



NIPSTA RISK ASSESSMENT PROJECT **2019**

PURPOSE OF THE ASSESSMENT

- Embrace the concept of risk as inherent to the overall mission of NIPSTA
 - Note that risk can create both impairment and opportunity
 - Understand that risk management is a dynamic system that requires continual attention and an organizational commitment
 - Ensure that safety and risk management is collective responsibility
 - Embrace the important notion that NIPSTA provides services which reduce the overall level of risk for public safety professionals
- Identify areas of individual and collective organizational risk
 - Determine areas of optimal risk taking vs. excessive risk taking; validate thresholds
 - Understand the difference between risk avoidance and risk reduction
- Manage risk exposures
 - Recognize the intersection of probability and consequence
 - Limit or minimize risk through the use of purposeful control measures
- Properly align risks with strategic organizational goals/business plan
 - Determine which risks to retain and which to transfer
 - Focus on enterprise-wide risk management (ERM)
- Ensure process is structured and disciplined
 - Size the process to meet NIPSTA's mission, scope, complexity, and geographic reach
- Provide the NIPSTA Board of Directors with a concrete overview of current risks, areas of immediate improvement, mid-term prioritization, and recommendations for a long-term risk management program
 - Acknowledge that as an intergovernmental agency, NIPSTA is a custodian of public funds and assets
 - As a steward of public funds, NIPSTA is obligated to restrict undesirable outcomes that consume public dollars and reduces the organization's capability to more cogently apply such resources

RISK MANAGEMENT PROJECT OVERVIEW

1. Identify Risks

- a. Develop a comprehensive list of risks
- b. Determine categories and sub-categories
 - i. Administrative / Financial
 - ii. Operational
 - iii. Strategic
 - iv. Compliance

2. Develop Assessment Criteria

- a. Impact (short-term and long-term)
 - i. Reputation
 - ii. Legal
 - iii. Financial
 - iv. Health and Safety
- b. Likelihood
- c. Vulnerability
- d. Speed of onset
- e. Ability to tolerate
- f. Speed and/or likelihood of recovery

3. Assess Risks

- a. Assign values
 - i. Qualitative
 1. Interviews, cross-functional discussion, survey, benchmarking, scenario analysis
 - ii. Quantitative
 1. Forward-looking point estimates (deterministic models) leading to forward-looking distributions (probabilistic models)
 2. Estimating gross-profit margins, cash flows and earnings over a given time horizon at a given confidence level
- b. Analyze existing data:
 - i. Internal and external audit reports
 - ii. Insurance claims and internal loss event data and assessments, including near misses (e.g. Safety Committee minutes)
 - iii. Annual regulatory reports and assessments (e.g. IRMA)
 - iv. Industry reports and research findings

4. Assess Risk Interactions

- a. Determine 'minor' risks which interact with other events and conditions to create exponential damage or opportunity
- b. Consider an integrated or holistic view utilizing risk interaction matrices, aggregated probability distributions, and bow-tie diagrams

5. Prioritize Risks

6. Respond to Risks

- a. Determine response options
 - i. Accept
 - ii. Reduce
 - iii. Share
 - iv. Avoid
- b. Perform cost-benefit analyses
- c. Formulate response strategy
- d. Determine mandated vs desired remediation/improvement

7. Develop a Risk Management Plan

- a. Identify priorities/goals
- b. List objectives to accomplish goals
- c. Identify existing controls
- d. Make recommendations
- e. Establish a multi-year timeline
- f. Evaluate financial impact
- g. Determine budgetary allotments

8. Review, Evaluate and Revise

9. Integrate the Risk Management Process into Developing the Organization's Business Plan

IMPACT SCALE

RATING	DESCRIPTOR	DEFINITION
5	EXTREME	<ul style="list-style-type: none"> - Financial loss equaling or exceeding 50% of budgeted annual operating expenses - National-level, long-term national media coverage - Game-changing loss of market share - Significant prosecution and fines; litigation - Significant injuries or fatality to student, instructor/contractor, employee, customer, vendor, visitor - Long-term damage to campus training facility/building; uninhabitable - Abrupt or unanticipated exit of senior leadership
4	MAJOR	<ul style="list-style-type: none"> - Financial loss between 25% and 49% of budgeted annual operating expenses - Statewide media coverage; significant loss of market share - Report to regulator requiring major project for corrective action - Limited in-patient care required for injured person - Abrupt or unanticipated exit of employees - Abrupt or unanticipated exit of more than 25% of instructors/contractors; not perceived as employer of choice - Short-term but substantial damage to campus training facility; unable to use for more than thirty (30) days
3	MODERATE	<ul style="list-style-type: none"> - Financial loss between 10% and 24% of budgeted annual operating expenses - Short-term regional negative media coverage - Report of breach to regulator with immediate correction to be implemented - Out-patient medical treatment required for injured person - Widespread staff/instructor/contractor morale problems, elevated potential for turnover - Temporary but considerable damage to campus training facility; partial building shut down and relocation of classroom space
2	MINOR	<ul style="list-style-type: none"> - Financial loss up to 10% of budgeted annual operating expenses - Local reputational damage - Reportable incident to regulator; no follow up required - Minor injuries - Isolated staff/instructor/contractor morale problems, minimal potential for turnover - Minor damage to campus training facility
1	INCIDENTAL	<ul style="list-style-type: none"> - No financial loss - Local media attention quickly remediated - Not reportable to regulator - No injuries

PROBABILITY SCALE

RATING	Annual Frequency Descriptor	DEFINITION	Probability Descriptor	DEFINITION
5	FREQUENT	Up to once per month	ALMOST CERTAIN	90% or greater chance of occurrence over life of asset or project
4	LIKELY	Twice per year	LIKELY	65% to 89% chance of occurrence over life of asset or project
3	POSSIBLE	Once a year	POSSIBLE	35% to 64% chance of occurrence over life of asset or project
2	UNLIKELY	Once in five years	UNLIKELY	10% to 34% chance of occurrence over life of asset or project
1	RARE	Once in ten years	RARE	<10% chance of occurrence over life of asset or project

SPEED OF ONSET OR VELOCITY SCALE

RATING	DESCRIPTOR	DEFINITION
5	VERY HIGH	- Very rapid onset, little or no warning, instantaneous
4	HIGH	- Onset occurs in a matter of days to a few weeks
3	MEDIUM	- Onset occurs in a matter of a few months
2	LOW	- Onset occurs in a matter of several months
1	VERY LOW	- Very slow onset, occurs over a year or more

VULNERABILITY SCALE

RATING	DESCRIPTOR	DEFINITION
5	VERY HIGH	<ul style="list-style-type: none"> - No scenario planning performed - Lack of organizational level/process level capabilities to address risks - Response(s) not implemented - No contingency or crisis management plans in place
4	HIGH	<ul style="list-style-type: none"> - Scenario planning for key strategic risks performed - Low organizational level/process level capabilities to address risks - Responses partially implemented or not achieving control objectives - Some contingency and crisis management plans in place, limited rehearsals
3	MEDIUM	<ul style="list-style-type: none"> - Stress testing and sensitivity analysis of scenarios performed - Medium organizational level/process level capabilities to address risks - Responses implemented and achieving objectives most of the time - Most contingency and crisis management plans in place, limited rehearsals
2	LOW	<ul style="list-style-type: none"> - Strategic options defined - Medium to high organizational level/process level capabilities to address risks - Responses implemented and achieving objectives except under extreme conditions - Contingency and crisis management plans in place, some rehearsals
1	VERY LOW	<ul style="list-style-type: none"> - Real options deployed to maximize strategic flexibility - High organizational level/process level capabilities to address risks - Redundant response mechanisms in place and regularly tested for critical risks - Contingency and crisis management plans in place and rehearsed regularly



Northeastern Illinois Public Safety Training Academy (NIPSTA)

2019 Risk Assessment Program Administrative Operations

ADVERSE EVENT	PROBABILITY	SEVERITY = (MAGNITUDE - MITIGATION)					RISK
		HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	VULNERABILITY	SPEED OF ONSET	Relative threat
	Likelihood this will occur	Possibility of death or injury	Physical losses and damages	Interruption of services	Quality of Pre-Planning and Preparedness; Capabilities	Rate at which event occurs	
SCORE	0 = N/A 1 = Rare 2 = Unlikely 3 = Possible 4 = Likely 5 = Frequent / Almost Certain	0 = N/A 1 = Incidental 2 = Minor 3 = Moderate 4 = Major 5 = Extreme	0 = N/A 1 = Incidental 2 = Minor 3 = Moderate 4 = Major 5 = Extreme	0 = N/A 1 = Incidental 2 = Minor 3 = Moderate 4 = Major 5 = Extreme	0 = N/A 1 = Very Low 2 = Low 3 = Medium 4 = High 5 = Very High	0 = N/A 1 = Very Slow 2 = Slow 3 = Medium 4 = Rapid 5 = Very Rapid	0 - 100%
HVAC Failure	5	1	3	3	5	4	64%
Temperature Extremes	5	1	1	2	2	3	36%
Heavy Snow	5	1	1	2	2	2	32%
Fire	2	4	4	4	1	5	29%
Insufficient Cash Availability	4	0	0	4	3	2	29%
Seasonal Influenza	3	3	1	2	2	3	26%
Unplanned IT Outage	3	0	0	4	2	5	26%
Cyber Attack/Data Breach	3	0	0	4	2	5	26%
Redundancy in Staff for Essential Functions	3	0	0	3	3	4	24%
Breakdown at a Single Point of Failure	3	0	0	4	3	3	24%

Power Outage	3	1	1	1	1	5	22%
Sewer Failure	2	1	3	3	2	4	21%
Regional Infrastructure Failure	2	0	2	4	2	5	21%
Theft	2	0	3	2	2	5	19%
Workplace Violence/Threat	2	3	1	2	1	4	18%
Bomb Threat	1	5	5	5	2	5	18%
Tornado	1	5	5	5	2	5	18%
Communication/Telephone Failure	2	1	1	2	2	5	18%
Active Threat/Active Shooter	1	5	4	5	4	5	18%
Earthquake	1	5	5	5	1	5	17%
Explosion	1	5	5	5	1	5	17%
Exposure to Blood Borne Pathogens	3	1	0	0	1	5	17%
Internal Flood	2	1	3	3	1	2	16%
External HazMat Incident	2	2	1	2	1	4	16%
External Flood	2	1	2	2	2	2	14%
Area-wide Catastrophic Incident	1	1	1	4	3	5	11%
Branding & Reputational Risk	2	0	0	2	3	2	11%
Water Disruption	1	1	3	3	1	4	10%
Gas Leak	1	2	2	2	1	4	9%
Evacuation	1	1	1	3	2	4	9%
Suspicious Package	1	1	1	2	1	5	8%
Epidemic/Pandemic	1	3	0	3	2	2	8%



Northeastern Illinois Public Safety Training Academy (NIPSTA)

2019 Risk Assessment Program

Field-Based Training - Risk to Human Safety

ADVERSE EVENT	PROBABILITY Likelihood this will occur	SEVERITY = (MAGNITUDE - MITIGATION)					RISK Relative threat
		HUMAN IMPACT Possibility of death or injury	PROPERTY IMPACT Physical losses and damages	BUSINESS IMPACT Interruption of services	VULNERABILITY Quality of Pre-Planning and Preparedness; Capabilities	SPEED OF ONSET Rate at which event occurs	
SCORE	0 = N/A 1 = Rare 2 = Unlikely 3 = Possible 4 = Likely 5 = Frequent / Almost Certain	0 = N/A 1 = Incidental 2 = Minor 3 = Moderate 4 = Major 5 = Extreme	0 = N/A 1 = Incidental 2 = Minor 3 = Moderate 4 = Major 5 = Extreme	0 = N/A 1 = Incidental 2 = Minor 3 = Moderate 4 = Major 5 = Extreme	0 = N/A 1 = Very Low 2 = Low 3 = Medium 4 = High 5 = Very High	0 = N/A 1 = Very Slow 2 = Slow 3 = Medium 4 = Rapid 5 = Very Rapid	0 - 100%
Lightning	5	5	1	3	2	5	64%
High Winds	5	3	2	2	2	5	56%
Heavy Snow	5	2	2	2	2	4	48%
Heavy Lifting Injury	4	4	0	1	3	5	42%
Extreme Cold	5	1	1	2	2	4	40%
Cutting Injuries	5	3	0	0	2	5	40%
Extreme Heat	5	1	1	2	2	4	40%
Crushing Injuries	5	3	0	0	2	5	40%
Rain	5	1	1	1	1	5	36%
Slip, Trip, Fall	4	3	0	0	2	5	32%
Running Injury	4	3	0	0	2	5	32%

Foreign Body to Eye	4	3	0	0	2	5	32%
Pulling/Pushing Injury	4	3	0	0	2	5	32%
Injury from Crawling	4	3	0	0	2	5	32%
Striking Injuries	4	3	0	0	2	5	32%
Injury while Forcing Entry	4	3	0	0	2	5	32%
Injury while Dragging Heavy Weight	4	3	0	0	2	5	32%
Injury while Pulling Hose	4	3	0	0	2	5	32%
Injury during Ladder Training	4	3	0	0	2	5	32%
Injury while Swinging	4	3	0	0	2	5	32%
Fall from Elevated Area	2	5	1	2	2	5	24%
Medical Issues	3	3	0	0	1	4	19%
Tornado	1	5	5	5	2	5	18%
Exposure to Blood Borne Pathogens	3	1	0	0	1	5	17%
Prop Failure	1	5	3	3	2	5	14%
High Speed Driving Crash	1	3	3	2	2	5	12%
Exposure to Hazardous Materials	1	4	0	3	2	5	11%
Vehicle Accident	1	3	1	1	2	5	10%
Person Struck by Vehicle	1	5	0	1	2	5	10%
Injury from Exposure to Fire	1	3	0	2	1	5	9%
Injury from Exposure to Smoke	1	3	0	2	1	5	9%
Loud Noises for Extended Periods	1	1	0	0	2	1	3%