

**MINNESOTA STATE COLLEGES AND UNIVERSITIES  
BOARD OF TRUSTEES**

**Agenda Item Summary Sheet**

**Committee:** Audit Committee

**Date of Meeting:** May 16, 2012

**Agenda Item:** Review Results of Audit Risk Assessment, Including Information Technology Audit

Proposed  
Policy Change

Approvals  
Required by  
Policy

Other  
Approvals

Monitoring

Information

**Cite policy requirement, or explain why item is on the Board agenda:**

In June 2012, the Board of Trustees will be asked to approve the fiscal year 2013 audit plan. In preparation of that action, Audit Committee input is needed to determine priorities, given available resources and risk assessment results.

**Scheduled Presenter(s):**

Beth Buse, Executive Director, Office of Internal Auditing  
Eric Wion, Deputy Director, Office of Internal Auditing

**Outline of Key Points/Policy Issues:**

- A three-staged risk assessment was utilized to identify enterprise, financial, and information technology risks to consider in determining audit priorities for fiscal year 2013.

**Background Information:**

- Professional internal auditing standards require that the audit plan be based on a risk assessment to ensure that resources are focused on the most critical projects.

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**INFORMATION ITEM**

**REVIEW RESULTS OF AUDIT RISK ASSESSMENT,  
INCLUDING INFORMATION TECHNOLOGY AUDIT**

A three-staged risk assessment identified enterprise, financial, and information technology risk factors. The attached PowerPoint presentation documents the results of this work.

*Date Presented to the Board of Trustee: May 16, 2012*



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## Fiscal Year 2013 Audit Planning Risk Assessment Results

**Beth Buse**, Executive Director, Internal Auditing

**Eric Wion**, Deputy Director, Internal Auditing

**May 15, 2012**

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## Risk Assessment Overview

- Risk based decisions made everyday
- Board policy places responsibility for risk management on the Chancellor and Presidents
- Significant work completed on strategic risk in past year
- System in process of determining next steps on formalizing a risk management strategy
- Professional standards require internal auditors to consider an assessment of risk when developing an audit plan

**Audit risk assessment does not take the place of enterprise risk management**

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## Audit Risk Assessment



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## Enterprise Risks



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## Strategic Framework

*Adopted by Board of Trustees in January 2012*

**Minnesota State Colleges and Universities play an essential role in growing Minnesota's economy and opening the doors of educational opportunity to all Minnesotans. To that end, we will:**

- **Ensure access to an extraordinary education for all Minnesotans**
  - Our faculty and staff will provide the best education available in Minnesota, preparing graduates to lead in every sector of Minnesota's economy.
  - We will continue to be the place of opportunity, making education accessible to all Minnesotans who seek a college, technical or university education; those who want to update their skills; and those who need to prepare for new careers.
- **Be the partner of choice to meet Minnesota's workforce and community needs**
  - Our colleges and universities will be the partner of choice for businesses and communities across Minnesota to help them solve real-world problems and keep Minnesotans at the leading edge of their professions.
  - Our faculty and staff will enable Minnesota to meet its need for a substantially better educated workforce by increasing the number of Minnesotans who complete certificates, diplomas and degrees.
- **Deliver to students, employers, communities and taxpayers the highest value / most affordable option**
  - Our colleges and universities will deliver the highest value to students, employers, communities and taxpayers.
  - We will be the highest value / most affordable higher education option.

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## Enterprise Risks: Common Themes\*

- Fiscal Concerns
- Change resistance and preparation for change
  - Campus Service Cooperative
- Personnel topics
  - Recruiting and retaining qualified employees
  - Employee behavior
- Safety and security
  - Ability to effectively respond to emergencies
  - Keeping employees and students safe

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\* - Based on input from system leaders.



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## Financial Risks



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## Financial Risks: Institution Metrics Used

Metric Category	Factors Measured
<b>Audit</b> (points = 350)	<ul style="list-style-type: none"><li>• Time since last internal control and compliance audit and the volume of findings</li><li>• Whether the institution has an annual financial statement audit and the volume of findings from the last audit</li><li>• Number of outstanding unsatisfactory audit findings</li></ul>
<b>Financial Condition</b> (points = 300)	<ul style="list-style-type: none"><li>• Operating gains or the size of losses</li><li>• Composite Financial Index (CFI)</li><li>• Overall materiality of financial transactions</li></ul>
<b>Business Operations</b> (points = 200)	<ul style="list-style-type: none"><li>• Change or loss in key personnel, knowledge, or skills</li><li>• Diversity or complexity of operations</li><li>• Number of incompatible security access rights</li></ul>
<b>Other</b> (points = 100)	Use of professional judgment to make or adjust for significant financial risks at a specific institution.

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## Financial Risks: Institution

### Overall Results

- Two Year Comparison

Risk	Results	Number of Colleges and Universities	
		May 2012	May 2011
High	≥ 350	5	10
Medium	< 350 and > 200	15	17
Low	< 200	18	11
Range of Scores		35 - 420	35 - 525

\* Institution total includes the System Office, Northwest Tech – Bemidji, and 5 colleges that comprise the Northeast Higher Education District

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## Financial Risks: Institution

### Two Year Comparison

- Overall decrease in financial risk
- Financial condition metrics improvements.
  - 21 colleges improved CFI
  - # of institutions with net income loss decreased
  - Materiality adjustments
- Audit metrics improvements
  - 2 state universities had internal control and compliance audits
  - Decrease in outstanding audit findings

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## Financial Risks: Institution

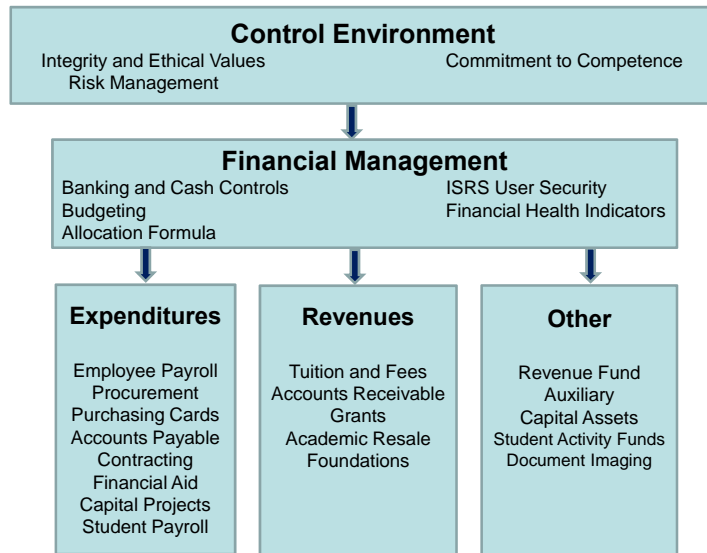
### Institutions with High Financial Risk

1. Minnesota State University Moorhead
2. Bemidji State University
3. Minnesota State University, Mankato
4. Winona State University
5. Rochester Community & Technical College

- Contributing Factors
  - Over ten years since last comprehensive internal control & compliance audit
  - Material financial activity
  - Complex operations
  - Large number of ISRS users with incompatible security access



## Financial Risks: Functional Areas







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## Financial Risks: Functional Areas Risk Assessment

- Internal Audit and Finance staff assessed risk
- Risk considerations included
  - Materiality
  - Transaction volume and complexity
  - Susceptibility to Fraud
  - Compliance requirements
  - Past audit history
- Individual High Risk Areas
  - ✓ Banking and cash controls
  - ✓ Purchasing cards
  - ✓ Employee business expenses
  - ✓ Tuition and fees
  - ✓ Financial Aid
  - ✓ Bookstore Operations
  - ✓ Equipment Inventory
  - ✓ Capital Project Administration
  - ✓ Student Activity Funds
  - ✓ Academic Resale Activities
  - ✓ Document Imaging (*emerging*)

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## Information Technology (IT) Risks



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## IT Benefits

- IT (computers, applications, networks, databases...) is used to help improve business and teaching\learning processes and functions
  - Process automation (faster, cheaper...)
  - Facilitates communication
  - Enables complex analysis and decision-support of data
  - Facilitates initiation and recording of transactions
  - Extend access to services
  - Enterprise solutions can save money

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## IT Challenges

- The pace of change is incredibly fast
- New technologies added at a rate that exceeds the retirement of technologies
- IT can be significant investment
- Acquiring and retaining IT talent can be difficult
- Vulnerabilities and threats are constantly evolving

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## IT Introduces Risk

- The use of information technology introduces risk. What if some aspect of IT...
  - Stopped functioning?
  - Malfunctioned and produced incorrect results or corrupted data?
  - Was compromised by hackers?
  - Enabled intruders to obtain access to sensitive data and information that would not otherwise be accessible?
  - Communications was intercepted or forged?

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## Cause of Risks

- What causes IT risk?
  - Human error (complex systems may be misconfigured...)
  - Shortcuts in implementation (poorly coded and tested systems...)
  - Underfunding
  - Vulnerabilities in software products (unpatched software allows unauthorized access...)
  - Deliberate acts (user intentionally bypasses controls...)
  - Fraud and abuse (hacker attempts to break in...)
  - Mechanical failures (hard drive crashes...)
  - Interdependencies (systems, third parties....)
  - Acts of Nature (tornadoes, floods...)

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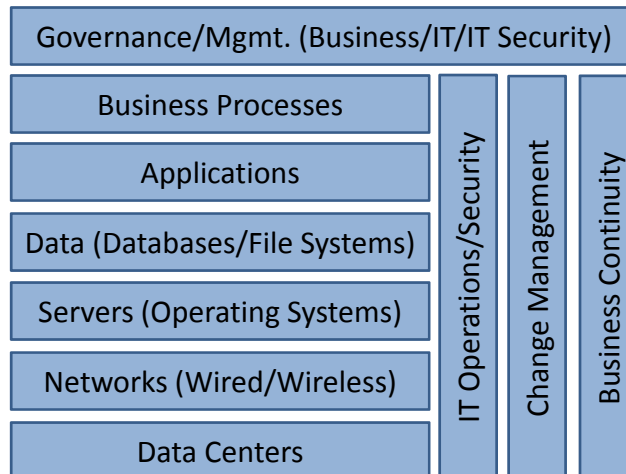


## Broad Categories of Risk

- **Confidentiality** – Private or not public data or system-reported information is protected from unauthorized disclosure or use
- **Integrity** – Data and system-reported information is complete and accurate
- **Availability** – Computer systems and data will be accessible (“up-and-running”) when needed



## Layers of Risks/Controls





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## Role of Internal Auditing

Provide independent and objective assurance that:

- Controls are properly designed and effective to ensure computer system and data confidentiality, integrity and availability
- Information systems are operating effectively to achieve the organization's goals or objectives

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## Internal Audit - IT Risk Identification

- Discussions with over 20 IT professionals and groups
- Attended annual MnSCU ITS Conference
- Attending bi-weekly CIO meetings and monthly Security Steering Committee meetings
- Reviewed various documents
  - *IT Service Delivery Strategy* document
  - System Policies, Guidelines and Procedures
  - 2011 ITS Satisfaction Survey
  - OLA IT audit reports (9)
- Auditor brainstorming and input

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## Overall Observations

- Internal audit has a lot more to learn!
- IT professionals are talented, hard working, and passionate about IT and higher education
  - Few have worked with internal or external auditors
- The MnSCU computing environment is huge, complex and diverse
- The system office manages several mission critical enterprise systems (ISRS, D2L, Data Warehouse, wide area network...)

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## Overall Observations Continued

- Individual institutions manage unique mission critical systems and networks
- Institutions have varying levels of technical expertise
  - Individuals often wear many hats
  - Few institutions have dedicated full time information security professionals
- A few institutions are managing systems evolving into critical enterprise systems (MSU Mankato - ImageNow)
- Minimal organization-wide IT and IT security-related guidance or requirements

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## Audit - System/Data Classification & Prioritization

Confidentiality	High	System contains sensitive or private data
	Medium	System contains data of unknown classification
	Low	System does not contain sensitive or private data
Integrity	High	System collects, transmits, processes or stores important data that may be used to make significant decisions
	Medium	Data is important to the business function or mission
	Low	Data is not important to the business function or mission
Availability	High	System must be available at all times
	Medium	System can experience some down time or limited availability outside of normal business hours
	Low	System can experience extended downtime or no availability required outside of normal business hours
Accessibility	High	System accessible via the Internet or a broad audience such as any MnSCU network/computer
	Medium	System with limited local network connectivity or select MnSCU networks and computers
	Low	Standalone system with limited or no network connectivity

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## IT Risk Areas

- Enterprise Systems (ISRS/Warehouse, D2L) + ImageNow
  - Data Confidentiality (High)
    - Student, employee, and banking data
  - Data Integrity (High/Medium)
    - Financial data, hr/payroll data, financial aid data, student transcripts, grades & awards
  - System and Data Availability (High/Medium)
  - Accessibility (High/Medium)

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## IT Risk Areas

- Institution-Specific Systems
  - Difficult for Internal Audit to determine
  - What we do know about Institution IT
    - Each responsible for managing/securing own networks, computers, and applications
    - Commercial and custom applications are used
    - Many copy ISRS data and store it in databases
    - Employees and students access enterprise systems
    - Each have point-of-sale systems and process credit card transactions

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## FY 2013 Audit Planning

- Focus on Enterprise Systems & Data (confidentiality, integrity, and availability)
- Learn more about our institutions
  - Engage CIOs and others
  - Explore ideas for future audits/projects
- Challenge
  - 1 IT audit position

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## Minnesota State Colleges and Universities

# Audit Committee Practices

**Beth Buse**, Executive Director, Internal Auditing

**May 15, 2012**

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## Audit Committee Practices

- Today's Agenda
  - Fiscal year 2012 Audit Committee goal
    - Benchmarking
    - Useful as a succession planning tool
  - Discuss research completed
    - Professional organizations
    - Industry and non-profit sector
    - Other higher education systems
  - Determine next steps

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## Audit Committee Practices

- Research Methodology
  - Publication and article review
    - Association of Governing Boards
    - Institute of Internal Auditors
    - AICPA
    - National Association of Corporate Directors
    - Audit consulting firms
  - Review of higher education peers
    - University of Minnesota
    - University System of Georgia
    - Tennessee Board of Regents
    - University of Wisconsin System

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## Audit Committee Practices

- Considerations
  - System context
  - Available resources
    - System office versus individual colleges and universities
  - Overall board versus committee role

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## Audit Committee Practices

- Common Audit Committee Topics
  - Financial Reporting
  - External Audit
  - System of Internal Controls
  - Fraud
  - Oversight of Management Internal Audit
  - Risk Management
  - Compliance

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## Audit Committee Practices

- Potential Areas for Future Review
  - With the future increase in the number of internal audit projects - The committee will need to determine the level of discussion needed on reviewing the results of each audit.
  - The committee does limited oversight over risk management and compliance activities within the system. These two areas are commonly discussed in audit committees in industry and other higher education systems.

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