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Making Your Audits More Relevant:
Capitalize on ERM!

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Patricia Snopkowski	Chief Audit, Risk and Compliance Executive, Oregon State University
Sharon Kurek	Executive Director of Audit, Risk, and Compliance, Virginia Tech
Joanna Rojas	Director of University Audit, Duke University

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Introductions

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Objectives and background

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Learning objectives

1	Provide background information and highlight ERM trends in higher education
2	Share examples of institutions transforming the internal audit role to provide positive assurance and integrate ERM
3	Discuss opportunities to make your audits more relevant

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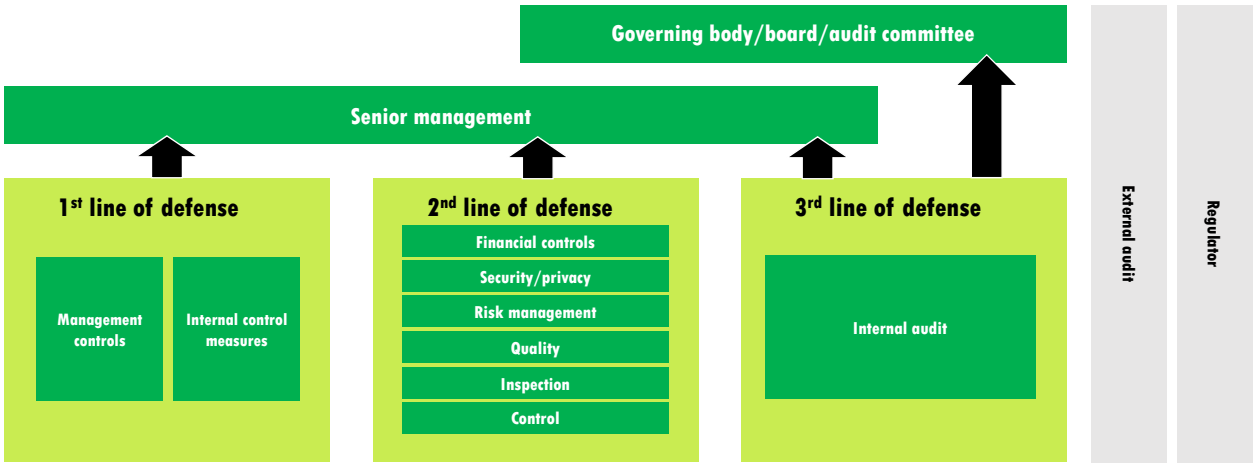
BACKGROUND

Three lines of defense



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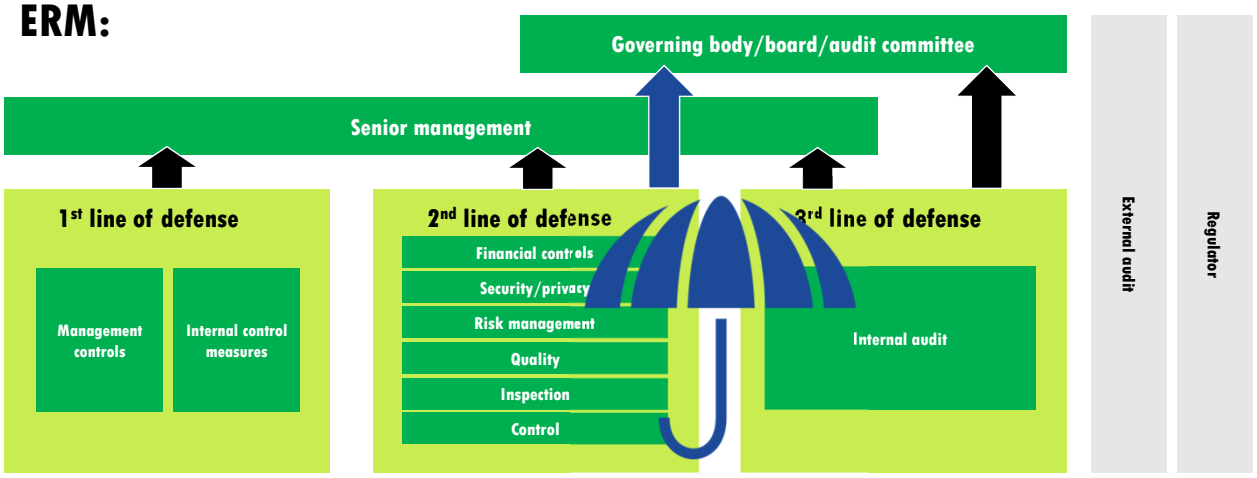
BACKGROUND

Evolving view - Intersection of internal audit, compliance and ERM:



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BACKGROUND

Purpose and evolution of the study in enhancing ri management efforts

- Survey leading institutions to understand progress on ERM
- Identify processes and tools that have evolved in risk mitigation
- Learn how Internal Audit functions are embracing ERM to make the internal audit activity more relevant
- Share emerging best practices

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BACKGROUND

Participating institutions

- **Duke University**
- **Johns Hopkins University**
- **Oregon State University**
- **Princeton University**
- **Stanford University**
- **University of Tennessee**
- **Virginia Tech**

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ERM trends in higher education

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ERM TRENDS

Initiating an ERM program: key steps

- Formalize oversight at the Board level (i.e., through committee title/charter)
- Identify internal champion from senior leadership (e.g., president, chief financial officer)
- Establish ERM facilitator (i.e., individual, committee) with reporting responsibility to senior leadership
- Collaborate with assurance functions and other key stakeholders (i.e., internal audit, compliance

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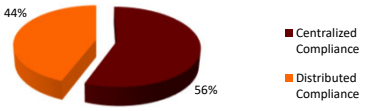
GOVERNANCE

Per charter, BOV Audit Committee had responsibility to

- **Review risk management efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university's risk assessment and risk management policies**
- **Assure compliance with applicable laws and regulations and monitor the results of the compliance efforts**

OVERALL SCHEV PEER GROUP



PEERS

56% of SCHEV peers had a centralized approach to compliance (similar for ERM)

2001

2015

2016-17

2017

INTERNAL AUDIT

President Sands requested an assessment of VT's compliance program. Areas identified as opportunities for improvement included:

- **Governance and accountability**
- **Risk assessment and monitoring (subset of ERM)**
- **Incident management and reporting**
- **Education and communication of ethical standards**

GOVERNANCE

BOV changed governance structure that created the Compliance, Audit, and Risk Committee.

President Sands announced the implementation of an Enterprise Risk Management (ERM) program to holistically review and assess the university's risk environment

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Our case for change: Action = Value

2005:

"What is risk?"

Develop common risk language and assessment tools

2010:

"What is the risk?"

Mature risk assessment process and discussion of risks

Emphasis on risk awareness and comparison with other risks

Track changes over time to evaluate mitigation strategy

2016-2018:

"What is the risk strategy?"

Leverage ongoing discussion of risks to evaluate risks across silos and prioritize resources

Recognize complexity and interdependency of the risk landscape

Expect relative risks evaluation and prioritization across silos

Focus on active risk management: what we do in addition to what we know about our risks in the short- and long-term horizons

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Goals for Further Evolution: Move from education to action

- Quickly view and understand the highest risks or priorities at risk, with trend movement
- Represent risk tolerance and adaptability evaluations
- View risks across functional areas and ownership lines
- Support in-depth analysis of the highest risks, including interdisciplinary discussion, risk tolerance assessment, resource prioritization and mitigation plan accountability
- Link to strategic discussion at the Board level
- Explain risk mitigation strategy
  - Accept / Transfer / Respond / Mitigate (or combination approach)
  - Specific actions to be taken
  - Name who is responsible

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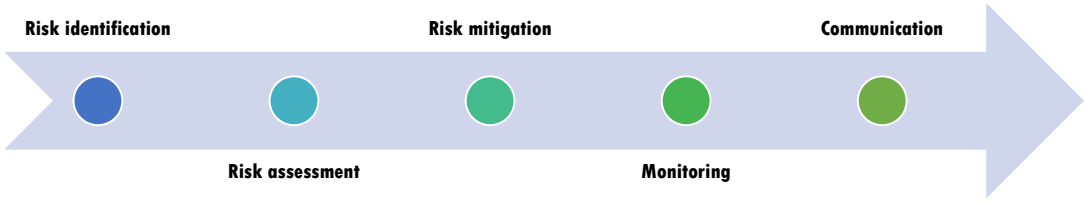
ERM process



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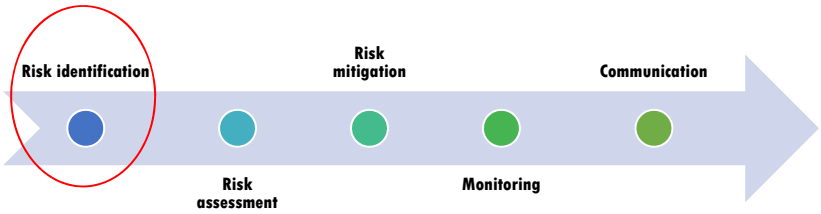
ERM TRENDS

Risk identification

- Simplifying and streamlining the risk universe
- Embedding into ongoing leadership discussions to keep the program relevant



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Oregon State University

ERM- Information Gathering

- Understand objectives/strategic plan
- Evaluate industry and contemporary environment
- Understand the environment
- Evaluate prior experiences

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Oregon State University

ERM- Information Sources

Sources of Information		
Media	Peers/Industry	Government
Chronicle of Higher Ed	Higher Education (HE) Professional Organizations	Federal Agencies
Inside Higher Education	Regional HE Peers and Pac-12	State Agencies
NY Times/National Headlines	Land-grant Universities	Local and County Governments
Oregonian/Local Papers	Aspirational Peers	Inspector General & General Accountability Office

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Oregon State University

ERM- What Opportunities and Risks Exist

Know the people, services, tools, and facilities/infrastructure of the nine major functional components of the university:

1. **Governance**
2. **Instruction**
3. **Student Services**
4. **Fiscal and Asset Management**
5. **Facilities and Operation**
6. **Auxiliary Operations and Athletics**
7. **Information Systems**
8. **Human Resources**
9. **Research**

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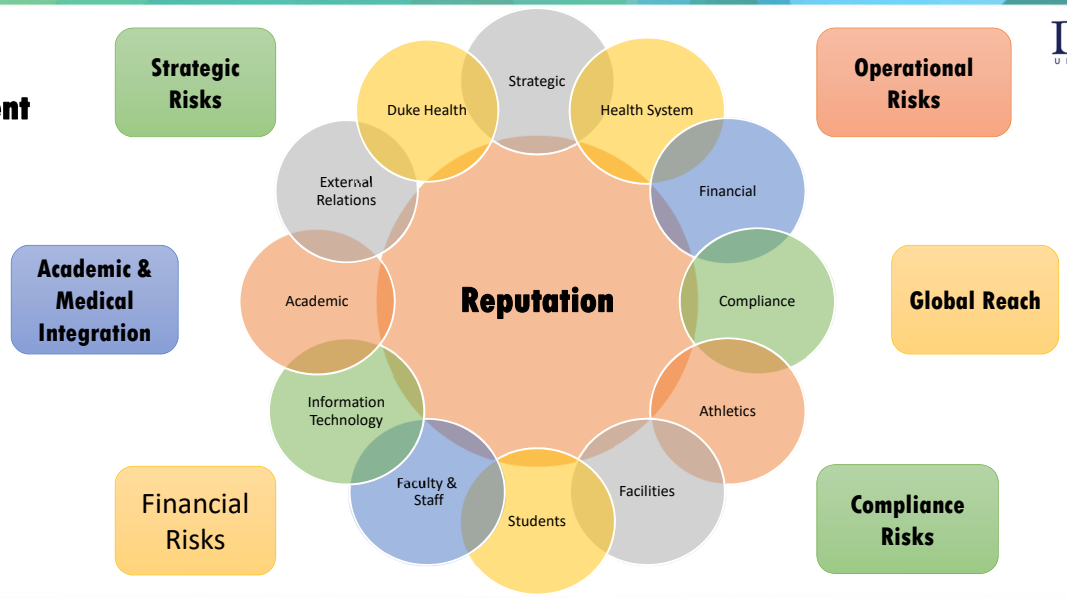
Risk Management Process Universe



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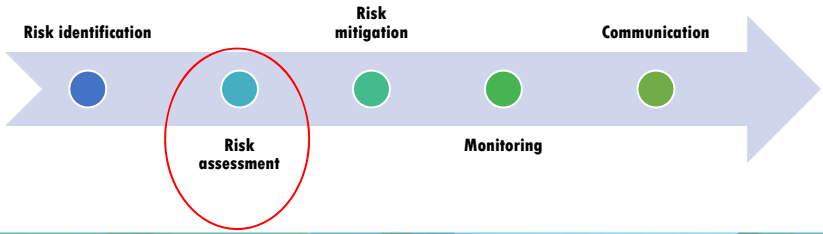
ERM TRENDS

Risk assessment

- Focus on substance over form
- Understand inherent and residual risk
  - Inherent risk: likelihood and impact WITHOUT management controls
  - Residual risk: likelihood and impact AFTER considering management controls
- Consider the velocity of a risk



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Understand the OSU Environment

- Compliance Executive Committee
- President's Cabinet, Provost's Council
- Board of plans
- Trustees
- Operational experiences

Examine prior unforeseen experiences and reactions

- Governance changes
- Federal and State agency focal points

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Oregon State University

RISK AREA	EVENTS OSU STRIVES TO ACHIEVE
All hazard planning	Adequate response to protect life and safety: active shooter, illness, earthquake, inclement weather events.
Information technology security	Reducing the risk of loss of student, research, or operational data as well as network services leading to a disruption of service, financial losses, and negative perceptions of operational controls.
Critical training for employees	Adequate education to prevent employee discrimination, harassment, and poor management practices.
Lab safety	A safe OSU community. Uniform lab safety training, proper disposal and storage of supplies and waste, effective safety measures, and compliance with state and federal environmental laws.
Title IX gender-based violence education, prevention and response	Protect OSU students against acts of gender-based violence.
Student preparedness, success, and inclusion programs	A diverse demographic base of students that are adequately supported, and therefore positively impacting access and student success goals. Financial aid programs that serve OSU to retain and attract high-achieving and serve need-based students thus increasing enrollment and access.
Research space needs	Lab and research space that attracts and retains top research faculty leading to an increase of grant awards and an increased ability to attract and retain graduate and post-doctoral students. Enhanced student experiential learning opportunities.

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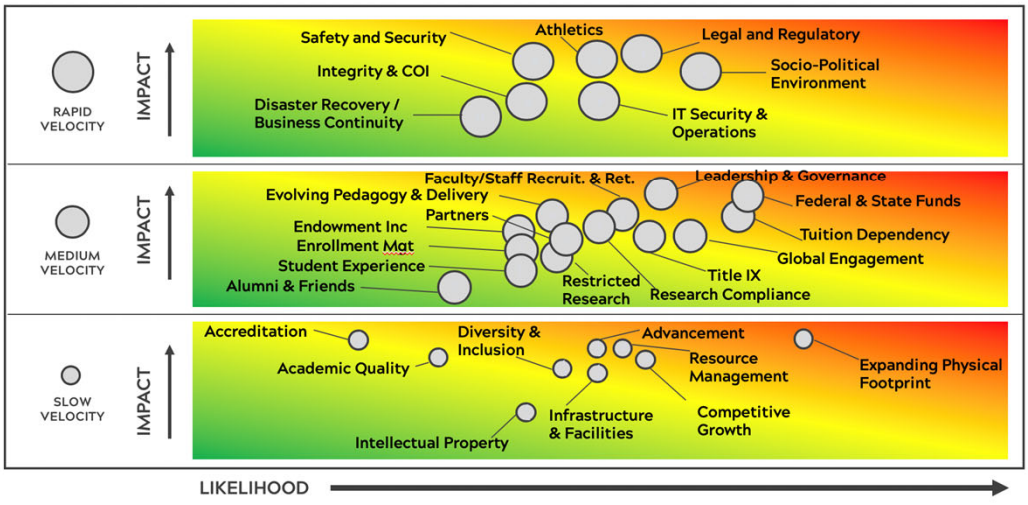
Considering the velocity of risk



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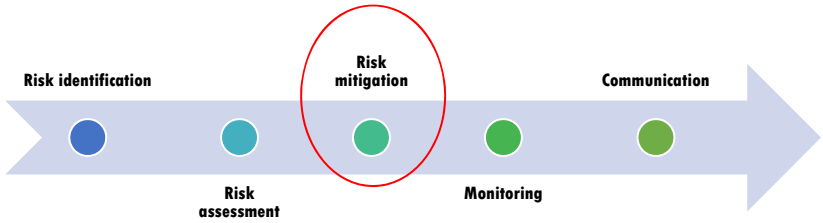
ERM TRENDS

Risk mitigation

- Assessment of the **degree to which management has taken actions** to either reduce the likelihood or impact of those risks
- Use of performance metrics to **measure progress** in mitigating the risk



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Sub-Risk: **A. List the Sub-Risk statement here**

Sub-Risk Owners: **Who is responsible for managing this sub-risk? (Name(s))**
Note: The sub-risk owner is usually a Management-level individual, who is one or multiple levels below the enterprise risk owners, and is heavily involved in managing the sub-risk.

Likelihood	X	Impact	Y	Risk Score	X*Y

Last Updated: Month XX, Year

Mitigation / Management	Monitoring & Communication
What are you doing to mitigate each sub-risk? List key mitigation activities/tools/mechanisms ("activities") currently in place to manage/mitigate each sub-risk. Consider people, process, technology and governance/controls in place. • *If mitigation activities are in progress of being implemented, please list them and indicate "In Progress".* • *If there are gaps in the mitigation efforts in place or improvement opportunities, please note them and indicate "Gap" or "Improvement Opportunity".*	**How are you measuring and communicating the effectiveness of mitigation activities?** List key monitoring activities currently in place to measure the effectiveness of mitigation activities for each sub-risk. • *If monitoring activities are in progress of being implemented, please list them and indicate "In Progress".* • *If there are gaps in the monitoring efforts in place or improvement opportunities, please note them and indicate "Gap" or "Improvement Opportunity".*

Important Notes:
- *This is a strategic tool to help document **key** procedures already in place to mitigate and monitor risk*
- *This content may be reviewed in a Board or Cabinet meeting*
- *Please reach out to the ERM team for any assistance or guidance needed*

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Sub-Risk: **A. List the Sub-Risk statement here**

Sub-Risk Owners: **Who is responsible for managing this sub-risk? (Name(s))**
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Last Updated: Month XX, Year

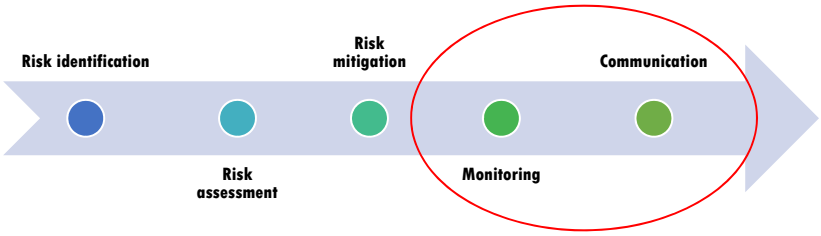
Likelihood	X	Impact	Y	Risk Score	X*Y

Mitigation / Management	Monitoring & Communication

ERM TRENDS

Monitoring and communication

- **Assigning ERM risks to appropriate trustee committees**
- **Developing exercises and templates for ongoing monitoring and engagement**



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2008

1st University Risk Assessment (URA)

- Hired an external firm to conduct 1st URA
  - Identify/analyze key areas of potential risk
  - Evaluate University's functions for managing risk
  - Establish a plan to enhance effective monitoring of risk
- Defined risk as not only what can go wrong, but what must continue to go right
- Assessment included risks inherent to higher ed, as well as those specific to Princeton

2009

Completed URA

- Created University "risk map" of twelve key institutional risk areas
- Established ongoing institutional risk management process
- Integrated process into University's planning and evaluation of administrative issues
- Began annual process to assess, monitor, and manage our institutional risk and related mitigation plans for key risk areas

2010-11

Formalized Risk Management Structure

- Established Executive Risk Management Committee (ERMC) to oversee the risk management process and review risks annually
- For each key risk, identified Executive Sponsors (ESs) and Risk Management Owners (RMOs)
- Annually, management speaks with each RMO and ES to discuss any new risks, the progress of previously established mitigation measures, and plans for additional or refined mitigation efforts

2012-13

Established Distributed Governance

- **Board delegated oversight of risk management process to Audit and Compliance Committee (ACC)**
- **ACC reviews overall risk management process and general progress on mitigation strategies**
- **Oversight of key risk areas is assigned to appropriate Trustee committees**
- **Trustee committees serve as risk leads for their respective areas, based on special knowledge in area**
- **ACC and other Trustee committees review mitigation measures and key risk areas in their purview**
- **ACC Charter revised to add ERM**

2014-16

Ongoing Enterprise Risk Management

- Enterprise Risk Management (ERM) process steady state
- Preliminary conversations to take place about risks related to strategic framework
- ACC asks other board committees to share highlights from their committees' discussions related to assigned risk areas, and ACC Chair shares in memo to Executive Committee of the Board

2017-18

ERM Reset

- Refresh University risk assessment in context of strategic framework
- Conduct more interviews and surveys in light of strategic priorities
- Introduce maturity scale for mitigation measures
- Refine identification of top risks and into two categories with corresponding mitigation measures
- Annually update key enterprise risks and their associated ratings

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Purpose of the tabletop exercise

- Consider the impact of a particular scenario on the Enterprise Risk Landscape
- Discuss plans and strategies that exist
- Brainstorm plans and strategies for the future

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Tabletop exercise structure

- OARC-facilitated discussion over two hours of two related scenarios (one manageable and one catastrophic)
- An open, low-stress, no-fault environment
- Focus on suggestions and recommended actions to improve response and preparedness over issue identification
- Assume scenario is plausible, with no hidden agenda/trick questions
- Everyone receives information at the same time

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Topics

- Enrollment Management – International Students
- The Next Great Recession
- Succession Planning – Recruitment & Retention of Faculty & Staff

ENTERPRISE RISK MANAGEMENT TABLETOP EXERCISE 2019

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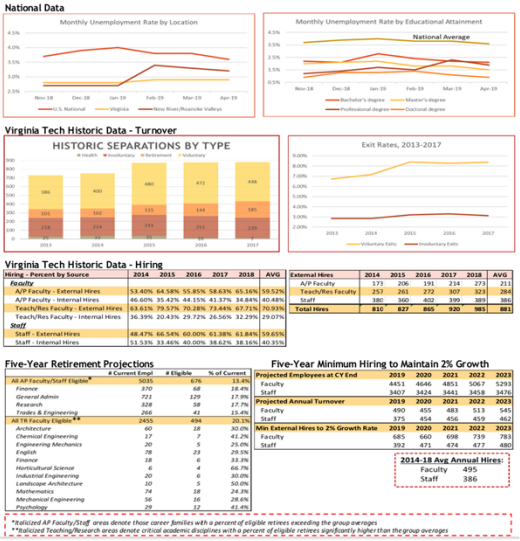

Hiring - Percent by Source	2014	2015	2016	2017	2018	AVG
Faculty						
A/P Faculty - External Hires	53.40%	64.58%	55.85%	58.63%	65.16%	59.52%
A/P Faculty - Internal Hires	46.60%	35.42%	44.15%	41.37%	34.84%	40.48%
Teach/Res Faculty - External Hires	63.61%	79.57%	70.28%	73.44%	67.71%	70.93%
Teach/Res Faculty - Internal Hires	36.39%	20.43%	29.72%	26.56%	32.29%	29.07%
Staff						
Staff - External Hires	48.47%	66.54%	60.00%	61.38%	61.84%	59.65%
Staff - Internal Hires	51.53%	33.46%	40.00%	38.62%	38.16%	40.35%

External Hires	2014	2015	2016	2017	2018	AVG
A/P Faculty	173	206	191	214	273	211
Teach/Res Faculty	257	261	272	307	323	284
Staff	380	360	402	399	389	386
Total Hires	810	827	865	920	985	881

Five-Year Retirement Projections

	# Current Empl	# Eligible	% of Current
All AP Faculty/Staff Eligible*	5035	676	13.4%
Finance	370	68	18.4%
General Admin	721	129	17.9%
Research	328	58	17.7%
Trades & Engineering	266	41	15.4%
All TR Faculty Eligible**	2455	494	20.1%
Architecture	60	18	30.0%
Chemical Engineering	17	7	41.2%
Engineering Mechanics	20	5	25.0%
English	78	23	29.5%
Finance	18	6	33.3%
Horticultural Science	6	4	66.7%
Industrial Engineering	20	6	30.0%
Landscape Architecture	10	5	50.0%
Mathematics	74	18	24.3%
Mechanical Engineering	56	16	28.6%
Psychology	29	12	41.4%

*Italicized AP Faculty/Staff areas denote those career families with a percent of eligible retirees exceeding the group averages
**Italicized Teaching/Research areas denote critical academic disciplines with a percent of eligible retirees significantly higher than the group averages

Five-Year Minimum Hiring to Maintain 2% Growth

Projected Employees at CY End	2019	2020	2021	2022	2023
Faculty	4451	4646	4851	5067	5293
Staff	3407	3424	3441	3458	3476
Projected Annual Turnover	**2019**	**2020**	**2021**	**2022**	**2023**
Faculty	490	455	483	513	545
Staff	375	454	456	459	462
Min External Hires to 2% Growth Rate	**2019**	**2020**	**2021**	**2022**	**2023**
Faculty	685	660	698	739	783
Staff	392	471	474	477	480

2014-18 Avg Annual Hires:
Faculty 495
Staff 386

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Debriefing and Evaluation

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- At conclusion of tabletop exercise
  - What are some strengths that have been pointed out throughout the exercise?
  - What are some opportunities to improve plans or strategies?
- Participant follow-up surveys
- After-action reporting

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Key Takeaways

- Critical need to break down silos through cross-functional discussion
- Pervasiveness of reach far greater than anticipated
- President's engagement demonstrated commitment to ERM and its importance to the university

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ENTERPRISE RISK LANDSCAPE

ACADEMIC	CAMPUS CULTURE AND CLIMATE	EXTERNAL ENVIRONMENT	FINANCIAL	RESEARCH	UNIVERSITY OPERATIONS
Faculty & Staff Recruitment & Retention	Leadership & Governance	Legal & Regulatory	Federal & State Funds	Research Compliance	Expanding Physical Footprint
Global Engagement	Athletics	Socio-Political Environment	Tuition Dependency	Competitive Growth	Safety & Security
Evolving Pedagogy & Delivery	Title IX	Partners	Resource Management	Integrity & Conflicts of Interest	IT Security & Operations
Enrollment Management	Diversity & Inclusion	Alumni & Friends	Advancement	Restricted Research	Infrastructure & Facilities
Academic Quality	Student Experience	Accreditation	Endowment Management	Intellectual Property	Disaster Recovery & Business Continuity

REPUTATIONAL / COMPLIANCE

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ERM TRENDS

Changing roles of ERM stakeholders

- **Compliance**
  - Integrated into **overall ERM program** vs. separate "silo"
- **Internal audit**
  - **Coordinated planning** process with ERM risk assessments
  - Provide assurance that **key risk mitigation strategies** are operating effectively

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"But you can't audit: Work force!"
Approach: Make the non-auditable auditable

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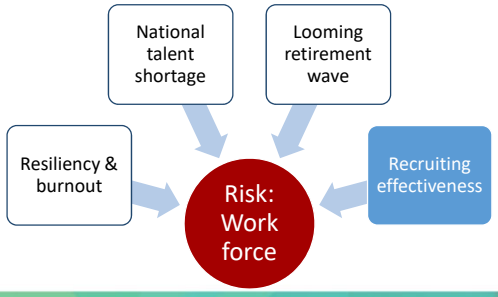
Make the non-auditable auditable by identifying risk drivers, honing in on those that present controls and governance opportunities, and chartering a corresponding audit.



Staff Recruiting Effectiveness

Key Questions
- Have newly-adopted recruiting processes been consistently implemented?
- Are new metrics around communication, cycle time and turnover accurately and transparently reported?

Potential Approaches
- Validate metric data inputs
- Review a sample of communication trails
- Identify leading and lagging "buckets" (recruiters, departments, candidate pools)

Stakeholders
- HR / dept. recruiting
- Operations leaders (VP/Directors/Deans)
- Performance improvement

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"But you can't audit: Business continuity!"

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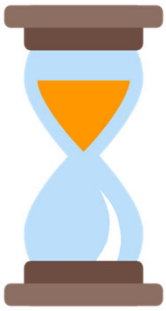
Identify the most business-critical failure points and scoping audits accordingly. "Use the hourglass!"



Business	*Major risk: too broad to be an audit topic, but a critical business focus*
IA	*Auditable element: a governance, controls and transparency risk driver*
Business – IA collaboration!	*Risk-resilient operations: new ways of operating that incorporate audit (and other) input to mitigate risk*

Data Backup and Recovery

Key Questions
- Are core systems continuously backed up and are the backups secure?
- Is the recovery process well-understood and choreographed

Potential Approaches
- Inventory backup approaches and compare to leading practice
- Review recovery drills for timeliness, completeness, and coordination between IT and operations

Stakeholders
- CIO and IT leadership team
- Operations leaders (hospital presidents)
- Physician practice executives
- Quality & patient safety

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Key takeaways

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CONCLUSION

Key takeaways

- ✓ Align your risks with leadership (i.e., be sure you are talking about the same risks)
- ✓ Collaborate on risk assessments (i.e., internal audit, compliance, ERM)
  - ✓ Even if you do not have ERM and compliance programs, it is about tying it all together
- ✓ Seek out opportunities to mature your program, regardless of what stage you are in
  - ✓ Just beginning: opportunity to start the conversation
  - ✓ Making progress: look for opportunities to bring it to the next level
  - ✓ Mature: take opportunities to innovate/reinvigorate your program

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Questions?

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