

Internal Audit Staffing



ACKNOWLEDGEMENTS

About the Report

This is one of nine reports that were issued by the New York State Internal Control Task Force (ICTF) in the summer of 2006.

The ICTF, led by a Steering Committee, was comprised of six Work Groups coordinated by Task Force Liaisons from the Division of the Budget (DOB), the Office of the State Comptroller (OSC) and the New York State Internal Control Association (NYSICA).

About the Authors

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The report was written by James Nellegar and Michael Abbott.

Research Groups

The contents of this study were developed by the ICTF from its original research, professional guidance, and literature. It builds upon earlier reports by the New York State Assembly, audit reports by the OSC, and DOB budget bulletins.

Stakeholder Groups

Stakeholders in this study include State Agencies, Public Authorities, the Division of the Budget, and the Office of the State Comptroller.

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BACKGROUND

The New York State Governmental Accountability, Audit and Internal Control Act (Internal Control Act) requires the Director of the Division of the Budget (DOB) to develop, and periodically revise, a schedule of Executive Branch agencies that are required to establish and maintain an internal audit function. DOB requires approximately thirty-three agencies to maintain an internal audit unit due to potential operational vulnerability and exposure to risk per the Budget Policy and Reporting Manual (BPRM) Item B-350.

Staffing of the internal audit function has been a concern in the past. In October 1997, the New York State Assembly (“*Who’s Minding the Store*”) reported that most internal audit units were understaffed. In August 2004, the New York State Office of the State Comptroller (Report 2003-S-14, “*State Agency Internal Audit Units’ Compliance with Internal Control Act*”) cited two agencies listed in BPRM Item B-350 for not implementing an internal audit function.

In October 2004, DOB – in conjunction with the Office of the State Comptroller (OSC) and the New York State Internal Control Association (NYSICA) – formed an interagency internal control task force (ICTF) to address the internal audit issues identified in the OSC’s report, as well as to provide guidance on the broader internal control requirements of the Internal Control Act. The ICTF created six work groups, and assigned the organization and staffing workgroup (Workgroup) issue of establishing minimum staffing guidelines for internal audit units.

RESULTS IN SUMMARY

In an era of increasing emphasis on organizational accountability, efforts to improve internal controls, risk management and corporate governance bring an unprecedented focus on internal audit organizations. Given the stakes (New York State’s budget for fiscal year 2006-07 is more than \$112 billion), staffing of those organizations is an important consideration for internal audit units. To be successful in their charge, it is important that they have access to adequate levels of human resources that possess the necessary skills – and be able to compete in a dynamic marketplace for the services of talented and qualified audit professionals.

While we identified no standard methodology for determining staffing levels for internal audit units, our survey data indicates that some BPRM Item B-350 agencies are staffed well below averages for reporting agencies as a whole, and as compared to other agencies in the same service sector and to government industry data provided by the Institute of Internal Auditors. We also noted that many Executive Branch agencies are not required to maintain an internal audit function (i.e., non-B-350 agencies). As a group, we estimated those agencies had over \$2.3 billion in expenditures in fiscal 2004-2005. This figure is an indicator of the *potential* risk associated with agency expenditures; it does not address programmatic or compliance risks that are inherent to those agencies’ business and operational processes. The Workgroup believes a

collective approach may be an ideal way of providing internal audit coverage and mitigating risk in these relatively smaller State agencies.

Substantial work is needed to develop and improve the job market for internal auditing in New York State. Internal audit units that responded to our survey reported a marginal ability to recruit and retain qualified professionals. This situation is likely due to the job market for internal auditors in New York State being relatively small, little use of the internal audit titles series, and the fact that the career ladder for internal auditors is more limited than for some other accounting and auditing careers in New York State government.

We also noted that opportunities exist to improve the efficiency and effectiveness of the internal audit workforce by: coordinating the efforts of internal audit units, encouraging internal auditors to pursue professional certifications, and assisting agencies in the procurement, deployment and use of data-based audit management tools and Computer Assisted Audit Techniques (CAATs).

OBJECTIVES AND METHODOLOGY

Our objectives were to: 1) Develop guidance to help agencies determine necessary staffing levels for internal audit units; and 2) Review relevant recruiting, retention classification, and compensation issues that may impact internal audit staffing.

To accomplish our objectives, the Workgroup reviewed applicable laws and professional research related to internal audit staffing and surveyed Executive Branch agencies regarding organization and staffing issues. After completing our research and obtaining survey information, the Workgroup:

- Analyzed internal audit staffing levels among agencies and within service sectors;
- Compared internal audit staffing data to benchmark government sector data from the Institute of Internal Auditors' (IIA) Global Audit Information Network (GAIN);
- Summarized recruitment/retention and classification/compensation issues identified from our survey and research; and
- Summarized other information from our survey and research that related to the internal audit workforce, including demographic information and technology profiles for internal audit units.

Thirty-five agencies responded to the Task Force surveys on staffing and recruiting and retention. Of the 35 responses, 30 were agencies required to comply with BPRM Item B-350.

RESULTS OF REVIEW

This Workgroup report focuses on permanent staffing of internal audit units. It includes:

- Analysis of current internal audit staffing levels (focusing on Executive Branch agencies);
- Guidance on using risk assessments to evaluate human resource needs; and
- Other matters related to the internal audit staffing including:
 - a. Coordination of the efforts of internal audit units;
 - b. The demographic profiles for internal audit units responding to our survey; and
 - c. Technology profiles for those units.

Internal Audit Staffing Levels

The passage of the Sarbanes-Oxley Act on the national level has placed an increased emphasis on the need for internal auditing, as well as an increased demand among executives for the audit and consulting services that internal audit organizations can deliver. That increase in demand requires that New York State internal audit units have the ability to compete in a dynamic marketplace for the services of talented and qualified audit professionals.

Internal audit units provide a variety of services. Agency management needs to assess its internal audit needs and the required level of staff to meet those needs. The Workgroup could not identify a standard method for calculating the appropriate level of staff size for internal audit organizations in professional literature. Subsequent sections of this report discuss consideration of industry averages, risk assessments and identification of recurring projects when assessing the appropriateness of internal audit staffing levels.

Internal Audit Staffing Levels at BPRM Item B-350 Agencies

The Internal Control Act requires Agency Heads, as identified in BPRM Item B-350, to appoint a Director of Internal Audit. Although BPRM Item B-350 states that the internal audit director is responsible for ensuring that the size of the audit staff is adequate to complete the annual work plan, it does not provide a standard process for determining staffing levels. Thus, the Act and BPRM Item B-350, considered together, require only that the position of DIA be filled – and only at the 33 agencies identified in BPRM Item B-350. Internal auditing is an activity that relies on a vibrant exchange of ideas among those studying a process or problem. As such, the Workgroup believes an internal audit unit that consists of only one full-time internal auditor to be less than the ideal. Eight agencies that responded to our survey had only one person assigned

to the internal audit function. Of the eight, two of those individuals worked less than 50 percent of the time on internal audit matters.

Our analysis of survey data¹ shows a wide variation in staffing levels. Some agency's internal audit units are staffed well below averages for reporting agencies as a whole and within their service sector.

While it's helpful to have empirical data on which to base an evaluation of each agency's own staffing, it is important to keep in mind that survey data details only what agencies are doing; not what they should do. The average, high and low data can be used to help agencies assess the adequacy of the size of the internal audit unit on a comparative basis; but it is also critical to acknowledge that averages are only one consideration in the complex task of assessing the adequacy of internal audit staffing – a starting point. After making comparisons, agency managers need to consider other factors that impact the staffing needs. For example, business model and program complexity; the number of agency locations and degree of decentralization; availability of qualified candidates for internal audit positions; and executive management's expectations and risk tolerance.

We evaluated agency internal audit staffing by comparing: 1) Internal audit staffing to agency funding;² and 2) Internal Audit staffing to total agency staffing. For each analysis, we compared internal audit staffing to statewide averages and within service sectors as defined by the Office of the State Comptroller.

We found a wide variance in the ratios between internal audit staffing to agency appropriations, both on a statewide basis and within service sectors. On a statewide basis, the variance among B-350 agencies was 0.00 to 0.02 internal audit staff per \$1M in agency appropriations. We noted that wide ranges in internal auditing to staffing exist within some sectors. For example, in the public health segment the Department of Health was at .00005 while the Office of Mental Health was .00385. The chart below includes agencies that had internal audit staffing ratios that were lower than both the statewide average *and* within their respective service sector.

¹ Survey data includes information for three agencies, which are not required to comply with BPRM Item B-350. Data for those agencies did not have a significant effect on Statewide or service sector averages.

² Although most State agencies are funded through the appropriations process, some derive their funding from independent revenue streams that should be considered when evaluating overall risk. For example, the State Insurance Fund reported revenues from insurance premiums of over \$1.5 billion in fiscal 2004-05 □□ and an investment portfolio of over \$9.5 billion.

B-350 AGENCY³	IA STAFF PER \$1M IN AGENCY APPROPRIATIONS		
	AGENCY RATIO	STATEWIDE RATIO	SECTOR RATIO
Department of Correctional Services	0.00000	0.001171	0.00328
Department of Health	0.00005	0.001171	0.00027
Education Department	0.00010	0.001171	0.00054
Temporary and Disability Assistance	0.00057	0.001171	0.00115
Department of Labor	0.00056	0.001171	0.00115
Division of Criminal Justice Services	0.00066	0.001171	0.00328

We found a similar variance in the ratios between internal audit staffing to total agency staffing. Among B-350 agencies the variance was 0.00 to 0.005 internal audit staff per agency employee. We noted wide variance within sectors for this analysis as well. For example, in the transportation sector the Department of Transportation was at .0009 while the Department of Motor Vehicles was at .0038. The GAIN benchmark for internal audit staff to total number of employees was 0.00150. The chart below includes agencies that had staffing ratios lower than both the statewide *and* within the respective service sector.

B-350 AGENCY	IA STAFF PER TOTAL NUMBER OF AGENCY STAFF		
	AGENCY RATIO	STATEWIDE RATIO	SECTOR RATIO
Department of Correctional Services	0.00000	0.00046	0.00031
Office of Mental Retardation	0.00005	0.00046	0.00027
Department of Agriculture and Markets	0.00010	0.00046	0.00061
State University of New York	0.00011	0.00046	0.00013
City University of New York	0.00012	0.00046	0.00013
Department of Civil Service	0.00036	0.00046	0.00091

We also noted that one agency listed in the tables above reported having significant operations statewide and a decentralized administrative structure. In a decentralized agency, the risks may be greater and internal auditors can provide senior management and the audit committee with continuous feedback on relatively autonomous components of agency operations. The internal auditor is also in a position to identify and recommend best practices among regional operations.

³ While an agency's total appropriations and FTEs are a starting point for conducting a study of internal audit staffing needs, other indicators such as organizational and program size and structure, relative risk, and corresponding controls, among other factors would also have to be taken into consideration. A summary of analytical data for all BPRM Item B-350 agencies, and other agencies that responded to the Task Force surveys, is included as Appendix 1 to this report. Sector averages are included as Appendix 2.

Internal Audit Coverage at Non- BPRM Item B-350 Agencies

Agencies not subject to BPRM Item B-350 should be provided with an economical means of obtaining internal audit coverage.

As part of our research, we quantified appropriation data for Executive Branch agencies that are not required to maintain an internal audit function (i.e., non-B-350 agencies). Appropriation information provides *an indicator* of the level of potential risk associated with operations for those agencies. These statistics do not address programmatic or compliance risks that are inherent to these agencies' business processes. We developed our estimate by removing appropriations attributable to the State Legislature, the State Comptroller's Office, the Attorney General's Office, the Judiciary, public authorities and other miscellaneous items.⁴ We estimate Executive Branch agencies that are not required to have an internal audit function had over \$2.3 billion in appropriations for fiscal 2004-05.

Every agency should have the opportunity to obtain internal audit coverage. While providing dedicated, full-time staff may not be financially feasible at every agency, a practical approach would be to cover those agencies through shared services or outsourcing. The Workgroup believes a collective audit approach may be an ideal way to provide audit coverage for these agencies, as it would:

- Allow costs to be shared among agencies;
- Provide a mechanism for sharing audit expertise on common business processes; and
- Provide a means for identifying and sharing best practices among covered agencies.

Using Risk Assessments to Assess Human Resource Needs

In most New York State agencies, managers are responsible for assessing risks and controls for their functional areas. The agency Internal Control Officer (ICO) oversees the internal control process and provides an annual internal control certification to DOB. Internal audit units may also perform independent risk assessments of agency operations as part of their planning process.⁵

⁴ These branches of government are covered by separate legislation and were not within the scope of our review. Costs for the State University of New York and City University of New York campuses were included in our estimates.

⁵ When developing independent risk assessments of agency operations, the internal auditor can refer to two risk models provided by the IIA. These approaches are detailed in "Internal Auditing Manual on CD-ROM," second edition. Copyright © 2002, The Institute of Internal Auditors.

Internal control certification and risk assessment data that results in a ranking of risks (i.e., quantitative or categorized by level or risk) can help the DIA define the audit population and prioritize projects based on the relative risk. Using these rankings as a guide, the DIA can then develop an audit plan and a corresponding estimate of the staff needed to complete the requirements of the plan.

First Things First

Before analyzing existing risk assessment data and preparing an audit plan, the DIA should:

- **Clarify Expectations with Agency Management and the Audit Committee:** It is the DIA's responsibility to formally discuss the results of risk assessments with agency management and the audit committee prior to development of the annual audit plan. These discussions should result in a clear understanding of the expectations and priorities of all parties.
- **Consider the Quality of the Internal Control System and Risk Assessments:** The DIA should be satisfied as to the sufficiency of the internal control system, and the quality of risk assessments encompassed therein, before relying on that data. For example, the auditor should feel comfortable that:
 - a. Risk assessment data is current;
 - b. All functional and risk areas have been adequately defined;
 - c. All functional units are reporting as required;
 - d. All significant risks have been inventoried;
 - e. All significant risks have been assessed and scored or categorized.

Prioritizing Projects

After ranking potential projects by relative risk, the DIA needs to consider other, non-quantitative, items which may affect decisions relative to the proposed audit plan. For example:

- How potential projects will address the agency's needs and compare to the agency's overall objectives;
- How potential projects will impact financial results, compliance, agency productivity and service delivery;
- Whether recurring items are included in the plan;
- Whether risks unique to the agency or its industry are reflected in the plan;
- The number of agency locations and degree of decentralization; and
- Executive management's risk tolerance.

Consideration of qualitative factors could change the overall priority of individual projects on the internal audit unit's proposed audit plan.

Identifying Resource Needs and Staffing Gaps

After developing a proposed audit plan built on ranking of risks, management and audit committee priorities and qualitative factors, the DIA can begin developing resource estimates. For each proposed project, the DIA should assess the amount of staff days needed and any specialized knowledge or skills necessary to handle the total workload. For example, the project may require program expertise or a strong knowledge in engineering or information technology.

Projects that are recurring in nature are predictable in terms of the amount of human resources that must be committed to meet the project objectives. Recurring projects may be required by law, regulation or rule. Requirements may also arise from management or audit committee direction as to the level of emphasis to be placed on an issue or topic.

OSC Bulletin No. G-212, for example, requires an audit of procurement no less than every three years. If a procurement audit at a decentralized agency requires 40 days to perform, on average, and the agency has 12 locations, the annualized impact on the human resource budget for internal auditing would be 160 days:

Procurement Cycle Example

A	B	C	D
Number of Days	Number of Locations	Cycle	Annualized Resource Intensity ((AxB)/C)
40	12	3 Years	160

Of the 34 agencies responding to the Task Force survey on baseline resource needs, 18 were able to describe a list of recurring projects that included (annualized) resource estimates. These projects included, for example, audits of procurement, equipment, travel and Internet use.

For the 34 agencies:

- The number of recurring projects ranged from 1 to 13 projects.
- Resource estimates for recurring projects ranged from 13.50 days per year to 3,722 days per year.

Maintaining an inventory of recurring projects can ease the task of estimating human resource needs, as well as facilitate discussion and a mutual understanding between the DIA, executive management and the audit committee as to which areas are, or should be, reviewed on a periodic basis.

Filling the Resource Gap

Prior to discussing the proposed audit plan with agency management and the audit committee, the internal audit director should develop a set of alternatives to address any gaps that may exist, along with a rationalized course of action. A cost/benefit analysis for each alternative, for example, would be useful in this regard. The DIA should seek clear direction from agency management and the audit committee as to which alternatives should be pursued.

If it is necessary to augment audit staff — a likelihood given the variety of new demands placed on internal auditors — the DIA will need to borrow staff, purchase services or hire staff to meet those demands, or choose some combination thereof.

- **Insourcing:** One option for meeting temporary increases in demand or the need for specialized skills is to borrow qualified staff from other offices within the agency. In these situations, the DIA needs to specifically define the skills that are required, the tasks that will be performed and the anticipated time frames for the project. The DIA should be comfortable that the individuals assisting in the project have the requisite skills and abilities to complete the assignment.
- **Outsourcing/Shared Services:** Where borrowing staff or adding full-time employees is impractical, the internal audit organization may want to consider augmenting core staff with outside expertise. Outsourcing and Shared Services (partnering with internal audit professionals from another State agency) provide internal audit units with the ability to meet temporary demands without taking on the cost of adding permanent staff. By bringing in professionals from other organizations, the internal audit unit can benefit from fresh perspectives and objective insights. Using outside personnel presents challenges too. For example, outsourcing a project can be a time consuming effort and personnel from an outside firm or a partner may not be able to assimilate into the team as quickly as an experienced internal auditor.

- **Adding Full-time Staff:** When internal audit units want to expand or acquire new expertise, the traditional approach is to hire full-time professionals. Hiring full-time staff is a costly approach that must be matched to a long-term need. Benefits of adding full-time staff include:
 - Building a strong and permanent base of skills.
 - Creating stability by adding staff that understand the agency structure, practices and culture.
 - Building relationships with other offices in the agency.

Each internal audit unit's particular needs and compliance deadlines will dictate whether borrowing staff, purchasing services or hiring staff – or using a combination of these options – is right for the agency. Each comes with its own benefits and risks.

Personnel Matters

With the advent of Sarbanes-Oxley, demand for internal auditors is increasing. It is imperative that New York State maximizes its ability to attract talented professionals to a logistically and organizationally dispersed workforce by providing for a fair and effective classification and compensation system for internal auditors.

As part of our review, we surveyed internal audit organizations regarding their ability to recruit and retain qualified internal audit professionals. We also:

- Collected data on the title series used by agencies to staff internal audit units; and
- Evaluated the compensation plan for internal auditors as compared to other accounting and audit titles used in New York State government.

Further information on the internal audit workforce is presented on page 88 of this report.

Recruiting

Ability to Recruit

We asked agency internal audit units to respond to statements (shown in the charts that follow) related to their ability to recruit qualified professional to internal audit positions. We scored responses from a -2 (strongly disagree) to a + 2 (strongly agree). The statements are positive in nature and, thusly, average responses of 1.0 or more (agree → strongly agree) are favorable.

Ability to Recruit

Statement	Average Score
“When we are authorized to hire, our Internal Audit Group <i>has</i> an ability to recruit new employees <i>that is equal to</i> that of other accounting, audit and financial organizations <i>in our agency.</i> ”	.80
“When we are authorized to hire, our Internal Audit Group <i>has</i> an ability to recruit new employees <i>that is equal to</i> that of other accounting, audit and financial organizations <i>in New York State government.</i> ”	.54

The 35 agencies that responded to our recruiting survey, collectively, reported marginally favorable views as to their ability to recruit. Comments provided in the recruiting portion of our survey did describe some challenges that internal audit units were experiencing. Those comments addressed:

- The need for a traineeship in the internal auditor series.
- Intermingling of the internal auditor and auditor title series.
- Lack of ability to hire based on qualitative factors (e.g., resume, interview and a writing sample).

Desired Education, Skills and Job Titles for the Future Workforce

We also asked agencies about education, audit skills, and the job titles they would be most interested in if they could add new staff. For the 35 groups responding, we accumulated the information that follows.

Desired Level of Education and Coursework

<u>#</u>	<u>Topic</u>
34	Agencies Preferring a Bachelor’s Degree
19	Average # of Accounting Credits Preferred
3.94	Average # of Auditing Credits Preferred
1.62	Average # of Years of Auditing Experience Preferred

Ranking of Skills Desired

<u>Average Ranking</u>	<u>Skills</u>
6.94	Knowledge of the agency and its processes.
6.49	Proficiency in computer-assisted audit tools.
6.11	Knowledge of information technology auditing.
6.00	Proficiency in basic business software.
4.23	Demonstrated ability to develop written communications.
4.03	Ability to assess internal controls.
3.94	Demonstrated ability to communicate verbally.
3.34	General analytical skills.
2.94	Knowledge of accounting/auditing/finance.

Retention

We also surveyed internal audit units regarding their perceptions of their ability to retain qualified internal audit professionals.

Ability to Retain Qualified Internal Audit Professionals

Statement	Average Score
"Our organization <i>has</i> the ability to retain our employees in a manner <i>equal to</i> that of other accounting, audit and financial organizations <i>in our agency</i> ."	.40
"Our organization <i>has</i> the ability to retain our employees in a manner <i>equal to</i> that of other accounting, audit and financial organizations in <i>New York State Government</i> ."	.46

The overall average scores were only marginally positive. Comments provided in the retention portion of our survey also described some of the challenges that internal audit units were experiencing in retaining staff. Those comments addressed:

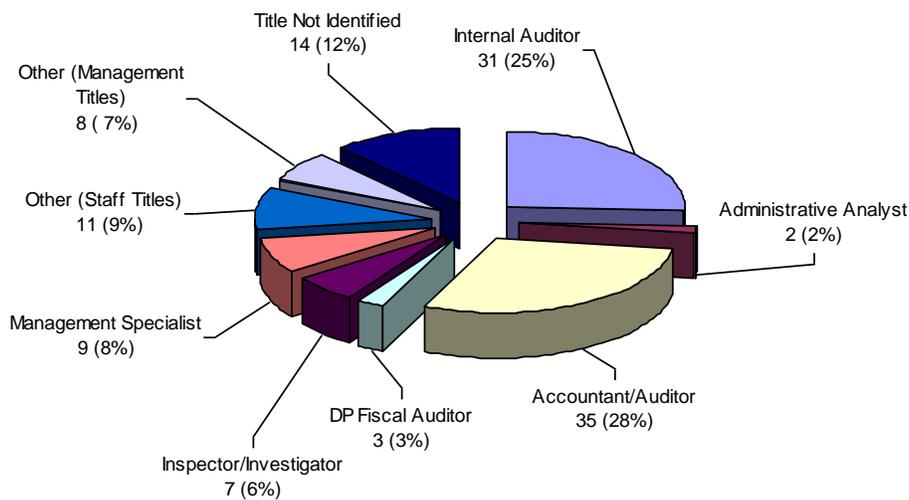
- Few promotion and career opportunities.
- Lack of ability to retain staff with information technology skills (move to technology-oriented organizations).

Classification and Compensation

Classification

We assembled survey information regarding how State agencies classify internal audit positions (i.e., title series used). Internal audit units responding to our survey use a wide array of title series to staff the internal audit activity.

**Title Series Used by Internal Audit Units
(Staff Members Other Than Directors, Total = 120)**



Although there is a title series for internal auditors, many agencies have not elected to use it. As a result, the opportunities for internal auditors in New York State are not robust as other title series and do not offer the opportunities needed to attract and retain talented individuals to the profession.

Internal Audit Career Ladder

Internal auditing, as an industry within New York State government is at a competitive disadvantage. The career ladder in the internal audit title series ranges from a salary grade 18 (Senior Internal Auditor) to salary grade 27 (Principal Internal Auditor). Internal audit positions beyond the Principal Internal Auditor level are generally exempt positions that are not part of competitive internal audit career ladder. By comparison, the competitive career ladder for some other accounting and audit titles in New York State range from salary grade 14 (trainees) to salary grade 35 (equivalent to an M-6). As a result, internal auditing careers are not as financially attractive as other accounting and audit careers in New York State government.

Director of Internal Audit Compensation

In reviewing our survey results, we noted that DIA's compensation varies widely. The reported salary grades for these positions ranged from an M-2 through M-6. While the workgroup recognizes the need for differing compensation due to the size of the agency or complexity of its operations, there does not appear to be a system to ensure compensation is commensurate with responsibilities.

Other Matters Related To The Internal Audit Workforce

The Workgroup also considered workforce issues that present opportunities to increase the efficiency and/or effectiveness of internal audit units, or were presented to us by respondents to our survey.

Coordinating Internal Audit Units

Sharing resources and expertise to the extent possible will maximize the efficiency and effectiveness of internal audit units. The Institute of Internal Auditors slogan, “*Progress Through Sharing*”, reflects this philosophy.

In New York State, the internal audit workforce is dispersed across all branches of government and is comprised of relatively small workgroups, organized by agency. Although many of these organizations may belong to local chapters of the IIA, no mechanism exists that encourages these units to communicate and coordinate efforts horizontally. Issues internal audit units could coordinate on include:

- Sharing best practices for assessing and prioritizing risk in government operations;
- Sharing audit programs and template reports for common business processes;
- Promoting agency best practices identified by audit or review;
- Assessing business needs, including frequency and content of civil service examinations;⁶
- Sharing technology; and
- Developing the internal audit workforce and promoting professional certifications.

⁶ For those agencies whose auditors are in classified service.

The Workgroup recommends that a coordinating body be formed to identify and address issues of common interest to internal audit organizations. We also recommend the development of an internal audit website to facilitate communication on key and emerging issues. A website would also be useful for:

- Maintaining a directory of internal audit organizations statewide;
- Posting internal audit policies and procedures;
- Sharing technology expertise;
- Maintaining information on continuing professional education (tracking CPEs and course offerings); and
- Communicating the requirements and review programs for external assessments (Peer Review).

Demographic Profiles of Internal Audit Units

When assessing the abilities of the internal audit workforce, it is useful to have an understanding of how that workforce's level of experience compares to industry norms. As part of our survey, we obtained demographic information from internal audit units regarding the experience and certifications of internal audit directors and their staff, and compared that information to GAIN data.

a. Internal Audit Experience

Internal audit units responding to our survey reported a level of internal auditing experience for the director (15 years) that was generally consistent with director experience for government organizations reporting to the GAIN survey (13 years). The range of internal auditing experience for internal audit directors in State agencies, however, ranged from *no experience* to 33 years. Five of the 22 directors (23 percent) have less than three years of internal auditing experience.

Average internal audit experience for staff members in State agencies was lower than that for GAIN data. For the agencies responding to our survey, the average internal audit experience for staff members was 8.8 years. Respondents to the GAIN survey reported an average of 10 years of experience for internal audit staff.

b. Professional Certifications

Professional certifications are becoming increasingly important for internal auditors due to increased visibility, credibility, and competency concerns. Professional certifications also provide senior managers with valuable insight regarding the skills of staff members. For these reasons, the Workgroup recommends that the State encourage professional certifications.

Professional certifications were not as prevalent in the internal audit units responding to our survey (28 percent of staff⁷ had at least one professional designation) as compared to government organizations responding to the GAIN survey (44 percent of staff). Professional designations among internal audit units responding to our survey were as follows:

Professional Certifications

	CIA	CCSA	CFE	CGAP	CGFM	CISA	CPA	At Least one Certification
Directors (29)	3	0	2	0	6	1	8	14 (48%)
Staff (120)	13	1	4	0	10	10	10	34 (28%)

One survey respondent suggested that the State incorporate professional certifications, such as the Certified Internal Auditor and Certified Information Systems Auditor, into the minimum qualifications for both the promotional and open competitive process. Providing additional credit in the examination process for professional designations would provide an additional incentive for internal auditors, but not a requirement, to pursue professional certifications. Another option to promote certifications would be for the State to obtain, or subsidize the purchase of, review materials for professional examinations.

c. Negotiating Unit

Our survey results show that some internal audit positions are union-represented while others are management confidential. Eighty-nine (74 percent) of 120 internal audit staff described in the responses to our survey were classified as members of negotiating units other than the management-confidential group.

⁷ GAIN data did not isolate certifications for internal audit directors.

Internal Auditors routinely have access to executive management information and, as such, should be considered to be part of the management team. Accordingly, they should be classified as part of the management-confidential negotiating group.

Technology Profiles of Internal Audit Units

Staff's ability to use technology is an important aspect of any analysis of staffing needs. Using the appropriate types of technology can help internal audit organizations increase their efficiency. Technology can also enhance the effectiveness of internal audit staff by increasing the overall capabilities of the team.

We obtained technology profiles from internal audit units as part of our survey. We found that opportunities do exist to improve the efficiency and effectiveness of internal audit units by increasing the use of technology. Of the 34 agencies responding:

- Ten (29 percent) respondents told us they use data-based audit management systems for automating the audit process (e.g., risk assessments, planning, scheduling, work papers, reporting, issue tracking, time reporting, expenses, training records, etc.).
- Nineteen (56 percent) told us they use a data analysis tools such as ACL or IDEA. This type of software are commonly categorized as "Computer Assisted Audit Techniques (CAATs) and enables the auditor to perform more complicated analyses on a larger number of audit records than possible when using spreadsheet or database type software. Evaluation and use of electronic audit packages is addressed in the report from the Internal Audit Process Workgroup.

RECOMMENDATIONS

1. The ICTF should:
 - a. Work with agencies identified in the table in this section to assess their internal audit staffing needs and identify plans to meet those needs.
 - b. Publish guidance on using risk assessments to estimate total staffing needs.
 - c. Identify methods for providing audit coverage at other agencies, including:
 - Coordinate the efforts of internal audit units statewide;
 - Host an internal audit website; and

- Help agencies improve staff productivity by providing assistance in the procurement, deployment and use of data-based audit management tools and Computer Assisted Audit Techniques (CAATs).

d. Encourage professional certifications by:

- Working with the Department of Civil Service to recognize in examination processes; and
- Obtaining/subsidizing review materials/courses.

e. Work with the Department of Civil Service to:

- Classify internal audit as management confidential positions statewide;
- Create a traineeship for the internal audit title series. Consider establishing an internship program for internal auditing;
- Evaluate the potential for transferability between accounting/audit series positions and the internal audit title series.
- Develop a compensation classification and career ladder that is competitive with other accounting and auditing careers in New York State; and
- Encourage internal audit units to use the internal audit title series.

2. Agencies should:

- a. Maintain an inventory of recurring audit projects.
- b. Report on internal audit staffing as part of an annual internal audit report to agency management (discussed in the independence section of this report).
- c. Review internal audit staffing levels annually and discuss with agency management the need for any additional internal audit staff.

Summary of Ratio Analysis for BPRM Item B-350 Agencies and Other Respondents ⁸

AGENCY	Internal Audit FTE's	Agency Service Sector	Agency Appropriation 2004-05*, ** (Millions)	Number of Agency Staff	Internal Audit Staffing Per \$1M Expenses			Internal Audit Staffing Per Agency Staff		
					Agency	All Respondents	Service Sector	Agency	All Respondents	Service Sector
Agriculture and Markets	0.41	Economic Development	\$147.00	4,152	0.00279	0.00117	0.00642	0.0001	0.000464	0.000610
Alcohol & Substance Abuse Services.	1.50	Public Health	513.65	970	0.00292	0.00117	0.00027	0.0015	0.000464	0.000272
Alcoholic Beverage Control	0.25	Regulatory Agencies	13.86	147	0.01804	0.00117	0.00801	0.0017	0.000464	0.002402
Banking Department	2.00	Regulatory Agencies	84.64	576	0.02363	0.00117	0.00801	0.0035	0.000464	0.002402
Children and Family Services	10.25	Public Welfare	3,178.05	3,957	0.00323	0.00117	0.00115	0.0026	0.000464	0.001531
City University of New York	6.00	Cultural and Educational	3,289.17	47,657	0.00182	0.00117	0.00054	0.0001	0.000464	0.000132
Civil Service, Department of	1.00	Operating Government	58.52	2,817	0.01709	0.00117	0.00569	0.0004	0.000464	0.000907
Correctional Services	0.00	Public Safety	2,417.96	31,660	0.00000	0.00117	0.00328	0.0000	0.000464	0.000305
Criminal Justice Services	0.40	Public Safety	604.31	745	0.00066	0.00117	0.00328	0.0005	0.000464	0.000305
Economic Development	1.00	Economic Development	43.93	215	0.02276	0.00117	0.00642	0.0047	0.000464	0.000610
Education Department	2.46	Cultural and Educational	23,535.88	2,946	0.00010	0.00117	0.00054	0.0008	0.000464	0.000132
Environmental Conservation	4.00	Operating Government	970.38	3,986	0.00412	0.00117	0.00569	0.0010	0.000464	0.000907
General Services, Office of	3.00	Operating Government	377.66	2,014	0.00794	0.00117	0.00569	0.0015	0.000464	0.000907
Health, Department of	2.00	Public Health	42,121.35	6,509	0.00005	0.00117	0.00027	0.0003	0.000464	0.000272
Housing and Community Renewal	2.75	Housing Programs	311.21	940	0.00884	0.00117	0.01124	0.0029	0.000464	0.005870
Housing Finance Agency/SONYMA [@]	4.00	Housing Programs	289.49	210	0.01382	0.00117	0.01124	0.0190	0.000464	0.005870
Hudson River Valley Greenway ^{@ **}	0.25	Regulatory Agencies	0.70	4	0.35714	0.00117	0.00801	0.0625	0.000464	0.002402
Insurance Department	0.90	Regulatory Agencies	165.27	930	0.00545	0.00117	0.00801	0.0010	0.000464	0.002402
Insurance Fund, State [*]	12.00	Regulatory Agencies	1,715.86	2,680	0.00699	0.00117	0.00801	0.0045	0.000464	0.002402
Investigation, Temp. State Com. ^{@ **}	0.15	Regulatory Agencies	3.27	30	0.04586	0.00117	0.00801	0.0050	0.000464	0.002402
Labor	3.30	Public Welfare	5,911.57	4,564	0.00056	0.00117	0.00115	0.0007	0.000464	0.001531
Lottery	1.75	Revenue Agencies	124.40	336	0.01407	0.00117	0.01953	0.0052	0.000464	0.001918
Mental Health	8.35	Public Health	2,166.50	17,162	0.00385	0.00117	0.00027	0.0005	0.000464	0.000272
Mental Retardation	1.25	Public Health	2,940.60	23,580	0.00043	0.00117	0.00027	0.0001	0.000464	0.000272

⁸ While an agency's total appropriations and FTEs are a starting point for conducting a study of internal audit staffing needs, other indicators such as organizational and program size and structure, relative risk, and corresponding controls, among other factors would also have to be taken into consideration.

Appendix 1 (Continued)

Summary of Ratio Analysis for BPRM Item B-350 Agencies and Other Respondents

AGENCY	Internal Audit FTE's	Agency Service Sector	Agency Appropriation 2004-05*, ** (Millions)	Number of Agency Staff	Internal Audit Staffing Per \$1M Expenses			Internal Audit Staffing Per Agency Staff		
					Agency	All Respondents	Service Sector	Agency	All Respondents	Service Sector
Motor Vehicles	11.30	Transportation	251.76	2,973	0.04488	0.00117	0.00403	0.0038	0.000464	0.001625
Niagara Frontier Trans. Auth. @ **	3.00	Transportation	182.49	1,500	0.01644	0.00117	0.00403	0.0020	0.000464	0.001625
Parks, Recreation & Historic Pres.	0.75	Economic Development	229.20	236	0.00327	0.00117	0.00642	0.0032	0.000464	0.000610
Parole @	1.50	Public Safety	192.75	2,008	0.00778	0.00117	0.00328	0.0007	0.000464	0.000305
Public Service	1.00	Economic Development	71.87	579	0.01391	0.00117	0.00642	0.0017	0.000464	0.000610
Real Property Services @	0.00	Regulatory Agencies	64.41	391	0.00000	0.00117	0.00801	0.0000	0.000464	0.002402
State Police	10.35	Public Safety	514.78	5,764	0.02011	0.00117	0.00328	0.0018	0.000464	0.000305
State University of New York	10.00	Cultural and Educational	7,660.61	88,684	0.00131	0.00117	0.00054	0.0001	0.000464	0.000132
State, Department of	1.00	Regulatory Agencies	140.07	1,411	0.00714	0.00117	0.00801	0.0007	0.000464	0.002402
Tax Appeals @	0.00	Revenue Agencies	3.18	31	0.00000	0.00117	0.01953	0.0000	0.000464	0.001918
Taxation & Finance	8.90	Revenue Agencies	417.70	5,186	0.02131	0.00117	0.01953	0.0017	0.000464	0.001918
Temporary and Disability Assist.	3.00	Public Welfare	5,275.06	2,286	0.00057	0.00117	0.00115	0.0013	0.000464	0.001531
Transportation	8.60	Transportation	5,245.94	9,618	0.00164	0.00117	0.00403	0.0009	0.000464	0.001625
Worker's Compensation**	2.00	Regulatory Agencies	126.68	1,555	0.01579	0.00117	0.00801	0.0013	0.000464	0.002402
	130.37		\$111,362	281,009						

@ = Non- BPRM Item B-350 Agency * = Non-Appropriated Revenue per Agency ** = Expenses Per OSC /Agency (Appropriation/Non-Appropriated Revenue Not Readily Available)

⁴⁰ While an agency's total appropriations and FTEs are a starting point for conducting a study of internal audit staffing needs, other indicators such as organizational and program size and structure, relative risk, and corresponding controls, among other factors would also have to be taken into consideration.

SECTOR TOTALS FOR BPRM ITEM B-350 AGENCIES AND OTHER RESPONDENTS ⁹

AGENCY	Internal Audit FTE's	Agency Service Sector	Agency Appropriation 2004-05*, **	Number of Agency Staff	I/A FTE's per \$1M in Expenses	Internal Auditors Per Agency Staff
City University of New York	6.00	Cultural and Educational	3,289,171,000	47,657	0.00182416785	0.000126
Education Department	2.46	Cultural and Educational	23,535,880,400	2,946	0.00010430882	0.000833
State University of New York, Central Administration	10.00	Cultural and Educational	7,660,609,900	88,684	0.00130537909	0.000113
CULTURAL AND EDUCATION SECTOR	18.46		34,485,661,300	139,287	0.00053514995	0.000132
Agriculture and Markets, Department of	0.41	Economic Development	146,998,700	4,152	0.00278914031	0.000099
Economic Development, Department of	1.00	Economic Development	43,931,900	215	0.02276250287	0.004651
Parks, Recreation and Historic Preservation, Office of	0.75	Economic Development	229,201,000	236	0.00327223703	0.003178
Public Service, Department of	1.00	Economic Development	71,868,000	579	0.01391439862	0.001727
ECONOMIC DEVELOPMENT SECTOR	3.16		491,999,600	5,182	0.00642276945	0.000610
Housing and Community Renewal, Division of [@]	2.75	Housing Programs	311,207,000	940	0.00883656216	0.002926
Housing Finance Agency/SONYMA [@]	4.00	Housing Programs	289,494,000	210	0.01381721210	0.019048
HOUSING PROGRAMS SECTOR	6.75		600,701,000	1,150	0.01123687159	0.005870
Civil Service, Department of	1.00	Operating Government	58,516,500	2,817	0.01708919706	0.000355
Environmental Conservation, Department of	4.00	Operating Government	970,383,800	3,986	0.00412208036	0.001004
General Services, Office of	3.00	Operating Government	377,655,200	2,014	0.00000000794	0.001490
OPERATING GOVERNMENT SECTOR	8.00		1,406,555,500	8,817	0.00568765328	0.000907
Alcohol & Substance Abuse Services	1.50	Public Health	513,650,000	970	0.00292027645	0.001546
Health, Department of	2.00	Public Health	42,121,352,500	6,509	0.00004748186	0.000307
Mental Health, Office of	8.35	Public Health	2,166,496,300	17,162	0.00385414921	0.000487
Mental Retardation, Office of	1.25	Public Health	2,940,598,700	23,580	0.00042508350	0.000053
PUBLIC HEALTH SECTOR	13.10		47,742,097,500	48,221	0.00027439096	0.000272

⁹ While an agency's total appropriations and FTEs are a starting point for conducting a study of internal audit staffing needs, other indicators such as organizational and program size and structure, relative risk, and corresponding controls, among other factors would also have to be taken into consideration.

SECTOR TOTALS FOR BPRM ITEM B-350 AGENCIES AND OTHER RESPONDENTS

AGENCY	Internal Audit FTE's	Agency Service Sector	Agency Appropriation 2004-05*, **	Number of Agency Staff	I/A FTE's per \$1M in Expenses	Internal Auditors Per Agency Staff
Correctional Services	0.00	Public Safety	2,417,955,600	31,660	0.00000000000	0.000000
Criminal Justice Services, Division of	0.40	Public Safety	604,311,200	745	0.00066191062	0.000537
State Police, Division of	10.35	Public Safety	514,783,000	5,764	0.02010555904	0.001796
PUBLIC SAFETY	12.25		3,729,802,800	40,177	0.00328435595	0.000305
Children and Family Services, Office of	10.25	Public Welfare	3,178,050,500	3,957	0.00322524768	0.002590
Labor, Department of	3.30	Public Welfare	5,911,567,100	4,564	0.00055822761	0.000723
Temporary and Disability Assistance, Office of	3.00	Public Welfare	5,275,057,900	2,286	0.00056871414	0.001312
PUBLIC WELFARE SECTOR	16.55		14,364,675,500	10,807	0.00115213184	0.001531
Alcoholic Beverage Control, Division of	0.25	Regulatory Agencies	13,856,000	147	0.01804272517	0.001701
Banking Department	2.00	Regulatory Agencies	84,640,000	576	0.02362948960	0.003472
Hudson River Valley Greenway Council @ **	0.25	Regulatory Agencies	700,000	4	0.35714285714	0.062500
Insurance Department	0.90	Regulatory Agencies	165,266,500	930	0.00544574974	0.000968
Insurance Fund, State	12.00	Regulatory Agencies	1,715,857,000	2,680	0.00699358979	0.004478
Investigation, Temporary State Commission of @ **	0.15	Regulatory Agencies	3,270,666	30	0.04586221889	0.005000
Real Property Services, Office of @	0.00	Regulatory Agencies	64,411,200	391	0.00000000000	0.000000
State, Department of	1.00	Regulatory Agencies	140,072,100	1,411	0.00713918046	0.000709
Worker's Compensation Board	2.00	Regulatory Agencies	126,681,299	1,555	0.01578764992	0.001286
REGULATORY AGENCIES SECTOR	18.55		2,314,754,765	7,724	0.00801380789	0.002402
Lottery, Division of	1.75	Revenue Agencies	124,400,800	336	0.01406743365	0.005208
Tax Appeals, Division of @	0.00	Revenue Agencies	3,179,000	31	0.00000000000	0.000000
Taxation & Finance, Department of	8.90	Revenue Agencies	417,700,000	5,186	0.02130715825	0.001716
REVENUE AGENCIES SECTOR	10.65		545,279,800	5,553	0.01953125716	0.001918

⁴¹ While an agency's total appropriations and FTEs are a starting point for conducting a study of internal audit staffing needs, other indicators such as organizational and program size and structure, relative risk, and corresponding controls, among other factors would also have to be taken into consideration.

SECTOR TOTALS FOR BPRM ITEM B-350 AGENCIES AND OTHER RESPONDENTS

AGENCY	Internal Audit FTE's	Agency Service Sector	Agency Appropriation 2004-05*, **	Number of Agency Staff	I/A FTE's per \$1M in Expenses	Internal Auditors Per Agency Staff
Motor Vehicles, Department of	11.30	Transportation	251,759,800	2,973	0.04488405218	0.003801
Niagara Frontier Transportation Authority @ **	3.00	Transportation	182,493,000	1,500	0.01643898670	0.002000
Transportation, Department of	8.60	Transportation	5,245,939,500	9,618	0.00163936317	0.000894
TRANSPORTATION SECTOR	22.90		5,680,192,300	14,091	0.00403155365	0.001625
	130.37		\$111,361,720,065	281,009		

@ = Non- BPRM Item B-350 Agency * = Non-Appropriated Revenue per Agency ** = Expenses Per OSC /Agency (Appropriation/Non-Appropriated Revenue Not Readily Available)

⁴¹ While an agency's total appropriations and FTEs are a starting point for conducting a study of internal audit staffing needs, other indicators such as organizational and program size and structure, relative risk, and corresponding controls, among other factors would also have to be taken into consideration.

