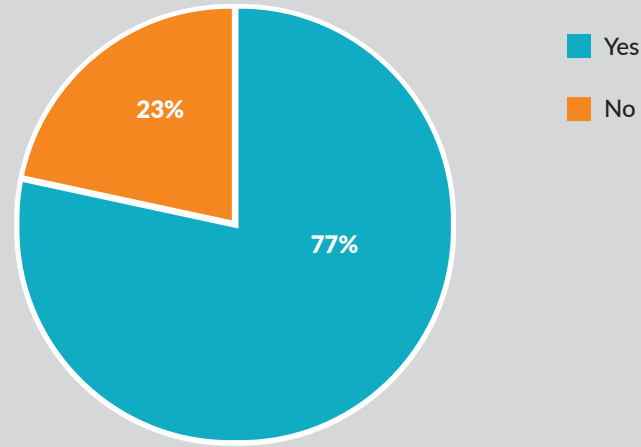
Considering the lifecycle of your Sarbanes-Oxley program until now, what are the primary benefits your organization has achieved through its Sarbanes-Oxley compliance process? (Multiple responses permitted)

	Total
Continuous improvement of business processes	59%
Enhanced understanding of control design and control operating effectiveness	58%
Improved internal control over financial reporting structure	45%
Compliance with SEC rules	36%
Increased reliance by external audit on the work of internal audit	33%
Ability to better identify duplicate or superfluous controls	30%

“SOX has generally increased focus on controls over financial reporting, thus ensuring they are discussed, monitored and evaluated on a routine basis, and improving overall processes and accuracy. In addition, this has increased communication and interaction of internal and external audit, which has resulted in great overall reliance.”

Chief audit executive,
large life sciences/
biotechnology company

Is internal audit involved in Sarbanes-Oxley activities in your organization?



If "Yes": How is internal audit involved in Sarbanes-Oxley activities in your organization? (Multiple responses permitted)*

	Total
Testing	78%
Updating documentation	66%
Project management office	36%

* Among organizations in which internal audit is involved in Sarbanes-Oxley activities.

Who in your organization supports Sarbanes-Oxley testing efforts? (Multiple responses permitted)

	Total
Internal audit	58%
Third-party service provider	37%
Management and/or process owners	24%
Project management organization (PMO)	21%
Business/financial controls unit	15%
Other	3%

Appendix

Outsourcing Practices

Does your organization use outside resources for Sarbanes-Oxley compliance activities related to process controls?

	Total		Beyond 2nd year of SOX compliance		2nd year of SOX compliance		1st year of SOX compliance		Pre-1st year of SOX compliance	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Yes, we use co-source providers	24%	41%	31%	38%	20%	59%	6%	43%	19%	43%
Yes, we outsource our Sarbanes-Oxley activities	36%	11%	10%	7%	71%	22%	89%	28%	27%	36%
No, we do not use outside resources	40%	48%	59%	55%	9%	19%	5%	29%	54%	21%

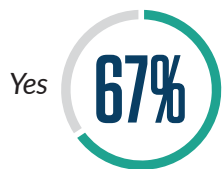
Does your organization use outside resources for Sarbanes-Oxley compliance activities related to IT controls?

	Total		Beyond 2nd year of SOX compliance		2nd year of SOX compliance		1st year of SOX compliance		Pre-1st year of SOX compliance	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Yes, we use co-source providers	26%	42%	34%	41%	19%	52%	6%	42%	27%	36%
Yes, we outsource our Sarbanes-Oxley activities	28%	19%	15%	16%	72%	28%	45%	29%	15%	43%
No, we do not use outside resources	46%	39%	51%	43%	9%	20%	49%	29%	58%	21%

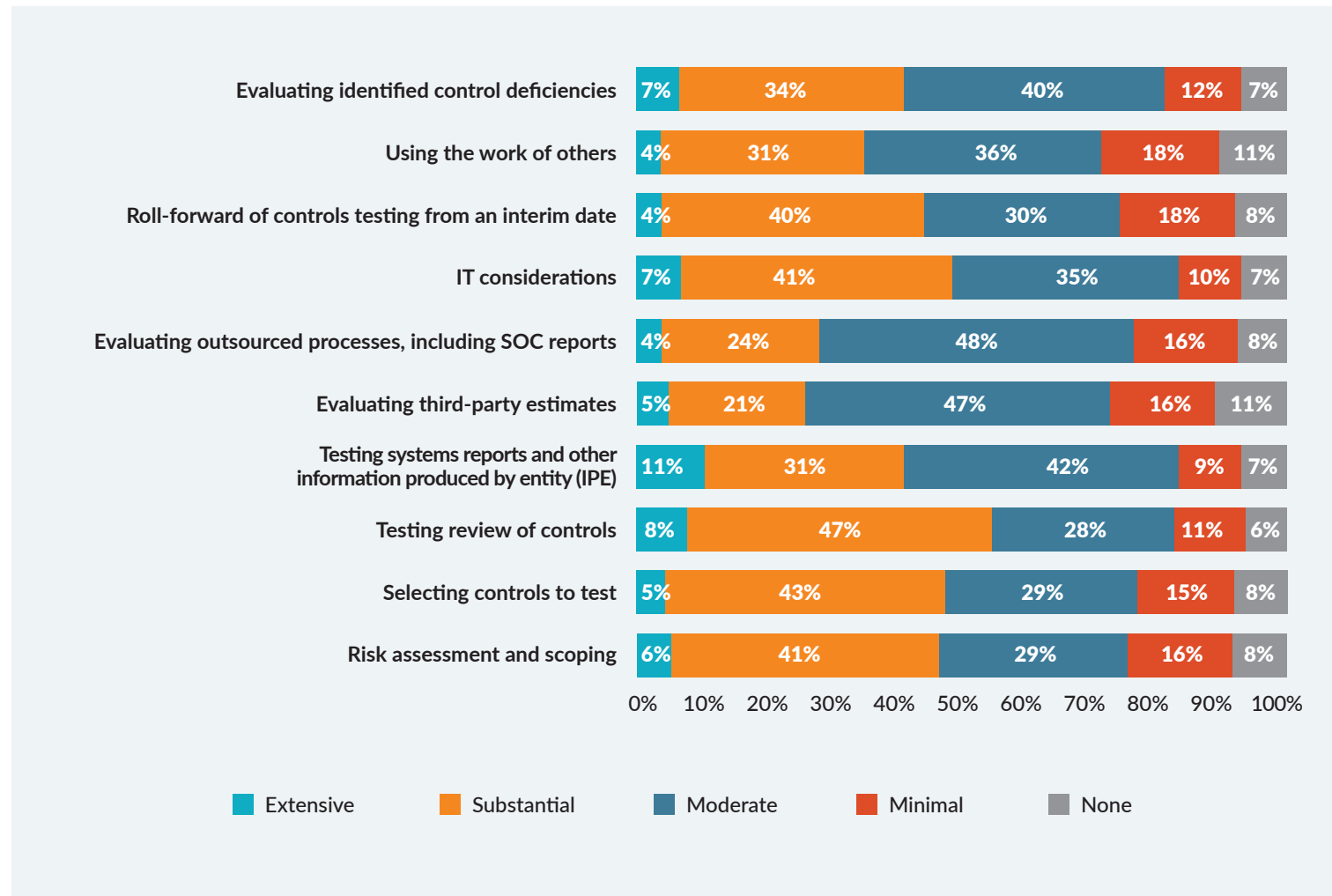
“Annual review of controls helps us to update the processes and the controls to be the most efficient and the most likely to prevent material misstatements.”

Corporate SOX leader,
large manufacturing company

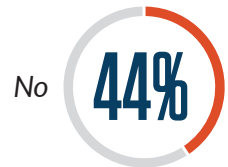
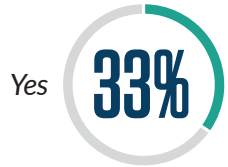
Does your organization use a software tool to manage Sarbanes-Oxley compliance execution and store documentation?



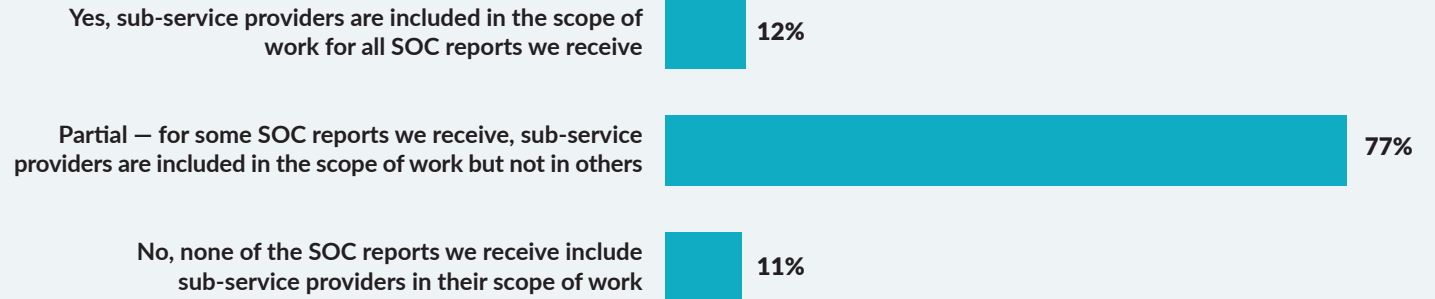
Indicate the impact of the PCAOB's inspection reports on external auditors on your organization's costs for the following Sarbanes-Oxley compliance activities.



If you receive SOC 1 reports, are you preparing a formal mapping between company controls and outside providers' controls (as listed in the SOC 1 report)?



Are sub-service providers included in the scope of work for the SOC reports you receive?



Are you obtaining and evaluating the SOC reports for sub-service providers referenced in the SOC report (which were not scoped into the SOC audit at the service provider)?

Yes, for all outsourced providers



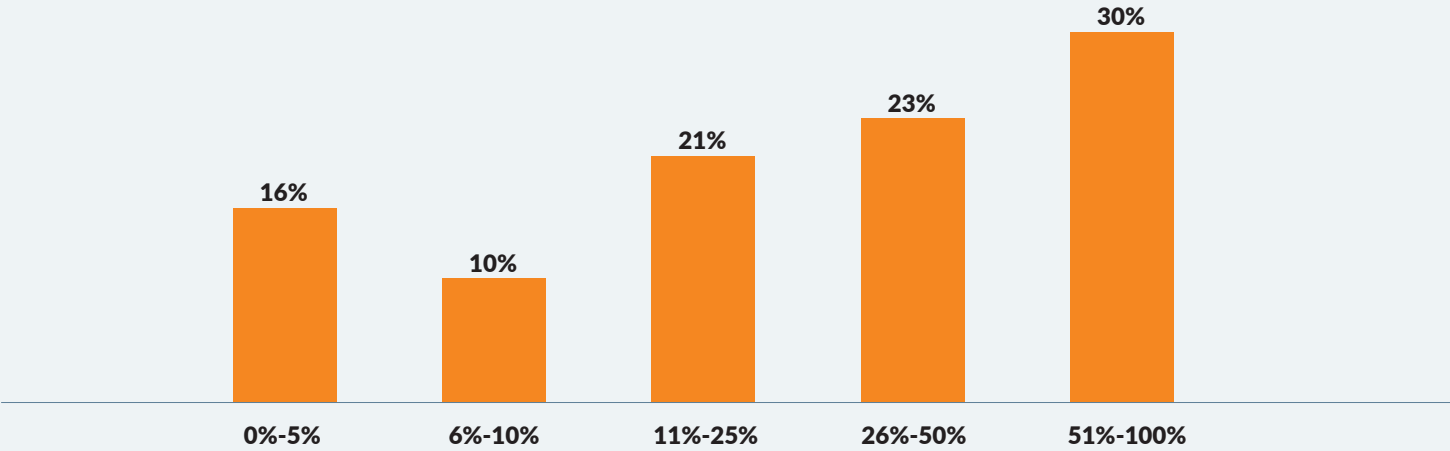
Yes, for some outsourced providers



No



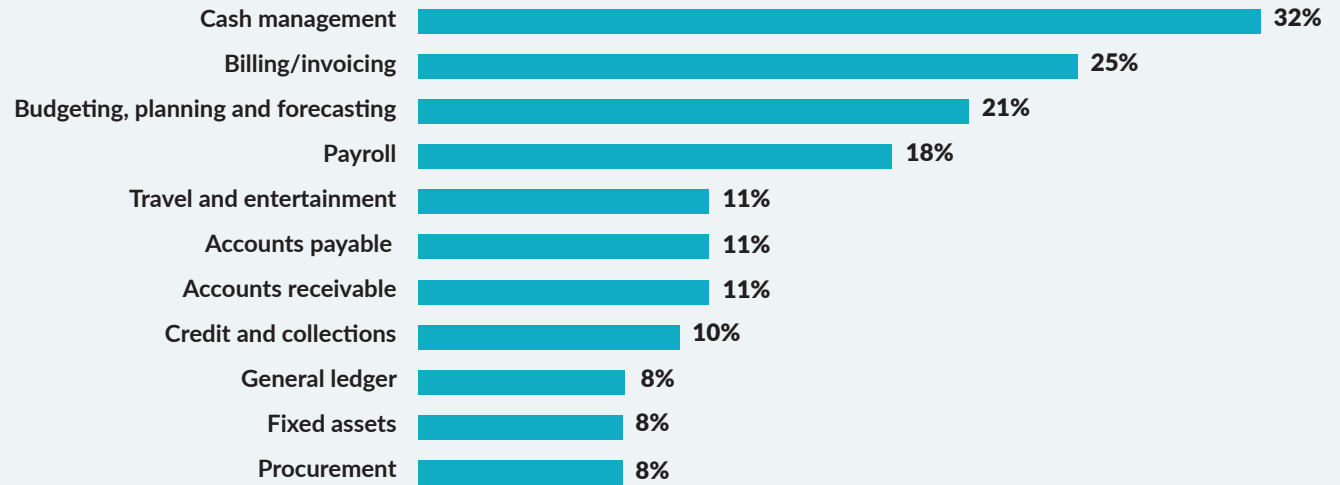
For processes that your company outsources, how often are they able to rely solely on internal management review controls for testing outsourced provider controls?



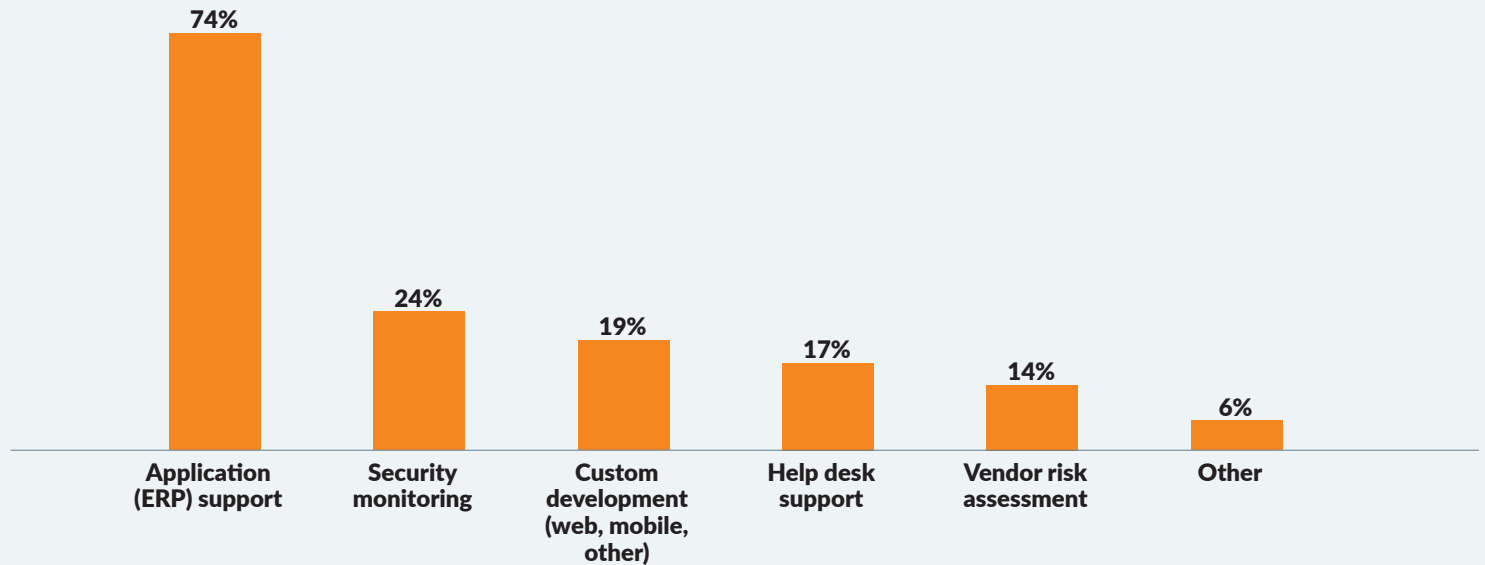
For processes that your company outsources, have you had to audit the supplier on site to gain sufficient comfort around the control environment?



**What business processes/functions does your company outsource/use a third-party provider for?
(Multiple responses permitted)**



**What IT processes/functions does your company outsource/use a third-party provider for?
(Multiple responses permitted)**

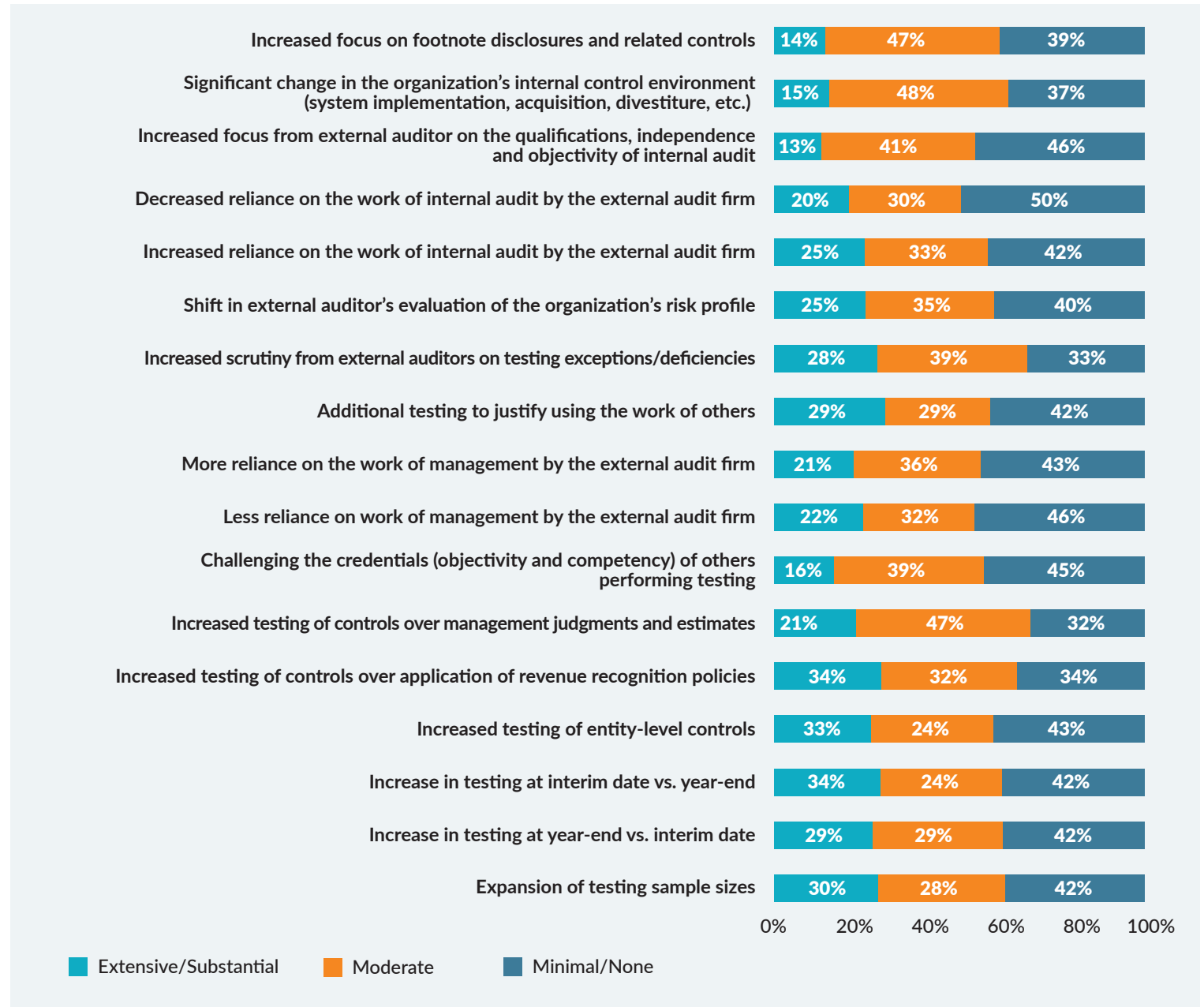


How does your organization compare?

To what degree did you note the following changes in your organization's Sarbanes-Oxley compliance program in 2017?

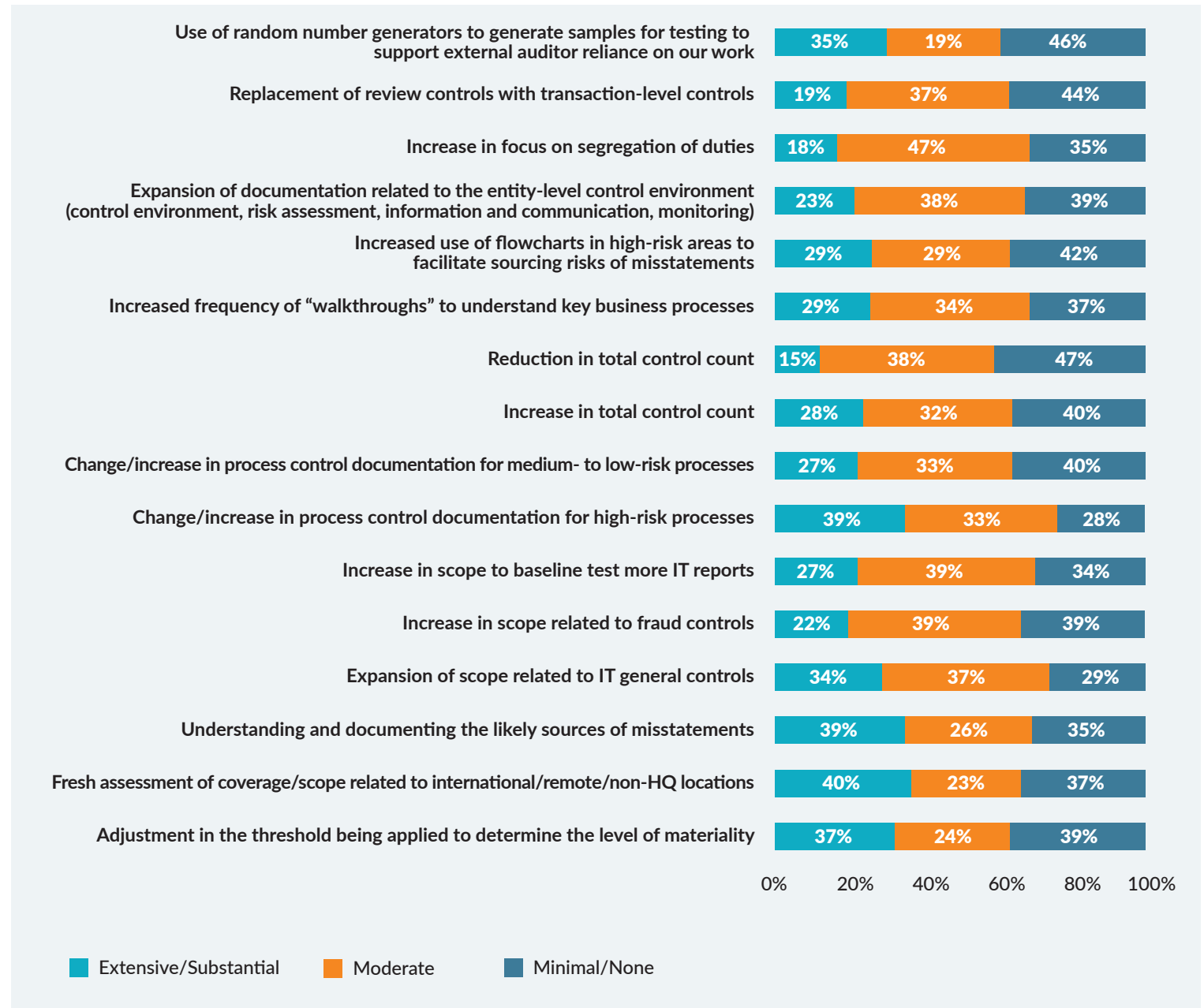
"We've been able to drive value through increased understanding and education of controls via SOX. External auditor reliance has certainly increased. We are making control environment improvements in our IT area due to SOX."

Chief audit executive,
large manufacturing company



To what degree did you note the following changes in your organization's Sarbanes-Oxley compliance program in 2017? (continued)

How does your organization compare?



Methodology and Demographics

More than 1,000 respondents (n=1,004) from publicly held organizations participated in Protiviti's 2018 Sarbanes-Oxley Compliance Survey, which was conducted online during the first quarter of 2018. Survey participants also

Position	
Chief Audit Executive (CAE)	7%
Other C-Suite Executive	16%
Audit Director	9%
Finance Director	2%
Corporate Sarbanes-Oxley Leader/PMO Leader	6%
Business Unit Control Leader	6%
Corporate Controller	2%
Audit Manager	16%
Finance Manager	4%
Audit staff	16%
Finance staff	2%
Risk management	3%
Other	11%

were asked to provide demographic information about the nature, size and location of their businesses, and their titles or positions. We are very appreciative of and grateful for the time invested in our study by these individuals.

Industry	
Financial Services	15%
Manufacturing	9%
Technology	7%
Retail	4%
Professional Services	2%
Consumer Products	4%
Energy	5%
Insurance	5%
Healthcare – Provider	18%
Real Estate	3%
Hospitality	2%
Education	2%
Services	2%
Government	4%
Distribution	2%
Life Sciences/Biotechnology	2%
Telecommunications	1%
Utilities	2%
Healthcare – Payer	1%
Media	3%
Not-for-Profit	1%
Other	6%

**Size of Organization (outside of financial services)
– by gross annual revenue**

\$20 billion or greater	9%
\$10 billion - \$19.99 billion	7%
\$5 billion - \$9.99 billion	9%
\$1 billion - \$4.99 billion	30%
\$500 million - \$999.99 million	24%
\$100 million - \$499.99 million	11%
Less than \$100 million	10%

**Financial Services Industry – Size of Organization
(by assets under management)**

More than \$250 billion	23%
\$50 billion - \$250 billion	15%
\$25 billion - \$50 billion	7%
\$10 billion - \$25 billion	13%
\$5 billion - \$10 billion	12%
\$1 billion - \$5 billion	15%
Less than \$1 billion	15%

Current SOX Compliance Reporting Status

Beyond 2nd year of SOX compliance	57%
2nd year of SOX compliance	8%
1st year of SOX compliance	18%
Pre-1st year of SOX compliance	17%

Month of Organization’s Fiscal Year-End

January	3%
February	1%
March	4%
April	1%
May	1%
June	14%
July	8%
August	1%
September	10%
October	2%
November	1%
December	54%

Organization Headquarters

North America	78%
India	7%
Central America	7%
Europe	3%
Asia/Pacific	2%
Middle East	2%
Africa	1%

Number of Unique Locations

1-3	26%
4-6	24%
7-9	18%
10-12	11%
More than 12	21%

About Protiviti

Protiviti is a global consulting firm that delivers deep expertise, objective insights, a tailored approach and unparalleled collaboration to help leaders confidently face the future. Protiviti and our independently owned Member Firms provide consulting solutions in finance, technology, operations, data, analytics, governance, risk and internal audit to our clients through our network of more than 70 offices in over 20 countries.

We have served more than 60 percent of *Fortune* 1000® and 35 percent of *Fortune* Global 500® companies. We also work with smaller, growing companies, including those looking to go public, as well as with government agencies. Protiviti is a wholly owned subsidiary of Robert Half (NYSE: RHI). Founded in 1948, Robert Half is a member of the S&P 500 index.

Protiviti is proud to be a Principal Partner of The IIA. More than 700 Protiviti professionals are members of The IIA and are actively involved with local, national and international IIA leaders to provide thought leadership, speakers, best practices, training and other resources that develop and promote the internal audit profession.

Internal Audit and Financial Advisory

We work with audit executives, management and audit committees at companies of virtually any size, public or private, to assist them with their internal audit activities. This can include starting and running the activity for them on a fully outsourced basis or working with an existing internal audit function to supplement their team when they lack adequate staff or skills. Protiviti professionals have assisted hundreds of companies in establishing first-year Sarbanes-Oxley compliance programs as well as ongoing compliance. We help organizations transition to a process-

based approach for financial control compliance, identifying effective ways to appropriately reduce effort through better risk assessment, scoping and use of technology, thus reducing the cost of compliance. Reporting directly to the board, audit committee or management, as desired, we have completed hundreds of discrete, focused financial and internal control reviews and control investigations, either as part of a formal internal audit activity or apart from it.

One of the key features about Protiviti is that we are not an audit/accounting firm, thus there is never an independence issue in the work we do for clients. Protiviti is able to use all of our consultants to work on internal audit projects — this allows us at any time to bring in our best experts in various functional and process areas. In addition, we can conduct an independent review of a company's internal audit function — such a review is called for every five years under standards from The IIA.

Among the services we provide are:

- Internal Audit Outsourcing and Co-Sourcing
- Financial Control and Sarbanes-Oxley Compliance
- Internal Audit Quality Assurance Reviews and Transformation
- Audit Committee Advisory



KnowledgeLeader® Provided by Protiviti

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

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

Key topics covered by KnowledgeLeader:

- Audit Committee and Board
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- IFRS
- Internal Audit
- IT Audit
- IT Governance
- Sarbanes-Oxley

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

Furthermore, with a KnowledgeLeader membership, you will have access to AuditNet Premium Content. To learn more, sign up for a complimentary 30-day trial by visiting knowledgeleader.com.

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

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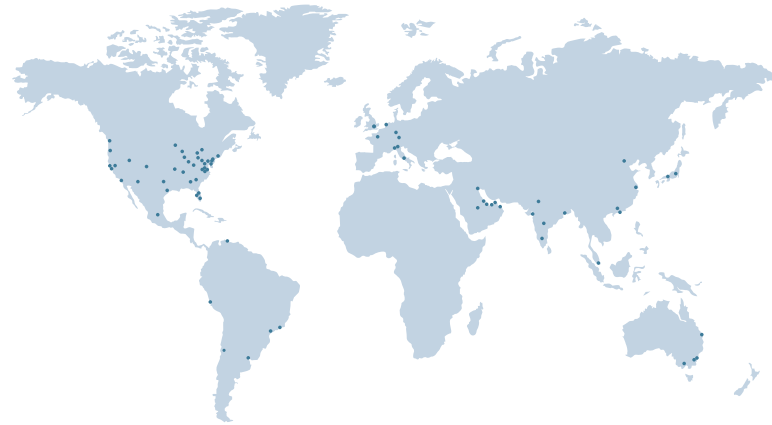
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