

FY24 ENTERPRISE RISK MANAGEMENT BIENNIAL REPORT

ABRIDGED VERSION

June 2024



University of
Massachusetts

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Executive Summary

The nationally recognized University of Massachusetts (UMass) Systemwide Enterprise Risk Management Program (“ERM Program”) provides a framework through which the University takes a risk-based approach to operations and initiatives. The ERM Program was awarded the **2024 Outstanding Achievement in an Enterprise Risk Management Program** award from the Public Risk Management Association (PRIMA) and has achieved connectivity between the systemwide ERM framework and work being conducted and prioritized across the University.

The ERM Program issues a biennial report detailing the activities of the Program. The 2024 report provides an overview of the ERM Program and its achievements during FY2023 and FY2024 which include:

- Implementation of the first round of mitigation assessment
- Copyright and trademark of the mitigation assessment tool MATRX
- Update of the systemwide risk registry
- Increased ERM Program visibility through presentations and publications.

The ERM Program will continue fostering internal and external collaboration, enhancing transparency across the system, and seeking additional opportunities to provide impact and value to the University.

I. Introduction

The UMass Systemwide ERM Program guides and implements an ongoing process to proactively identify, assess, and manage risks impacting the University. It provides a framework for university leadership to manage existing and emerging risks, enables risk-informed decision-making and enhances transparency across the University.

Consistent with the ERM Program's two-year program cycle, the University issues a biennial ERM Report detailing the activities of the program completed in the most recently concluded program cycle. The 2024 ERM Report provides information on activities completed in the program cycle for Fiscal Years (FY) 2023 and 2024.

During this time, the ERM Program continued to enhance the University's knowledge of risks with systemwide impacts and increased the transparency of mitigation strategies and their impact on reducing risk exposure. The ERM Program enriched information-sharing across the University and beyond and supported informed decision-making. The Program achieved these objectives by completing the following milestones:

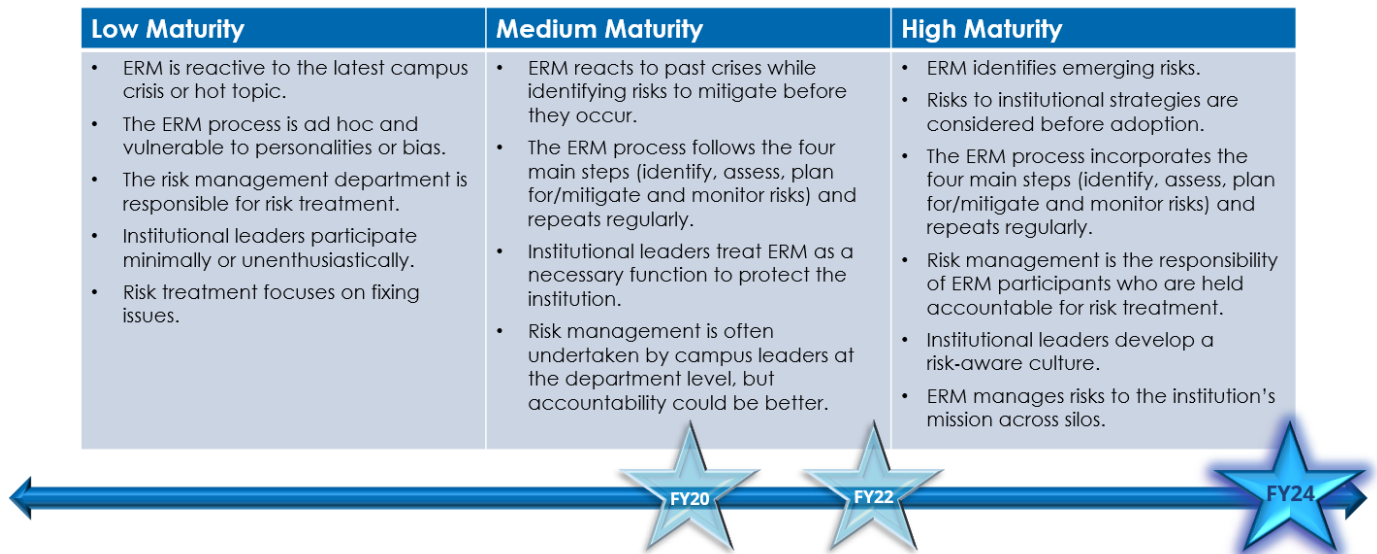
- Conducting the first round of mitigation assessment by documenting and assessing mitigation strategies using MATRX, the mitigation assessment tool developed in-house by the ERM Team
- Obtaining copyright and trademark protections for MATRX
- Providing 10 presentations at various national and regional conferences, which has allowed the program to gain international visibility to other higher education institutions and partners
- Conducting the FY24 risk assessment using information acquired from the mitigation assessment process

The ERM Program continues to cultivate a risk-informed culture across the University.

II. ERM Program Maturity

The UMass Systemwide ERM Program has achieved high maturity in accordance with the Association of Governing Boards of Universities and Colleges (AGB)'s ERM Program Maturity Model¹.

Graphic 1: ERM Program Maturity Model



The ERM program has matured through:

- Identifying emerging risks as they arise
- Demonstrating risk and residual risk to inform initiatives and operations
- Implementing the ERM program in accordance with a two-year program cycle of identifying, assessing, mitigating and monitoring risk
- Engaging with risk partners across the system to identify, document and assess mitigation strategies
- Engaging multi-disciplinary risk partners across the University on risk assessment, risk mitigation and risk management, and
- Cultivating a risk-informed culture.

¹ This model is based on criteria from United Educators *"Use a Maturity Tool to Advance the ERM Process – Higher Education."*

III. ERM Program Overview

The ERM Program is a key component of the University's Accountability Framework, providing systematic approach to identifying, assessing, and managing risks across the University.

Graphic 2: UMass Accountability Framework



The ERM Program's objectives are to:

- Enhance awareness and knowledge of the University's exposure to risk across the system
- Increase understanding of how effective the University is in mitigating risk
- Broaden information sharing across the university
- Better inform critical decision-making.

To achieve these objectives, the ERM Program operates under a formal governance structure and a two-year program cycle.

a. ERM Program Governance Structure

The ERM Program has a governance structure with defined membership, roles, and responsibilities. Membership includes representation from all five

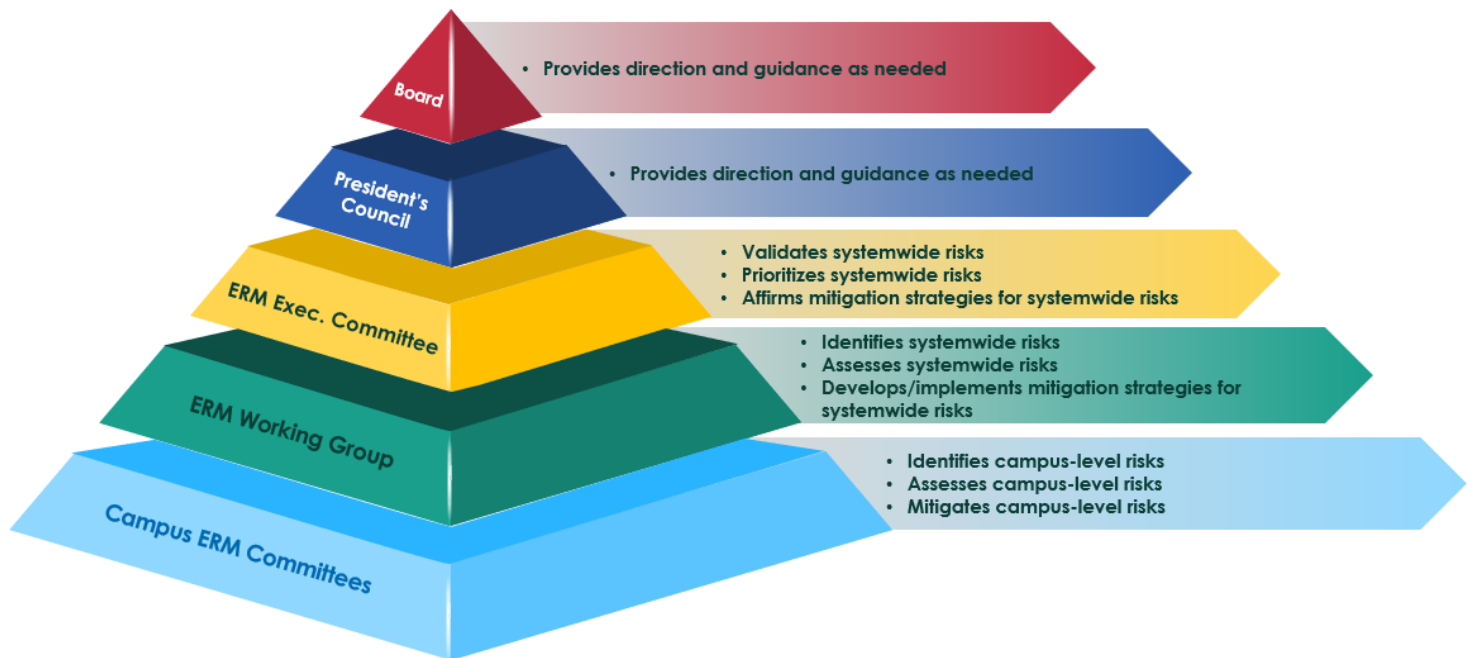
UMass campuses and the President's Office, as well as representation from 19 disciplines. The governance structure ensures that perspectives from across system are shared and heard, and that risk is discussed and explored in a multi-disciplinary, un-siloed manner, providing a truer understanding and enhanced transparency of risk for the University.

Graphic 3 depicts the five components of the ERM governance structure:

- Campus ERM Committees: each campus committee focuses on campus-specific risk
- ERM Working Group: comprised of campus representatives, President's Office representatives, and discipline-specific subject matter experts, the ERM Working Group is responsible for identifying and assessing systemwide risks. The ERM Working Group meets three times per year.
- ERM Executive Committee: composed of leadership representatives from each campus and the President's Office, the Executive Committee is responsible for prioritizing systemwide risks and validating mitigation strategies. The Executive Committee meets quarterly.
- Presidents' Council: Comprised of the Chancellors and President, the Presidents' Council provides guidance on an as-needed basis.
- Board of Trustees: the Audit and Risk Committee of the Board of Trustees provides guidance to the ERM Program. The Audit and Risk Committee meets three times each year and is provided an ERM Program update at each meeting.

Please see Appendix A for more detailed information on the ERM governance structure.

Graphic 3: UMass Systemwide ERM Program Governance Structure



b. ERM Program Cycle

The ERM program follows a two-year program cycle to conduct risk assessment and prioritization, identify and assess risk mitigation strategies, and issue formal biennial reports on the ERM Program. Throughout this cycle, the University continuously implements risk mitigation strategies.

The ERM Program cycle is recurring, but not repetitive. Each time the University begins a component of the cycle, we build upon the work that was completed in the previous component, making the next phase more strategic and impactful. Becoming more purposeful in our ERM Program enables the University to be more strategic in our work, initiatives, and decision-making.

Graphic 4 below depicts the timeframe each program cycle component was implemented in FY23 and FY24 and the associated activities included this report.

Graphic 4: Two-Year ERM Program Cycle (FY23 -FY24)



i. Mitigation Assessment

Risk mitigation is the core of an ERM Program. While it is impactful to understand risk and risk exposure, it is perhaps even more important to understand the strategies being implemented to address risk, and the effectiveness of those mitigation strategies.

The ERM Program mitigation assessment goals include:

- Documenting risk mitigation strategies to increase transparency
- Correlating mitigation assessment to a risk's assessed inherent risk exposure
- Demonstrating the impact of mitigation strategies on risk exposure

To facilitate the mitigation assessment process and correlate the mitigation assessment to the Program's risk assessment process, the ERM Program developed the UMass Mitigation Assessment Tool to Reduce Risk Exposure – known as MATRX. MATRX enables the Program to document mitigation strategies and assess the impact they have in reducing the

exposure a risk has been assessed to present to the University system. MATRX was awarded federal copyright registration in December 2023 and Massachusetts trademark in March 2024.

**Graphic 5: UMass Mitigation Assessment Tool
to Reduce Risk Exposure (MATRX) Logo**

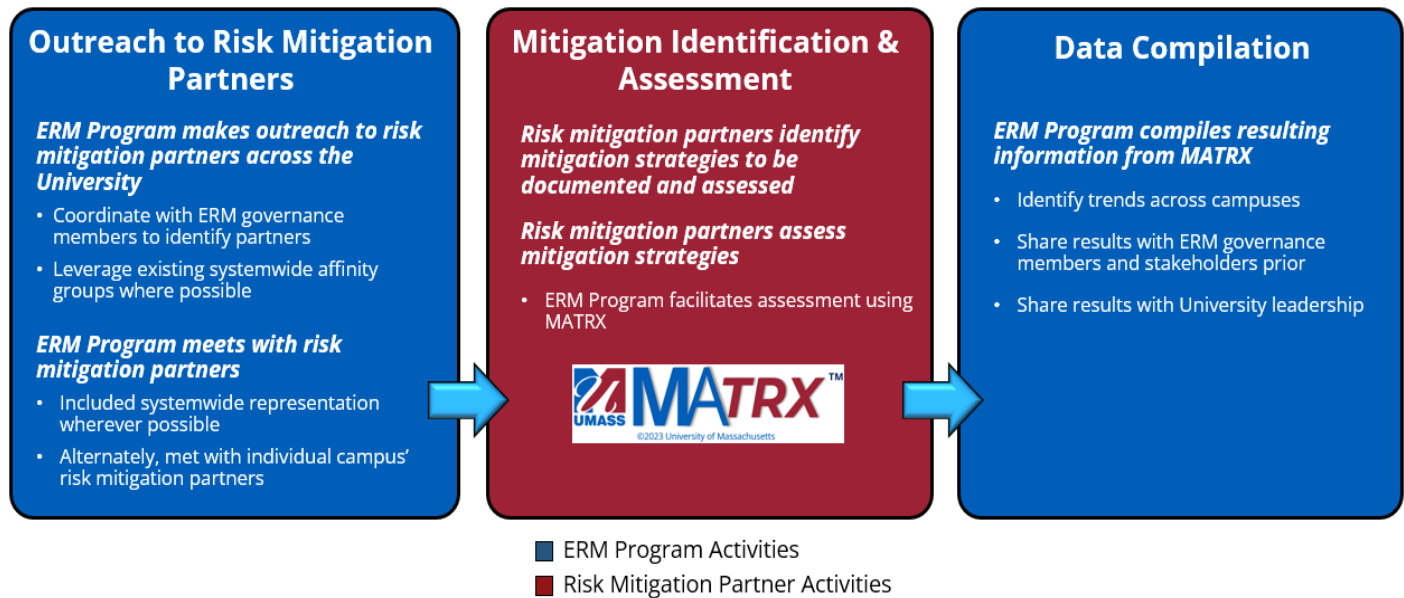


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It is important to note that the mitigation assessment does *not* set or track key performance indicators, define risk tolerance for the University, identify specific follow-on actions needed, or conclude satisfaction or dissatisfaction with status of addressing risk. It is intended to support leadership in asking more detailed, risk-informed questions related to these areas.

The ERM Program completed its first formal round of mitigation assessment for the Top 10 FY22 risks in FY23 and FY24. To complete this process, the ERM Program engaged with risk partners across the University and facilitated the identification, documentation and assessment of mitigation strategies using MATRX. Graphic 6 provides details on how this process was conducted.

Graphic 6: Mitigation Assessment Coordination



The mitigation assessment process resulted in the documentation and assessment of 133 mitigation strategies for the top 10 FY22 risks for which MATRX calculated the following measures:

- *Individual Effectiveness:* Each mitigation strategy is assessed for the effectiveness it has in individually reducing risk exposure.
- *Mitigation Strategy Rank:* Mitigation strategies are ranked based upon their individual effectiveness assessment. This enables comparison of mitigation strategies and their effectiveness in individually reducing risk exposure.
- *Residual Risk:* The mitigation strategies applied to a risk are assessed for their aggregate impact in reducing risk exposure. This is known as residual risk.

Mitigation assessment results are provided to leadership in a visual format.

1. Presentation of Mitigation Strategy Individual Effectiveness and Rank

This content has been redacted for the abridged version of this report given the sensitivity of mitigation data.

Higher education risk managers can contact Christine Packard, Assistant Vice President, Enterprise Risk Management at cpackard@umassp.edu for more information.

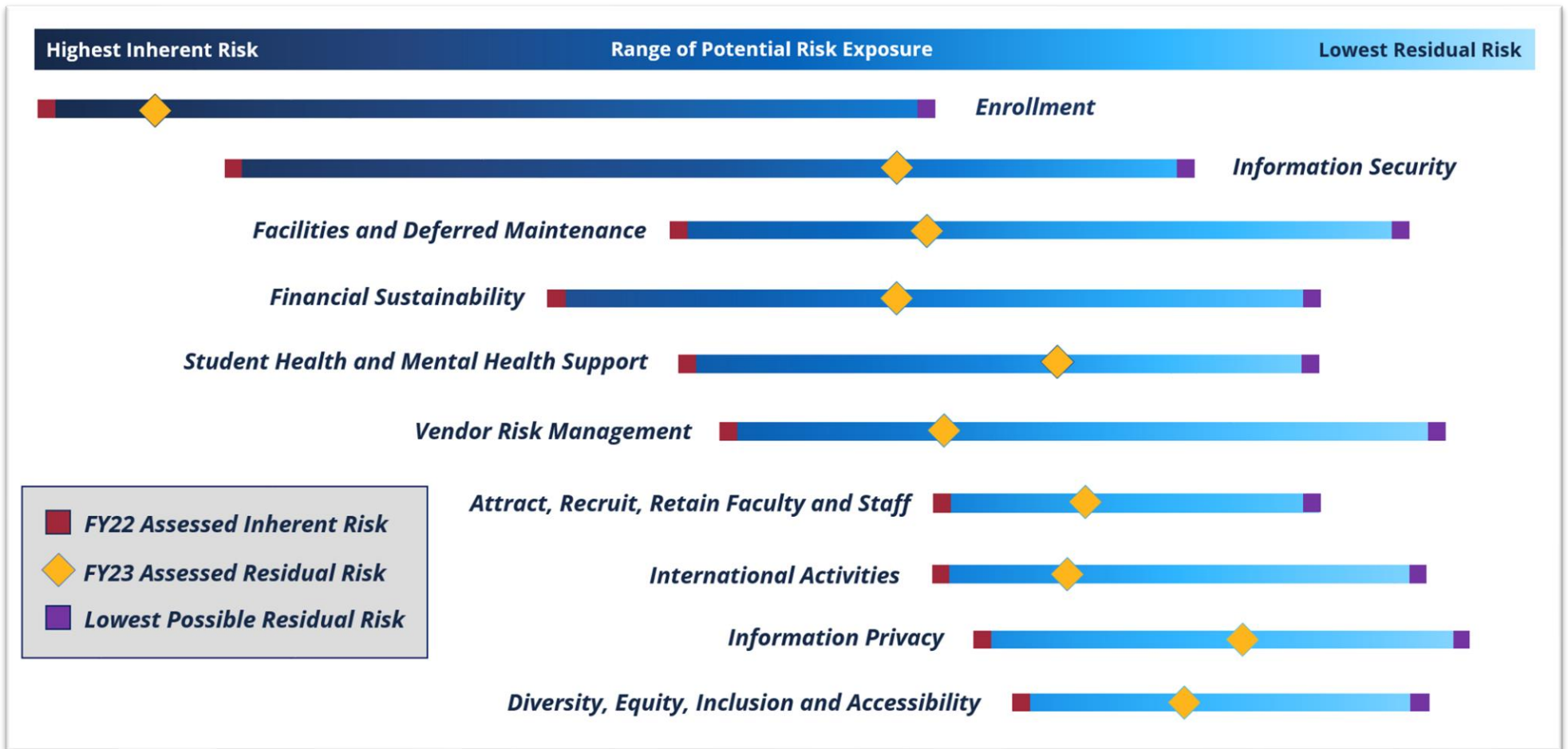
2. Presentation of Residual Risk/Aggregate Effectiveness of Mitigation Strategies

Graphic 8 below depicts the aggregate impact the assessed mitigation strategies have on each of the top 10 risks. The graphic also depicts several additional aspects of these risks:

- *Risk Exposure Range:* The graphic depicts the full range of risk exposure all 30 systemwide risks present to the University. The bar across the top of the graphic represents the complete range of risk exposure that all 30 systemwide risks present to the University. The farthest left (dark blue) represents the highest assessed inherent risk score, while the farthest right (light blue) represents the lowest possible residual risk exposure² a mitigated risk can present to the University.
- *Risk-Specific Risk Exposure Range:* The graphic demonstrates the range of exposure each individual risk presents to the University, depicting the differences in exposure each risk presents to the University. As you can see, the range of exposure for each risk is unique, and the exposure risks present to the University greatly varies from risk to risk. For example, the lowest possible risk exposure associated with enrollment is nearly equivalent to the highest exposure the risk associated with attracting, retaining and recruiting faculty and staff.
- *Residual Risk:* The graphic depicts the residual risk achieved through the implementation of mitigation strategies. The yellow diamond on each risk's exposure range represents the residual risk assessed through the mitigation assessment process.

² The lowest possible residual risk exposure is a representation of lowest possible risk exposure measurement that can be calculated but is not necessarily a reflection of the University's risk appetite (the desired residual risk exposure leadership desires to be achieved)

Graphic 8: Mitigation Assessment Date: Reduction In Overall Risk Exposure



ii. Risk Assessment

The ERM Program assesses the systemwide impact of risk. Systemwide impact is defined as impact to multiple campuses or impact to a single campus significant enough to have cascading impacts to other campuses.

The University assesses risk across three risk factors:

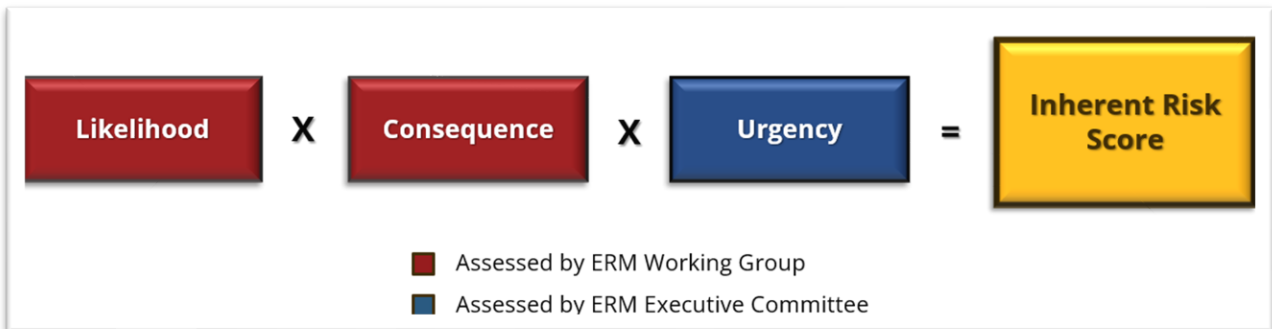
- **Likelihood**: The likelihood risk factor assesses how likely the University system would experience the risk.
- **Consequence**: The consequence risk factor assesses the degree to which the University system would be impacted by the risk. Consequence is evaluated across six categories:
 - *Operations*: The degree to which the University system operations would be impacted by the risk
 - *Financial*: The degree to which the University system finances would be impacted by the risk
 - *Legal/Compliance*: The degree of legal exposure or other fines and penalties associated with non-compliance with internal or external regulations, policies, and procedures the risk presents to the University system
 - *Workforce*: The degree to which the University system's ability to recruit or retain faculty and staff and/or maintain a positive workplace culture would be impacted by the risk
 - *Reputation*: The degree to which the University system's brand and/or reputation would be impacted by the risk
 - *Life Safety*: The degree to which the health and/or safety of students, faculty, or staff would be impacted by the risk
- **Urgency**: The urgency factor assesses the timeframe in which the University system needs to prioritize the risk. The assessed urgency factor is a reflection of risk tolerance.

The ERM Working Group assesses the likelihood and consequence of risk, evaluating the University's inherent exposure or impacts of unmitigated risk. The ERM Executive Committee assess the urgency of risk,

contemplating the current state of risk exposure and ongoing mitigation strategies.

The results of the assessment are then calculated to generate a risk's Inherent Risk Score (see Graphic 9).

Graphic 9: Inherent Risk Score Calculation



Risks are then ranked based on the Inherent Risk Score and compiled into the systemwide risk registry.

1. FY24 Risk Assessment

The systemwide risk registry was updated in FY24 using the UMass ERM systemwide risk assessment tools (see Appendix C for more details on the tools). This was the first risk assessment process for which the ERM Program had formal mitigation data available to inform the risk assessment process.

While the ERM Working Group continued to assess the University's *inherent* risk exposure related to likelihood and consequence, the ERM Executive Committee was able to use mitigation data when assessing a risk's urgency. The mitigation data demonstrated how much the University has reduced a risk's exposure, and thereby enabled the Executive Committee to make a more informed assessment of urgency.

In addition to being able to provide mitigation data to better inform the evaluation of risk, the mitigation assessment process identified an

additional area of enhancement for the risk assessment process: the need for the risk assessment process to allow assessment of sub-components of certain risks with broad ranges of impact. For example, when evaluating mitigation strategies related to international activities, it was challenging to associate the impact of a strategy targeted toward international students with the international activities risk because the risk included elements such as travel, business operations and employment. Therefore, by creating sub-elements of the risk, we are better able to evaluate not only the impact of mitigation, but also to evaluate the risk exposure more accurately.

In support of this finding, during the risk assessment process, each sub-element of a broad risk was evaluated for likelihood and consequence, and then the ratings were averaged to create the rating for the overall risk. Then the overall risk was evaluated for urgency. Table X provides information on the broad risks that included sub-components in the FY24 risk assessment process.

Table 1: FY24 Risks with Sub-Components

| Risk | Sub-Components |
|---|---|
| Enrollment | <ul style="list-style-type: none"> • Recruitment • Retention |
| International Activities | <ul style="list-style-type: none"> • Employment within US • Employment outside of the US • Students • Travel • Device and Data Management • Compliance with regulations and sanctions |
| Diversity, Equity, Inclusion and Accessibility | <ul style="list-style-type: none"> • Students • Employment • Workplace Culture |
| Vendor Risk Management | <ul style="list-style-type: none"> • Vendor screening • Managing and monitoring contracts |

| Risk | Sub-Components |
|------|---|
| | <ul style="list-style-type: none"> Managing vendor performance |

The risk assessment process generated the FY24 Risk Registry, which includes 30 systemwide risks with the top 10 ranked risks designated as priority risks for the University. The top 10 risks align with priority risks identified by others in the higher education sector as well as the [2023 United Educators survey findings](#) on higher education risk. The FY24 Risk Registry has one new risk (Artificial Intelligence) and another risk new to the top 10 (Research).

Graphic 10 lists the risks on the [FY2024 Risk Registry](#) in rank order and includes the FY22 risk rank. Appendix D provides detailed descriptions of the risks.

The artificial intelligence risk is new to the systemwide risk registry, and new to the top 10 risks. The University is currently exploring both the opportunities that artificial intelligence can provide to the University, as well as assessing the risks to inform the creation of guidance on use of AI.

Research is new to the top 10 risks. This is a result of correcting the assessment of the risk to reflect inherent exposure. The ERM Program will have the opportunity to document and assess the numerous mitigation strategies in place across the University to measure the residual risk exposure associated with research.

Graphic 10: UMass FY24 Systemwide Risk Registry

| FY24 Rank | Risk | FY22 | FY24 Rank | Risk | FY22 | FY24 Rank | Risk | FY22 |
|-----------|--|------|-----------|---|------|-----------|--|------|
| 1 | Enrollment | 1 | 11 | Information Privacy | 9 | 21 | Alcohol and Substance Abuse | 21 |
| 2 | Information Security | 2 | 12 | All Hazards Planning & Response Capabilities | 11 | 22 | Fraud, Waste, and Abuse | 24 |
| 3 | Facilities and Deferred Maintenance | 4 | 13 | Labor Relations | 13 | 23 | Crisis Communications | 23 |
| 4 | Financial Sustainability | 3 | 14 | Data Management | 14 | 24 | Uninsured Loss | 25 |
| 5 | Student Health & Mental Health Support | 5 | 15 | Vendor Risk Management | 6 | 25 | Multi-State Payroll Tax | 12 |
| 6 | Artificial Intelligence | New | 16 | Sexual Assault Policies & Response Procedures | 17 | 26 | Multi-State Business Tax | 16 |
| 7 | International Activities | 8 | 17 | NCAA Regulations | 27 | 27 | Employment Laws and Regulations | 26 |
| 8 | Research | 15 | 18 | IT Disaster Recovery | 18 | 28 | Policies and Procedures Regarding Minors on Campus | 28 |
| 9 | Diversity, Equity, Inclusion and Accessibility | 10 | 19 | Continuity Planning | 19 | 29 | Academic Quality and Standards | 29 |
| 10 | Attract, Recruit, Retain Faculty and Staff | 7 | 20 | Environmental Health, Public Health, & Safety Regulations | 20 | 30 | Oversight of Student Organizations | 30 |

■ Priority Risks

IV. ERM Program Recognition (FY23 and FY24)

The University has continued work to increase peer and national visibility and recognition. The ERM Program continues to be actively involved with the [University Risk Management Association \(URMIA\)](#), the [Public Risk Management Association \(PRIMA\)](#), and the [Society of Corporate Compliance and Ethics \(SCCE\)](#). In addition, a number of higher education institutions from across the United States and Canada have reached out to learn more about our ERM Program. Beyond the field of ERM, the ERM Program was recently praised by Moody's rating agency staff for integrating the UMass ERM Program into its financial accountability framework.

The ERM Program proudly received a recognition award from PRIMA, has presented to hundreds of peers across the country, has contributed to articles, and has acquired intellectual property protections for MATRX.

a. Award for Outstanding Achievement in an Enterprise Risk Management Program

PRIMA awarded the UMass Systemwide ERM Program with the 2024 Outstanding Achievement for an Enterprise Risk Management Program award. To receive this award, an ERM Program is required to demonstrate the following:

- Adoption of ERM by upper risk management
- Defined risk appetite and tolerance
- Clearly identified stakeholders
- Provision of training
- Establishment of a risk registry identifying organizational risks
- Assignment of risk owners throughout the organization
- Establishment of risk mitigation strategies
- Establishment of integrated performance measures
- Use of ERM communications

The ERM Program accepted this award in June 2024.

b. Presentations

The ERM Program was selected ten times to provide presentations at conferences and symposiums and through webinars. These presentations provided the opportunity to share information about the ERM Program and best practices with a wide audience and connect with hundreds of peers across the country. The ERM Program presentations at the URMIA national conferences were selected as “Best of URMIA” two years in a row at both the 2022 and 2023 annual conferences.

The following lists the conference dates and affiliations:

- September 2022: URMIA National Conference (selected as Best of Conference)
- February 2023: URMIA Best of Conference Webinar
- April 2023: URMIA Regional Conference
- June 2023: PRIMA National Conference
- June 2023: SCCE Higher Education Conference
- June 2023: URMIA ERM Roundtable Webinar
- September 2023: URMIA National Conference (selected as Best of Conference)
- February 2024: URMIA Best of Conference Webinar
- March 2024: Eastern Association of University Business Officers (EACUBO) Workshop
- April 2024: Deloitte Annual Higher Education Risk Symposium

In addition, the ERM Program was requested to provide a webinar to PRIMA membership in October 2024.

c. Intellectual Property Protections

The ERM Program worked with the US Copyright Office to obtain federal copyright registration of MATRX in 2023. In addition, MATRX logo received

Massachusetts trademark registration in March 2024. These registrations protect the University's intellectual property associated with MATRX.

d. Publications

URMIA requested contributions from the ERM for two publication projects. The first was to develop an article on the University's success in measuring inherent risk exposure in which the foundation of the ERM Program's approach to risk assessment was discussed. The article, [*Measuring Risk Mitigation Strategies' Effectiveness Begins with Assessing Risk*](#), was published in July 2022.

The second was to contribute to URMIA's ERM best practices resource document. The ERM Program developed two sections for the document: *ERM and Technology* and *Managing Expectations*. [*URMIA Enterprise Risk Management Resource for Higher Education*](#) was published in June 2023.

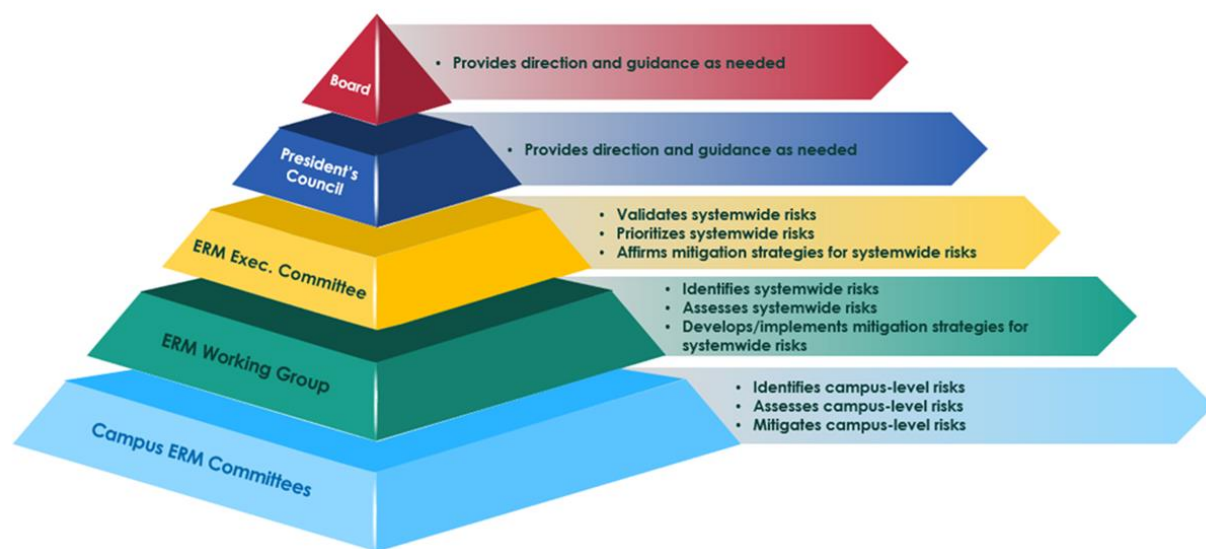
V. Conclusion

The UMass Systemwide ERM Program has achieved high maturity and is actively serving as a framework informing the prioritization of university initiatives. FY23 and FY24 were active years for the ERM Program; the ERM Program completed the first formal round of mitigation assessment for the Top 10 FY22 risks, updated the systemwide risk registry using mitigation assessment data, and increased ERM Program visibility through presentations and publications. The achievements of the ERM Program were recognized when the Public Risk Management Association awarded the ERM Program with the 2024 Outstanding Achievement Award.

Appendix A: ERM Program Governance Structure and Membership

The ERM Program has a formal governance structure which defines roles and responsibilities under the Program. The governance structure consists of campus ERM committees, the ERM Working Group, the ERM Executive Committee, the President's Council, and the Board of Trustees.

Graphic A-1: ERM Program Governance Structure



a. ERM Executive Committee

The ERM Executive Committee is responsible for validating the system-wide risks identified and assessed by the ERM Working Group and prioritizing those risks. The Executive Committee is also responsible for affirming mitigation strategies, approving the ERM annual report, ensuring the report is provided to the Board of Trustees.

The ERM Executive Committee is comprised of leadership from across the University system. Table A-1 details Executive Committee membership.

Table A-1: ERM Executive Committee Membership

| Last Name | First Name | Campus | Title | Executive Committee Seat |
|------------|------------|-----------|---|--|
| Calise | Lisa | UMPO | Senior Vice President and Treasurer, Administration and Finance | Senior VP, Administration and Finance |
| Culverwell | Marcy | Medical | Senior Associate Vice Chancellor, Administration and Finance | UMass Chan Medical School |
| David | Kyle | UMPO | Director, Internal Audit | Director, Internal Audit |
| Giuliani | Chris | Boston | Associate Vice Chancellor for Administration and Finance | UMass Boston |
| Hescock | Jeff | Amherst | Director, Environmental Health and Safety | UMass Amherst |
| Karberg | Andrew | UMPO | Associate Counsel, Compliance, Ethics, International Affairs | Research |
| Lowy | David | UMPO | General Counsel | General Counsel |
| Miliano | Tom | Lowell | Associate VC, Administrative Services | UMass Lowell |
| Milligan | Michael | UITs | Chief Information Officer | Chief Information Officer |
| Subbaswamy | Kumble | UMPO | Interim SVP, Academic and Student Affairs | Senior VP, Academic Affairs |
| Packard | Christine | UMPO | Assistant Vice President, Enterprise Risk Management | ERM/Chair |
| Pasquini | LeeAnn | UMPO | Associate Vice President Administration and Finance | Associate VP, Administration and Finance |
| Piggot | Robyn | Dartmouth | Chief of Staff | UMass Dartmouth |
| Walker | Nefertiti | UMPO | Deputy VP, Academic and Student Affairs & Equity | Academic and Student Affairs and Equity |

b. ERM Working Group

The ERM Working Group is the working body of the ERM Program. The ERM Working Group is responsible for identifying and assessing risk across the system.

The ERM Working Group consists of two representatives from each campus, representatives from the President's Office, and one representative from each of the following disciplines:

- Academic Affairs
- Athletics
- Communications
- Controller
- Facilities
- Finance
- Health and Mental Health
- Human Resources
- Information Technology
- Internal Audit
- Insurance
- International Activities
- Legal
- Procurement
- Research
- Safety and Security
- Student Affairs
- Tax

Discipline-specific representatives are identified from across the university system.

By bringing these voices together under the ERM Working Group, we ensure a multi-disciplinary approach to identifying risks, as well as enabling comparative risk assessments across the system and across critical subject areas.

Table A-2 below details the ERM Working Group membership.

Table A-2: ERM Working Group Membership

| Last Name | First Name | Campus | Title | ERM Working Group Seat | |
|---------------|------------|-----------------------|--|------------------------|-------------------------------------|
| | | | | Campus Lead/ SME | SME Discipline |
| Britton | Kirsten | Amherst | Senior Associate Athletic Director | SME | Athletics |
| Brooks | June | Medical | Senior Director, Compliance and Policy | Campus Lead | |
| Carragher | Candyce | UMPO Academic Affairs | Senior Executive Associate to the Senior Vice President | SME | Academic Affairs Student Affairs |
| Coleman | Brian | Medical | Associate CIO – Information Security | Campus Lead | |
| Comeau | Justin | Boston | Director, Emergency Management | Campus Lead | |
| Conklin | Shane | Amherst | Associate Vice Chancellor for Facilities and Campus Services | SME | Facilities |
| Culverwell | Marcy | Medical | Associate Vice Chancellor, Administration and Finance | Campus Lead | |
| Dunlap | John | UMPO A&F | Chief Human Resources Officer | SME | Human Resources |
| Durkin | Michael | UPST | Director, Strategic Procurement | SME | Procurement |
| Edelman-Blank | Deborah | Lowell | Director, Counseling Services | SME | Mental Health |
| Hescock | Jeff | Amherst | Executive Director, Environmental Health and Safety & Emergency Management | Campus Lead | Safety and Security |
| Hitchcock | Patrick | UMPO A&F | University Controller | SME | Controller |
| Karberg | Andrew | OGC | Associate Counsel, Compliance, Ethics, International Affairs | SME | Legal |
| LaGrassa | Michael | Dartmouth | Associate Vice Chancellor of Administrative Operations & Compliance | Campus Lead | |
| MacDonald | Glenn | Lowell | Executive Director, Environmental Health and Safety | Campus Lead | |
| Majewski | Deborah | Dartmouth | Vice Chancellor of Human Resources | Campus Lead | |

| Last Name | First Name | Campus | Title | ERM Working Group Seat | |
|------------------|------------|--|---|------------------------|--------------------------|
| | | | | Campus Lead/ SME | SME Discipline |
| Muse | David | Lowell | Assistant Director, Emergency Management | Campus Lead | |
| Packard | Christine | UMPO A&F | Assistant Vice President, Enterprise Risk Management | Campus Lead | |
| Patel | Tejal | OGC | Assistant Counsel, International Affairs and Immigration | SME | International Activities |
| Quinn | Colleen | UMPO Communications | Director of Communications and UMPO Spokesperson | SME | Communications |
| Russell | Andrew | UMPO A&F | Senior Assistant VP of Operations and Associate Treasurer | SME | Tax |
| Scano | Derek | Internal Audit | Assistant Director, Internal Audit | SME | Internal Audit |
| Schneider Graham | Zehra | Boston | Director, Environmental Health and Safety | Campus Lead | |
| Skrzek | Joe | UMPO A&F | Director, Budget & Planning | SME | Finance |
| Smith | Bradford | UITS | Chief Information Security Officer | SME | IT |
| Stockwell | Joshua | OGC | Associate Counsel for IP and Research | SME | Research |
| Tucker | Josh | UMPO A&F | Insurance Analyst | SME | Insurance |
| Walker | Nefertiti | UMPO – Academic and Student Affairs & Equity | Deputy Vice President, Academic & Student Affairs & Equity | SME | DEIA |
| Yanka | Ruth | Amherst | Executive Director A&F Operations, Vice Chancellor Administration and Finance | Campus Lead | |

Appendix B: Mitigation Assessment - Individual Effectiveness and Rank

Appendix B has been redacted for the abridged version of this report given the sensitivity of mitigation data.

Higher education risk managers can contact Christine Packard, Assistant Vice President, Enterprise Risk Management at cpackard@umassp.edu for more information.

Appendix C: Risk Assessment Tools

The ERM Program implements three risk assessment tools to evaluate risk and generate a risk registry: likelihood (Graphic C-1), consequence (Graphic C-2), and urgency (Graphic C-3). Each tool guides assessors in identifying ratings for each risk. The ratings are then calculated to generate a risk's Inherent Risk Score (Graphic C-4).

a. Likelihood Risk Assessment Tool

The Likelihood Risk Assessment Tool assesses whether the University system could experience a risk, providing four rating options: unlikely (value of 1), possible (value of 2), likely (value of 3), certain or almost certain (value of 4).

Graphic C-1: Likelihood Risk Assessment Tool

| Rating | Description | OR | Probability of Occurrence | OR | Rate of Occurrence |
|-----------------------------------|--|----|---------------------------|----|-----------------------|
| 4 Certain or Almost Certain | HIGH - Almost certain to occur, expected in most circumstances | OR | >75% | OR | more than 2x per year |
| 3 Likely | MEDIUM HIGH - Likely to occur or will probably occur | | 50 to 75% | | 1-2x per year |
| 2 Possible | MEDIUM - Possible, this could occur | | 25 to 50% | | once every 2-5 years |
| 1 Unlikely | LOW - Unlikely, not expected to occur | | Up to 25% | | more than 5 years |

b. Consequence Risk Assessment Tool

The Consequence assessment tool assesses how impactful a risk may be across six categories:

- Service Disruption, or Impact to Operations
- Financial Impact
- Legal/ Compliance

- Workforce
- Reputation
- Life Safety

The tool guides assessors in identifying ratings for the risk in each category: negligible (value of 1), low (value of 2), medium (value of 3), or high (value of 4). The ratings for the six categories are then added together to create a total consequence value for the risk.

Graphic C-2: Consequence Risk Assessment Tool

| Rating | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety |
|-----------------------|---|--|--|---|--|--|
| High (4) | Serious disruption to or failure of service AND/OR Significant impacts to two or more campuses | State appropriation reduction of more than 15 percent AND/OR Loss of revenue or increase in expenses of greater than 15 percent or combination of both AND/OR Need to use stabilization fund AND/OR Impacts to all campuses | Increased state or federal regulatory scrutiny for additional campus(es) AND/OR External agency sanctions such as debarment or civil and/or criminal liability AND/OR Litigation exposure with significant financial (\$10M+), reputational or precedent exposure AND/OR Substantial audit findings | Inability to recruit or retain employees with essential knowledge, skills and abilities AND/OR Work culture is defined by excessive internal conflict or widespread negativity AND/OR Inability to collaborate across the system or limited information sharing and cooperation AND/OR Low level of trust among colleagues | Negative national media coverage or negative social media activity ("viral") for multiple days AND/OR Tangible, long-term impacts to enrollment (more than one cycle), philanthropy and public support AND/OR Significant personnel actions AND/OR Widespread internal reaction | Fatality or permanent disability of one or more people |
| Medium (3) | Moderate disruption to service AND/OR Significant impact to one campus | State appropriation reduction of 10-15 percent AND/OR Loss of revenue or cost increase of 5-10 percent, or combination of both (est. \$175M - \$350M) AND/OR Impacts to BDL or UMA or UMMS | Restrictions or requirements placed on the University's operational activities AND/OR Substantial (\$1M+) regulatory fines and/or response costs AND/OR Moderate audit findings AND/OR Litigation with substantial financial (\$1M - \$10M), reputational or precedent exposure | Difficulty recruiting or retaining employees with essential knowledge, skills and abilities AND/OR Work culture experiences frequent internal conflict or significant AND/OR Significant obstacles to system-wide collaboration AND/OR Decreased information sharing in many circumstances | Negative regional (northeast) media coverage or some negative social media activity AND/OR Tangible, short-term impacts to enrollment (one cycle), philanthropy and public support AND/OR Significant internal reaction | Serious injury of one or more people |
| Low (2) | Minor impact on service AND/OR Some impact to more than one campus | Between \$5M and 1 - 5 percent revenue loss or expense increase or combination of both (est. \$5M to \$175M impact) AND/OR Impacts to up to two campuses | Regulatory fines (less than \$1M) AND/OR Minor audit findings AND/OR Litigation with financial (less than \$1M), reputational or precedent exposure AND/OR Internally-imposed consequences or requirement for formal corrective action | Minor impact to recruitment or retention AND/OR Work culture experiences some internal conflict or negativity AND/OR Challenges with system-wide collaboration AND/OR Decreased information sharing and cooperation in limited circumstances | Negative local media coverage or minimal social media activity AND/OR Moderate on-campus/internal reaction | Minor injury to more than one person |
| Negligible (1) | Annoyance | Less than \$5M impact | No to minimal impact | No to minimal impact to recruitment or retention AND/OR No to minimal impact to workplace culture AND/OR No to minimal impact to system-wide collaboration or information sharing | No to minor internal reaction | No impact or minor injury to individual |

c. Urgency Risk Assessment Tool

The Urgency assessment tool assesses how soon the University needs to prioritize a risk. The tool guides the assessor in identifying a rating for the risk: low (more than 3 years), moderate (1 – 3 years), or high (within the next 12 months).

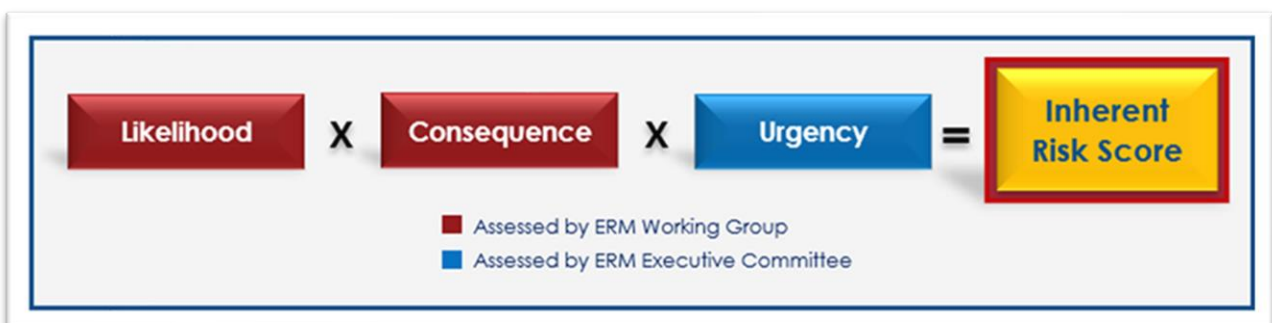
Graphic C-3: Urgency Risk Assessment Tool

| Level | | Timeframe |
|-------|----------|---------------------------|
| 3 | High | Within the next 12 months |
| 2 | Moderate | 1-3 years |
| 1 | Low | More than 3 years |

d. Inherent Risk Score Calculation

Once risks are assessed, the resulting ratings are then calculated to determine the risk's Inherent Risk Score.

Graphic C-4: Inherent Risk Score Calculation



Appendix D: FY24 Risk Registry

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|--------------|-------------------------------------|---|---------------------------|--|------------------|-------------------|-----------|------------|-------------|---------|
| 1 | Enrollment* | Inability to sustain, increase and/or retain enrollment of in-state, out-of-state, international, residential, commuter, transfer, undergraduate and/or graduate students. | Certain or Almost Certain | High | High | Negligible | Medium | High | Negligible | High |
| Sub-elements | Enrollment – Recruitment | Inability to sustain and/or increase new enrollment of in-state, out-of-state, international, residential, commuter, transfer, undergraduate and/or graduate students. | Certain or Almost Certain | High | High | Negligible | Medium | High | Negligible | |
| | Enrollment - Retention | Inability to maintain the expected retention rate of in-state, out-of-state, international, residential, commuter, transfer, undergraduate and/or graduate students. | Certain or Almost Certain | Medium | Medium | Negligible | Low | Medium | Negligible | |
| 2 | Information Security | Inability to safeguard data and/or information systems to prevent unauthorized access – whether intentional or unintentional – by foreign or domestic actors or vendors with whom the University conducts business. | Certain or Almost Certain | Medium | Low | High | Medium | Medium | Negligible | High |
| 3 | Facilities and Deferred Maintenance | Inability to maintain facilities, including the prioritization of ongoing and deferred maintenance, and/or develop facilities and infrastructure to attract and retain students, staff and faculty, and to support critical research. | Certain or Almost Certain | Medium | High | Medium | Low | Low | Low | High |

*Risk has associated sub-elements

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|--------------|--|--|---------------------------|--|------------------|-------------------|------------|------------|-------------|----------|
| 4 | Financial Sustainability | Inability to adapt the University's business model to ensure financial sustainability, mitigate risk, and adjust to changing circumstances that influence funding or revenue. | Likely | Medium | High | Low | Medium | High | Negligible | High |
| 5 | Student Health and Mental Health Support | Inability to maintain capabilities and resources to support the physical and mental health, development and well-being of students. | Likely | Low | Negligible | Medium | Negligible | Medium | High | High |
| 6 | Artificial Intelligence | Inability to set effective protocols regarding acceptable use and optimization of artificial intelligence in academics, research and the workplace. | Likely | Low | Negligible | Medium | Medium | Medium | Negligible | High |
| 7 | International Activities* | Inability to effectively implement a consistent approach across to the University's international activities across the system, including travel, devices and data, students, employment, trade and sanctions, and business engagements. | Certain or Almost Certain | Low | Low | Medium | Low | Medium | Negligible | Moderate |
| Sub-elements | University Travel | Inability to effectively implement a consistent approach across the University system to manage risk associated with international University Travel. | Certain or Almost Certain | Low | Negligible | Low | Low | Medium | High | |
| | Devices, Data and Property Management | Inability to effectively implement a consistent approach across the University system to protect intellectual property, UMass data, and UMass data systems as they relate to international travel and activity. | Certain or Almost Certain | Medium | Low | Medium | Low | Medium | Negligible | |
| | Students | Inability to effectively implement a consistent approach across the University system to bring in | Certain or Almost Certain | Low | Low | Medium | Low | High | Negligible | |

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|-------------|--------------------------------|---|---------------------------|--|------------------|-------------------|------------|------------|-------------|----------|
| | | international students, immigration rules and regulations and tax compliance. | | | | | | | | |
| | Employment in US | Inability to effectively implement a consistent approach across the University system to employ international candidates for positions in the US, including associated immigration rules and regulations and associated tax compliance. | Certain or Almost Certain | Medium | Low | Low | Medium | Medium | Negligible | |
| | Employment Outside of US | Inability to effectively implement a consistent approach across the University system to hire staff located in international locations and compliance with associated immigration and tax requirements. | Certain or Almost Certain | Low | Negligible | Medium | Negligible | Low | Negligible | |
| | Trade and Sanctions Compliance | Inability to effectively implement a consistent approach across the University system to implement and maintain compliance with international trade and sanctions compliance. | Certain or Almost Certain | Medium | Low | Medium | Negligible | Medium | Negligible | |
| | Business Engagements | Inability to effectively implement a consistent approach across the University system to engage in international business (buying, selling, online students, etc.) and associated tax compliance. | Certain or Almost Certain | Low | Low | Medium | Negligible | Low | Negligible | |
| 8 | Research | Inability to develop and/or maintain transparent and consistent research protocols across University System to ensure safety, accountability and compliance with applicable rules and regulations. | Likely | Low | Medium | High | Low | Medium | Low | Moderate |

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|--------------|---|--|------------|--|------------------|-------------------|-----------|------------|-------------|----------|
| 9 | Diversity, Equity, Inclusion and Accessibility* | Inability to sustain and/or enhance diversity, equity, inclusion and accessibility across the University, including employment, students, and campus and workplace culture. | Likely | Medium | Low | High | Medium | Medium | Negligible | Moderate |
| Sub-elements | Employment | Inability to sustain and/or enhance diversity, equity, inclusion and accessibility in all levels of employment across the University system | Likely | Medium | Medium | High | Medium | Medium | Negligible | |
| | Campus and Workplace Culture | Inability to sustain and/or enhance diversity, equity, inclusion and accessibility in the workplace and campus culture across the University system | Likely | Medium | Negligible | Medium | Medium | Medium | Negligible | |
| | Students | Inability to sustain and/or enhance diversity, equity, inclusion and accessibility in student populations across the University system | Likely | Medium | Medium | High | Medium | High | Negligible | |
| 10 | Attract, Recruit, Retain Faculty and Staff | Inability to attract, recruit, retain and appropriately vet qualified, skilled and reputable faculty and staff. | Likely | Medium | Low | Low | High | Medium | Negligible | Moderate |
| 11 | Information Privacy | Inability to maintain compliance with state and federal information privacy standards, regulations and laws, including Health Insurance Portability and Accountability Act (HIPAA), Payment Card Industry (PCI) standards, Personally Identifiable Information (PII) requirements, Family Educational Rights and Privacy Act (FERPA) and General Data Protection Regulations (GDPR). | Likely | Medium | Low | Medium | Low | Medium | Negligible | Moderate |

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|--------------|--|--|---------------------------|--|------------------|-------------------|------------|------------|-------------|----------|
| 12 | All Hazards Planning and Response Capabilities | Inability to maintain all-hazards preparedness, response and mitigation plans and capabilities as part of an integrated emergency management program both at the system level, as well as on each campus. Hazards include but are not limited to hazardous weather, chemical/biological/radiological/ nuclear/explosives (CBRNE) incidents, active shooter threats and incidents, infectious disease outbreaks, acts of civil disobedience, acts of bias and hate, and any additional threats that could impact the health and safety of the campus community or require the evacuation of a facility, a portion of a campus, or an entire campus. | Possible | High | Medium | Medium | Low | Medium | High | Moderate |
| 13 | Labor Relations | Inability to maintain productive labor and employee relations. | Likely | Low | Low | Low | Medium | Low | Negligible | Moderate |
| 14 | Data Management | Inability to provide consistency in data across the system to support critical information sharing and strategic analytical analysis. | Likely | Medium | Low | Negligible | Low | Low | Negligible | Moderate |
| 15 | Vendor Risk Management* | Inability to screen vendors, ensure vendors meet contractual requirements, and vendor deliver acceptable services or deliverables. | Certain or Almost Certain | Medium | Low | Medium | Low | Medium | Negligible | Low |
| Sub-elements | Vendor Screening | Inability to screen vendors through, as appropriate, restricted party screening, background checks, financial | Certain or Almost Certain | Medium | Medium | Medium | Negligible | High | Negligible | |

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|-------------|---|---|---------------------------|--|------------------|-------------------|-----------|------------|-------------|----------|
| | | verification, and other identified checks and verifications. | | | | | | | | |
| | Contractual Requirements and Monitoring | Inability to contractually require vendors and their subcontractors, as appropriate, to meet certain requirements, including but not limited to implementing and maintaining certain information and data security requirements, providing timely notification to appropriate UMass parties of data breach or fraud , maintaining obligatory insurance coverage, completing necessary training (Title IX, etc.), completing background checks, etc.; and inability to monitor compliance with said contractual requirements; and inability to enforce said contractual requirements | Certain or Almost Certain | Medium | Low | Medium | Low | Low | Negligible | |
| | Managing Vendor Performance | Inability to manage the performance of vendors to ensure acceptable completion of deliverables and/or delivery of services. | Certain or Almost Certain | Medium | Low | Medium | Low | Low | Negligible | |
| 16 | Sexual Assault Policies and Response Procedures | Inability to implement consistent protocols across the University to prevent, detect, prepare for, and respond to sexual assault, harassment and other interpersonal violent acts (stalking, domestic violence, etc.) and maintain compliance with state and federal regulations. | Possible | Negligible | Low | Medium | Low | Medium | Medium | Moderate |
| 17 | NCAA Regulations | Inability to comply with NCAA regulations, including recruiting guidelines. | Possible | Medium | Negligible | Medium | Low | High | Negligible | Moderate |

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|-------------|--|---|------------|--|------------------|-------------------|------------|------------|-------------|----------|
| 18 | IT Disaster Recovery | Inability to ensure access to systems and/or data in the event of a disruption in technology services. | Possible | High | Low | Low | Negligible | Medium | Negligible | Moderate |
| 19 | Continuity Planning | Inability to develop, maintain and/or implement capabilities to maintain continued operations during incidents causing sustained disruption to key services or functions; capabilities include developing, maintaining, exercising and implementing continuity plans as part of an integrated emergency management program. | Possible | Medium | Medium | Low | Low | Low | Negligible | Moderate |
| 20 | Environmental and Public Health and Safety Regulations | Inability to comply with local, state and federal environmental, health, public health, and safety regulations and requirements. | Possible | Low | Negligible | Medium | Low | Low | Medium | Moderate |
| 21 | Alcohol and Substance Abuse | Inability to maintain capabilities and resources to prevent, detect and respond to, and support students impacted by alcohol and substance abuse on campuses, and maintain compliance with local, state and federal regulations. | Possible | Negligible | Negligible | Medium | Negligible | Medium | High | Moderate |
| 22 | Fraud, Waste, Abuse | Inability to maintain capabilities to prevent, detect and respond to fraud, waste, and abuse. | Likely | Low | Medium | Medium | Low | Medium | Negligible | Low |
| 23 | Crisis Communication Coordination | Inability to develop, maintain and/or implement systemwide protocols to ensure awareness and coordination of timely communication's when an urgent matter or incident impacts the University. | Likely | Low | Negligible | Low | Medium | Medium | Low | Low |

| FY2024 Rank | Risk Name | Risk Definition | Likelihood | Service Disruption, Process Impact on Operations | Financial Impact | Legal/ Compliance | Workforce | Reputation | Life Safety | Urgency |
|-------------|--|---|---------------------------|--|------------------|-------------------|------------|------------|-------------|---------|
| 24 | Uninsured Loss | Inability to obtain legislative authority to obtain property insurance on state-owned facilities. | Certain or Almost Certain | Medium | Low | Negligible | Negligible | Negligible | Negligible | Low |
| 25 | Multi-State Payroll Taxation | Inability to appropriately comply with other states' payroll tax withholding requirements. | Likely | Negligible | Negligible | Medium | Low | Low | Negligible | Low |
| 26 | Multi-State Business Taxation | Inability to comply with other states' sales, excise and franchise tax requirements as the University expands its business model. | Likely | Negligible | Negligible | Medium | Low | Low | Negligible | Low |
| 27 | Employment Laws and Regulations | Inability to comply with local, state and federal employment laws and regulations. | Possible | Negligible | Low | High | Medium | Medium | Negligible | Low |
| 28 | Policies/Procedures Regarding Minors on Campus | Inability to develop, maintain, and implement procedures to safeguard minors on campus. | Possible | Negligible | Negligible | Medium | Negligible | Medium | Low | Low |
| 29 | Academic Quality and Standards | Inability to maintain academic quality and standards, including those required for accreditation. | Unlikely | Low | High | High | High | High | Negligible | Low |
| 30 | Oversight of Student Organizations | Inability to maintain oversight of registered student organizations. (finances, insurance, etc.) | Possible | Negligible | Negligible | Low | Negligible | Low | Negligible | Low |