Performance Measures for Internal Audit Functions: A Research Project

Photography by Milan Hawkins

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Austin Chapter Research Committee

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Executive Summary

As members of the accountability profession, it is crucial for internal auditors to manage their own activities in a manner that is consistent with their core values and guiding principles. By actively demonstrating their commitment to the use of proper performance measures, internal auditors can not only increase their effectiveness and efficiency, but can also gain credibility when auditing the performance measures of others.

Despite the importance of effective performance measures, internal auditing professional standards offer minimal guidance on how to create and utilize performance metrics. The purpose of this study is to assess the current state of performance measure use within the internal auditing community, with emphasis on the types of performance metrics being tracked and the way in which these metrics are used.

By conducting a survey of over 50 internal auditors in Austin, Texas, this study seeks to provide a snapshot of how internal audit practitioners use performance measures. The survey classified these measures into five categories: environment, output, quality, efficiency, and impact. Survey respondents were asked to select which performance measures their offices are currently using within each category.

Those taking the survey represented a diverse cross-section of internal audit professionals. Over half of the respondents were from state government, with approximately one-fourth representing the private sector and the other fourth representing non-profits and "other" organizations. The survey respondents also represented organizations with diverse size, structure, and internal audit functions.

The results of the survey show that the use of performance measures is still not universal among internal audit functions. Further analysis of the survey also showed that performance measures are being reported to executive management, large audit departments are more likely to use performance measures, the most commonly used performance measures are related to audit quality, very few financial efficiency measures are being used, and almost no impact measures are being used.

Continuing to develop guidelines for the use of performance measures in internal auditing is crucial for the profession. These metrics are both a helpful managerial tool and an effective way for internal auditors to market their value to executive management and their boards. Most importantly, the use of performance measures is consistent with the objectivity and accountability that are the core values of the internal auditing profession.

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Introduction

Background

The internal auditing profession places great emphasis on evaluating the relevance and effectiveness of an audit client's performance measures. However, internal auditors themselves often find it difficult to appropriately monitor and report the performance of their own audit activities. This study seeks to analyze the current utilization of performance measures within the auditing profession and to examine the best practices associated with their creation and use.

Performance measures in general can be defined as "a metric used to quantify the efficiency and/or effectiveness of an action" (Neely et al. 2005). A colloquialism or common management saying that applies to all types of organizations is "what cannot be measured, cannot be managed" (Rupsys et al. 2007). For this reason, performance measures are a crucial component of any organization's self-evaluation process. Through the appropriate use of performance measures, organizations are able to continuously identify and adopt new best practices, as well as benchmark their performance against their peer group.

Systems for measuring performance differ greatly between audit functions due to the great diversity of organizations which they serve (Rupsys et al. 2007). However, it is especially important for all audit functions to properly utilize performance measures in order to communicate the value of the audit function to management (Vondra 1993). Additionally, the International Standards for the Professional Practice of Internal Auditing (Standards) issued by the Institute of Internal Auditors (IIA) require that all internal quality assessments include "ongoing monitoring of the performance of the internal audit activity" (Standards). However, no specifics are laid out in the standards for how internal auditors should monitor and evaluate their performance. In a previous version of the PPF, a practice advisory that offered guidance on establishing correct performance measures[1] was included (Standards). However, this practice advisory was not included in the January 2009 PPF revision.

Although the Standards do not provide specific performance measurement requirements for internal audit shops, lack of appropriate performance measurements is

[1] Practice Advisory 1311-2 entitled "Establishing Measures (Quantitative Metrics and Qualitative Assessments) to Support Reviews of Internal Audit Activity Performance

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one of the most commonly cited areas for improvement resulting from the external quality assurance reviews which are mandated by the Standards (Ziegenfuss 2000). This fact is an indication of the overall need for further development of internal auditing performance measurements.

Several previous studies have been done in an attempt to understand how performance measures are currently being used by internal audit functions. One such study surveyed chief audit executives and asked them to rank their relative importance (Ziegenfuss 2000). Their findings suggested that the use of performance measures within the internal auditing profession is constantly changing, and that best practices have yet to be established.

Another recent source of information on the current use of performance measurements within internal auditing is the IIA's Global Summary of the Common Body of Knowledge (CBOK 2006). This study compiled the eight most commonly used performance metrics within internal auditing, and provided a statistical breakdown on the frequency of each of these measures.

Other important studies on this topic have been conducted by the IIA's Global Audit Information Network, or GAIN, a knowledge exchange forum which facilitates information sharing between leading audit professionals for use in performance evaluation and benchmarking. One such study was conducted in November of 2008, and consisted of a survey on performance measure practices sent to 1,400 chief audit executives (GAIN 2008). The 145 respondents of this survey represented a mix of public, private, and non-profit internal audit functions. The results of this study are discussed in comparison with those of this study in a later section.

This study seeks to determine the current state of internal auditing performance measures within the Austin, Texas internal audit community. Observations made and conclusions drawn may have relevance for other internal audit activities seeking more information on this topic.

Performance Measure Systems

Various systems of classification exist for performance measures within internal auditing. One of the most common systems is the balanced scorecard approach (Ziegenfuss 2000b). This method emphasizes the alignment of an internal audit department's objectives and activities with that of the larger organization. Performance measures selected using this method balance the perspectives of the various affected stakeholders of the auditing process.

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An alternate classification method is the input-process-output method (Rupsys 2007). In this system, input is considered to be the inherent qualities of the internal auditors and organization, such as staff experience, budget, and a variety of other factors. The process is the actual auditing work itself, and encompasses the entirety of the audit work. The outputs in this classification system are the end products of the auditing process, including assurance audits, advisory services, and recommendations to management. Finally, this system also measures the audit environment, which includes factors such as the internal audit department's relationship with management. This system focuses on selecting performance measures from each of these categories in order to understand the full process of internal auditing, from input to output.

The classification system used in this study is a modified form of the input-process-output method which places greater emphasis on the end results of the audit function[2]. The system chosen for this study includes five unique categories of performance measures: environment, output, quality, efficiency, and impact. The definitions of each category are:

- *Environment*- This category includes factors which impact the work of the internal audit function indirectly. These could be viewed as audit process "inputs" that are not necessarily under the control of audit management but nevertheless have a large impact on their success or failure.
- *Output*- This category includes the end-results or products of the internal audit function, including assurance audits and advisory services.
- *Quality*- This category expands on the previous category, and focuses on the quality of the end results. It also includes measures of the quality of auditing staff.
- *Efficiency*- This category measures the output and quality of the internal auditing process versus its costs. The purpose of this category is to determine if internal auditing work is efficiently using its time and resources.
- *Impact*- This category measures the ultimate impact of an internal audit function on its organization's effectiveness.

All five of these categories make up the performance measure system used by this study, and provide an adequate method of categorizing the various types of performance measures used in internal auditing.

[2] This classification scheme was developed as the result of a research project conducted by Tyler Highful when he was serving as an Audit Intern in the Summer of 2008.

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Survey Methodology

This study used a survey of internal auditors within the Austin, Texas area in order to analyze the current use of performance measures. The survey was conducted from November 3, 2008 to December 12, 2008 using the Survey Monkey online survey tool. The survey was sent out to email listervs of both the State Agency Internal Audit Forum (SAIAF) and the Austin Chapter of the Institute of Internal Auditors. The use of the listservs means that an exact number of people who received the survey cannot be determined. Of the people to whom the survey was sent, 53 responded. The survey data was then analyzed using basic statistical techniques.

Respondent Demographics

The organizations that responded to the survey represent a diverse group of audit functions. There were a total of 53 respondents representing private, public, and non-profit organizations, and the respondents themselves constitute an experienced group of auditors with a wealth of work experience and professional education. The purpose of this section is to provide a detailed snapshot of the organizations whose performance measures were analyzed through this survey.

Organization Type

The survey respondents consist of auditors from private corporations, publicly traded companies, state and local government, non-profits, higher education, insurance companies, and public utilities. The composition of this group is: 21% private sector, 9% not for profit, 4% city/county government, 55% state government, and 11% other (see Figure A). There were no respondents representing federal government organizations.

The respondent mix of this survey is heavily weighted towards the public sector, with the majority of respondents representing state government organizations. This fact is likely due to the prevalent role that internal auditing plays in Texas state government, and the leading role played by state agency internal auditors in the IIA Austin Chapter since its formation 30 years ago.

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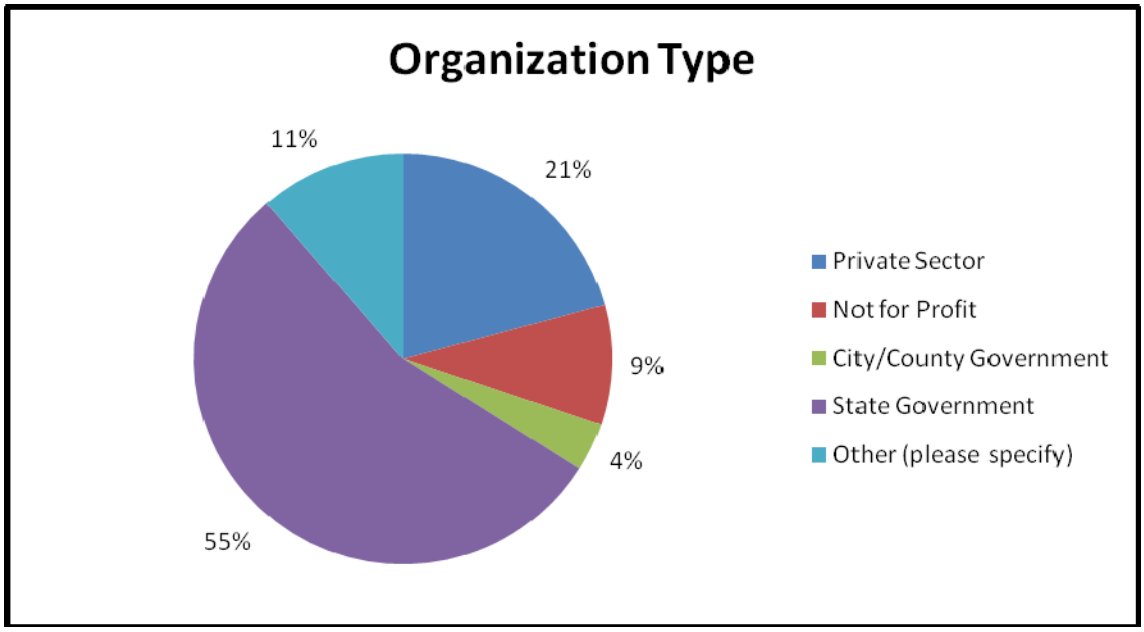
Figure A



Despite the prevalence of public sector respondents, the survey still provides information for a variety of organizations with substantive differences in their operations and missions, and can therefore be used in a broader context than the public sector. This is also supported by the standardization and many commonalities shared by the respondents; each respondent is a member or affiliated with the IIA Austin Chapter.

Organization Size

The survey uses three main measures to describe the size of the participating organizations. The first is number of people employed by the entire organization. Respondents were given five ranges of total employees to select from. Almost half of the respondents were from organizations employing over 1,000 employees, and all but five of the respondents were from organizations with more than 100 employees.

Figure B

Number of Employees	Responses
Fewer than 100	5
100 to 500	13
501 to 1,000	11
1,001 to 5,000	14
More than 5,000	10

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The overall distribution of organization size for the survey respondents seems oriented towards larger organizations. Once again, this is likely due to the fact that a large portion of the respondents are from state government, and in Texas any state agency with 100 or more employees is required by law to have an internal audit function[3].

Another measure of organization size used by the survey is total annual budget or revenues. Similarly to the previous question, respondents were given six budget ranges to select from. The budgets seem to be distributed similarly to number of employees, with over three-fifths of respondents indicating that they were from organizations with budgets over $100 million a year. Three survey takers chose not to respond to this question.

Figure C

Annual Budget/Revenue	Responses
Under $10 million	6
$10 million to $25 million	3
$26 million to $100 million	6
$101 million to $500 million	16
$501 million to $1 billion	7
More than $1 billion	12

The final measurement of organization size used by the survey is the number of auditors authorized within the organization, including the Chief Audit Executive (CAE) or equivalent position. As before, respondents selected their answer from a list of ranges provided on the survey.

Figure D

Number of Auditors	Responses
1	9
2 – 5	16
6 – 10	13
11 – 20	9
More than 20	6

Fifty-five percent of the respondents reported staffing levels in the 2-10 range. It is important to note, however, that there were six respondents from audit organizations with more than 20 auditors; these larger audit shops are likely to be more mature and have more developed performance measures. This topic is discussed later in this report.

[3] This statutory requirement can be found in the Texas Government Code, Chapter 2102.004.

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Overall, the respondents of this survey represented smaller audit departments than the latest GAIN performance measure survey (GAIN 2008).

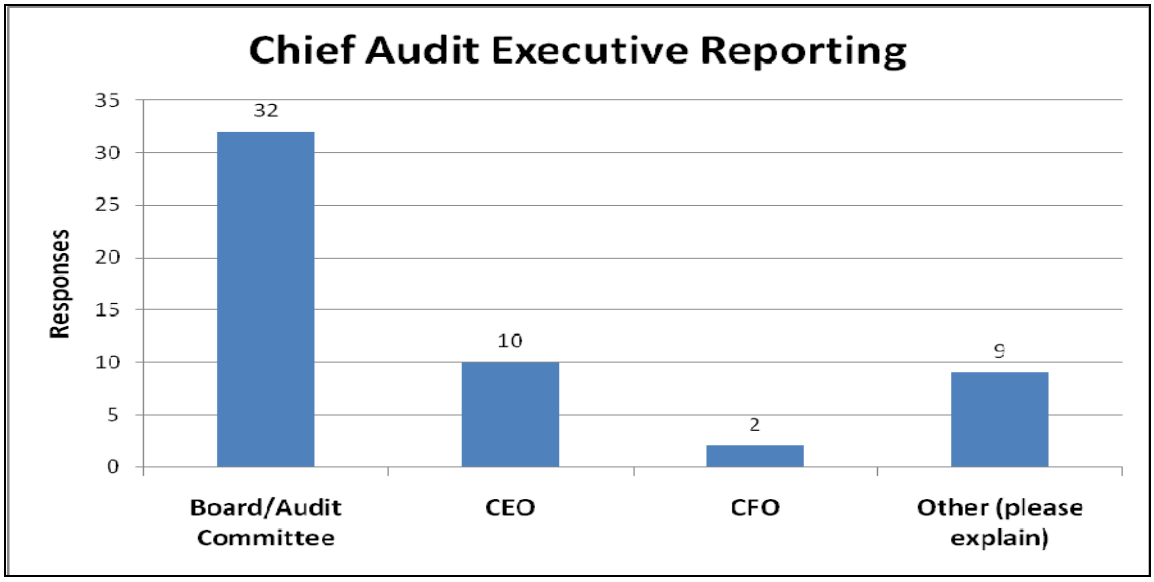
Respondent Job Title

Another survey question asked for the respondents to identify their job title. The options provided were: chief audit executive, person designated by that CAE to complete the survey, and other. Of the 53 respondents, 37 or almost 70% of survey takers indicated that they are the Chief Audit Executive (CAE) of their organization. The remainder of the respondents either selected that they were designated to complete the survey (10%) or chose other (20%). Respondents choosing other were given the opportunity to provide additional details. All "other" responses identified themselves as some audit position with the exception of one, which did not provide a description. The audit positions identified through the "other" category include senior auditor, assistant internal audit director, internal audit manager, and staff auditor.

Organizational Structure

To gain an understanding of the differing organizational structures of respondents' organizations, the survey also included a question that asked who the CAE reports to within their organization. Of the responses, the majority reported to a Board or Audit Committee, with many also reporting to a Chief Executive Officer (CEO) or similar executive.

Figure E



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Of the nine respondents that selected "other," all provided additional information. These answers included positions such as general counsel, commissioners, and elected officials. The wide variety of reporting relationships is indicative of the variation between size and type of organization previously discussed.

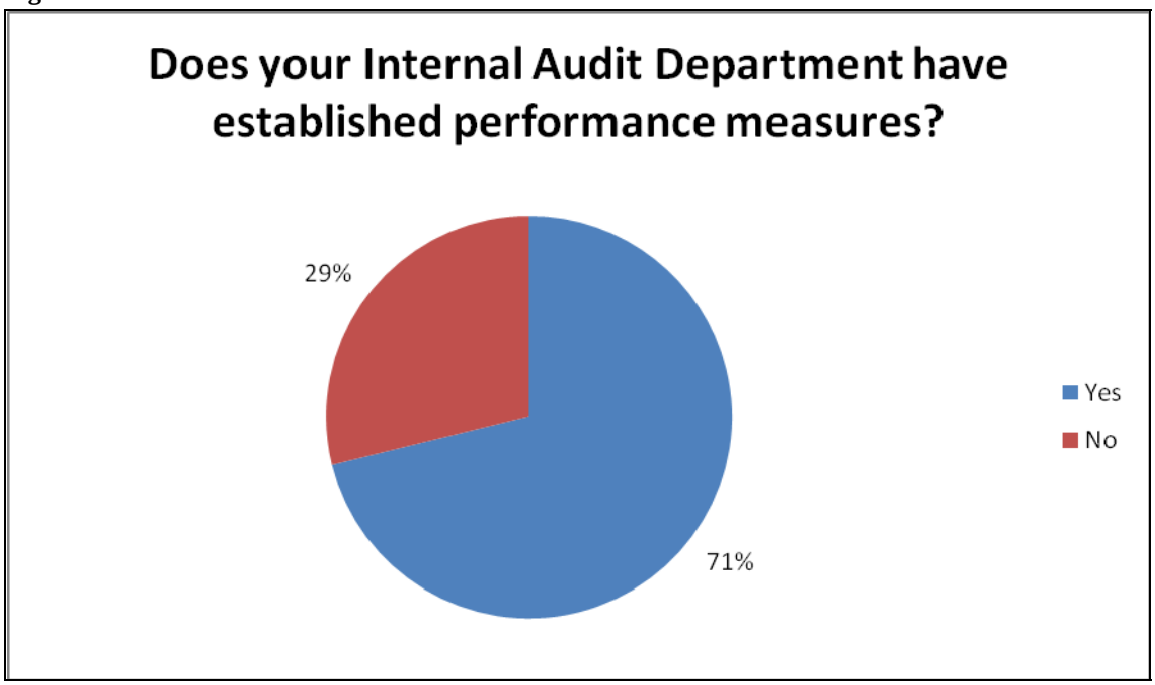
General Performance Measures

In addition to the basic demographic and descriptive information collected by the survey, three general performance measure questions were asked. These questions sought to identify the general state of organizations' use and reporting of performance measures.

Use of Performance Measures

In order to understand the basic state of performance measure use, the survey included a question that asked whether or not the respondent's office used established performance measures. Of the 52 respondents (one chose not to answer this question), the majority answered yes, with 15 respondents answering no.

Figure F



This question, though simple, provides great insight into the use of performance measure in internal audit offices. Surprisingly, almost 30% of surveyed audit shops do not use established performance measures. This statistic in itself is evidence of the need

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for further education, training, and standardization of best practices when it comes to audit performance measures.

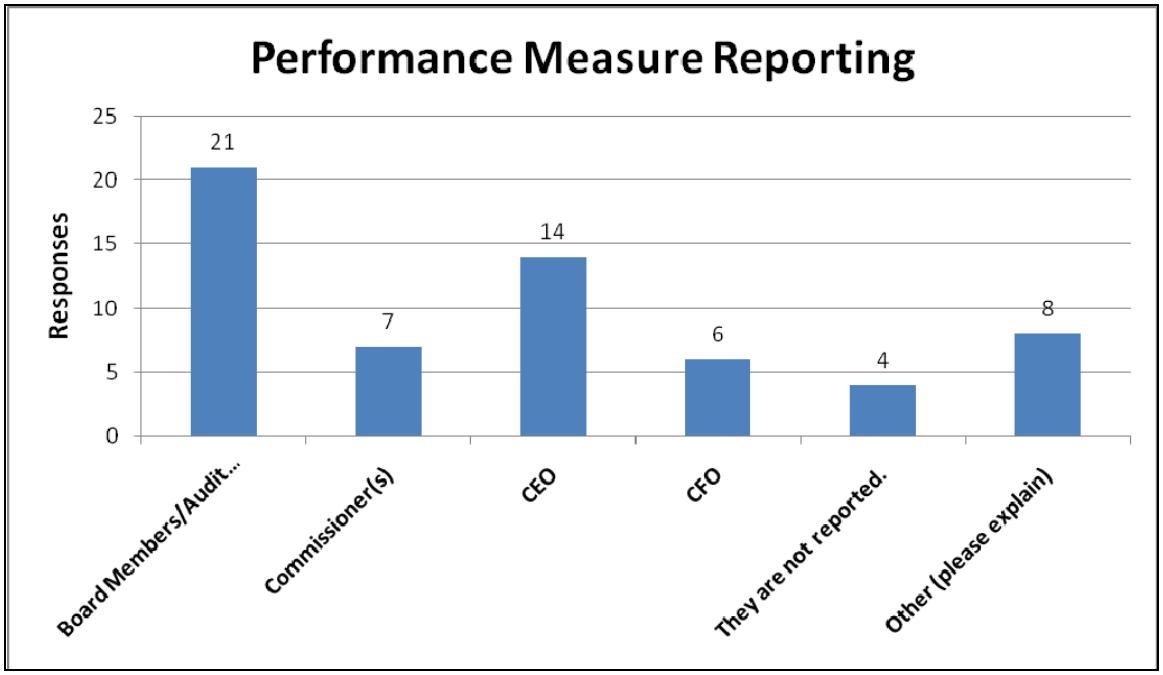
These results also support the findings of the latest GAIN performance measure survey, where only 77.3% of respondents reported having some form of performance monitoring system (GAIN 2008). In this current survey, even fewer of the respondents reported using performance measures, which is consistent with the fact that the GAIN survey respondents represented larger audit departments. This relationship is discussed later in the report.

Though the number of respondents that answered no to this question is surprisingly high, the 71% that answered yes still provide a respondent pool large enough for analyzing performance measure practices in those organizations where they are used.

Performance Measure Reporting

In addition to simply asking whether or not an organization uses performance measures, the survey also asked those who use performance measures to identify to whom the measures are reported. The responses to this question closely resemble the answers to the question of who the CAE reports to, with the majority of respondents selecting board members or an audit committee.

Figure G



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All eight respondents that selected "other" provided additional information about the recipient(s) of their performance measures reporting. The respondents indicated that their performance measures are reported to general counsel, sent to oversight agencies, used internally, published in annual reports, and given to other executive and operational managers.

One interesting finding of this question was that, in private sector audit shops, performance measures are often reported to the Chief Executive Officer (CEO) and Chief Financial Officer (CFO) even when the CAE does not directly report to these executives. In the question asking who the CAE reports to, ten respondents answered CEO and two answered CFO. However, 14 respondents said that performance measures are directed to the CEO and 6 respondents said that they are reported to the CFO. This means that performance measures are being reported to the highest levels of management.

Frequency of Performance Measure Reporting

Another important question is how often organizations are reporting their performance measures. Respondents were given four frequency options as well as an additional "other" category. The most commonly chosen response was "quarterly," with "annually" being the second most common.

Figure H

Frequency	Responses
Monthly	4
Quarterly	14
Semi-annually	0
Annually	11
Other (please explain)	4

The four survey takers that selected "other" included additional information about when their performance measures are reported, such as at board meetings five times a year. Others said that some of their measures are reported quarterly and some annually. One respondent said that the performance measures are updated monthly and that executive management can review it at any time.

Performance Measures- Environment

The remainder of the survey dealt with the five previously explained categories of performance measures: environment, output, quality, efficiency, and impact. For each

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category, the survey asked respondents to select which measures were tracked by their office, with the ability to select multiple answers.

The first category analyzed was environmental measures. Four environment performance measures were provided on the survey, with the opportunity to provide additional measures. Overall, the five performance measures that were provided were selected a total of 32 times by respondents (not including the "other" category).

Figure I

Performance Measure	Responses
Number of management requests	7
Number of meetings with the organization	2
Number of meetings with executive management	4
Management satisfaction survey results	19
Others (please list with benchmarks as applicable)	6

The most commonly used environment measure was management satisfaction survey results. The second most common response was the number of management requests, with the number of meetings within the organization and with executive management both having few responses. The use of management satisfaction survey results instead of the other performance measures is logical; this factor takes into account many of the other environment performance measures, as it is the "bottom-line" indicator of an internal audit office's relationship with management.

Additional performance measures provided in the "other" category included: cycle time for audit projects, budgeted to actual audit hours, peer review rating, and number of implemented recommendations. One respondent explained that they stopped using management satisfaction surveys because they felt that management never put their true feelings about the audit shop's work. The same respondent also said that their clients were reticent about providing candid answers on satisfaction surveys. This raises the important point that the results of such surveys cannot always be taken at face value.

Performance Measures- Output

The next category of performance measures analyzed was output measures. Five output measures were provided on the survey, with the opportunity to provide additional measures. Overall, survey takers selected one of the five performance measures a total of 77 times (not including the "other" category). This is more than twice the number of environment measures that were chosen.

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Figure J

Performance Measure	Responses
Percent of audit plan completed	25
Number of audits completed	20
Number of advisory services completed	11
Number of recommendations made	8
Number of recommendations implemented	13
Others (please list with benchmarks as applicable)	9

The two most commonly selected output measures both deal with the audit plan, which is not surprising given the fact that this a major document commonly used by internal audit activities to identify the audit workload for an established period. Of these groups that use output measures, however, it is interesting that less than half also use the number of advisory services completed. This might represent a general under-emphasis of the non-audit work conducted by audit shops.

Additional performance measures provided in the "other" category included: budgeted to actual hours, number of unresolved findings, revenue enhancements/ cost savings realized, and the number of management action plans completed. Measuring the number of unresolved findings is a unique example of an output measure that would seek to be minimized. This could be a valuable performance measure because of its ability to gauge the amount of unsuccessful audit work relative to successfully implemented recommendations.

Performance Measures- Quality

The third category of performance measures examined is quality. More performance measures were provided on the survey for this category than for any other. Consequently, these measures received a total of 94 responses among the eight provided performance measures, which is considerably higher than any category. This may be due to the fact that this type of performance measure is the most commonly used, or may just reflect the fact that there were more performance measures to select on the survey.

The three most common quality performance measures are auditee satisfaction surveys, number of hours of training per staff, and the last external peer review score.

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Interestingly, the least chosen performance measure was the number of professional organization meetings attended. This signifies that more should be done to recognize participation in professional organizations as an important part of staff development and audit organizational effectiveness.

Figure K

Performance Measure	Responses
Last external peer review score	15
Auditee satisfaction survey	17
Staff audit experience	10
Number of professional certifications	12
Percent of staff meeting CPE requirements	12
Number of professional organization meetings attended	3
Number of hours of training per staff	16
Percent staff turnover	9
Others (please list with benchmarks as applicable)	5

Within the "other" category, the responses included measures such as: number of non-audit related suggestions made to department, number of external quality assessment reviews conducted, percent of total time spent on audits, and achievement of long-term quality objectives.

Overall, the quality performance measures seem to primarily emphasize staff development (experience, training, Continuing Professional Education (CPE) requirements) and the opinions of third parties (auditee satisfaction survey, external peer review score).

Performance Measures- Efficiency

Next, performance measures dealing with efficiency were analyzed. Similarly to the quality measures, a large number of performance measures were provided on the survey. However, only 65 total performance measures were selected by respondents from the list of eight performance measures, which is considerably less than the number of quality measures. This might indicate that efficiency measures are not as widely utilized as quality and output measures; this would make sense given the fact that efficiency measures are much more difficult to calculate.

Another interesting insight provided by this data is the low number of respondents that reported using cost measures. Some measures, such as the percent of time spent on

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administrative tasks and the hours spent vs. hours budgeted on a project, are commonly used. Over half of all respondents used one of these two efficiency measures. However, only seven respondents used any form of cost efficiency measure, with one such measure coming from the "other" category. This might represent a general hesitancy in audit shops to adopt techniques that aim to directly measure cost-effectiveness.

Figure L

Performance Measure	Responses
Cost per audit hour	3
Dollars spent per dollar audited	3
Hours spent vs. hours budgeted	16
Percent administrative time	14
Time cycle for issuing draft report	13
Number of repeat findings	1
Time cycle for development of annual audit plan	4
Percent of recommendations implemented	11
Others (please list with benchmarks as applicable)	8

Several additional efficiency performance measures were provided in the "other" category: percent of "chargeable" hours to projects, total dollars spent vs. budgeted dollars, percent of time by activity, etc. One private sector respondent stated that their office tracks operating expense and revenue for each auditor and then compares it with an industry benchmark.

Performance Measures- Impact

The final category of performance measures examined is impact measures. This type of performance measure seems to be the most difficult for audit shops, but might ultimately prove the most useful for increasing organizational effectiveness. The goal of these indicators is to measure the true end-result or impact that an audit shop has on an organization. For this survey, two different impact measures were provided, and only 15 respondents identified as using either of these.

Figure M

Performance Measures	Responses
Percent of budget audited	9
Percent of identified risks audited	6
Others (please list with benchmarks as applicable)	6

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Both of these impact measures can be difficult for audit shops to use because they incorporate many factors that are outside the control of the auditors. Both seek to measure, to some degree, the overall coverage of the audit work within an organization.

Additional impact measures provided in the "other" category include: percent of high risk audit areas addressed, and the amount of money recovered or saved through projects. Overall, impact measures seemed to be the least used category of performance measures. More emphasis should be placed on developing methods for audit shops to measure their own impact on an organization. Not only will this help improve organizational effectiveness, but it will also serve as a tool for demonstrating the value of internal auditing to management, oversight groups, and other stakeholders.

Conclusions

Although the survey covered a relatively small geographic area, the variety of organizations included in this study provides a representative snapshot of the internal auditing profession as a whole. Based upon the analysis of the survey data, the following six conclusions were reached.

1) Many internal audit shops are failing to use performance measures.

According to the survey, almost 30% of the respondents reported that their organizations do not have established performance measures. This is a surprisingly large percentage, given that internal auditors constantly stress the importance of good performance measures to the activities that they audit. The failure of internal audit functions to appropriately use performance measures can be attributed to at least three factors:

- *Lack of Standards*- Although the Standards do require "ongoing monitoring" of performance, there are no specific requirements or guidelines for internal audit shops to follow. Currently, the external quality assessment review is the only mechanism that exists that effectively encourages audit shops to conform to performance measure leading practices.
- *Difficulty in Measuring Impact*- Much of the work that internal auditors do provides important assurance to management, governing board, and other stakeholders. However, the impact of these activities is often very difficult to measure. For this reason, it is often difficult for internal audit shops to measure their own performance beyond their compliance with the Standards.

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- *Lack of Adequate Resources*- The proper use of performance measures requires a time commitment that is difficult for some internal audit functions to make. The decision of whether or not to use performance measures is ultimately a cost-benefit analysis, and not all audit shops find it beneficial to use performance measures. This idea is expanded upon in the next conclusion.

2) Performance measures are being reported to executive management, even when internal audit functions do not report directly to these managers.

The survey asked respondents to indicate who their CAEs report to, as well as who are the recipients of their audit shop's performance measures reports. An interesting relationship that became apparent from the results is that although CAEs generally report to a Board or Audit Committee, the performance measures of internal audit shops are also being reported to CEOs and CFOs. This likely means that performance measures are making a difference in the way that executive management views the internal audit function. This is important for internal auditors, as their acceptance by and relationship with executive management plays a major role in their audit work.

3) Small internal audit departments are less likely to use performance measures than larger ones.

An important research question resulting from the survey is, "What is the difference between audit shops that use performance measures and those that do not?" In order to address this issue, a statistical analysis was performed on the survey results. Using a multiple logistic regression[4], a model was created to predict whether or not an internal audit shop answered that they had established performance measures. Within the model, three variables relating to size of the audit shop were used: number of employees in the organization, budget of the organization, and number of auditors in the department.

The resulting model (see Appendix B) had a global chi-square statistic of 10.3, which is statistically significant at the 95% level. An analysis of the likelihood ratios of each variable, however, shows that only one variable is statistically significant – the number of auditors. This variable has a Wald chi-square of 3.625, and an associated p-value of .057, meaning that it is statistically significant at the 90% level and almost significant at the 95% level. The odds ratio estimate of this variable was 2.376, meaning that for every additional auditor in an audit shop, the odds of it using performance measures increased by 2.376 times. The results of this statistical model demonstrate the great disparity in the use of performance measures between large and small audit shops.

[4] All statistical analysis was conducted using the SAS Statistical Software.

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4) Quality measures are the most commonly used type of performance measure.

The use of quality measures associated with audit work and audit staff seems common among respondents who use established performance measures. The most commonly used quality performance measures include the results of auditee satisfaction surveys, the results of external quality assessment reviews, and the number of training hours per staff member.

There seem to be two major reasons for this emphasis on quality. First, the use of auditee satisfaction surveys and the external review are both present in the Standards. Internal auditors are already accustomed to using these tools, and therefore often track them as performance measures. In addition, the common use of a measure relating to staff training shows the commitment of internal auditing activities to professional proficiency and developing quality staff members. The high emphasis placed by the profession on professional development of its members is evident by the common use of these performance measures.

5) Although efficiency measures are being used, very few are measures of financial efficiency.

The most commonly used efficiency measures include actual versus budget hours, percent of time spent on administrative tasks, and the percent of audit recommendations adopted. Other efficiency measures, such as cost per audit hour, were almost completely unused. This could be indicative of an overall hesitancy within the internal audit profession to view the work of the audit function in financial terms. Nevertheless, these performance measures greatly enhance the ability of internal audit shops to market themselves to management.

6) Very few audit shops are using any form of impact performance measures.

The survey results show that very few audit shops are using any form of impact measure. This is likely due to the fact that the true impact of audit work is very difficult to quantify. However, this should be the ultimate goal for an audit shop's performance measures. More work should be done to develop methods to evaluate the value added by an internal audit function. These measures are extremely important to an internal audit shop's ability to market itself to management.

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Further Study

Although this study provides a good foundation for understanding the current state of performance measures within the internal auditing profession, more research should be done on this topic. Particularly, studies should seek to incorporate internal audit shops from a variety of geographical locations, with particulate emphasis on international representation.

Furthermore, more research should be done to understand the difference between the internal audit function in the private and public sectors. In particular, future studies should analyze how these two different groups use financial performance measures in an effort to understand the proper role of cost measures.

Finally, continuing work should be done to develop effective impact measures for the internal audit function. As the outsourcing of internal audit work becomes increasingly common it is important to develop metrics which provide a point of comparison between in-house audit functions and third-party auditors and enhance the ability of internal auditors to market their work to executive management. Even more important, however, is that internal auditors should actively "practice what they preach." Not only will the proper use of performance measures lead to a more effective and efficient internal audit function, but it will also ensure that the profession remains committed to the core principles of objectivity and accountability that are the greatest strengths of internal auditing.

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IT Audit
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Round Rock Independent School District
Rupert & Associates PC
Teacher Retirement System of Texas
Texas Adjutant General's Department
Texas Commission on Environmental Quality
Texas Department of Agriculture
Texas Department of Assistive and Rehabilitation Services
Texas Department of Housing and Community Affairs
Texas Department of Insurance
Texas Department of Transportation
Texas Education Agency
Texas General Land Office
Texas Guaranteed Student Loan Corporation
Texas Health and Human Services Commission
Texas Higher Education Coordinating Board
CHAN Healthcare Auditors
Citizen's Inc.
Texas Mutual Insurance
Texas State University-San Marcos
Texas State University System
Texas Water Development Board
Texas Youth Commission

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Appendix A: Survey

I. ORGANIZATIONAL DEMOGRAPHICS

1. What best describes your organization?
   a. Private Sector
   b. Not for Profit
   c. City/County Government
   d. State Government
   e. Federal Government
   f. Other (please specify)

2. How many people are employed by your organization?
   a. Fewer than 100
   b. 100 to 500
   c. 501 to 1,000
   d. 1,001 to 5,000
   e. more than 5,000

3. What is your organization's annual revenue or budget?
   a. Under $10 million
   b. $10 million to $25 million
   c. $26 million to $100 million
   d. $101 million to $500 million
   e. $501 million to $1 billion
   f. more than $1 billion

4. What is your position within your organization?
   a. Chief Audit Executive (CAE)/Internal Audit Director
   b. Designated by CAE to answer the survey
   c. Other (please explain)

5. To whom does the CAE/Internal Audit Director functionally report?
   a. Board/Audit Committee
   b. CEO
   c. CFO
   d. Other (please explain)

6. How many auditors is the Internal Audit Department authorized (including the CAE/Internal Audit Director)?
   a. 1
   b. 2 – 5
   c. 6 – 10
   d. 11 – 20
   e. more than 20

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II. PERFORMANCE MEASURES

7. Does your Internal Audit Department have established performance measures?
   a. Yes
   b. No (if no, skip to question #16)

8. To whom are the department's performance measures reported?
   a. Board Members/Audit Committee
   b. Commissioner(s)
   c. CEO
   d. CFO
   e. Other (please explain)
   f. They are not reported

9. How often are the performance measures reported?
   a. Monthly
   b. Quarterly
   c. Semi-annually
   d. Annually
   e. Other (please explain)

10. Please indicate which environment measures are tracked in your department along with your established benchmarks:
    a. # of management requests
    b. # of meetings with the organization
    c. # of meetings with executive management
    d. management satisfaction survey results
    e. others (please list w/benchmarks as applicable)

11. Please indicate which output measures are tracked in your department along with your established benchmarks:
    a. % of audit plan completed
    b. # of audits completed
    c. # of advisory services completed
    d. # of recommendations made
    e. # of recommendations implemented
    f. others (please list w/benchmarks as applicable)

12. Please indicate which quality measures are tracked in your department along with your established benchmarks:
    a. last external peer review score
    b. auditee satisfaction survey
    c. staff audit experience
    d. # of professional certifications
    e. % of staff meeting CPE requirements

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f. # of professional organization meetings attended
g. # of hours of training per staff
h. % staff turnover
i. others (please list w/benchmarks as applicable)

13. Please indicate which efficiency measures are tracked in your department along with any established benchmarks:
    a. cost per audit hour
    b. $ spent per $ audited
    c. hours spent vs. hours budgeted
    d. % administrative time
    e. time cycle for issuing draft report
    f. # of repeat findings
    g. time cycle for development of annual audit plan
    h. % of recommendations implemented
    i. other (please list w/benchmarks as applicable)

14. Please indicate which impact measures are tracked in your department along with any established benchmarks:
    a. % of budget audited
    b. % of identified risks audited
    c. others (please list w/benchmarks as applicable)

III. SUGGESTIONS/LEADING PRACTICES

15. Please discuss any best practices you have regarding measuring the performance of the audit department.
16. Name of organization
17. Name of contact person
18. Ideas for next year's Chapter Research Project

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Appendix B: SAS Logistic Procedure Output

Testing Global Null Hypothesis

Test	Chi Square	DF	PR > Chi Square
Likelihood Ratio	10.3175	3	.0161
Score	8.9695	3	.0297
Wald	7.2669	3	.0639

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > Chi-Square
Intercept	1	-.6767	.7152	.8952	.3441
Employees	1	.1459	.5109	.0815	.7752
Budget	1	.0299	.3447	.0075	.9308
Auditors	1	.8655	.4547	3.6235	.0570

Odds Ratio Estimates

Effect	Point Estimate	95% Wald Confidence
Employees	1.157	.425 – 3.149
Budget	1.030	.524 – 2.025
Auditors	2.376	.975 – 5.793

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Appendix C: Figures

Figure A

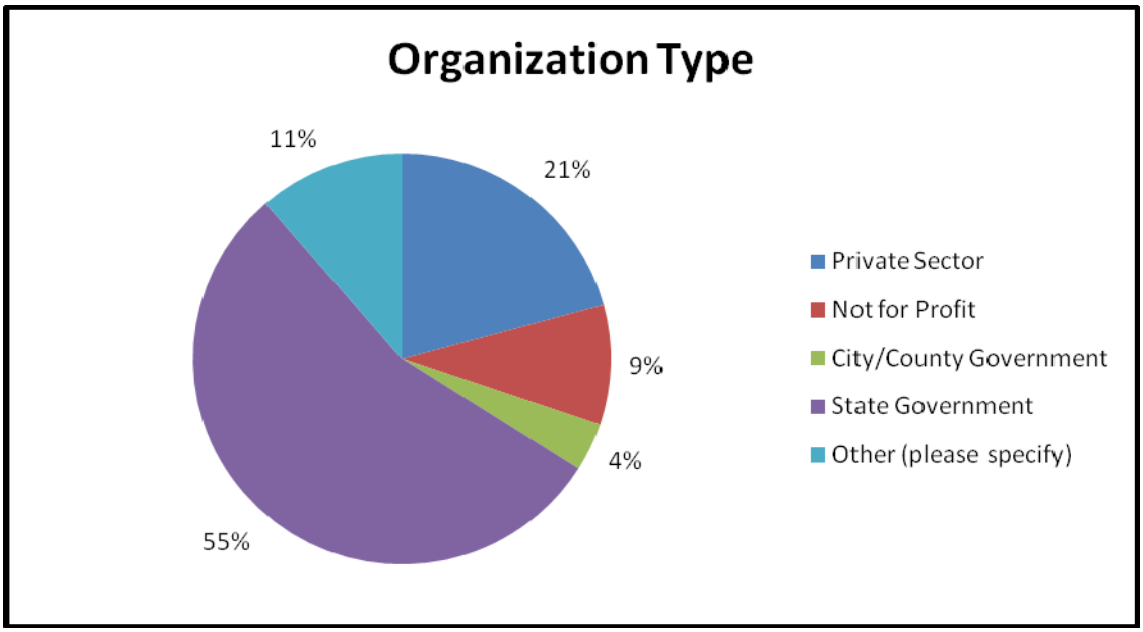

Figure B

Number of Employees	Responses
Fewer than 100	5
100 to 500	13
501 to 1,000	11
1,001 to 5,000	14
More than 5,000	10

Figure C

Annual Budget/Revenue	Responses
Under $10 million	6
$10 million to $25 million	3
$26 million to $100 million	6
$101 million to $500 million	16
$501 million to $1 billion	7
More than $1 billion	12

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Figure D

Number of Auditors	Responses
1	9
2 – 5	16
6 – 10	13
11 – 20	9
More than 20	6

Figure E

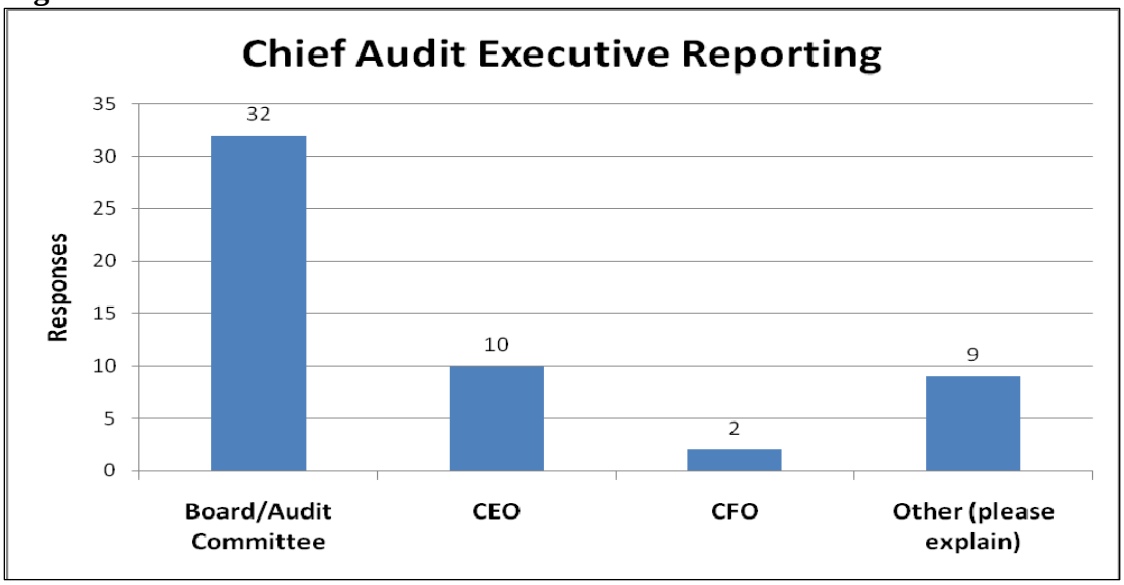

Figure F

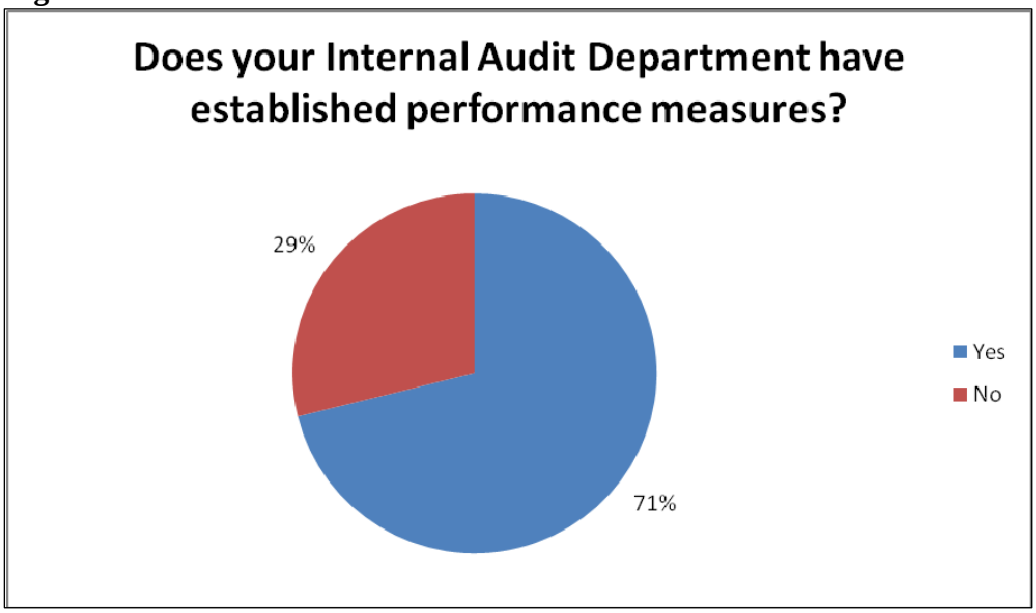

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Figure G

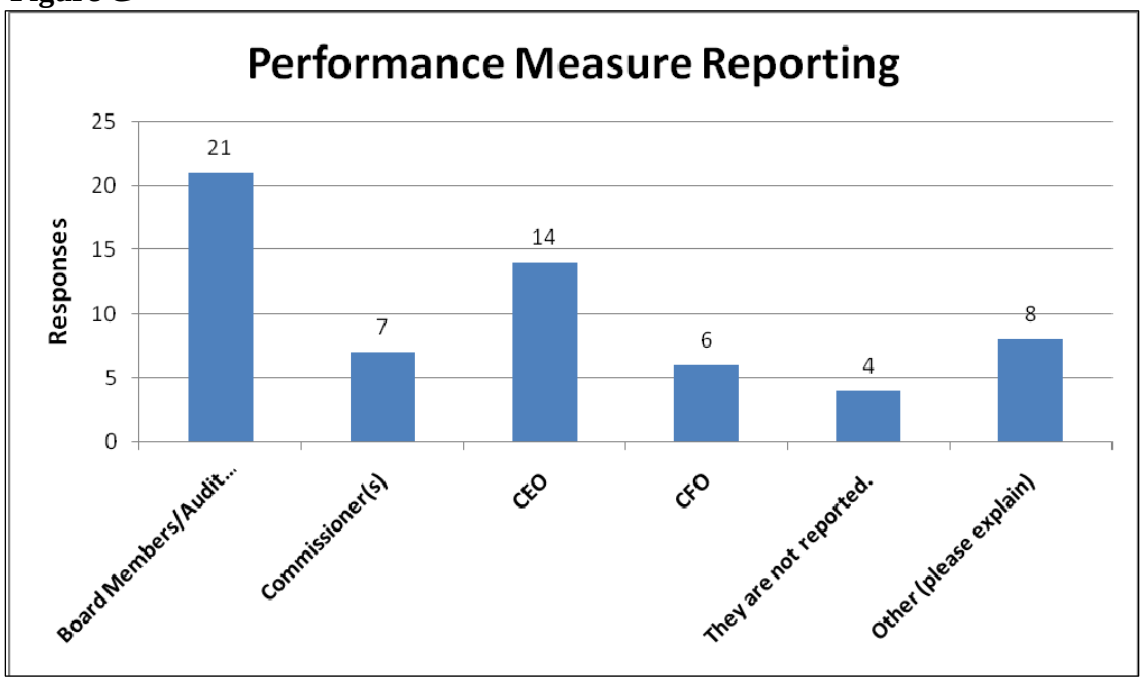

Figure H

Frequency	Responses
Monthly	4
Quarterly	14
Semi-annually	0
Annually	11
Other (please explain)	4

Figure I

Performance Measure	Responses
Number of management requests	7
Number of meetings with the organization	2
Number of meetings with executive management	4
Management satisfaction survey results	19
Others (please list with benchmarks as applicable)	6

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Figure J

Performance Measure	Responses
Percent of audit plan completed	25
Number of audits completed	20
Number of advisory services completed	11
Number of recommendations made	8
Number of recommendations implemented	13
Others (please list with benchmarks as applicable)	9

Figure K

Performance Measure	Responses
Last external peer review score	15
Auditee satisfaction survey	17
Staff audit experience	10
Number of professional certifications	12
Percent of staff meeting CPE requirements	12
Number of professional organization meetings attended	3
Number of hours of training per staff	16
Percent staff turnover	9
Others (please list with benchmarks as applicable)	5

Figure L

Performance Measure	Responses
Cost per audit hour	3
Dollars spent per dollar audited	3
Hours spent vs. hours budgeted	16
Percent administrative time	14
Time cycle for issuing draft report	13
Number of repeat findings	1
Time cycle for development of annual audit plan	4
Percent of recommendations implemented	11
Others (please list with benchmarks as applicable)	8

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Figure M

Performance Measures	Responses
Percent of budget audited	9
Percent of identified risks audited	6
Others (please list with benchmarks as applicable)	6

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