AGENDA
ECU Board of Trustees
Audit Committee Meeting
ECHI Conference Rooms
November 19, 2009

I. Approval of September 24, 2009 Minutes
   Action

II. Internal Audit Report
   A. EAGLE/UNC FIT Letter
      Information
   B. Benchmark – Completion of Audit Plan
      Information
   C. ECU Foundation Audit Report
      Information
   D. IIA Best Practices
      Information

III. ERM Report
     Information

IV. Other Business
Minutes from ECU BOT Audit Committee
September 24, 2009
East Carolina Heart Institute – Conference Room B

Committee members present: Joel Butler-Chair, Ken Chalk, Carol Mabe
Executive Council Members present: Donna Payne
Others Present: Stacie Tronto, Steve Duncan, Greg Hassler, Tim Wiseman, John Chinn, Ken Deville

Chairman Butler convened the meeting at 8:30 a.m. and read the conflict of interest provisions as required by the State Government Ethics Act. Mr. Butler asked if anyone would like to declare a conflict of interest. Hearing none, he welcomed Mr. Chalk to the Audit Committee. He also introduced and welcomed Tim Wiseman. After introductions Mr. Butler asked for the approval of the minutes for the April 16, 2009 Audit Committee meeting. The minutes of the April 16, 2009 meeting were approved with no changes.

John Chinn, University Research Compliance Officer gave an update on the activities of the Office of Research Compliance Administration (ORCA) for the period February 2009 to August 2009. Mr. Chinn reported on export controls and stated that export controls are a minor risk at ECU and procedures are in place to monitor all international shipments. Training and informational briefing have also occurred for those situations where ECU is given prior notification of exporting. Mr. Chinn reported that ECU was recently audited by the State for radiation safety and no major findings were reported. The IRB has a new director and recently had a review from the FDA and had no findings. OHRP has scheduled a not for cause visit to ECU next month. Mr. Chinn reported that since the last report there have been two allegations of scientific misconduct. ORCA found no evidence of misconduct with one of the allegations and the other allegation is currently being reviewed. The conflict of interest disclosures for 2009 have been completed and all ECU EPA employees are in compliance with disclosure requirements.

Mr. Butler introduced Ken Deville as the Interim BSOM Compliance Officer. Mr. Deville updated the committee on the search for the permanent compliance officer. Mr. Deville informed the committee on RAC audits.

Next, Mr. Butler asked Tim Wiseman to report on Enterprise Risk Management (ERM). Mr. Wiseman introduced himself and gave some insight into his background. Mr. Wiseman stated for the past two months he has been interviewing ERM committee members to become acclimated to the key areas and looked forward to updating the committee in the future on ERM initiatives. Mr. Wiseman stated he was reviewing or had reviewed risk assessments for student affairs and admission, payroll processes, Student Study Abroad Program, and the integrity of student admissions. Mr. Wiseman also updated the committee on the University’s compliance with the Red Flag Rule (RFR), which
are basically efforts to prevent identity theft. A policy on RFR has been approved by the Board of Trustees and Mr. Wiseman hosted a teleconference with counterparts from other UNC schools.

Mr. Chalk suggested that the Audit Committee name be changed to include risk management and it was suggested that this be discussed with the Executive Committee.

Ms. Tronto presented the audit plan for 2009-2010 and asked the audit committee to approve. The audit plan was approved by the committee. Ms. Tronto shared the certification letters that are sent to UNC GA and the new requirements that had been implemented by UNC GA regarding foundations and associated entities. The dashboard report was presented by Ms. Tronto. The audit committee was very interested in the metric concerning management’s corrective actions. Ms. Tronto explained how the metric was calculated. Mr. Butler stated that he would write a letter to the Chancellor and suggest that a goal be set for management corrective actions.

With there being no other business, the Audit Committee went into closed session. The meeting adjourned at 10:15 a.m.

Respectfully submitted by Stacie Tronto
October 6, 2009

MEMORANDUM

TO:       Tom Newsome, Chief Deputy State Controller
          Ben McLawhorn, OSC Risk Mitigation Services Manager

FROM:    Gwen Canady, UNC FIT Project Management Officer

SUBJECT:  EAGLE compliance through UNC FIT for the University

First, let me thank you again for meeting with the UNC representatives on Thursday, October 1 to discuss EAGLE (Enhancing Accountability in Government through Leadership and Education) compliance for the University System. As we discussed, the University’s FIT program (Finance Improvement and Transformation) has evolved into a comprehensive initiative covering financial, operational and compliance risks within the consolidated University. Specifically, FIT seeks to strengthen the control environment and align UNC people, processes and technology by implementing process improvements and laying the ground work for centralization of certain back-office financial operations.

Those universities that had already completed EAGLE were quick to point out to UNC General Administration (GA) that FIT had many similarities to EAGLE and that a robust FIT initiative could satisfy the purpose of both OSC (making House Bill 1551 actionable) and UNC GA. Given the budget constraints faced by state government, we feel it is prudent to make the most with the resources we have available throughout the University.

The scope of the FIT initiative as it exists today will be broadened in order to provide a more thorough understanding of financial reporting risks. Below is a brief description of the revised FIT approach to accommodate certain EAGLE characteristics.

Risk Assessment – UNC GA will lead a risk assessment process whereby the schools are divided into tiers based on comparable size and function. A risk assessment, using the EAGLE quantitative and qualitative factors, will be performed for each tier. That risk assessment will then be validated at each campus in order to identify differences in the group risk assessment with specifics...
at the campus level. For example, a school may have a significant process that is not representative of its peer institutions. Once high and moderate risk accounts and processes are identified, those processes will be mapped to existing FIT processes (i.e. Contracts and Grants, Financial Aid, and General Accounting). Any gaps in process areas identified (i.e. Capital Assets) will be scheduled to be included in FIT over a 2-3 year period. The risk assessment will be refreshed each year to ensure no additional accounts or processes arise that would require inclusion in FIT.

**Documentation** – FIT utilizes robust standards to document leading practices to be performed by campuses in each process area. Many of the standards currently include not only procedures, but also controls. FIT will be revised to more clearly identify those controls over financial reporting. UNC GA has developed an Active Collab website to house all FIT-related documentation and to serve as a main hub of communication.

**Monitoring** – UNC GA will be visiting campuses beginning in October 2009 to monitor compliance with the standards. To date, campuses have provided self-reported checklists to UNC GA which details progress made in implementing standards. Although self-reporting will play a key role in our FIT efforts, we know that objective monitoring is also necessary in order for UNC GA to understand the needs of campuses and to also provide a means to share knowledge throughout the system. Campus internal audit will also play a key role for future monitoring as we look to assist them in incorporating FIT into their future campus audit and monitoring programs.

**KPIs** – As a function of Monitoring, we have developed a series of key performance indicators (KPIs) for each process within FIT which will be utilized by UNC GA to proactively monitor certain financial and operational metrics key to the success of the University System. These KPIs will also serve as a powerful management tool to help campus executives, including chancellors, directors and controllers, better manage their functions. The KPIs have been designed to cover areas of high financial and operational risk to the schools as well as areas that have historically resulted in audit findings. We envision our KPIs changing over time as the need for additional information arises.

**Reporting** – As noted above, UNC GA has developed an Active Collab website to serve as a repository for all FIT documentation. We will work with OSC to determine the appropriate reporting requirements to keep OSC apprised of current status and future plans of FIT. UNC GA can report to OSC on behalf of the
University. This should significantly reduce the communication efforts between OSC and the schools within the University.

Thank you again for your support in allowing the University the ability to meet the needs of House Bill 1551 through the UNC FIT program. We think very highly of the EAGLE Program but feel that the objectives of EAGLE can be accomplished through our UNC FIT initiative. We look forward to further discussing the details with you at a later date.

Thank you.

cc:    Jeff Davies, Chief of Staff
      Rob Nelson, Vice President for Finance
      Ken Craig, Associate Vice President for Finance
MEMORANDUM

TO: Gwen A. Canady, UNC FIT Project Management Officer

FROM: Ben McLawhorn, Risk Mitigation Services Manager

SUBJECT: N.C.G.S. Chapter 143D Compliance through UNC FIT for the University

Based upon our meeting on October 1, 2009 and the information included in your October 6th memorandum, the Office of the State Controller (OSC) supports your request for the University to meet its statutory requirements under N.C.G.S. Chapter 143D (State Governmental Accountability and Internal Control Act) through the UNC FIT Program. I agree there are many similarities between the EAGLE Program and the UNC FIT Program and appreciate your willingness to broaden the UNC FIT Program to provide for a more thorough understanding of financial reporting risks. Given the similarities between the two programs, and the current budgetary/resource constraints the state is facing, OSC agrees this is a prudent approach to achieving compliance with N.C.G.S Chapter 143D.

I look forward to working closely with you and other University representatives in the refinement of the details for this new initiative. Please let me know when you are ready to continue this discussion.

cc: David McCoy, State Controller
    Tom Newsome, Chief Deputy State Controller
    Jeff Davies, Chief of Staff
    Rob Nelson, Vice President for Finance
    Ken Craig, Associate Vice President for Finance
Benchmark for Completion of Audit Plan
Comparison of UNC System Audit Plan with ECU Audit Plan
FY 2008-2009

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<th>ECU</th>
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<td>Percentage of Audit Plan Completed</td>
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Note: UNC System Audit Plan is total of all audit plans submitted by IA shops
Independent Auditor's Report

The Board of Directors
East Carolina University Foundation, Inc.
    and Consolidated Affiliate
Greenville, North Carolina

We have audited the accompanying consolidated statements of financial position of East Carolina University Foundation and Consolidated Affiliate (Foundation) as of June 30, 2009 and the related consolidated statements of activities and cash flows for the year then ended. These consolidated financial statements are the responsibility of the Foundation's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit. The consolidated financial statements of East Carolina University Foundation and Consolidated Affiliate as of June 30, 2008 were audited by other auditors whose report dated November 20, 2008, expressed an unqualified opinion on those consolidated financial statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of East Carolina University Foundation and Consolidated Affiliate as of June 30, 2009 and 2008 and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Clifton Gunderson LLP

Raleigh, North Carolina
September 15, 2009
Audit Committee
East Carolina University Foundation, Inc. and
Consolidated Affiliate
Greenville, North Carolina

In planning and performing our audit of the financial statements of East Carolina University Foundation, Inc. and Consolidated Affiliate (the Foundation) as of and for the year ended June 30, 2009, in accordance with auditing standards generally accepted in the United States of America, we considered the Foundation's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Foundation's internal control. Accordingly, we do not express an opinion on the effectiveness of the Foundation's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in internal control that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control that we consider to be significant deficiencies.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis.

**Significant Deficiencies**

A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the Foundation's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the Foundation's financial statements that is more than inconsequential will not be prevented or detected by the Foundation's internal control. We consider the following control deficiencies to be significant deficiencies in internal control:

**SEGREGATION OF DUTIES OVER POSTING CASH RECEIPTS**

During our audit procedures, we noted that when the Director of Gifts is on vacation or otherwise not available, the Assistant Director of Gifts performs the tasks of receiving and posting cash receipts.
Having the same individual receive and post cash receipts raises the opportunity for errors or fraud to occur. We recommend that a procedure be implemented to address this segregation of duties deficiency.

Management’s Response:
In consultation with the auditors, we will develop a procedural plan for implementation that will correct the weakness in internal control due to lack of segregation of duties within the Gift Records Department of Financial Services.

GIFTS IN-KIND FOR THE TEST KITCHEN

We noted that the in-kind contributions received for equipment and materials related to the Golden Corral test kitchen were recorded on the books of the Foundation without obtaining sufficient documentation from the donor as to the fair market value of the contribution. The Foundation’s finance department received the gift-in-kind acknowledgement form from the Office of Giving, showing the amounts to be recorded as a contribution. The worksheet, however, was not supported by any independent verification of the fair market value of the in-kind items received. In addition to a breakdown of internal controls around recording financial transactions, this situation has potentially negative income tax consequences to both the Foundation and the donor.

We recommend that all in-kind contributions be properly supported by their fair value at the date of contribution. We also recommend that a member of the Foundation’s financial services department be involved in the gift acknowledgement process to determine that all the proper documentation of the gift and its valuation is received.

Management’s Response:
The Foundation will redesign the Gift-in-Kind Acknowledgement (GIK) form to include an additional signature line which will allow the financial services department to become involved in the gift acknowledgement process. Financial services will be the last department to sign the form to acknowledge that all of the appropriate documentation for the gift and valuation has been received, reviewed, and is compliant with the IRS codes and regulations. Any Gift-in-Kind Acknowledgement form that fails to appropriately document the gift or its value, will be returned to the Advancement department for additional follow-up and documentation from the donor. Gift Records will not receive or record a gift-in-kind into the gift records system until all proper documentation has been received.

Additional training and communication between the Advancement department and the Financial Services department will be performed.

Other Matters

In addition to the significant deficiencies discussed above, we noted the following matters which we would like to bring to your attention:

ALLOCATION OF INVESTMENT ACTIVITY AND ENDOWMENT FEES TO TEMPORARILY RESTRICTED FUNDS

We noted that in prior years, the Foundation allocated the investment earnings, realized gains and losses, unrealized gains and losses and the endowment fees to the individual temporarily restricted funds in the fiscal year after the financial transactions occurred. For example, the
June 30, 2008 investment and endowment fee allocations were posted to the individual temporarily restricted funds in July 2008. As a result of this process, the financial statement note disclosure related to the remaining temporarily restricted funds balances, per program, was inaccurately presented.

The Foundation finance staff has the allocation information available, prior to the issuance of the audited financial statements, to disclose the proper balances of the temporarily restricted net asset programs. We concur that it is not feasible for the allocation to be physically posted until the subsequent fiscal year; however, given that the allocation information is available, the financial statement disclosure of the temporarily restricted net assets is able to be presented correctly. Consequently, the note disclosure related to the remaining balances of temporarily restricted funds at June 30, 2009 is accurately presented.

Management's Response:
The financial statement disclosure note for the temporarily restricted funds balances, per program, was inaccurately presented by category in the prior year statements; however, the total, in sum was correct. The current year note disclosure was properly presented and will continue to be presented in this manner for future years.

REAL ESTATE TRANSACTIONS INVOLVING BOARD MEMBERS

We noted that during the period under audit, the Foundation entered into transactions to deed certain real estate owned by the Foundation to family members of two members of the Board of Directors. There are several areas of concern with these transactions:

- The transactions between the Foundation and these related parties were not properly documented in the minutes of the Board of Directors.

Management's Response:
The minutes for the August 13, 2008 ECU Real Estate Foundation board meeting will be revised and submitted for approval to the ECU Real Estate Foundation Board and ECU Foundation Executive Committee ("the Boards") with full disclosure of the transactions.

The Foundation’s Conflict of Interest Policy will be followed at all times. Board members with a conflict of interest surrounding any Foundation transaction under consideration will disclose the conflict and excuse themselves from any discussions regarding the transaction and voting process. The Foundation's minutes will document, in detail, all such incidents.

- The deeding of the real estate to the related parties, for no consideration, as opposed to engaging in a fair market sale and using the proceeds of the sale for the donor's original intended purpose potentially results in a violation of the donor's restriction.

Management's Response:
The ECU Real Estate Foundation will develop new policies for all real estate transactions and related party transactions to ensure that future board decisions have been properly documented, communicated, and fully disclosed to the ECU Real Estate Foundation Board and the ECU Foundation Executive Board.
The new policy for real estate transactions will include the following items:

- A thorough analysis of the property will be performed to determine if the asset is a temporarily or permanently restricted asset.
- Disposals of temporarily or permanently restricted real estate property will comply with donor restrictions specified within the fund agreement.
- A list of property to be purchased, sold, or otherwise disposed of, shall be presented to the Boards with detail to establish a defined method to determine fair market value, details of the property including description, acreage, etc., and individual(s) or entity buying, selling, or otherwise receiving the property.
- The Boards will discuss and vote on each individual parcel of property separately brought before the board to be considered for action.

- The individuals who received the real estate have potentially received personal inurement.

Management’s Response:
The new policies for real estate transactions and related party transactions will be designed and structured to ensure that personal inurement transactions will not occur.

- The transaction with the relatives of the Board members might be a required disclosure on the Foundation’s year 2008 IRS Form 990.

Management’s Response:
The Foundation’s 2008 IRS Form 990, for the year ended June 30, 2009, will report all required disclosures surrounding transactions.

TAX RETURN REPORTING OF EAST CAROLINA FOUNDATION DEVELOPMENT CORPORATION

During our audit, we noted that the Form 1120 of this entity reported $500,000 of retained earnings for tax year 2008.

Based on our understanding of the Park West transactions, we recommend that this $500,000 be reported as additional paid-in capital and not retained earnings. We recommend that consideration be given on amending this tax return.

Management’s Response:
The auditors reviewed ECF Development Corporation’s Form 1120 for the 2007 tax year. Form 1120 for the tax year 2008 was on extension until September 15th, 2009 and had not been completed at that time.

Upon review and analysis of the Foundation’s joint venture in Park West Investors LLC in late February 2009, the Financial Manager of Foundations and financial services department determined to extend filing the 2008 Form 1120 for ECF Development Corporation because there was a potential need to amend prior year tax returns based on information gathered during the review process.

Form 1120 for the tax year 2008, as well as prior year returns, will be amended and filed to correctly reflect all applicable information within the returns, forms, and schedules.
Management's written response to significant deficiencies and other matters identified in our audit has not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

This communication is intended solely for the information and use of the Audit Committee, management and others within the Foundation, and the Board of Directors and is not intended to be and should not be used by anyone other than these specified parties.

[Signature]

Raleigh, North Carolina
September 15, 2009
Implementing best practices and high standards...
Over the years, the roles and responsibilities of boards of directors — specifically, of the board’s audit committee, if in existence — have become increasingly demanding and scrutinized. While today’s audit committee must encompass a level of financial literacy, independence, and knowledge about risk management and internal control; individual audit committee members must be deeply committed, highly experienced, and fully qualified in order to effectively carry out their varied responsibilities.

Among the many important roles the audit committee plays within an organization, is to provide internal audit oversight. This document focuses on a single aspect of audit committee performance: its oversight of quality-oriented internal audit activities. While — at first glance — this role might not appear to be terribly complex or time-consuming, further consideration reveals that the reality is the antithesis of simplicity. And as internal auditing’s contribution to effective organizational governance has evolved and become increasingly acknowledged and revered, the audit committee’s understanding of internal audit value, processes and procedures, strengths and weaknesses, and potential has escalated exponentially. As such, best practice indicates that the audit committee should define in its charter the scope of its relationship with the internal auditors, and should work to enhance its oversight ability — subsequently strengthening the internal audit activity.

Quality-oriented audit committees beget quality-oriented internal audit activities. But the return on investment goes both ways. The internal auditors also can be an important resource for audit committee enhancement. They do this by reviewing the audit committee charter, providing timely information on new legislation and regulations, and fulfilling the role of educator to audit committee members.

Roles and Responsibilities

AUDIT COMMITTEE RESOURCES

- The Institute of Internal Auditors (IIA)  www.theiia.org
- Tone at the Top newsletter from The IIA  www.theiia.org/periodicals/newsletters/tone-at-the-top
- American Institute of Certified Public Accountants (AICPA) Audit Committee Effectiveness Center  www.aicpa.org/audcommctr
- Committee of Sponsoring Organizations of the Treadway Commission (COSO)  www.coso.org
- KPMG’s Audit Committee Institute  www.kpmg.com/aci
- Moody’s Corporation  www.moodys.com
- National Association of Corporate Directors (NACD)  www.nacdonline.org
- The Conference Board  www.conference-board.org
Empowerment and Expectations

In some organizations, internal auditing is not widely recognized for its invaluable role. It is critical that audit customers throughout the organization understand the value that internal auditors can bring to their operations by identifying opportunities for enhancing efficiencies and effectiveness. The audit committee, in concert with executive management, can play a critical role in empowering and elevating the image of the internal audit activity, ensuring that it is not misunderstood.

By routinely communicating its value throughout the organization, those at the top can and should promote the importance of the internal audit activity. They can position the function as fully empowered to provide a critical check for management, to be a knowledgeable provider of assurance and a revered consultant, and to add value to the organization’s governance, risk management, and internal control processes.

10-Point Oversight Checklist

To provide adequate oversight of internal auditing, an audit committee should ensure the following:

1. The audit committee engages in an open, transparent relationship with the chief audit executive (CAE).
2. The audit committee reviews and approves the internal audit charter annually.
3. As a result of discussions with the CAE, the audit committee has a clear understanding of the strengths and weaknesses of the organization’s internal control and risk management systems.
4. The internal audit activity is sufficiently resourced with competent, objective internal audit professionals to carry out the internal audit plan, which has been reviewed and approved by the audit committee.
5. The internal audit activity is empowered to be independent by its appropriate reporting relationships to executive management and the audit committee.
6. The audit committee addresses with the CAE all issues related to internal audit independence and objectivity.
7. The internal audit activity is quality-oriented, and has in place a Quality Assurance and Improvement Program.
8. The audit committee regularly communicates with the chief audit executive about the performance and improvement of the CAE and the internal audit activity.
9. Internal audit reports are actionable, and audit recommendations and/or other improvements are satisfactorily implemented by management.
10. The audit committee meets periodically with the CAE without the presence of management.
The IIA’s International Standards for the Professional Practice of Internal Auditing (Standards) recommend defining the internal audit activity’s purpose, authority, which time sensitive issues are discussed, the audit activity within an organization. Committee well positions the internal and having direct access to the audit internal activity’s performance. The charter is a useful tool for the board Professional Practice of Internal Auditing improve an organization’s operations. Improve the effectiveness of risk management, control, and governance processes.

Combating the risky business of fraud is any intentional act or omission committed with the intent to defraud the corporation, to obtain unauthorized economic benefit for the perpetrator or others, or to impair the operation of the corporation. Publicized fraudulent behavior by key executives has negatively impacted the reputations, brands, in capital markets. Private fraudulent behavior by key individuals, and erosion of confidence, massive investment losses, significant legal costs, felonies, and incarceration of key individuals, and erosion of confidence have increased management’s responsibility of perpetrating fraud. Historical records indicate that most major frauds are not, new. This is how the organization responds to heightened regulations and close scrutiny by stakeholders, activist shareholders, and proxy advisors. This is how the organization responds to heightened regulations and close scrutiny by stakeholders, activist shareholders, and proxy advisors. This is how the organization responds to heightened regulations and close scrutiny by stakeholders, activist shareholders, and proxy advisors.

Every board should have reasonable assurance that all of an organization’s stakeholders have a very high level of confidence that the organization is operating in an ethical manner. Senior management has come a long way in recognizing the importance of ethical behavior regardless of the organization’s vintage, and have moved in this direction. This shift has brought governance practices more in line with the theoretical accountability of management to the board. Indeed, this legal empowerment of the board tends to avoid or deter fraud. Those who are caught are more likely to be disciplined or fired than charged. The company’s shareholders and bondholders may suffer losses.

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance. Reporting to executive management and having direct access to the audit committee well positions the internal audit activity with the board. Internal audit independence is furthered by periodic private meetings between the audit committee and the CAE, during which time sensitive issues are discussed, without management’s presence.

To provide effective internal audit oversight requires the audit committee to have an in-depth understanding of the business, the associated risks, and the internal control environment. The audit committee also must be diligent in reinforcing the importance of internal audit independence, as well as the CAE’s accountability to senior management and the audit committee. Once the vision is aligned and the internal audit charter is in place, the audit committee periodically should assess the organizational structure to ensure the internal audit activity has the resources and skill sets necessary to effectively and efficiently accomplish its goals.

Although insight provided by the audit committee during the development of the internal audit plan can be invaluable to the internal auditors, a well-developed and implemented plan also can bring great value to the committee in its oversight role. Audit committee members can review the scope, determine whether the internal audit plan addresses previously identified areas of risk, recommend changes to internal audit activities, and determine whether the plan supports the objectives of management and the board. Once this is determined, a budget must be developed to accommodate the audit plan. The IIA recommends that the budget be reviewed and approved by the audit committee.

Communication is critical to effective and successful audit committee oversight of internal auditing as is two-way communication with the internal audit activity. Because of their position and role within an organization, internal auditors possess a good and objective understanding of the culture, system of internal control, operations, and industry. Hence, the audit committee should rely upon them for important information about the organization’s control environment and processes, including significant control process issues, potential improvements, and resolution; as well as the overall adequacy of internal controls.
Specifically, the audit committee should ensure the lines of communication are open with the internal auditors to discuss significant issues that have been brought to the attention of management and the resulting responses. Should management place limitations on the scope of internal audit processes that have been authorized by the charter, the audit committee should be informed by the CAE. Such discussions will provide valuable information that will help the audit committee in its role of management oversight.

Discussion include the reliability of operational information, safeguarding of assets, appropriate disclosures, and compliance with contracts, regulations, and laws. And because of their extensive knowledge and based on their observations of accounting decisions, policies, and any complex or unusual events, transactions, and operations, the internal auditors also can help the audit committee evaluate various policies and practices.

The internal auditors should report to the committee risks that could hamper the achievement of strategic and operational objectives, and fraud risks that involve or could involve management or others who play a significant role in the internal controls. Other important areas for

A DIFFERENT PERSPECTIVE

Full-time internal auditors have an advantage of witnessing the entire fiscal year with an ongoing view of revenue and expense cycles. They can bring to executive management and the audit committee an up-close and personal perspective on the results of the organization’s operations as reflected in the financial statements. By doing so, the internal auditors can be an invaluable resource to the audit committee in its oversight role for financial completeness, accuracy, and disclosure.
OVERSEEING QUALITY

Inherent in the audit committee charter is its responsibility for monitoring and reviewing the performance of the internal audit activity. Because the input of the internal auditors is so critical to the success — and potentially, the very survival — of an organization, it is important for the audit committee to have a clear picture of the internal audit activity’s performance, and ensure that it is functioning well.

Clearly, the CAE should report to the audit committee on the performance of the audit plan. But this is not sufficient to ensure quality of the entire internal audit activity. Every internal audit activity, regardless of size, should have in place a Quality Assurance and Improvement Program. Not only does such a program help ensure the activity is on the path to optimal quality, but it also sets an example of excellence for all audit customers and stakeholders, by demonstrating the activity’s commitment to confronting areas in need of improvement, and taking steps to make the requisite changes.

AUDITING THE INTERNAL AUDITORS

The internal audit activity is a part of an organization’s risk universe, and should be assessed. Although the audit committee clearly is responsible for internal audit oversight, it is not the committee’s role to “audit” the activity. The audit committee’s oversight is at a much higher level. So who audits the internal auditors? That is the role of the external quality assessment (QA) team — an independent group of professionals who are well-versed in best internal audit practices, under the leadership of an experienced and professional project manager.
The objectives of an external QA team are to evaluate the efficiency and effectiveness of the internal audit activity within the organization, to make best-practice recommendations for improvement, and to determine whether the activity is in conformance with the Standards. This is especially important, as it sends the message to everyone that the internal audit activity systematically submits itself to the same level of scrutiny that the rest of the organization undergoes through internal audits. This represents the internal audit activity’s commitment to excellence and dedication to quality.

In addition, the external QA validates — for the CAE, executive management, and the audit committee — the level of the internal audit activity’s performance. It also provides assurance that enables the audit committee to report to the board with the highest level of confidence that internal auditing is functioning as it should.

**REST ASSURED**

The CAE’s reports on the status of the activity’s Quality Assurance and Improvement Program should provide to the audit committee assurance of the internal audit activity’s quality. This assurance is derived from a variety of sources:

- Internal assessments — periodic and ongoing feedback on what’s working and what gaps need to be filled to ensure effectiveness, efficiency, economy, and conformance with the Standards.

- Action plans — documenting action needed and steps taken to fix issues and align goals and objectives in a changing environment with competing priorities.

- External QAs — independent validation that what you are hearing from the CAE about the activity is accurate.

- External auditors — the level to which they are comfortable relying on the work of the internal audit activity.

By establishing an open and trusting relationship with the CAE, clearly delineating your expectations of the internal auditors, being attentive to all reports provided, and asking the right questions, you and the entire audit committee can stay up to date on the internal audit activity. Following these practices will help ensure that the CAE has the tools, resources, and support necessary for optimal performance. It also will help keep you informed about the quality of your internal audit activity. And when it comes to effective organizational governance and oversight, this level of knowledge will go a long way toward ensuring you don’t lie awake worrying at night!
As the internal audit profession’s recognized authority, The IIA promulgates the accepted global methodology for assessing internal audit quality. The IIA also provides cost-effective external QA services to help organizations validate and strengthen their internal audit activities, and enhance their effectiveness, efficiency, and best-practice implementation.

In addition to ensuring the internal audit activity’s conformance with the International Standards for the Professional Practice of Internal Auditing, the benefits of external quality assessments are well documented.

- **JCPENNEY**
  “Additional benefits qualified external parties can bring to your audit function include experiences, leading practices, and value-added processes they have been exposed to as a result of conducting QAs for other internal audit shops.”

- **MERCK & CO.**
  “External quality assessments provide ... a critical opportunity to benchmark Merck against other companies following the same standards and guidelines.”

- **CHINA NATIONAL OFFSHORE OIL COMPANY AND SHELL PETROCHEMICALS CO. LTD. (CSPC)**
  “Through the QA process ... we have embedded quality into the mindset and daily operations of our internal audit activity, and the company as a whole.”

- **POST DENMARK**
  “We received great benefit from having an independent validator from The IIA challenging us on our processes. Moreover, the validator facilitated fruitful discussions with executive management and the chairman of the board on the role of our function.”

- **GRUPO BANCOLOMBIA**
  “External quality assessments have been crucial in our continuous improvement process.”

- **DELL INC.**
  “Quality assessment programs are foundational to performing and sustaining high-quality production.”

- **DYNEGY, INC.**
  “To really benefit from a QA ... it is important to acknowledge your identified shortcomings and develop and implement plans to rectify them.”

Full context of testimonials is available at [www.theiia.org/quality](http://www.theiia.org/quality).
Effective Enterprise Risk Oversight
The Role of the Board of Directors

www.coso.org
Effective Enterprise Risk Management Oversight: The Role of the Board of Directors

The role of the board of directors in enterprise-wide risk oversight has become increasingly challenging as expectations for board engagement are at all time highs. Risk is a pervasive part of everyday business and organizational strategy. But, the complexity of business transactions, technology advances, globalization, speed of product cycles, and the overall pace of change have increased the volume and complexities of risks facing organizations over the last decade. With the benefit of hindsight, the global financial crisis and swooning economy of 2008 and the aftermath thereof have shown us that boards have a difficult task in overseeing the management of increasingly complex and interconnected risks that have the potential to devastate organizations overnight. At the same time, boards and other market participants are receiving increased scrutiny regarding their role in the crisis. Boards are being asked – and many are asking themselves – could they have done a better job in overseeing the management of their organization’s risk exposures, and could improved board oversight have prevented or minimized the impact of the financial crisis on their organization?

Clearly, one result of the financial crisis is an increased focus on the effectiveness of board risk oversight practices. The New York Stock Exchange’s corporate governance rules already require audit committees of listed corporations to discuss risk assessment and risk management policies. Credit rating agencies, such as Standard and Poor’s, are now assessing enterprise risk management processes as part of their corporate credit ratings analysis. Signals from some regulatory bodies now suggest that there may be new regulatory requirements or new interpretations of existing requirements placed on boards regarding their risk oversight responsibilities. More importantly, while business leaders know organizations must regularly take risks to enhance stakeholder value, effective organizations recognize strategic advantages in managing risks.

The U.S. Treasury Department is considering regulatory reforms that would require compensation committees of public financial institutions to review and disclose strategies for aligning compensation with sound risk-management. While the focus has been on financial institutions, the link between compensation structures and risk-taking has implications for all organizations. Recent comments from U.S. Securities and Exchange Commission Chairman Mary Schapiro, speaking before the Council of Institutional Investors this past spring, indicated potential new regulations may be emerging for greater disclosures about risk oversight practices of public companies. In July 2009, the SEC issued its first set of proposed rules that would expand proxy disclosures about the impact of compensation policies on risk taking and the role of the board in the company’s risk management practices. Legislation has also been introduced in Congress that would mandate the creation of board risk committees.

"......I want to make sure that shareholders fully understand how compensation structures and practices drive an executive's risk-taking.

The Commission will be considering whether greater disclosure is needed about how a company — and the company's board in particular — manages risks, both generally and in the context of setting compensation. I do not anticipate that we will seek to mandate any particular form of oversight; not only is this really beyond the Commission’s traditional disclosure role, but it would suggest that there is a one-size-fits-all approach to risk management.

Instead, I have asked our staff to develop a proposal for Commission consideration that looks to providing investors, and the market, with better insight into how each company and each board addresses these vital tasks."

Mary Schapiro, SEC Chairman
April 2009

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The challenge facing Boards is how to effectively oversee the organization’s enterprise-wide risk management in a way that balances managing risks while adding value to the organization. Although some organizations have employed sophisticated risk management processes, others have managed risks informally or on an ad hoc basis. In the aftermath of the financial crisis, executives and their boards realize that ad hoc risk management is no longer tolerable and that current processes may be inadequate in today’s rapidly evolving business world. Boards, along with other parties, are under increased focus due to the widely-held perception that organizations encountered risks during the crisis for which they were not adequately prepared.

Increasingly, boards and management teams are embracing the concept of enterprise risk management (ERM) to better connect their risk oversight with the creation and protection of stakeholder value. ERM is a process that provides a robust and holistic top-down view of key risks facing an organization. To help boards and management understand the critical elements of an enterprise-wide approach to risk management, COSO issued in 2004 its Enterprise Risk Management – Integrated Framework. That framework defines ERM as follows:

In today’s environment, the adoption of ERM may be the most effective and attractive way to meet ever increasing demands for effective board risk oversight. If positioned correctly within the organization to support the achievement of organizational objectives, including strategic objectives, effective ERM can be a value-added process that improves long-term organizational performance. Proponents of ERM stress that the goal of effective ERM is not solely to lower risk, but to more effectively manage risks on an enterprise-wide, holistic basis so that stakeholder value is preserved and grows over time. Said differently, ERM can assist management and the board in making better, more risk-informed, strategic decisions.

An entity’s board of directors plays a critical role in overseeing an enterprise-wide approach to risk management. Because management is accountable to the board of directors, the board’s focus on effective risk oversight is critical to setting the tone and culture towards effective risk management through strategy setting, formulating high level objectives, and approving broad-based resource allocations.

COSO’s Enterprise Risk Management – Integrated Framework highlights four areas that contribute to board oversight with regard to enterprise risk management:

- Understand the entity’s risk philosophy and concur with the entity’s risk appetite. Risk appetite is the amount of risk, on a broad level, an organization is willing to accept in pursuit of stakeholder value. Because boards represent the views and desires of the organization’s key stakeholders, management should have an active discussion with the board to establish a mutual understanding of the organization’s overall appetite for risks.

- Know the extent to which management has established effective enterprise risk management of the organization. Boards should inquire of management about existing risk management processes and challenge management to demonstrate the effectiveness of those processes in identifying, assessing, and managing the organization’s most significant enterprise-wide risk exposures.

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• **Review the entity’s portfolio of risk and consider it against the entity’s risk appetite.** Effective board oversight of risks is contingent on the ability of the board to understand and assess an organization’s strategies with risk exposures. Board agenda time and information packets that integrate strategy and operational initiatives with enterprise-wide risk exposures strengthen the ability of boards to ensure risk exposures are consistent with overall appetite for risk.

• **Be apprised of the most significant risks and whether management is responding appropriately.** Risks are constantly evolving and the need for robust information is of high demand. Regular updating by management to boards of key risk indicators is critical to effective board oversight of key risk exposures for preservation and enhancement of stakeholder value.

Boards of directors often use board committees in carrying out certain of their risk oversight duties. The use and focus of committees vary from one entity to another, although common committees are the audit committee, nominating/governance committees, compensation committees, with each focusing attention on elements of enterprise risk management. While risk oversight, like strategy, is a full board responsibility, some companies may choose to start the process by asking the relevant committees to address risk oversight in their areas while focusing on strategic risk issues in the full board discussion.

**While ERM is not a panacea for all the turmoil experienced in the markets in recent years, robust engagement by the board in enterprise risk oversight strengthens an organization’s resilience to significant risk exposures.** ERM can help provide a path of greater awareness of the risks the organization faces and their inter-related nature, more proactive management of those risks, and more transparent decision making around risk/reward trade-offs, which can contribute toward greater likelihood of the achievement of objectives.

An executive summary of COSO’s *Enterprise Risk Management – Integrated Framework* provides an overview of the key principles for effective enterprise risk management and is available for free download at [www.coso.org](http://www.coso.org). More detailed guidance, including examples about effective implementation of the key principles, is contained in the full document. COSO’s objectives are to improve organizational performance through better integration of strategy, risk, control, and governance. Our Frameworks are based on identified best practices and the development of consistent terminology and approaches that can be used by many organizations in meeting their objectives. We hope that our ERM Framework will help you in that journey to enhancing long-term stakeholder value.

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The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a voluntary private-sector organization comprised of the following organizations dedicated to guiding executive management and governance participants towards the establishment of more effective, efficient, and ethical business operations on a global basis. It sponsors and disseminates frameworks and guidance based on in-depth research, analysis, and best practices.

American Accounting Association   Institute of Management Accountants
American Institute of Certified Public Accountants   The Institute of Internal Auditors
Financial Executives International

Managing Risk in Government: An Introduction to Enterprise Risk Management

Karen Hardy

IBM Center for The Business of Government
Managing Risk in Government: An Introduction to Enterprise Risk Management

Karen Hardy
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On behalf of the IBM Center for The Business of Government, we are pleased to present this report, “Managing Risk in Government: An Introduction to Enterprise Risk Management,” by Karen Hardy. The report is especially timely because of the Obama administration’s focus on accountability and transparency which has prompted a renewed focus on risk and controls. In addition, recent high-profile financial failures have also focused increased attention on risk and controls.

In recent years, the federal government has been on the receiving end of new legislation and regulations that require it to better manage risk and improve controls in discrete areas. Generally, to comply with the requirements of each of these new mandates, agencies have put into place stovepiped compliance programs. This stovepiped approach to compliance is costly and does not optimize value. This report explores how federal chief financial officers (CFOs) and financial managers can help guide their agencies to take a more holistic approach to risk management by implementing an Enterprise Risk Management (ERM) system. This approach helps reduce the total cost of compliance, while helping agencies achieve greater value from their risk management activities.

Although the current focus on risk management for most federal CFOs and financial managers stems from the American Recovery and Reinvestment Act (ARRA) of 2009 and the revised OMB Circular A-123, these are only two requirements of many that federal agencies must address. Agencies are also required to report their results in implementing Federal Managers’ Financial Integrity Act (FMFIA) of 1982, Improper Payments Information Act (IPIA) of 2002, and the Federal Information Security Management Act (FISMA) of 2002, among others. Virtually all of these requirements are ultimately geared toward one objective—improved risk management—so an agency’s response to risk provides reasonable assurance that the organization will achieve its strategic objectives.

This dramatic increase in compliance requirements, coupled with the realization that compliance cannot be effectively achieved by just having discrete compliance programs in various business units, makes it now critical for organizations to move toward an enterprise-wide risk management approach. Holistic ERM starts with a focus on the possible events that could potentially happen and their classification into opportunities and risks.
Keeping track of these possible events requires good data and data governance managed at the enterprise level. It also requires a taxonomy or classification scheme of the most important risks to the entity and a common language for understanding those risks. Improved data management allows the enterprise to take advantage of modern analytical methods in order to quantify the impact of risk. Data analysis also enables the enterprise to gain an overall view of current risk, as well as trends and potential future risks.

It’s clear that implementing an ERM approach makes sense and yields benefits to an organization. It is our hope that federal executives will find this report useful to them as an introduction and guide to Enterprise Risk Management.
Risk management is not a new concept within the federal sector. What is new is the need to integrate risk management into the strategic and decision-making processes that cut across the organization, and abandon the outdated practice of managing risks within functional silos and stovepipes. The purpose of this paper is to provide federal managers with an overview of ERM and what should be considered when implementing ERM.

Enterprise Risk Management (ERM) has been recognized as the process for making this integration work. ERM is defined as

“a process, effected by an entity’s … management and other personnel, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives” (COSO, 2004).

While there is great expectation and hope for this management practice, there are very few success stories and best practices available in the federal sector to benchmark. This is due in part to the multiplicity of missions and objectives of government agencies, which makes it difficult to achieve a uniformed approach to ERM. However, this is not a problem unique to the federal arena. In a recent Enterprise Risk Oversight Survey conducted by the ERM Initiative at North Carolina State University, of 700 entities surveyed across a broad range of industries, 44 percent of respondents said that they had no enterprise-wide risk management process in place and have no plans to implement one (Beasley, Branson, Hancock, 2009).

The lack of a standard methodology across the federal sector need not discourage agencies from implementing ERM, as variations in ERM are expected. This is evidenced in the approaches of the agencies featured as case studies in this report: the Centers for Disease Control and Prevention and the Department of Education’s Federal Student Aid. Each agency brings a unique perspective to ERM, driven by different goals and objectives. Yet, despite these differences, each agency’s approach uses the general concepts and context of ERM, whether using specific frameworks, such as the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Enterprise Risk Management Integrated Framework or the Canadian Integrated Risk Management Framework, as working models.

Benefits of ERM include:

- Gaining a cultural understanding of the importance of sustaining high credibility as an agency
- Affording the opportunity for agencies to make more educated decisions
- Increasing knowledge and understanding of risk across the organization
- Improving risk culture
- Aligning risks with agency/program goals and objectives
- Providing for a more efficient and effective means of managing risk
- Agreeing on core values and on the necessity for a broadly integrated risk management approach

Challenges of ERM include:

- Providing the appropriate foundation, assessment, and management platform
- Insufficient sponsorship of ERM at the executive level
- Positioning ERM as a strategic management practice and not as an additional task
- Competing priorities—key ERM staff participate in various special projects and initiatives that are risk-related, but do not directly support the implementation of an ERM program
- Federal government regulations and requirements
- Lack of understanding about risk management
- Lack of qualified risk management professionals and expertise
- An internal competitive culture prone to stovepiping
- Aligning risk reward and incentive programs with strategic objectives

Best Practices of Federal Agencies

When implementing ERM, government leaders should keep in mind the following hands-on best practices identified by the agencies featured in this report:

Getting Started
- Develop a risk management lexicon to ensure consistency of terminology across the organization
- Establish a communications plan and stick with it
- Don’t underestimate the level of effort or short-change the planning process
- Customize ERM strategy, approach, and methodology based on the specific requirements of your organization
- Ensure support from senior leadership which is critical to effectively identifying and addressing risks and opportunities
- Train your employees

Organizing for ERM
- Establish a Risk Office or ERM organization
- Have a dedicated “risk champion” with good communication skills
- Ensure that the head of the risk organization/“risk champion” is a member of executive management
- Establish and maintain executive level support, ideally from the highest levels in the organization

Operating an ERM Program
- Develop a policy that outlines the organization’s expectations regarding the management of risks
- Document the process and analysis so that it can be replicated
- Provide specific examples of risks tailored to the organization to help the learning process
- Reward risk identification, don’t penalize it; and this is critical to changing the culture and effectively establish an agency-wide ERM process
- Engage those who manage risks, as well as areas with inherent risks, to develop analytical tools and recommendations. These stakeholders often know the consequences of effective and ineffective risk management, and have the rigor in thinking and planning to address risks
- Link risk training to business results, where possible
- Seek diverse perspectives on issues, as they are critical to risk and opportunity management

Despite the important benefits that ERM provides, limitations do exist. As noted by COSO, “limitations result from the realities that human judgment in decision making can be faulty, decisions on responding to risk and establishing controls need to consider the relative costs and benefits, breakdowns can occur because of human failures, controls can be circumvented…. And management has the ability to override enterprise risk management decisions. These limitations preclude a board and management from having absolute assurance as to achievement of the entity’s objectives” (COSO 2004).

Recommendations

Based on the findings in this study, the following recommendations are offered:

1. Establish short- and long-term strategic plans for ERM. ERM effectiveness is a matter of maturity. It takes time. Make sure stakeholders understand that ERM is a process that is strengthened over time.

2. When considering ERM, agencies must establish a tone at the top within the organization.
Without senior leadership support, it will be difficult to get buy-in throughout the organization. Thus, ERM will be seen as yet another task and paper exercise rather than as a strategic management process.

3. **When adopting ERM, make sure the benefits are communicated to stakeholders.** Besides the need for compliance, demonstrate how ERM can enhance organizational performance, heighten awareness about risk management, improve workforce skill sets, and create a “safe place” for managers to discuss risk management outside of their comfort zones.

4. **Collaborate within and across other agencies.** Don’t work in a vacuum. Find agencies with similar operational functions or missions and benchmark risk management practices. Join organizations that advocate ERM and provide resources for continuous learning in this subject matter (e.g., FederalERM.com).

5. **Don’t reinvent the wheel.** Use what you have. If there is an existing internal control framework in place, build upon that. Strategize about how ERM can enhance or strengthen your existing internal control environment.

6. **Have experienced staff available to champion and carry out the vision of the ERM process.** A knowledgeable workforce is the key to successful ERM implementation. If you cannot hire new staff, retrain the staff that you have.

7. **Communicate short wins immediately.** Nothing reinforces success like results. Show stakeholders how ERM has led to successful identification and mitigation of risks, business opportunities or cost savings.
Introduction

“Understanding and managing risk is essential for any organization, public or private. In the private sector, risk management is a widely accepted practice designed to control risks that could lead to a business failure if not properly managed. Therefore, profit maximization is the end result. However, the application of risk management is not as straightforward in the public sector. Government managers must manage risk within a complex environment taking into consideration the diverse missions and multiple objectives of public agencies. Rather than seeking to realize the greatest profit, government leaders must strive to manage risk that increases the likelihood of an agency achieving its primary mission and strategic objectives.”

Treasury Board of Canada Secretariat, 2001

Risk Management: What It Is and Why It Matters

Risk is unavoidable. It transcends virtually every human situation and is present in our daily lives and within public and private sector organizations. While there are many acceptable definitions of risk in use across various industries and organizations, the most common concept in all definitions is the uncertainty of outcomes (Treasury Board of Canada Secretariat, 2001).

The various definitions of risk also depend on how outcomes are characterized. For some organizations, risk has been affiliated only with adverse consequences without taking into consideration the upside (or opportunities) to risk. Yet, there continues to be a debate and discussion on what would be an acceptable generic definition of risk that captures both the associated consequences and opportunities. In addition to consequences, one school of thought asserts that, when assessed and managed properly, risk can lead to innovation as well. A perspective that supports this notion is the significant role the federal government’s new chief performance officer (CPO) can play in managing risk opportunity.

As a key executive, the new CPO will be responsible for streamlining government processes, cutting program costs, and finding best practices that can lead to more effective management of resources. A stated goal of the Obama administration is to eliminate dozens of government programs shown to be wasteful or ineffective. Some experts note that, if approached appropriately, the CPO can capitalize on risk opportunities by identifying those programs that “manage people’s risks the best,” saving taxpayers millions of dollars.

A “success indicator for government programs could be how well they spread, shift and or reduce public risk as defined by the agency’s mission statement. Another measure could include whether the benefits of mitigating the risk outweigh the program’s cost,” wrote Robert Charette, a risk management expert and founder of the ITHABE Corporation, which specializes in organizational risk management issues. “In addition, if a program is to be closed down because it doesn’t work, the CPO could reason that the government was mismanaging the public’s risk or that the agency wasn’t equipped to oversee the risk in the first place,” wrote Charette.
Whether adverse or opportunistic, the bottom line is that there is currently no standard definition of risk established within the U.S. federal government. Some experts argue that leading risk management begins with establishing a common definition of key risk concepts so that risk management approaches are implemented consistently across an enterprise. According to Mark Beasley, Deloitte Chair and director of North Carolina State University’s Center for Enterprise Risk Management, “Providing clear definitions of risk terms (including discussion of whether ‘risk’ represents both risk opportunities and risk threats) is often the required first step in establishing an enterprise risk management (ERM) process.” (Beasley, Branson and Hancock 2008). For the time being, a refined definition is a continuously evolving process within the U.S. federal sector.

In contrast, the Public Service in Canada has gained consensus on a definition of risk as a part of its Integrated Risk Management Framework. Issued in 2001, the framework is a practical guide to assist Canadian public service employees in their decision-making processes. At the organizational level, it helps departments and agencies to think more strategically and improve their ability to set common priorities. At the individual level, it helps employees to develop new skills and strengthens their ability to anticipate, assess, and manage risk.

### Evolution of Risk Management

Effective risk management cannot be practiced in isolation, but needs to be built into existing decision-making structures and processes (Peter, Gjerdrum & Peeling, 2009). In the past, risk management was seen as relating mainly to matters of safety and insurance. Over time, this systematic approach has evolved from a transactional functional to that of a strategic nature (Peter, et al.).

Previous practices viewed risks as threats and focused on avoidance of negative events, treated risk as a separate function, and continuously managed risk independently within silos. Gradually, organizations began to integrate risk by accepting risk as an expense, shifting their focus to managing risk, and recognizing risk managers as risk owners. Strategically, companies are now working towards a broader view of risk, understanding that risk is an uncertainty, shifting the focus to optimizing risk and advocating risk managers as risk facilitators and leaders.

Building on the evolution of risk management, ERM recognizes that risks can be threats and opportunities, and are a corporate-wide daily concern that is embedded in the operations. ERM transforms risk management from a silo approach to a holistic approach that is coordinated at the highest level within the organization and that recognizes the value of tangible and intangible assets. Historically, organizations focused on hazard risk management and insurable financial risks. Today, the practice is much more encompassing, covering operational, strategic, financial, and reputation risks.

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**Definition of Risk**

**Public Service of Canada**

**Risk:** “Risk refers to the uncertainty that surrounds future events and outcomes. It is the expression of the likelihood and impact of an event with the potential to influence the achievement of an organization’s objectives.”

**Risk Management:** “… a systematic approach to setting the best course of action under uncertainty by identifying, assessing, understanding, acting on and communicating risk issues.”

**Source:** Integrated Risk Management Framework, Treasury Board of Canada Secretariat, April 2001

**U.S. Government Accountability Office (GAO)**

**Risk:** “An event that has a potentially negative impact and the possibility that such an event will occur and adversely affect an entity’s assets, activities, and operations.”

**Risk Management:** “The continuous process of assessing risks, reducing the potential that an adverse event will occur, and putting steps in place to deal with any event that does occur. Risk management involves a continuous process of managing—through a series of mitigating actions that permeate an entity’s activities—the likelihood of an adverse event and its negative impact. Risk management addresses risk before mitigating an action, as well as the risk that remains after countermeasures have been taken.”

**Source:** Government Accountability Office, Report # GAO-06-91, December 2005
Glossary of Risk Management Terms

Consequence: The expected worse case or reasonable worse case impact. This loss or damage may be long or short term in nature.

Monitoring and evaluation: A continuous repetitive assessment process to keep a risk management process current and relevant. It includes, among other activities, external peer review, testing, and validation.

Opportunity cost: The value of opportunities forgone.

Risk: An event that has a potentially negative impact and the possibility that such an event will occur and adversely affect an entity’s assets, activities, and operations.

Risk appetite*: Amount and type of risk that an organization is prepared to pursue, retain or take.

Risk assessment: The process of qualitatively or quantitatively determining the probability of an adverse event and the severity of its impact.

Risk identification*: The process of finding, recognizing and describing risks. Risk management: A continuous process of managing-through a series of mitigating actions that permeate an entity’s activities- the likelihood of an adverse event and its negative impact. Risk management addresses risk before mitigating action, as well as the risk that remains after countermeasures have been taken.

Risk management framework*: A set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring, review and continually improving risk management throughout the organization.

Risk owner*: A person or entity with the accountability and authority to manage the risk.

Risk profile*: A description of any set of risks. (The set of risks can contain those that relate to the whole organization, part of the organization, or as otherwise defined).

Residual risk*: The risk remaining after risk treatment. Residual risk can contain unidentified risks and can also be known as “retained risk”.

Risk treatment*: Process to modify risk. Risk treatment can involve: (1) avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk (2) taking or increasing risk in order to pursue an opportunity (3) removing the risk source (4) changing the likelihood (5) changing the consequences (6) sharing the risk (7) retaining the risk.

Stakeholder*: A person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity.
Why Enterprise Risk Management in the Federal Government?

The U.S. government has a long history of adapting and adopting successful and prudent business practices from the private sector. In the arena of financial management, this is perhaps best illustrated by the adoption of the Chief Financial Officers Act of 1990, with its requirement that federal agencies pass financial audits (Beasley, Branson & Hancock, 2008). The adoption of Enterprise Risk Management (ERM) is no exception. While risk management has long been a priority for many organizations, the recent private sector financial collapse has put a spotlight on enterprise risk management as a critical component of an organization’s overall health and long-term sustainability (Fox, 2009). ERM is defined as

“a process, effected by an entity’s … management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives” (COSO, 2004).

Embedded in this definition are seven fundamental concepts which assert that ERM is (COSO, 2004):

• A process, ongoing and flowing through an entity
• Effected by people at every level of an organization
• Applied in a strategy setting
• Applied across the enterprise, at every level and unit, and includes taking an entity-level portfolio view of risk
• Designed to identify potential events that, if they occur, will affect the entity, and to manage risk within its risk appetite
• Able to provide reasonable assurance to an entity’s management and board of directors
• Geared to achievement of objectives in one or more separate but overlapping categories

When put into context, the general idea is that “ERM is a process that works well at all levels in an organization and brings together the business, back office, and top strategic layers in an integrated manner. By definition, a process is immersed in the business and does not sit outside of the real work. ERM is not about setting up a new team to do ERM. It is about getting a process that feeds into the main business lines to add value and make a meaningful contribution to the bottom line” (Pickett, 2006).

Furthermore, ERM is an initiative that is championed by the highest level of management, driven down into the organization. ERM promulgates that “if risk is built into the equation when setting strategy for the entire business, then risk management can become a holistic process that starts at the top and filters its way down through the enterprise” (Pickett, 2006).

In response to the public’s demand for change, government managers as well as those within the private sector are looking for ways to weave risk management strategies and tactics into their everyday operations and strategic decisions at the highest level. Federal agencies are now beginning to recognize the need to weigh the probabilities of what could go wrong before it happens, the upside of doing a cost-benefit analysis for mitigating or accepting a risk, and the advantages of discussing, evaluating, and feeding risk into an agency’s strategic plan and budget regardless of the mission. ERM is fast becoming an important activity for many
agencies to undertake as a solution for bringing various agency risk activities all together.

While traditional risk management has its merits, it is often still carried out in silos and stovepipes within organizations, leaving the “white spaces” between organizational functions “open to interpretation.” ERM challenges the status quo and requires managers and leaders to step out of their organizational comfort zones and into a collaborative environment to discuss not only common risks, but uncover latent risks as well. As part of ERM, the white spaces also indicate that there is room to discuss risks that do not necessarily fit into one particular functional area, but requires perspective from every function in order to properly address an enterprise-wide issue that could impact the organization’s mission and strategic objectives.

**Limitations to ERM**

ERM, if done effectively, has the potential to bring the white spaces and current risk activities being undertaken within each silo together in a process that will benefit the organization as a whole and raise the discipline to a more strategic level within the organization. However, limitations do exist. “Limitations result from the realities that human judgment in decision making can be faulty, decisions on responding to risk and establishing controls need to consider the relative costs and benefits, breakdowns can occur because of human failures, controls can be circumvented…. And management has the ability to override enterprise risk management decisions. These limitations preclude a board and management from having absolute assurance as to achievement of the entity’s objectives” (COSO, 2004).

Freddie Mac is an example of how the benefits of ERM can be overcome by organizational breakdowns and disconnects. Armed with a well-trained workforce, Freddie Mac touted its approach to ERM. Yet, despite having the right people and skills in place, it failed to manage the highest risks to its mission, goals, and strategic objectives.

Prior to the meltdown, Freddie Mac was a “model dependent” business, in that a separate organization was established to focus on its key risk areas. As part of its model, there was an organization that focused on credit risk, market risk, operational risk, and model risk. Freddie Mac’s operational risk central function sat in the ERM Oversight Division. Within the function, there were about 20 employees who reported to the chief enterprise risk officer, who in turn reported to the CEO. Operational risk managers were also embedded in the business line functions of the organization as well. In all, 40 employees were exclusively assigned to the operational risk function within the organization.

However, there are instances where ERM can and does help companies perform better. In a recent ERM study, it was found that organizations that have embraced ERM have realized a concrete advantage in their risk management competency. The study also found that 93 percent of organizations with formalized ERM programs in place make better risk-informed decisions—a recognized competitive advantage over those that do not have an ERM program (RIMS, 2009).

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**The Committee of Sponsoring Organizations (COSO)**

The Committee of Sponsoring Organizations (COSO) is a voluntary private sector organization comprised of the following professional associations: American Accounting Association (AAA), American Institute of Certified Public Accountants (AICPA), Financial Executives International (FEI), Institute of Management Accountants (IMA), and the Institute of Internal Auditors (IIA). COSO is known worldwide for providing guidance on critical aspects of organizational governance, business ethics, internal control, ERM, fraud, and financial reporting.

COSO was formed in 1985 to sponsor the National Commission on Fraudulent Financial Reporting, an independent private sector initiative which studied the causal factors that can lead to fraudulent financial reporting. It also developed recommendations for public companies and their independent auditors, for the SEC and other regulators, and for educational institutions.

COSO is dedicated to guiding executive management and governance entities toward the establishment of more effective, efficient, and ethical business operations on a global basis. It sponsors and disseminates frameworks and guidance based on in-depth research, analysis, and best practices.

*Source: COSO.org*
Goldman Sachs is one company that portrayed that competitive advantage. Prior to 2008, while many financial companies were taking uncalculated risks, Goldman Sachs adjusted its positions in mortgage-backed securities, differentiating itself from the rest of the market at a time when some might have criticized the move as excessively cautious. Described as the “perfect storm” in the financial sector, David Solomon, Partner and Member of Goldman Sachs’ Management Committee, attributed the company’s resilience to their risk management competencies—that is, a strong governance oversight, reporting process, communications, and culture (Solomon, 2008).

**ERM Frameworks**

As federal managers move toward strengthening risk management processes within their agencies, more frameworks will be needed to help navigate the complexities of a risk system. Here are a few to consider:

**GAO Risk Management Framework**

The GAO Risk Management Framework (GAO, 2005) was developed using several resources, including the Government Performance and Results Act (GPRA) of 1993, the Government Auditing Standards, 2003 Revision, GAO’s Standards for Internal Control in the Federal Government (November 1999); guidance from the Office of Management and Budget (OMB); the work of the President’s Commission on Risk Management; white papers; and the ERM approach of the COSO. The framework was field-tested on several GAO reviews and is considered a starting point in a field that is evolving; the entire cycle of risk management activities should be viewed as a goal.

The framework has been developed so that individual phases of the approach, such as risk assessment, do not become ends in themselves, but provide a full cycle of related activities; from strategic planning through implementation and monitoring. The process is dynamic, and although the various phases appear linear, new information can be entered at any phase.

The GAO framework can be used to inform agency officials and decision makers of the basic components of a risk management system or can be used as a stand-alone guide. It is designed to be flexible, in that the approach may be applied at various organizational levels ranging from that of a department of a multiagency organization down to that of a specific project or program. Because there is no one uniformly accepted approach to risk management,

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**GAO Risk Management Framework**

The phases contained in the GAO framework are:

**Strategic goals, objectives, and constraints:**
Addresses what the strategic goals are attempting to achieve and the steps needed to attain those results.

**Risk assessment:**
Addresses identification of key elements of potential risks so that countermeasures can be selected and implemented to prevent or mitigate their effects.

**Alternatives evaluation:**
Addresses the evaluation of alternative countermeasures to reduce risk being considered with associated costs.

**Management selection:**
Addresses where resources and investments will be made based on alternatives evaluation and other management criteria, such as availability of funds.

**Implementation and monitoring:**
Addresses how countermeasures will be applied and the mechanism to keep security measures updated.

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*Source: Government Accountability Office, Report # GAO-09-687*
terms and activities may differ across organizations (GAO, 2005).

**International Standard 31000 (ISO 31000)**

The International Organization for Standardization (ISO) is a worldwide federation of national standards bodies. A new standard, ISO 31000, is currently being proposed to address risk management. While all organizations manage risk to some degree, ISO 31000 establishes a number of principles that need to be satisfied to make risk management effective. ISO 31000 is not an approved standard and the information contained in the current draft version may change. However, it does offer a perspective about risk management that would be applicable across various types of organizations.

In its present draft form, ISO 31000 recommends that organizations develop, implement, and continuously improve a framework whose purpose is to integrate the process for managing risk into the organization’s overall governance, strategy and planning, management, reporting processes, policies, values, and culture.

Although the practice of risk management has been developed over time and within many sectors in order to meet diverse needs, the adoption of consistent processes within a comprehensive framework can help to ensure that risk is managed effectively, efficiently, and coherently across an organization. The generic approach described in the draft ISO 31000 standard provides principles and guidelines for managing any form of risk in a systematic, transparent, and credible manner and within any scope and context. If approved, this international standard has the potential to meet the needs of a wide range of stakeholders, including:

- Those responsible for developing risk management policy within their organization
- Those accountable for ensuring that risk is effectively managed within the organization as a whole or within a specific area, project, or activity
- Those who need to evaluate an organization’s effectiveness in managing risks
- Developers of standards, guides, procedures, and codes of practice that—in whole or in part—set out how risk is to be managed within the specific context of the documents

Similar to the COSO and GAO frameworks, the proposed ISO31000 standard provides a holistic view of risk management with familiar terms and processes. However, as a generic standard, it will have a much broader appeal and application across multiple industries, including the government.

**COSO ERM-Integrated Framework**

The COSO ERM is a landmark document issued in September 2004, and provides a set of standards that elevated risk management to a higher level in the business arena. COSO provides a three-dimensional model that ERM encompasses.1

The three dimensions can be categorized as Organizational Objectives, Management Operations and an Entity’s Units. Organizational Objectives are important because “risk is only present where it impacts an organization’s objectives.” This dimension says that “ERM is about four main considerations that mean an enterprise views risk at a strategic level, within operations, with full consideration of corporate reporting and obligations and also the field of compliance with laws, regulations, and procedures” (Pickett, 2006).
Management Operations provides a risk cycle for starting the process. It is comprised of eight interrelated components derived from the way management runs an enterprise and is integrated with the management process (COSO, 2004, p. 3). ERM is not a serial process, where one component only affects the next. Rather, “it is a multidirectional, iterative process in which almost any component can and does influence another” (COSO, 2004).

In the past, the COSO ERM framework has been the primary source for federal managers seeking to understand the key components of a risk management system. However, many public sector managers found the framework difficult to implement because it didn’t speak to the language of government, such as “providing effective programs and services” rather than “improving profit margins,” the focus of the private sector companies. In the last few years, additional frameworks and standards have emerged that closely relate to the business operations of public sector organizations. The GAO Risk Management Framework and the draft ISO 31000 are two resources that could be helpful models for advancing risk management within the public sector.

**Building a Risk Culture: ERM**

**Behaviors, Skills, and Competencies**

“The test in the real world is how competent the organization’s risk management practices are, and the degree to which it is instilling risk management behaviors into its culture and management’s decision-making. In short, how mature is the company’s enterprise risk management program and how thoroughly are it practices at all levels of the organization?”

—RIMS, 2009

The Freddie Mac crisis is a subtle reminder that the mere implementation of enterprise risk management activities is not enough to protect an organization from system-wide failures. Rather, it is imperative that organizations develop a culture of risk management where a positive orientation towards the business discipline is embedded into the day-to-day operations of the organization. Essentially, “the key to successful enterprise risk management practices depends on the behavioral attributes of the organization at all levels.” (RIMS, 2009).

Citing the financial crisis at Citigroup, AIG, Freddie Mac and Fannie Mae, the Risk and Insurance Management Society (RIMS) contends that of three possibilities “the financial crisis resulted from a … failure to embrace appropriate enterprise risk management behaviors—or attributes—within these distressed organizations” and not so much “from a failure of risk management as a business discipline” (RIMS, 2009).

Several frameworks and standards have been designed to help organizations institutionalize risk management as a business discipline. RIMS does not advocate a particular ERM framework and suggests that any one can work effectively. However, it does preclude that, despite the standard, guideline or framework used, “the key to successful ERM practice depends on the level of maturity the organization demonstrates in seven behavioral attributes” (RIMS, 2009):

1. Adoption of an ERM-based approach
2. ERM process management
3. Risk appetite management
4. Root cause discipline
5. Uncovering risks
6. Performance management
7. Business resiliency and sustainability

The seven attributes are a part of the RIMS Risk Maturity Model (RMM) for ERM assessment. The RMM is a foundational tool used by executives and others “charged with risk management responsibilities to design sustainable ERM programs” reflective of their organizations’ strategy and short and long-
term business objectives (RIMS, 2008b). The model consists of 68 key readiness indicators that describe 25 competency drivers for the 7 attributes that create ERM’s value and utility in an organization. The RMM also allows companies to “assess their current practices against these validated risk competencies and create a roadmap to achieve whatever level they desire.”

According to the RIMS State of ERM Report 2008, based on responses from 564 companies globally, the least mature attributes within organizations include risk appetite and risk tolerance, root cause discipline, and performance management. As noted by RIMS, if several of the key enterprise risk management behavioral attributes were designed and implemented comprehensively and systematically, many of the losses suffered by these organizations “could have been identified and mitigated, if not prevented.”

Within a risk culture, behavioral attributes are also key and applicable at the individual level as well. RIMS emphasizes that in order to drive and sustain a risk program and practice sound risk management, those responsible for leading risk activities within an organization need to develop a specific set of competencies and skills.

The RIMS Core Competency Model (RIMS, 2007) illustrates the broad suite of skills needed. For the purposes of this study, a Federal Risk Management Core Competency Survey was designed and distributed to agency leaders engaged in the preliminary stages of ERM. The purpose of the survey was to determine what knowledge, skills, and resources are needed to successfully implement and sustain ERM within a government agency. The findings of this survey are discussed in the Appendix.
Managing Risk in Government: An Introduction to Enterprise Risk Management

Risk Management in Federal Agencies

Federal Government Policy on Risk Management

ERM is in its infancy within the United States government. Other governments, such as that of Canada, established a national policy surrounding ERM nearly a decade ago. Canada's Integrated Risk Management Framework aims to protect the public interest and maintain public trust. The Canadian framework is part of its larger objective to modernize management practices in order to make the government more citizen-focused and able to meet the changing needs and priorities of its community (Treasury Board of Canada Secretariat, 2001). Canada provides a model for managing and integrating risk management into existing decision-making structures and processes.

Even though the U.S. does not have a national risk management policy, agencies must comply with the Federal Manager's Financial Integrity Act (FMFIA) of 1982 and OMB Circular A-123, “Management’s Responsibility for Internal Controls”. Both directives require agencies to maintain robust internal control structures that ensure:

- Effective and efficient operations
- Compliance with applicable laws and regulations
- Reliable financial reporting

The policy requirements and processes are very prescriptive for conducting risk assessments pertaining to internal controls over financial reporting (Appendix A activities of OMB Circular A-123). However, it falls short in outlining specific steps for evaluating, testing, and assessing risks associated with administrative and federal program operations (Section 2 and Section 4 of the FMFIA respectively) and how risk assessment ties into the overall process for managing risk at an enterprise level. The shortcomings have left many agencies grappling with approaches to incorporate these administrative and programmatic requirements. The additional risk oversight requirements stemming from the American Recovery and Reinvestment Act of 2009 (ARRA) have made it more complicated. These requirements have given many agencies the incentive and the desire to seek out a standardized process for meeting these demands.

Despite this level of ongoing risk management activity throughout the government, there has been increasing pressure on the government to do a better job at managing risks. “Recent events, like Hurricane Katrina and the subprime mortgage financial meltdown, have Americans looking to their government to ensure that these catastrophes are reduced in the future. Furthermore, the public not only demands that government manages the consequences of risk, but that it deals with problems before they turn into catastrophes. Merely reacting to risk is eroding the people’s trust in government,” wrote Charette. (Charette, 2009).

To address this issue, agencies are looking to enhance their management practices and have shown an increased interest in Enterprise Risk Management. For example, for the first time in its 75-year history, the Federal Housing Administration (FHA) announced intentions to hire its first chief risk officer. The FHA’s risk management functions are currently dispersed across a number of offices. The chief risk officer will oversee the coordination of FHA’s efforts to concentrate risk management in a single division devoted solely to managing and mitigating risk to the FHA’s insurance fund—across all FHA programs.
In addition to adding a chief risk officer, the FHA is proposing specific credit policy changes that are largely focused on ensuring responsible lending and risk management for FHA-approved lenders. These changes build on lessons learned in the credit crisis and seek to align the FHA with the administration’s goal of regulatory reform. As the FHA’s stable of lenders grows, these lenders must have “skin in the game.” These credit changes will do that by ensuring they have long-term interest in the performance of the loans they originate. (Housing and Urban Development [HUD], 2009).

According to FHA Commissioner David H. Stevens, “given the size and scope of the FHA and its importance to today’s market, these risk management and credit policy changes are important steps in strengthening the FHA fund, by ensuring that lenders have proper and sufficient protections.” Both changes are expected to strengthen the agency’s reserves and management of risk.

In 2008, an ad hoc Federal Executive Steering Group for ERM was also established by a group of government managers from various agencies who shared a common interest in the ERM concept. This group organized the first Federal ERM Summit which brought together professionals from the private, public and educational sectors to initiate a federal dialogue. The FederalERM.com website was created to facilitate the growing interest of this topic in the federal sector.

**Examples of Risk Management in the Federal Government**

Despite a lack of fundamental definitions, the discipline of risk management is not a new concept within the U.S. federal sector. It has been used in private and public sectors for decades. It is a well established practice dating back to the late 18th century, when the government began to develop policies to deal with risks thought to undermine trade and investment (Charette, 2009). “Government has always been involved in managing risks, even as risk management has not generally been recognized as being a fundamental function of government” says David Moss, a professor of business administration at the Harvard Business School. As government agencies face increased scrutiny regarding accountability, fraud, the management of resources, performance, and results, more managers are engaging in risk management activities.

Although some risk management methodologies and processes can be complex and may require expert advice and support, other aspects of risk management—such as setting goals and using performance measures to track progress in meeting them—are well understood and widely practiced (GAO, 2005). Whether the focus is on public risk, financial risk or operational risk, agencies are managing risks that are in direct alignment with their missions or are effectively engaging the discipline as a common management practice.

**Health Risk**

**Food and Drug Administration (FDA).** FDA is an agency within the Department of Health and Human Services and consists of seven centers and offices. The FDA is responsible for protecting the public health by assuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, our nation’s food supply, cosmetics, and products that emit radiation. The FDA is also responsible for advancing the public health by helping to speed innovations that make medicines and foods more effective, safer, and more
affordable; and helping the public get the accurate, science-based information they need to use medicines and foods to improve their health.

In line with the agency’s responsibilities is the approval of medications and certain other medical products for public use and then continuous assessment of the products’ risks and benefits after they have been made available to the public (a process called post-market risk surveillance). With increased attention to improving the safety and quality of health care, there has been growing interest in leveraging the large amounts of electronic health data being collected on a regular basis to enhance surveillance of post-market risk.

However, increased analytical use of personal health information raises concerns about the privacy and security of that information. According to the National Research Council, medical information is often the most privacy-sensitive information that individuals provide to others about themselves, and protecting the privacy of that information has long been recognized as an essential element in the administration of health care systems. Further, industry groups and professional associations have called for stronger protections for personal health information.

The Food and Drug Administration Amendments Act of 2007 (FDAAA) requires that FDA develop methods for the establishment of a post-market risk identification and analysis system of electronic health data. In response, FDA announced the start of its Sentinel initiative in May 2008. The initiative includes planning for the development of an integrated system to analyze electronic health data in order to identify potential risks and assess the safety of medical products after they have been made available to the public.

Security Risks

Department of Defense (DoD). The DoD uses a risk management approach to protect its forces. For example, it has used risk management to identify threats and vulnerabilities, and determine which assets are the most critical and to make management decisions on how to make its bases and related facilities more secure (GAO, 2005).

Risk management was part of the nation’s approach to assessing terrorism before the events of September 11. For example, in the 1990s, the Defense Special Weapons Agency assessed risks to evaluate force protection security requirements for mass casualty terrorist incidents at military bases. Companies under contract to federal agencies such as the Department of Energy, the National Security Agency, and the National Aeronautics and Space Administration used risk assessment models and methods to identify and prioritize security requirements. The Federal Aviation Administration and the Federal Bureau of Investigation did joint threat and vulnerability assessments on airports determined to be high risk.

Department of Homeland Security (DHS). The threat of terrorism presents a number of risks to our nation’s seaports and other types of critical infrastructure. DHS has three component agencies responsible for the security of critical infrastructure related to ports and other facilities (GAO, 2005):

- **The U.S. Coast Guard** has responsibility for port security overall. The Coast Guard is the lead federal agency for the security of the nation’s ports. Its responsibilities include protecting ports, the flow of commerce, and the maritime transportation system from terrorism. As the lead in domestic maritime security, the Coast Guard has a robust presence at the national, regional, and port levels. The Coast Guard protects more than 300 ports and 95,000 miles of coastline. Coast Guard officials have been able to use expert knowledge or data from risk assessments to select specific alternatives, such as establishing security zones around key infrastructure, improving security around ferries and cruise ships, and coordinating security improvements (such as fences, gates, and cameras) around key infrastructure. Using local risk assessments, the Coast Guard has also developed alternative approaches to prevent attacks and reduce vulnerabilities.

- **The Office for Domestic Preparedness (ODP)** is responsible for providing port security grants to selected maritime facility owners. Since 2002, the program has awarded over $500 million in grants to state, local, and industry stakeholders to improve security in and around their facilities or vessels. For fiscal year 2005, grant criteria included the prioritization of projects based on the criticality of ports and proposals that reduce vulnerabilities to certain threat scenarios. These risk-based criteria were not used in prior fiscal years.
The Information Analysis and Infrastructure Protection (IAIP) Directorate is responsible for working with other federal, state, local, and private organizations to identify and protect critical infrastructure across the nation. These priorities are then to be used to direct protective measures for port security as well as across all other kinds of infrastructure. IAIP has developed a national database of critical infrastructure assets and a series of benchmark threat scenarios to be used to analyze potential attacks. IAIP has used these scenarios to develop data collection instruments for two types of assets (nuclear plants and chemical plants) to assess their vulnerabilities.

The IAIP also has a key role in applying risk management to ports and other infrastructure. Risk management is a tool for assessing risks, evaluating alternatives, making decisions, and implementing and monitoring protective measures. Relative to the Coast Guard and ODP, IAIP’s homeland security responsibilities are by far the widest-ranging. The Homeland Security Act of 2002 and Homeland Security Presidential Directive 7 (HSPD-7) charge IAIP with establishing a risk management framework across the federal government to protect the nation’s critical infrastructure and key resources. The scope of this effort is immense, and the effort is one of IAIP’s central responsibilities.

IAIP’s task ultimately involves developing an approach that can inform decisions on what the nation’s antiterrorism priorities should be and identifying what strategies and programs will do the most good. More specifically, IAIP is charged with examining and comparing relative risks associated with a multitude of possible targets, ranging from specific structures (such as dams, chemical plants, and nuclear power plants) to major sectors of national infrastructure (such as the banking system, computer networks, and water systems). IAIP is also responsible for developing policies and guidance that other agencies can use in conducting their own risk assessments.

The application of risk management in homeland security is relatively new—much of it coming in the wake of the terrorist attacks of September 11—and it is a difficult task with little precedent. The goals for using it in homeland security include informing strategic decisions on ways to reduce the likelihood that adverse events will occur, and mitigate the negative impacts of and ensure a speedy recovery from those that do. Achieving these goals involves making policy decisions about what the nation’s homeland security priorities should be—for example what the relative security priorities should be among seaports, airports, and rail—and basing spending decisions on what approaches or strategies will do the most good at narrowing the security gaps that exist. Risk management has been widely supported by the president and Congress as a management approach for homeland security, and the secretary of the Department of Homeland Security has made it the centerpiece of agency policy.

Financial Risks

Government National Mortgage Association (GNMA). GNMA or “Ginnie Mae”, is a wholly owned corporation housed within the Department of Housing and Urban Development. For nearly four decades, GNMA has made financial risk management one of its core values. This has allowed it to keep pace with, and frequently surpass, private sector financial risk management practices.

The primary mission for GNMA is to “support expanded affordable housing in America by providing an efficient government-guaranteed secondary market vehicle linking the capital markets with federal housing markets.” This is accomplished with fewer than 100 employees and under the leadership of a strong management team. In 2008, the corporation celebrated 40 years of “financial stability.” GNMA undoubtedly has a mission closer to private sector organizations than many government agencies, yet it has a subtle but important distinction: Its primary purpose is to support and expand the market for affordable housing, not to maximize profits. FHA loans in particular are typically made to borrowers that would have difficulty getting loans under normal private sector programs. The general perception is that these loans have higher delinquency and default rates than their conventional counterparts. Because of this, Congress was concerned that private sector secondary market participants would not be willing to bear this risk, and so it created GNMA to ensure that such a market existed.

Historically the mission of GNMA has meant ensuring the existence of a secondary market for FHA/
The Challenge of Applying Strategic Risk Management to Homeland Security

From Improving Strategic Risk Management at the Department of Homeland Security by David H. Schanzer and Joe Eyerman

The concept of strategic risk management is not new. Businesses are constantly assessing the risks they face and taking steps to adjust to changing circumstances—whether it be selling or purchasing new assets, taking on or reducing debt, or increasing or reducing their workforce. On a micro level, families are risk managers as well. We are constantly assessing risks that we face and responding. We purchase insurance to shift certain risks to others. We take steps like fixing an old roof or getting more exercise to mitigate risks to our property or personal health. Certain risk we choose to accept—like the risk of driving to work or allowing an old tall tree to remain right next to our home. The range of choices we make in our lives are, in a sense, a form of strategic risk management.

Application of strategic risk management to the concept of homeland security, however, is relatively new and a poorly understood topic … it was natural to turn to the field of risk science, which has been developing for decades to guide risk reduction efforts in health, the environment, transportation safety, and a variety of other areas. While there is no agreed-upon definition for the term “risk,” in its new publication, DHS Risk Lexicon, the department’s extended definition of risk is “potential for an adverse outcome assessed as a function of threats, vulnerabilities, and consequences associated with an incident, event, or occurrence.”

By developing tools to make mathematical calculations of these factors, risk science can provide a means of assessing the risk reduction value of a given policy, program, or budgetary investment. Even in fields where risk science is well developed, such as environmental protection, results of risk analysis are still only tools that inform decision making and cannot dictate policy results or replace the need for judgment.

Political dialogue in the years immediately following 9/11—where it appeared that every identification of a potential gap in our security led to proposals for a new program and new spending—made it clear that the government should not promise and could not deliver absolute security from terrorism. Eventually, this reality began to be reflected in the rhetoric of our political leaders, who began to speak in terms of reducing and managing risk. In April, 2002, Tom Ridge noted that “as a free and open and welcoming society, we will always be at risk. We can never totally eliminate it—but we are working every day and using every resource at our disposal to reduce it.” In 2005, this concept was adopted as the official doctrine of the Department of Homeland Security by then-Secretary Michael Chertoff, who stated, “we need to adopt a risk-based approach in both our operations and our philosophy…. Risk management must guide our decision making as we examine how we can best organize to prevent, respond, and recover from attack.”

“Risk management” is defined by DHS as the process by which society attempts to reduce risk “to an acceptable level at an acceptable cost.” Identifying risk management as a core principle guiding DHS activities made a great deal of sense. Yet, putting this concept into practice in the homeland security domain has proven to be a daunting task. From the earliest days after creation of the department, many placed faith in the idea that we could develop a formula or matrix that could answer the questions such as, “How much should we be spending to keep us safe?” or “Should we be spending more money on chemical detectors on subways or new anthrax vaccine?”
VA-insured mortgages, and GNMA has created an innovative system to meet this mission. GNMA does this by guaranteeing the performance of the issuers of Mortgage Backed Securities (MBS). The issuers form these MBS's from pools of FHA and VA mortgage loans.

GNMA does not insure individual mortgage loans; that is the mission of FHA or VA insurance and of the MBS issuer. Rather what it does do is guarantee that if the issuer of the MBS goes into default—i.e., does not make their promised payments to the investors—the investors are still paid. The mission and operations of GNMA illustrate one of the most important points about risk in general: Managing financial risk does not mean eliminating it. In fact, in the case of GNMA this would be virtually impossible; as long as it is operating, it must take on financial risk. What GNMA must do is balance the risk that it takes against the accomplishment of its mission. The only way for GNMA to eliminate all of its financial risk is to not insure any issuers. The key for GNMA is to maximize its mission accomplishment while minimizing the financial risk that it bears (Buttimer, 2001).

The NTSB has made great strides in mitigating the results of accidents and is now concentrating on prevention (Charette, 2009). A seemingly unlikely goal for an agency whose primary objective is to investigate accidents after they occur, the NTSB has invested in this emerging area. One accomplishment has been the development of guidelines to help reduce travel-related risks, which in the case of car crashes, take the lives of 40,000 people and injure 3 million others every year.

Over the last four decades, NTSB has investigated 124,000 aviation accidents and 10,000 crashes involving trains, ships, trucks, and cars. The Board has also found a way to leverage existing products, such as the issuance of safety recommendations after investigations, to help offset and reduce the public's risk when flying, driving, boating, and traveling by rail.

One compelling linkage of risk to mission is the NTSB's creation of the Most Wanted List. Created in 1990, this list includes dozens of suggestions on how to make travel safer. The list has been credited with reducing transportation risks.

Transportation Safety Risks

National Transportation Safety Board (NTSB). The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in the other modes of transportation—railroad, highway, marine, and pipeline—and issuing safety recommendations aimed at preventing future accidents. The Safety Board determines the probable cause of:

- All U.S. civil aviation accidents and certain public-use aircraft accidents
- Selected highway accidents
- Railroad accidents involving passenger trains or any train accident that results in at least one fatality or major property damage
- Major marine accidents and any marine accident involving a public and a nonpublic vessel
- Pipeline accidents involving a fatality or substantial property damage
- Releases of hazardous materials in all forms of transportation
- Selected transportation accidents that involve problems of a recurring nature

External Risks

United States Postal Service (USPS). Managing risk certainly isn't new to the USPS. The mission of the service is to provide trusted, reliable, affordable universal service. Each day, the service delivers to 150 million U.S. addresses and countless more worldwide. The service also helps customers build and maintain relationships, share sensitive information, and exchange goods and services. From 2001 to 2005, USPS came face to face with a series of events that impacted its operations. This included September 11 and the anthrax response in 2001, the New York City blackout and West Coast wildfires in 2003, and Hurricane Katrina in 2005. For the USPS, on-time delivery is the critical first step in meeting and satisfying postal customer needs. Yet, despite the events between 2004–2005, the USPS continued the trend of steadily improving performance, achieving its highest score ever for the delivery of single-piece first-class mail.

USPS has done a good job of managing external risks to ensure minimum disruption to services. However, its biggest challenges and threats to continued success lay in the realm of its internal business operations.
Long-term, the service is facing major operational hurdles that are forcing the organization to reconsider how it manages strategic, financial, and operational risks. For instance, electronic diversion and a tough economic climate continue to reduce volume and revenue. Fortunately, many of its costs—such as a carrier's daily stop at every address—are fixed, regardless of volume and are manageable. Other costs, such as energy and benefits, are rising faster than inflation while prices for 90 percent of its revenue base are capped at the rate of inflation. The growing revenue/cost gap is a serious threat to the service's ability to provide affordable universal service, an essential element of its core mission. USPS leadership is cognizant of the reality that the severity of the situation and the pace of change demand an agile, flexible organization. To address these issues, USPS has established Vision 2013, the organization's five-year strategic plan for building its business and sustaining a strong, viable Postal Service during turbulent times.

As required by the RRA ’98, this direction is expressed in the new IRS mission statement:

“Provide America’s taxpayers top quality service by helping them understand and meet their tax responsibilities and by applying the tax law with integrity and fairness to all.”

It is the role of the IRS to help the large majority of taxpayers who are willing to comply with the tax law, while seeing to it that the minority who are not willing to comply are not a burden to fellow taxpayers. The IRS must perform this role to a top quality standard, which means that all of its services should be seen by the people who receive them as comparable in quality to the best they get elsewhere.

However, achieving this mission requires fundamental change in many aspects of an institution that has been built over many years. This change must produce success in the new mission, while retaining the essential elements that created success in the
past. Further, this change must take place while the IRS continues to administer a very large, complex and ever-changing tax system.

As outlined in the IRS Organization Blueprint (IRS, 2000), the whole process of change is referred to as “modernization” because it involves building on the essential components that made the IRS successful in the past while bringing it up to date in a way designed to achieve the new mission. In the agency’s Blueprint, modernization at the IRS has required change on five major fronts:

- Revamping business practices
- Establishing customer-focused operating divisions
- Creating management roles with clear accountability
- Instituting a balanced performance measurement system
- Overhauling the entire technology base

Since 2000, the agency has also included human capital challenges.

The Risks of Modernization
The amount of change required for modernization, coupled with current complex operations, means that there is significant risk that unanticipated problems will arise, and operational errors will occur. In addition, the information technology on which the IRS critically depends is fragile and deficient and cannot be fixed short of a near total replacement. Yet, success in modernization of technology can only be achieved with the appropriate management and organization structure and a program to modernize business practices. Although there are inherent risks in the modernization process, knowing that they exist means that they can be managed and mitigated so that no setback is fatal (IRS, 2000).

Like many organizations, the IRS faces the challenge of managing and absorbing change. These limitations arise from such things as the capacity of the top managers to understand, plan, and make correct decisions about the many complex issues that arise and the capacity of managers and employees throughout the organization to learn many new ways of doing business. Capacity to make change rapidly is further limited by the need to ensure that essential services, such as the filing season, are never jeopardized and the financial integrity of the revenue stream is maintained. The inherent limitations of organizational capacity and the need to manage risk make it essential to set overall priorities in light of the overall goals.

ERM Drivers at IRS
The nature and complexity of both the reorganization and the modernization was a major segue for the IRS to identify and mitigate structural, technological and operational risks where and when possible. But as with many agencies, these risks were frequently compartmentalized and addressed within the individual organizational segments creating a fragmentation in the governance, risk management, and compliance structure. The mere presence of risk does not necessarily translate into a culture of risk management.

However, the opportunity to integrate risk management through ERM evolved out of necessity, as with most agencies. Usually, if top leadership does not have a passion for ERM, the agency will not have a risk-based focus. “When the initial interest in ERM does not come from the top, it can be inspired from the bottom-up or vertically from across the organization,” says Hess. This is the case with the IRS.

The Office of Program Evaluation & Risk Analysis (OPERA), which is part of IRS’s Research Program, is the sponsoring organization within the IRS for advocating a standard ERM process. A critical component of OPERA’s mission is to promote risk management within the IRS. Since its inception ten years ago, OPERA has worked with strategic planning, modernization and other IRS programs to leverage risk management with existing processes. Most recently, OPERA has worked with the modernization program to develop options for a risk framework for evaluating strategies for reaching a successful “end state.” In past years, OPERA identified enterprise risks through its strategic planning and budgeting processes to facilitate risk-based decision-making around key organizational issues.

While the modernization project is one driver of ERM at the IRS, OPERA has identified others (see Table 1).
Managing Risk in Government: An Introduction to Enterprise Risk Management

Managing risk in government: it would be difficult to integrate a risk management process within its business operations. Thus, developing a risk management profile will provide leaders with the insight needed to understand the different risks that apply to their organization and serve as the foundation for long-term strategic planning surrounding key risks. Agencies have a better chance of successfully implementing ERM if they:

- Know how much risk the organization can tolerate (risk appetite)
- Recognize the organization’s strengths and weaknesses in managing risks (risk maturity)
- Know how an organization treats a risk once identified (risk response)

For example, in terms of risk appetite, the IRS is a conservative, risk averse organization that responds well to problems, once known. IRS's successful responses to recent stimulus payments and annual tax law changes are two such examples. However, IRS does not consistently apply risk management disciplines strategically or at an enterprise level. The IRS has established mechanisms to respond to and manage risks (e.g., executive steering committees and business continuity plans), and there are ERM practices applied in the organization, but not in an integrated manner. There are numerous governance structures in place for the agency, such as the Human Capital Board, Enforcement Committee, Strategy and Resource Committee, and Filing Season Readiness. But there is no specific governing body established with a mixed representation of agency leadership to view a portfolio of agency risks. This may be one of the weaknesses of the ERM effort at the IRS.

As for maturation, risk management is decentralized and usually not explicitly referred to or understood as risk management. "Inherently, staff are thinking and doing risk management, but it is not called risk management," says Christopher Hess of OPERA. "But people still see risk as a consequence rather than an opportunity to improve and as another task added to their plate."

This is not a unique barrier for the IRS and is quite common within other federal agencies attempting to implement ERM. OPERA has worked diligently to diffuse this perception by raising awareness of ERM through workshops, briefings, and internal/external information sharing. "Last year we conducted a one day ERM seminar that included employees from both the operating divisions and support functions. The objective was to obtain employee input on how ERM could best be developed within the IRS. The initial feedback was positive," says Hess. OPERA has also used the strategic planning process as a vehicle for introducing ERM disciplines and practices, identified cross-cutting risks through annual corporate strategic analyses, and conducted case studies to identify areas internally where ERM disciplines are practiced.

To further develop ERM at the IRS, the agency is building on critical business analyses, studying other public and private sector organizations with comparable risk identification processes, and beginning to consider incentives to encourage risk identification. For all of the progress made since introducing the ERM concept in 2007, the process is still in the development stage. "For now each organization within the IRS continues to use their own approach and methodology for managing risk. It is our goal to mature the process over time," says Hess.

### Table 1: ERM Drivers at the IRS

<table>
<thead>
<tr>
<th>External Drivers</th>
<th>Internal Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Advancing Technology (e-filing, web-based services)</td>
<td>• Understanding strategic and operational risks</td>
</tr>
<tr>
<td>• Implementing regulations (Sarbanes-Oxley requirements, immigration, pay for performance)</td>
<td>• Improving coordination and decision-making around risks</td>
</tr>
<tr>
<td>• Monitoring threats (terrorism, natural disasters) to business operations</td>
<td>• Increasing ability to identify, quantify, measure, and monitor cross-cutting risks</td>
</tr>
<tr>
<td>• Responding to oversight (GAO, OMB) to better manage IRS's risk portfolio</td>
<td>• Ensuring that existing structures and processes are considered in decision-making</td>
</tr>
<tr>
<td></td>
<td>• Addressing operational risks</td>
</tr>
</tbody>
</table>

Source: Hess, 2007
Applying Risk Management in Government: Centers for Disease Control and Prevention

The mission of the Centers for Disease Control and Prevention (CDC) is to promote health and quality of life by preventing and controlling disease, injury, and disability. The CDC was selected as a case study because of the agency’s experience in Issues Management and how it is integrated into the agency’s ERM efforts.

CDC seeks to accomplish its mission by working with partners throughout the nation and the world to:
- Monitor health
- Detect and investigate health problems
- Conduct research to enhance prevention
- Develop and advocate sound public health policies
- Implement prevention strategies
- Promote healthy behaviors
- Foster safe and healthful environments
- Provide leadership and training

Those functions are the backbone of CDC’s mission. Each of CDC’s component organizations undertakes these activities in conducting its specific programs. The steps needed to accomplish this mission are also based on scientific excellence, requiring well-trained public health practitioners and leaders dedicated to high standards of quality and ethical practice.

CDC operates in accordance to three core values, Accountability, Respect, and Integrity, and pledges to:
- Be a diligent steward of the funds entrusted to it
- Provide an environment for intellectual and personal growth and integrity

### CDC’s Core Values

**Accountability:** As diligent stewards of public trust and public funds, we act decisively and compassionately in service to the people’s health. We ensure that our research and our services are based on sound science and meet real public needs to achieve our public health goals.

**Respect:** We respect and understand our interdependence with all people, both inside the agency and throughout the world, treating them and their contributions with dignity and valuing individual and cultural diversity. We are committed to achieving a diverse workforce at all levels of the organization.

**Integrity:** We are honest and ethical in all we do. We will do what we say. We prize scientific integrity and professional excellence.

**Source:** CDC website at [http://www.cdc.gov/about/organization/mission.htm](http://www.cdc.gov/about/organization/mission.htm)

- Base all public health decisions on the highest quality scientific data, openly and objectively derived
- Place the benefits to society above the benefits to the institution
- Treat all persons with dignity, honesty, and respect

### CDC Approach to ERM

Leadership at the CDC established a holistic risk recognition and mitigation process comprising three key components:
- ERM
- Issues management
- Credibility risk management
ERM

The first leg of the tripod involves the adoption of ERM. Established in September 2005, the Office of Enterprise Communication (OEC) reports directly to the CDC Director and is responsible for coordinating the agency’s response to urgent issues and ensuring consistent communication to key CDC issues, both internally and externally. This includes managing the agency’s risk recognition and mitigation process. CDC’s philosophy regarding ERM is indicative of the various ways this process is being applied across agencies. For the CDC, “risk” is defined as the potential harm that may arise from some present process or from some future event. ERM at the CDC is defined as “the process of analyzing the organization’s exposure to risk and determining how to best handle such exposure.”

The core principles behind CDC’s approach to ERM include a willingness to review policies and practices to find vulnerabilities and opportunities to ask the question “What if?” The agency stresses that when they find vulnerabilities there must be an effort to change policies and practices to reduce risk. The agency is moving forward with a professional and systematic approach that requires buy-in. This involves briefing executive leadership on the types of risks facing the agency, providing a framework for discussing risk recognition and mitigation, and recruiting leadership to support CDC’s RiskSmart™ credibility risk management and issues management systems.

For the CDC, selling ERM to senior leadership also included outlining the following universal steps in risk management:

- Establish the context for enterprise risk management
- Identify risks
- Analyze risks
- Treat risks

This process mirrors that of the COSO Enterprise Risk Management framework and the Canadian Integrated Risk Management framework.

As a bottom-up strategy for assessing risk, the CDC Internal Controls Program feeds into and supports the broader, top-down approach to ERM. This program is managed by the organization’s Management and Analysis Services Office (MASO) and keeps track of the inventory of risks that need to be reviewed on a cyclical basis. MASO oversees the fulfillment of requirements set forth in the Federal Manager’s Financial Integrity Act (FMFIA). MASO’s mission is fully integrated with FMFIA internal control OMB Circular A-123 Appendix A activities and represents a collaborative effort between financial and administrative managers. As a non-voting entity of the CDC’s Risk and Resilience Standing Committee, a subgroup of the agency’s Executive Leadership Board, MASO contributes a financial and analytical perspective to the Credibility risk analysis process.

MASO also works with senior management to identify transactions cycles to be reviewed at operating division levels. For example, in one cycle year, the CDC conducted 235 risk assessments and completed in-depth reviews of 41 assessable units (in 67 separate reviews). Twenty-one of those assessable units reviewed supported the reporting requirements under A-123 Appendix A activities. The primary review categories under the Internal Controls Program are common throughout the federal government which includes procurement, human capital management, financial reporting, grants management, information technology, disaster relief, and budget/spending plans.

The employment of the ERM concept at the executive level leverages an already mature internal controls program by adding a stronger and more holistic governance structure to the process. The ERM effort also increases accountability at the management level, reinforces the need to eliminate stovepipes, and embraces cross-collaboration between agency functions. These are reflective of the common themes emerging from the practices of ERM agency leaders involved in the implementation process of risk management.

Issues Management

According to the Issues Management Council, “issues management” is the process of prioritizing and proactively addressing public health reputation issues that can affect the organization’s success. The operating definition used by the CDC positions issue management as “the process of prioritizing and proactively addressing public policy and reputation issues that can affect an organization’s success.” CDC’s Issue Management system feeds into the
agency’s ERM model, alerting management to issues that could become bigger problems.

“The basic research, analytical and logistical components are in place throughout the Agency to foster the development and implementation of an effective issues management system at CDC,” says Donna Garland, Director, Office of Enterprise Communication. The existence of staff within the Office of the Director that unifies professionals trained to handle risk communications and issues management is a historic milestone for CDC. This management construct is further enhanced by a streamlined communications system that places enterprise communication officers in each coordinating center, a strategy that provides direct information sharing to the OEC. Not only does this unify the expertise of public affairs professionals; it also creates a “natural foundation which the CDC RiskSmart™ issues management system can be developed and implemented in the future.”

Credibility Risk Management
For the CDC, credibility is high priority. Agency leaders believe that how they communicate as an organization should actively be informed by how they are being perceived. To some extent, CDC has taken into consideration the wisdom of Warren Buffet, who said “It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you’ll do things differently.” This may describe the spirit behind CDC’s ERM effort in doing things differently when it pertains to maintaining and sustaining their reputation for promoting health and quality of life.

“Reputation” is the perception held by interested persons or groups about the agency’s characteristics, achievements, and behaviors. From the CDC’s perspective, managing the agency’s reputation is important because the agency must have the public’s trust to do it its mission, or risk:

- Increased disease, injury and death
- Demands for the misallocation of limited resources
- Circumvented public health policies
- “Credibility is about establishing and consistently maintaining the trust of stakeholders. The position the agency is taking and establishing is that an orga-

How the CDC Measures Credibility Risk: RiskSmart™

The CDC feels so strongly about its reputation that it has developed and proposed a separate risk assessment strategy to measure credibility. The tool, referred to as RiskSmart™ or Credibility Risk Management, is an active, continuous, and ethics-based assessment and engagement with all stakeholders to safeguard and enhance the agency’s credibility.

According to the Canadian Integrated Risk Management Framework, a “risk-smart” workforce and environment in the public service is one that supports responsible risk management, where risk management is built into existing governance and organizational structures, and planning and operational processes. An essential element of a risk-smart environment is to ensure that the workplace has the capacity and tools to be innovative while recognizing and respecting the need to be prudent in protecting the public interest and maintaining public trust.

To that end, the CDC RiskSmart™ system is a toolkit with three components: the RiskSmart™ Signal environmental scanning tool; the RiskSmart™ Assessment Tool, and the Burkean Pentad. The RiskSmart™ system is also composed of three basic activities:

- **Credibility Enhancement**: measure, preserve, and grow stakeholder trust
- **Credibility Risk Mitigation**: monitor, detect, assess, forestall or respond to threats to stakeholder trust.
- **SWOT Analysis**: Assessing agency Strengths, Weaknesses, Opportunities, and Threats

CDC utilizes the RiskSmart™ Signal, an environmental scanning tool for detecting credibility risks. It is a streamlined tool that can be used throughout the agency to detect credibility risks more quickly and systematically. With this tool, CDC can detect risks early. Once the potential credibility risk is detected, a more in-depth, multi-faceted assessment of the risk is conducted using the CDC RiskSmart™ Assessment Tool. The tool “helps to make the risk identification and assessment process less overwhelming and it minimizes discretions in the risk assessment process,” says Donna Garland.
nization holds the trust of its publics by being truthful, stalwart in the face of challenges, and [engaging in strategic risk-taking that leads to innovation],” says Garland. Indeed, a part of the change that has to take place regarding perceptions of risk is the ability to associate innovation, and not just consequence with risk as mentioned earlier in the report. “If issues are well managed—navigating negative ones well and maximizing positive ones—you will stabilize or improve your credibility,” says Garland. “If, however, issues are poorly managed your current credibility is damaged and future credibility can be hurt as stakeholders question your ability to be effective.”

Conceptually, CDC likens its reputation (everything they do and how they communicate about what they do) to the double helix of DNA—that is to say, both are intertwined. “The building block of everything that makes up [an agency’s] identity is expressed by the accumulation of individual events strung together. Like the DNA’s double helix, activities that enhance or protect the brand can’t be separated. It is the agency’s collective behavior and communication that determines its success.”

**Key Drivers of ERM at CDC**

The CDC identifies maintaining high agency credibility (or its reputation) as the primary driver for implementing ERM. All agencies have this intangible asset, but arguably, few emphasize its importance. Other organizations also share this endeavor. Industry experts note that intangible assets such as brand equity and goodwill account for 70%-80% of a company’s market value. Yet, most companies don’t proactively manage reputation risk until after their reputation suffers damage (Eccles, Newquist & Schatz, 2009). Even though government agencies are not assessed according to market value, the perceptions of taxpayers, the general public and political governing bodies have as much impact just the same.

As described in the article “Reputation and Its Risks” published in the *Harvard Business Review* “most companies do an inadequate job of managing their reputations and the risks to their reputations in particular. They tend to focus their energies on handling the threats to their reputations that have already surfaced. This is not risk management; it is crisis management—a reactive approach whose purpose is to limit the damage.” (Eccles, Scott and Schatz, 2009)

**ERM Governance Structure at CDC**

The CDC models its ERM governance structure after that of the Department of Health and Human Services (DHHS) structure for overseeing the FMFIA process. The DHHS issues on an annual basis an OMB Circular A-123 guidance manual for its 12 operating divisions and requires each organization to establish its own Senior Assessment Team (or other governance body) to conduct and oversee the day-to-day activities of the OPDIV internal control and financial systems assessment processes. The CDC surpassed that objective by establishing a two-tiered governance structure that would also provide oversight of the ERM process.

The Executive Leadership Board (ELB) serves as the governance structure for the entire agency. The Risk and Resilience Executive Leadership Standing Committee (RRSC) is chartered by and a sub-component of the ELB. The RRSC is a 12-member committee accountable for developing a sustainable enterprise risk management program to help ensure that the CDC effectively carries out its mission, meets its goals, and maintains public trust. Members reflect a cross-representation of subject-matter expertise and leadership across the agency with a range of thinking styles to enable broad issue analysis. The membership was devised to cover areas of potential external and internal risk. All the members have been educated about ERM and are asked to sit at the table and think with an “agency” perspective.

The RRSC recommends strategic actions to prevent or reduce the risk or their harmful consequences to the agency and improve the agency’s overall resilience. In addition to providing timely and pre-decisonal analysis to support evidence-based decision making by the ELB, the RRSC provides guidance and counsel to CDC, through the ELB, regarding specific enterprise risk questions, issues, and topics. To help manage the “white spaces” within the organization, the RRSC also engages with key CDC scientific, program, and management staff to discuss risk prevention and mitigation strategies.
Applying Risk Management in Government: Department of Education

The mission of the U.S. Department of Education (ED) is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access. The Department of Education was selected as a case study because of its use of ERM to respond to the high risks identified in Federal Student Aid.

ED’s 4,300 employees and $68.6 billion budget are dedicated to:

- Establishing policies on federal financial aid for education, and distributing as well as monitoring those funds
- Collecting data on America’s schools and disseminating research
- Focusing national attention on key educational issues
- Prohibiting discrimination and ensuring equal access to education

Education is a national priority. ED is the primary agency responsible for overseeing the investment of the federal government support of U.S. education. The Department is committed to giving students the skills they need to succeed in a highly competitive global economy. To this end, it has established goals to address the following three priorities:

- Increase student achievement, reward qualified teachers, and renew troubled schools so that every student can read and do math at grade level by 2014, as called for by No Child Left Behind
- Encourage more rigorous and advanced coursework to improve the academic performance of our middle and high school students
- Work with colleges and universities to improve access, affordability, and accountability

Federal Student Aid

Federal Student Aid (FSA), the largest principal office of the U.S. Department of Education, seeks to ensure that all eligible individuals can benefit from federally funded or federally guaranteed financial assistance for education beyond high school. Federal Student Aid works with postsecondary schools, financial institutions and other participants in the Title IV student financial assistance programs to deliver programs and services that student finance their education beyond high school. Federal Student Aid is responsible for a range of critical functions that include, among others:

- Processing millions of student financial aid applications
- Disbursing billions of dollars in aid funds to students through schools
- Enforcing financial aid rules and regulations
- Educating students and families on the process of obtaining aid and other college funding
- Servicing millions of student loan accounts
- Securing repayment from borrowers who have defaulted on their loans
- Operating information technology systems and tools that help manage our billions in student aid dollars

The 1998 reauthorization of the Higher Education Act (HEA) established Federal Student Aid as a performance-based organization (PBO), to administer student financial assistance programs under Title IV of the HEA at the U.S. Department of Education.
In an effort to address findings and weaknesses cited by GAO, ED took various actions to provide support for removal of the student financial assistance programs from GAO’s High-Risk list.

In 2001, the Government Accountability Office (GAO) in its Performance and Accountability Series report outlined several major management challenges and program risks at the Department of Education. One major challenge focused on the Office of Student Financial Assistance’s (FSA’s predecessor) ability to ensure access to postsecondary education while reducing the vulnerability of student aid programs to fraud, waste, error, and mismanagement. The federal loan and grant programs administered by Federal Student Aid help finance the higher education of millions of students. Annually, these programs provide billions of dollars in federal loans and grants.

In its 2001 report, GAO noted that while these programs have been successful in providing students with access to money for postsecondary education, they had been less successful in protecting the financial interests of the federal government and U.S. taxpayers. Specifically, the GAO reported that although the student loan default rate had declined to 6.9 percent in fiscal year 1998, student loan defaults still cost the federal government billions of dollars each year—$4.3 billion in fiscal year 1999 alone and more than $28 billion the 10 years between 1991 and 2001. In addition, GAO cited that with the exception of fiscal year 1997, Education had not received an unqualified—or “clean”—opinion on its financial statements since its first agency-wide audit in 1995.

In 2002, the secretary of Education made removal from GAO’s High-Risk list a specific goal and listed it as a performance measure in Education’s strategic plan. In response to this goal, FSA undertook several key initiatives to address concerns about systems integration, defaulted loan reporting, and human capital management. In its 2005 High-Risk update, GAO reported that ED had “demonstrated a strong commitment to addressing risks; developed and implemented corrective action plans, and through its annual planning and reporting processes, monitored the effectiveness and sustainability of its corrective measures” and removed the student financial aid programs from its High Risk list.
FSA’s Risk Management Efforts

The Department’s goal of strengthening financial integrity and internal controls was the primary driver behind FSA’s decision to establish an enterprise risk management organization and in the hiring of FSA’s first chief risk officer (CRO). This management decision exemplified the agency’s commitment to resolving high-risk organizational issues and emphasized the importance of proactively identifying and managing risks, especially at the strategic or enterprise level.

As the first CRO, Stan Dore led the effort to develop and prioritize activities for establishing and implementing an ERM vision, strategy and framework at FSA. With extensive financial, audit and risk management expertise, Dore brought more than 20 years of experience in the banking and financial services industries to FSA and was able to articulate an ERM vision for the agency’s leaders regarding the process, context and value of ERM.

Since most federal agency efforts relating to risk have been limited to focus on financial controls and A-123 activities, Dore, like other ERM champions in the federal sector, faced limited availability of ERM guidance, best practices, or other strategic approaches for identifying, assessing and managing risk at government agencies. Despite these challenges, FSA moved forward with establishing a foundation for implementing its own ERM program. A few of the initial efforts associated with that effort have included:

- Establishing the FSA’s Enterprise Risk Management Group (ERMG)
- Establishing an ERM committee and charter
- Creating an ERM strategy and developing process for implementing a COSO-based ERM Framework

In 2006, the ERMG began efforts to implement a COSO-based ERM framework.

FSA’s Enterprise Risk Management Organization

The mission of FSA’s Enterprise Risk Management Group (ERMG) is to enhance the ability of Federal Student Aid to identify, assess, and manage risk across the enterprise. In support of that mission, ERMG provides risk management oversight and guidance to Federal Student Aid and performs internal reviews and risk assessments as appropriate or as requested by senior management. ERMG drives strategies and plans for assessing, monitoring and addressing risk associated with Federal Student Aid, its programs, systems, contracts, and external partners.

Audit tracking and resolution is also a priority. FSA partnered with the OIG on joint fraud initiatives to identify and reduce fraud associated with the administration of Title IV programs. This initiative

Figure 1: FSA Organizational Chart
involves a team approach focusing on assessing and quantifying risk and exposure associated with specific fraud issues or areas or programs more susceptible to fraud or abuse.

To accomplish its overall mission, ERMG is organized into two main areas: Risk Analysis & Reporting Division and Internal Review Division.

**Risk Analysis & Reporting Division**

The Risk Analysis & Reporting Division is responsible for providing enterprise-wide risk management oversight and guidance and has the following goals, objectives and responsibilities:

- Improving risk management efforts, activities and reporting
- Coordinating annual high-level risk assessments of Federal Student Aid
- Performing targeted risk assessments at the direction of senior management or as deemed appropriate
- Implementing data analysis techniques and risk assessment methodologies to improve efforts to quantify, evaluate and report on risk
- Assisting in the review, evaluation and approval of key projects, systems and organizational changes
- Developing an enterprise risk management strategy
- Establishing and implementing an enterprise risk management framework

**Internal Review Division**

The Internal Review Division is responsible for helping to ensure that an effective internal control framework is in place across the enterprise and has the following goals, objectives and responsibilities:

- Monitoring Federal Student Aid’s performance in high-risk areas identified by the Government Accountability Office (GAO)
- Coordinating meetings with GAO on high-risk issues
- Serving as Federal Student Aid’s official audit liaison with authority delegated from the chief operating officer
- Reporting on audit exception/resolution progress
- Reporting on status of Corrective Action Plans execution
- Working with Education’s Office of Inspector General and GAO to facilitate their audits and address identified issues
- Assisting in the review, evaluation and approval of key projects, systems and organizational changes
- Performing internal reviews at the direction of senior management

**The ERM Governance Structure**

Support for ERMG and the organization’s ERM programs comes first and foremost from the head of Federal Student Aid: FSA’s chief operating officer (COO). While the CRO reports administratively to the general manager of Enterprise Performance Management Services, he has a ‘dotted line’ relationship to COO and meets regularly with the COO to discuss risk management and internal review issues facing the organization.

FSA has established an ERM committee consistent with the roles and responsibilities identified in the COSO framework. The ERM Committee is comprised of five executives:

- Chief financial officer
- Chief information officer
- Chief business operations officer
- Chief of staff to the chief operating officer
- Chief risk officer

The purpose of the ERM committee is to assist the chief operating officer in:

- Assessing and evaluating major (strategic) risks
- Establishing the organization’s risk profile and setting risk tolerances
- Reviewing and approving Federal Student Aid’s ERM strategy
- Monitoring the implementation of FSA’s ERM Program and framework

Since FSA’s ERM committee is a subset of the organization’s Executive Leadership Team (ELT), which plays a primary role in key decisions around strategy, risk and allocation of resources, the role of the ERM committee is sometimes handled by the ELT. Therefore,
As FSA’s ERM program continues to evolve, the role and composition of the ERM committee is being reevaluated to ensure proper fit within FSA’s executive management structure.

**ERM Program Strategy & Methodology**

Federal Student Aid’s ERM strategy calls for implementing program activities in several phases. These activities support two approaches that are designed to collectively achieve the objectives of the ERM program. The “top-down” approach represents a high-level effort to identify and evaluate the top risks facing the organization, focusing on those risks that could prevent the organization from achieving its stated strategic objectives.

The “bottom-up” approach refers to the conduct of various business unit risk activities using a COSO-based ERM Framework adopted by FSA. The initial risk activities center around the development and population of an enterprise risk database, and includes the identification, classification, and assessment of risks in each of FSA’s approximately 27 business units, with a focus on those risks that could affect each area’s ability to achieve its organizational goals and objectives. As part of this effort, the identified risks are being documented, categorized and assigned risk ratings, so that each risk can be ranked according to its significance, likelihood, or other criteria, with more significant, enterprise and/or strategic risks flowing up to senior management and presented in a portfolio view.

Additional efforts underway associated with the “bottom-up” approach include: the development of a methodology to evaluate risk response strategies and control activities; various activities designed to provide for enhanced risk information and improved communication; and the establishment of advanced methods for monitoring and reporting on key risks.

All of the activities associated with the two approaches described above are contained in FSA’s ERM Project Plan which discusses the three phases of ED FSA’s implementation strategy, which is described below.

**Phase I: Creation of ERM organization and development of ERM program**

The first phase of implementing the ERM Program at Federal Student Aid involved developing the appropriate infrastructure necessary to support a successful enterprise risk management strategy. Key activities in this phase included:

- Obtaining sponsorship from executive management (Chief operating officer support and creation of ERM Committee)
- Establishing an ERM organization (development and approval of proposed organizational structure, creation and finalization of position descriptions, hiring activities; and acquisition of resources necessary to support this effort)
- Developing an ERM strategy to execute this program (establishing a high-level implementation plan, defining ERM vision and mission, creating project plan and key documents associated with ERM program)

**Phase II: Initiation of ERM strategy and key risk activities**

The second phase of implementing the ERM program at Federal Student Aid involved the initiation of ERM strategy and key activities. Key activities in this phase include:

- Formalizing and approving strategic plan, project plan, risk categories, risk ratings (rankings), and a common risk vocabulary
- Performing high-level risk assessment
- Conducting detailed business unit risk activities based COSO ERM-Integrated Framework to identify, assess and categorize risks

**Phase III: Completion of ERM framework implementation and other activities for assessing, responding to, monitoring, and reporting on risk**

The third phase of the ERM program includes the establishment of advanced risk methodologies and other strategies for assessing, responding to, monitoring, and reporting on risk across the organization. This phase involves completing all remaining activities associated with implementing the COSO-based ERM framework; using risk data to develop enterprise-level reports for senior management; and utilizing advanced techniques, financial models, or other innovative methods to assess, monitor and manage risks. It also involves completing initial risk activities as well as developing methodology, planning for, and conducting the additional COSO activities including: risk response, control activities, communication, and monitoring. At the conclusion of these efforts, Federal Student Aid’s ERM framework will be complete. This
should enable the organization to realize many of the benefits associated with an effective ERM program and will result in the development of key risk reports that provide management with an integrated or portfolio view of risk across the organization.

**Insights from the FSA Experience**

To get started with ERM, agencies should be patient and not be discouraged if the initiative starts out slowly. ERM is not a short-term project and will require a cultural change. “Two key things to keep in mind are to expect resistance and not to oversell ERM benefits,” says Dore. “ERM is a dynamic process that continues to evolve. The real value is realized when it becomes a regular part of everyday business,” he adds.

Federal Student Aid is continually reviewing oversight and monitoring procedures for Title IV programs to ensure adequate safeguards are in place to protect program resources. Creating an enterprise risk management function has provided greater organizational strategic risk identification and assessment capabilities in their goal of working with the higher education community to lower the incidence of default in Title IV loan programs.
Findings and Recommendations

While the basic concepts of ERM may seem straightforward, the techniques can be challenging to implement. In an examination of the financial risk management structures for Ginnie Mae and the USDA Risk Management Agency, Buttimer (2001) wrote, “an organization that contemplates instituting a ... risk management system will have a wide range of techniques and tools at its disposal, and frequently there is the temptation to immediately begin implementing those tools and techniques. Unless the organization faces the most trivial ... risks ... it is usually a mistake to rush straight into implementation.”

For ERM to work there must be a full understanding of the organization’s risk profile, its culture, and its resource capacity to implement and sustain such an initiative. It would also require that the silo and stovepipe approach to risk assessment be replaced with an open dialogue and collaborative effort that engages stakeholders when identifying and managing risks at the enterprise level.

Findings

Finding One: Educating a workforce unfamiliar with the ERM terminology and concepts is a key issue for leading ERM activities. ERM is the discipline used to reduce uncertainty, which statistically and materially shifts the odds of success over time to organizations with demonstrated risk management competency. As organizations’ competency levels improve, so do the odds of successfully managing the entire spectrum of risks (RIMS, 2008).

Across the board, ERM leaders at the Centers for Disease Control (CDC) and Department of Education (ED) cited education and training as critical components of the ERM model. Both agencies have launched some formal or informal training initiative to address this need. Various techniques used include providing presentations to Executive Committees and other specialized groups; instituting open enrollment courses that integrate ERM with internal control frameworks, and designing competency-based ERM courses tailored to specific job series.

Initially, stakeholders will have a higher learning curve than that of the typical risk expert found in organizations such as Ginnie Mae. This is not uncommon. An effective training and education plan will help equip these stakeholders with the knowledge and information needed to not only apply risk management to their day-to-day jobs, but to help champion the ERM effort across the organization horizontally and vertically. Thus, it is essential that key stakeholders (managers, supervisors, employees) understand the scope, purpose and benefits of ERM as well as the challenges and opportunities.

Finding Two: Most ERM initiatives were not championed specifically by the chief financial officer (CFO), though the CFO was part of the ERM governance structures. This is expected to change as the leadership role of the CFO in federal agencies is expected to expand collaboratively across organizations. According to the AGA Annual CFO Survey (2009) conducted by the Association of Government Accountants (AGA) and Grant Thornton, the future CFO can expect to collaborate more with external stakeholders such as other government entities, oversight groups and legislative bodies. Furthermore, CFOs will be expected to employ a risk management approach, for both the long and the short term and make risk analysis a first order of business.

In agencies where ERM efforts may be championed by the CFO, successful implementation will require...
additional collaborations beyond the auditing and financial community. Agencies should be prepared to include and forge partnerships with these additional communities and project ERM as a strategic management tool and not as an internal auditing exercise.

**Finding Three: How organizations approach ERM may largely depend on the agency’s management objectives, resources, culture and risk tolerance level as well internal and external influences.**

A few common ERM drivers across the federal government include OMB Circular A-123, the President’s Management Agenda, Improper Payments Act, Data Security/ID Theft, and external threats. Taking this into consideration and depending on their motivations, ERM efforts will vary in scope and scale from agency to agency.

For instance, while some agencies are mandated to focus on financial risk management (i.e., the USDA Risk Management Agency), others may opt to tailor their ERM efforts to major programs with critical financial implications, such as the Department of Education’s Federal Student Aid.

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**ERM Best Practices in Federal Agencies**

**Getting Started**

- Develop a risk management lexicon to ensure consistency of terminology across the organization
- Establish a communications plan and stick with it
- Don’t underestimate the level of effort or short change the planning process
- Customize ERM strategy, approach and methodology based on the specific requirements of your organization
- Support from senior leadership is critical to effectively identifying and addressing risks and opportunities
- Train your employees

**Organizing for ERM**

- Establish a Risk Office or ERM organization
- Have a dedicated “risk champion” with good communication skills
- Head of the risk organization /“risk champion” should be a member of executive management
- Establish and maintain executive level support, ideally from the highest levels in the organization

**Operating an ERM Program**

- Develop a policy that outlines the organization’s expectations regarding the management of risks
- Document the process and analysis so that it can be replicated
- Provide specific examples of risks tailored to the organization to help the learning process
- Reward risk identification, don’t penalize it: This is critical to changing the culture to effectively establish an agency-wide ERM process
- Engage those who manage risks, as well as areas with inherent risks, to develop analytical tools and recommendations: These stakeholders often know the consequences of effective and ineffective risk management, and have the rigor in thinking and planning to address risks
- Link risk training to business results where possible
- Seek diverse perspectives on issues, as they are critical to risk and opportunity management

For many agencies, it will take a holistic approach across the entire organization to realize the full impact of risk management. For others, having some variation of ERM, no matter the scale or scope, will be enough to point the agency in the right direction towards better performance, management, and results. In either case, all agencies aim to redefine how their organizations do business and will act as change leaders for the challenges that lie ahead of 21st century government.
Likewise, the effort at the IRS is centered on the integration of ERM as tool to support the agency’s strategic planning, budgeting, and decision-making process, while the Centers for Disease Control and Prevention (CDC) aims to institute a model that builds and sustains public trust in the agency. Regardless of the focus, each agency shares a common goal: To establish an ERM model that provides a standardized and integrated process for identifying, mitigating and managing a portfolio of the highest risks for and within their organizations. It is certain that as agencies continue to mature their ERM models, these ERM approaches and objectives may expand and change over time.

**Recommendations**

Managing risk is imperative for successful leadership. Leaders must develop processes like ERM to improve their ability to manage risks effectively. ERM cuts across an organization’s silos to identify and manage a spectrum of risks.

Risk management is not a new phenomenon within the federal sector. Many agencies have engaged in

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**Implementing the Process**

Agencies should consider the following relevant action steps for jumpstarting the process (adapted with changes from Walker and Shenkir, 2008):

1. **Resolve to proactively manage risks rather than to react to them.** Implementing ERM takes total commitment by management, as well as recognition by the board of its responsibility.

2. **Clarify the organization’s risk philosophy.** Organizations need to know their risk capacity in terms of people capability and capital. The board and management must come to an understanding, factoring in the risk appetite of all significant stakeholders.

3. **Develop a strategy.** Since risk relates to events or actions that jeopardize achieving the organization’s objectives, effective risk management depends on an understanding of the organization’s strategy and goals. One of the benefits of ERM implementation is the revelation that those responsible for achieving the objectives have varying degrees of understanding about them. ERM helps get everyone on the same page.

4. **Think broadly and examine carefully events that may affect the organization’s objectives.** This involves taking your business and industry apart. Pore over your strategy, its key components and related objectives. Use a variety of identification techniques such as brainstorming, interviews, self-assessment, facilitated workshops, questionnaires and scenario analysis. Start with a top-down approach. Begin to identify risks through workshops or interviews with executive management and by focusing on strategies and related business objectives.

5. **Assess risks.** Initially try to reach a consensus on the impact and likelihood of each risk. Placing risks on a risk map can be a valuable focal point for further discussion. As the risk assessment process matures, consider applying more sophisticated risk measurement tools and techniques.

6. **Develop action plans and assign responsibilities.** Every risk must have an owner somewhere in the organization. Manage the biggest risks first and gain some early wins.

7. **Maintain the flexibility to respond to new or unanticipated risks.** Put a business continuity and crisis management plan into place. If your organization is in a volatile environment, you should anticipate even more unknowns.

8. **Use metrics to monitor the effectiveness of the risk management process where possible.**

9. **Communicate the risks identified as critical.** Circulate risk information throughout the organization. The board of directors, senior assessment team and audit committee should be given regular reports on the key risks facing the organization. It is not acceptable to identify important risks and never communicate them to the appropriate people.

10. **Embed ERM into the culture.** Integrate the knowledge of risks in your internal audit planning, balanced scorecards, budgets and performance management system. Leverage your agency’s compliance with OMB Circular A-123 to benefit ERM implementation.
the business of risk management for some time. What is new is the integration of risk management systems throughout the entire organization, coupled with cross-collaborations regarding risk impact from all functions within an organization. This is known as ERM.

As the external environment and challenges continue to grow, so will the expectations of stakeholders. This will require a government structure that responds quickly to changing events, is transparent and accountable. It will also require agency leadership to take a long-term view regarding their strategic objectives and the threats and opportunities that await them. The recent failures of the financial markets are an indication that effective risk management is not dependent upon a workforce responsible for carrying out risk-oriented tasks, but must be recognized and mitigated within an organization’s processes and systems as well. ERM has been recognized as the bridge to make this connection.

The effort to integrate risk management throughout the organization and tying risk processes together through ERM will separate adaptable and responsive organizations from stagnate ones. Many agencies have succeeded in meeting compliance requirements through the completion of risk assessments within individual silos, or at assessing a specific risk area that crosses multiple functions (i.e. IT across an agency), but few have accomplished the integration of a risk management system throughout the organization; vertically and horizontally, including the white spaces. The agencies profiled in this study have time to reach that level of maturity and are off to a good start in recognizing the significance of ERM, the benefits, and the lessons learned if not executed correctly. Nevertheless, as ERM continues to evolve in the federal sector, agencies and their various stakeholders will benefit as a whole over time.

Based on the findings in this study, the following recommendations are offered:

1. **Establish a short and long term strategic plan for ERM.** ERM effectiveness is a matter of maturity. It takes time. Make sure stakeholders understand that ERM is a process that is strengthened over time.

2. **When considering ERM, agencies must establish a tone at the top within the organization.** Without senior leadership support, it will be difficult to get buy-in throughout the organization. Thus, ERM will be seen as another task and paper exercise rather than a strategic management process.

3. **When adopting ERM, make sure the benefits are communicated to stakeholders.** Besides compliance, demonstrate how ERM can enhance organizational performance, heighten awareness about risk management, improve workforce skill sets, and create a “safe place” for managers to discuss risk management outside of their comfort zones.

4. **Collaborate within and across other agencies.** Don't work in a vacuum. Find agencies with similar operational functions or missions and benchmark risk management practices. Join organizations that advocate ERM and provide resources for continuous learning in this subject matter (e.g., FederalERM.com).

5. **Don't reinvent the wheel.** Use what you have. If there is an existing internal control framework in place, build upon that. Strategize about how ERM can enhance or strengthen your existing internal control environment.

6. **Have experienced staff available to champion and carry out the vision of the ERM process.** A knowledgeable workforce is the key to successful ERM implementation. If you cannot hire new staff, retrain the staff that you have.

7. **Communicate short wins immediately.** Nothing reinforces success like results. Show stakeholders how ERM has led to successful identification and mitigation of risks, business opportunities or cost savings.
Appendix: Survey of Risk Management Skills

Risk Manager Core Competency Survey
A survey of ERM leaders at select agencies was conducted to help scan the environmental conditions under which ERM adoption was being implemented. The Federal Risk Manager Core Competency Survey was designed to collect feedback from the leaders involved in the ERM process. The survey design was based on the Risk and Insurance Management Society’s (RIMS) Risk Manager Core Competency Model and was modified to reflect the dynamics and operations of federal agencies. The RIMS model reflects components of the best practices and best theoretical models, preferred by the RIMS Fellow Advisory Council, the American Society for Training and Development, and basic business management texts. The RIMS model takes the best ideas from many models and modifies them to reflect the many different skills required for risk management.

The Federal Risk Manager Core Competency Survey consisted of two sections: (1) Demographics, and (2) an Assessment of Conceptual, Core Competency, and Technical Skills for Risk Managers.

Conceptual, Core Competency and Technical Skills
With exception to Conceptual and Technical Skills, the group of Core competency skills is broken into three sub-categories:
• Interpersonal skills
• Personal skills
• Business skills

A description of each skill set is presented in Figure A-1.

The Federal Risk Manager Core Competency Survey was based on a modification of the RIMS model to reflect the dynamics of the federal workforce, therefore not all skills are included in the survey responses.

Survey Findings
Finding One: Leadership Experience and Resources. ERM agency leaders are generally supervisors with 2-5 years experience in their current positions. Most have from 2 to 10 years experience in the area of risk management, internal controls, auditing or financial management. Their role in the ERM process includes being a sponsor within the agency to advocate for a standard ERM process and leading cross-cutting, high level strategic workgroups to develop the process. Most of the work involved with the ERM initiative is executed by 2-5 staff members who are full- and part-time. No contract support has been acquired to facilitate the ERM effort. There is no specific budget set aside for ERM.

Finding Two: ERM Scope and Standardization. ERM efforts within agencies either span across a single program and/or administrative area or cuts across the entire agency. No leader identified the effort as spanning across multiple programs and/or administrative areas. ERM leaders identified the COSO Enterprise Risk Management Framework as the application technique for adopting ERM within their agencies.

Finding Three: Subject-Matter Awareness. ERM leaders identified an awareness of the following resources as beneficial to their leadership effectiveness: Sarbanes-Oxley, OMB Circular A-123, FMFIA (Federal Manager’s Financial Integrity Act), Chief Financial Officer (CFO) Act, GAO Internal Control
Finding Four: ERM Opportunities and Challenges. Agency ERM leaders identified the adoption of risk management, improved operations, and a cultural understanding of the importance of sustaining high credibility as opportunities of ERM. Challenges included convincing managers that risk management is a good idea, insufficient sponsoring at the executive level, the perception of adding the burden of another task, and providing the appropriate ERM foundation, assessment and management platform.

Finding Five: Strategic Planning. While no long-term strategic planning is yet in the works for agencies in the early stages of ERM, leaders identified several strategic tools being used to aid, integrate and introduce ERM within their organizations. Specific tools include having a Change Management Plan, Communications Plan, Training and Education Plan, and inter-agency collaborative workgroups.

Finding Six: Skill Assessment. With exception to economics and statistics, agency ERM leaders would recommend most of the skills identified in the competency model. Feedback regarding Technical Skills suggest that most ERM leaders would benefit from additional knowledge and training in areas specific to risk management, such as risk analysis, risk financing, risk management information systems, and project risk management. For Conceptual Skills, respondents identified planning and organizing as areas for additional knowledge. Key business skills that a few agency leaders were not applying but would recommend include accounting, budget and finance, strategic planning and auditing.
Endnotes

1. For more in-depth descriptions of the GAO Risk Management Framework, visit http://www.gao.gov/new.items/d0691.pdf
3. To gain more in-depth information and details about the three dimensions and application techniques, visit http://www.aicpa.org.
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