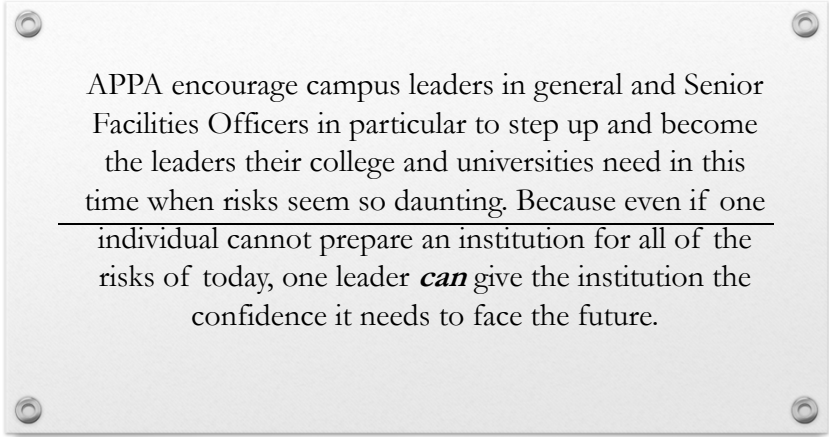
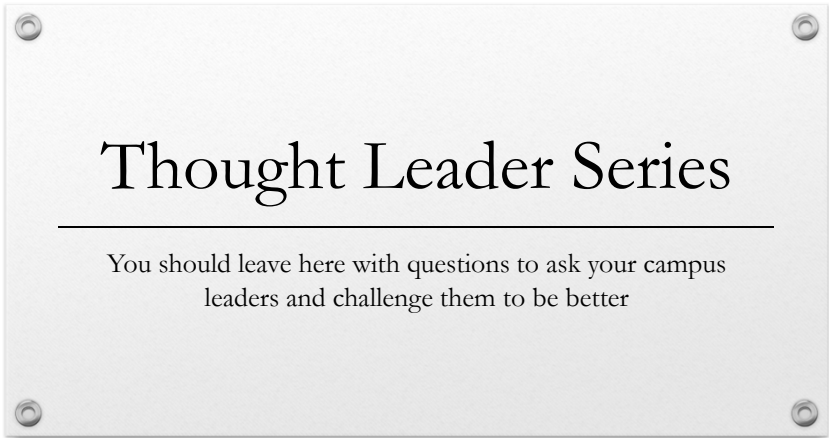




APPA encourage campus leaders in general and Senior Facilities Officers in particular to step up and become the leaders their college and universities need in this time when risks seem so daunting. Because even if one individual cannot prepare an institution for all of the risks of today, one leader *can* give the institution the confidence it needs to face the future.



Thought Leader Series

You should leave here with questions to ask your campus leaders and challenge them to be better

Thought Leader Series

Driving Forces Issues
Strategies Provocative Questions
Innovative Thinking Top Issues for Facilities Managers

Thought Leader Series

Executive Summary / Monograph
Research Topics / Educational Program
Conference Sessions / Publications

Thought Leader Series

Inform Yourself / Inform Your Peers

Engage Your Staff

Inform Your Leadership / Engage in a Campus Discussion

Thought Leader Series

The Landscape, Framework, and Strategies for
MANAGING & MITIGATING RISK



Thought Leaders

- Can we identify what the term Risk means

Thought Leaders

- Here is how we at Thought Leaders think of it, in its most broad term...

Any Issue That Impacts an Organization's
Ability To Meet Its Objectives

Thought Leaders

What's keeps you up at night?
(your biggest risk)

Thought Leaders

Cybersecurity n Mental health challenges	Changing cultural attitudes about higher education
Aging workforce/loss of institutional knowledge	Changing demographics
Managing social media	Declining enrollment
Aging buildings and infrastructure	Financial uncertainty
#MeToo movement	Regulatory overreach
Title IX issues	Campus growth putting pressure on aging infrastructure
Free speech/demonstration on campus	Competition
Security risks including terrorism and active shooter situations	Failure to maintain a standard to compete for top researchers
Affordability n Student loan debt	Failure to grow endowment to meet funding needs
	Declining number of skilled trades
	Attracting and retaining staff
	Lack of succession planning critical functions.

Thought Leaders

- How would you rank your institution's risk readiness on a scale of 1 to 10, with 10 the most prepared and 1 the least prepared?

Thought Leaders

- You had 15 seconds to make that assessment.
- Aging buildings and infrastructure

Enterprise Risk Management

- ERM takes a strategic and comprehensive approach. Risk is understood as part of doing business—no operation is without risk—that must be managed – and successfully so – to insure student success and overall business continuity and prosperity.

Enterprise Risk Management

ERM is an institution-wide, proactive approach toward risk.

Subject Matter Expert, Janice Abraham on Enterprise Risk Management

Effective risk management includes the flexibility to respond to both negative and positive events and turn them to your institution's advantage.

Risk Types

- Financial
- Strategic
- Operational
- Compliance
- Reputational

Thought Leaders

- How can your campus better assess opportunities alongside risks?
- Does your institution have a mechanism to identify opportunities and bring them to decision-makers?
- Does your campus have the flexibility and adaptability to seize opportunities as they present themselves? What would improve the institution's nimbleness?

Subject Matter Expert, Janice Abraham on Enterprise Risk Management

Don't spend time listing
Focus on mitigation strategies

Enterprise Risk Management

One of the most important words in the definition of ERM is “process.” ERM isn't something that an institution does once. It is an ongoing effort in which the college or university is always engaged.

Abraham presented ERM as a cycle. Different institutions have developed their own process, but all share, at their core, the following steps:

Enterprise Risk Management

- Step 1 Identifying threats and opportunities across the enterprise.
- Step 2. Categorizing and ranking risks and opportunities to the institution's plans and mission.

Enterprise Risk Management

- Step 3. Mitigating risks and responding to emergencies.
- Step 4. Monitoring risks and opportunities and responding to changing circumstances.

Thought Leaders

Is all risk bad?
Or is it an opportunity

Thought Leaders

Let's go back to what
keeps you up at night
How can you mitigate that?

Thought Leaders Series

Risk comes from not knowing what you are doing.

Warren Buffet

Thought Leaders Series

Risk comes from not knowing what you are doing.

Warren Buffet

Thought Leader Series

Data points

Thought Leaders Series

One of the greatest challenges in managing risk is that people tend to underestimate certain threats while overestimating others. Risk communication expert Peter Sandman has spent most of his career helping his clients understand this challenge.

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“If you distinguish two characteristics of a risk—how dangerous is it versus how upsetting is it—let’s give ’em labels. Let’s call how dangerous it is ‘hazard.’ Let’s call how upsetting it is ‘outrage’.

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“The correlation between hazard and outrage is extremely low. What this means is if you know a risk is dangerous, that tells you almost nothing about whether it’s upsetting. If you know a risk is upsetting, that tells you almost nothing about whether it’s dangerous.”

Thought Leaders Series

In practical terms, that means people are more likely to be afraid of terrorists hijacking their airplane than having their car crash on their way to the airport—or slipping in the shower before they leave the house.

Thought Leaders Series

Sometimes the role of risk managers is to increase attention to hazards that people tend to ignore. Sandman calls this “precaution advocacy.” “The paradigm in precaution advocacy is ‘watch out, this could kill you. Do something. Wear a seatbelt, wear a hard hat,’” he said

Thought Leaders Series

Other times, the job is to manage outrage about unlikely threats. Sandman emphasizes that outrage is mitigated by trust (“If I trust you, I’m going to find the risk that you are exposing me to much more acceptable than if I don’t trust you.”) and control (“If it’s under my control, I’m going to be less upset than if it’s under your control.”)

Thought Leaders Series

Outrage has a tendency to shut down rational thought, Sandman explained, and when someone is outraged they need to feel like they are heard and their fears acknowledged before they can calm down enough to start to think logically.

Thought Leaders Series

“When people don’t understand the data, it’s not because they can’t. It’s because they choose not to. And that’s a function of outrage. So if you can reduce the outrage, then they’re more interested in the data. Then you can begin to educate them,” said Sandman.

Thought Leaders Series

Bringing Risk to Facilities

Thought Leaders Series (Facilities)

Total cost of ownership (TCO) was a recurring theme in the discussion of minimizing facilities risks and can play a significant role in reducing facilities risk. The TCO concept optimizes financial investments by evaluating the “comprehensive impacts of a specific asset decision on the entire facility and infrastructure of an organization from inception onward,”

Thought Leaders Series (Facilities)

Institutional Risk and the Facilities Organization

Thought Leaders Series (Facilities)

Thought Leaders participants described their institutions as taking many positive steps toward managing facilities risk, including the following:

Thought Leaders Series (Facilities)

- Planning for power outages by investing in power generation and creating campus micro- grids
- Partnering with utilities to keep the campus operational under a variety of circumstances.
- Lobbying for state funding (for public institutions) to update outdated facilities and infrastructure.

Thought Leaders Series (Facilities)

- Creating performance-based service contracts to share risks.
- Implementing total cost of ownership standards to ensure that long-term maintenance of facilities is considered during planning and design.
- Educating stakeholders on the role of facilities in student success in order to make the case for facilities investment.
- Creating, testing, and revising emergency management and business continuity plans.

Thought Leaders Series (Facilities)

- Facilities participants at the Thought Leaders symposium looked at risk from the other side of the equation: What can the facilities organization offer higher education to manage and mitigate risk?

Thought Leaders Series (Facilities)

- **Hands-on, in-depth knowledge of the campus built environment.** Facilities staff have been in every corner of the campus, including the utility tunnels, sub-basements, and attics where no president, board chair, provost, or dean has ever gone. This sort of knowledge is critical in mitigating risks and managing disasters. If a blizzard is about to hit, or 20,000 fans are showing up for the big game, the preparations of the facilities organization will keep the campus running smoothly.

Thought Leaders Series (Facilities)

- **A responsive staff.** The facilities organization is one of the largest on campus, and one of the most responsive. Staff are accustomed to being sent out to mop up spills, repair broken sinks, and fix stalled elevators. It's only one more step to respond to emergencies

Thought Leaders Series (Facilities)

- **Eyes on the ground.** Facilities leaders agree with security and risk managers that this is one of the organization's strengths. The facilities organization is an embedded workforce, closely engaged with the operations of the rest of the campus and alert to changes. They can and do speak up when they recognize unusual or alarming behavior.

Thought Leaders Series (Facilities)

- **Private colleges and universities.** Representatives of private institutions emphasized the strong relationships they've formed with the local community. Campuses have worked with local governments and built good town/gown relationships, the sort of relationships that benefit the institution in the case of a natural disaster or crisis. Facilities organizations also have connections with local vendors and subcontractors that they can draw upon when needed.

Thought Leaders Series (Facilities)

- **Public research institutions.** Participants from large public colleges and universities pointed to the strength of partnerships with research faculty on their campuses. The facilities organization can serve as a living lab in cooperation with engineering, architecture, planning, and environmental programs, just to name a few.

Thought Leaders Series (Facilities)

- **Smaller public institutions.** Representatives from smaller public colleges and universities highlighted the facilities organization's familiarity with cross-functional teams. While many units of the campus tend to congregate in silos, facilities must work across disciplines every day. As well as forming teams of planners, architects, designers, and engineers, facilities organizations regularly work with the finance organization to fund new projects, with the IT organization to integrate technology, and, of course, with risk management to assess and mitigate risks.

The TLS 10

The TLS 10

- **Strengthening the facilities organization to better manage risk**

The TLS 10

- How do you create a campus culture that deters risk?

The TLS 10

- How are you building resilience on your campus?

The TLS 10

- Who is responsible for risk? Who isn't involved in the risk conversation that should be involved?

The TLS 10

- What are the sacred cows on your campus? What risks do they pose? How can you mitigate those risks?
- Hardest question to answer

The TLS 10

- Does your campus have a defined enterprise risk management strategy? If so, how well is it working? If not, what would it take for the campus to commit to ERM?
- A: Does the person two levels below you know the answer to this question?

The TLS 10

- What risks threaten your facilities organization?

The TLS 10

- What is the role of facilities leadership in managing risk for the entire institution? For campus facilities?

The TLS 10

- How can your campus better assess opportunities alongside risks?

The TLS 10

- Does your institution have a mechanism to identify opportunities and bring them to decision-makers?
- Does your campus have the flexibility and adaptability to seize opportunities as they present themselves? What would improve the institution's nimbleness?

Thought Leaders Series (Facilities)

Hope is not a strategy. . .
Denial is not a plan

Thought Leaders Series (Facilities)

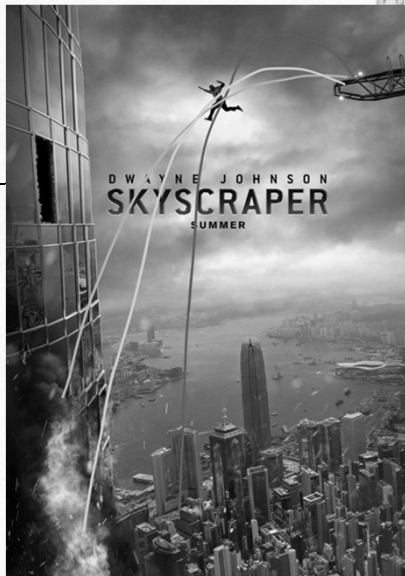
Hope is not a strategy. . .
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Thought Leaders Series (Facilities)

Hope is not a strategy. . .
Denial is not a plan



DWAYNE JOHNSON
SKYSCRAPER
SUMMER



DWAYNE JOHNSON
SKYSCRAPER
SUMMER



Assessment

So what I'm saying is that yes he could 100% add fastest man and longest jumpman to his record.

First, we need a unit of distance. Johnson is 6-foot-5, so let's give him a 7-foot span from his feet up to his raised hands. We will call this unit 1 Rock



1 Rock

-
- Next, we need to identify where he's aiming. He's clearly not trying to land his feet in the window—that would just be cinematically lazy—so let's say his destination is 1 Rock below the bottom of the window, so he can *just barely* grab hold of the edge, shattered glass be damned.



-
- Call the under-the-window destination point $(0,0)$, with 1 Rock as the unit of measurement. Zaremsky hand-measured Johnson's current mid-air position at roughly $(3,3)$ and his starting point at $(5,4)$ on a two-dimensional plane with an X and Y axis. (Zaremsky warns it's hard to be more precise when we're using a flying man on a movie poster as our unit.)

-
- Now it's time to compute the parabola that connects Johnson's starting point, end point and current position

-
- Say it is $y=ax^2+bx+c$. Since it contains $(0,0)$, we know $c=0$, so really the equation is $y=ax^2+bx$. Plugging in the other two points, we get the system of equations $3=9a+3b$ and $4=25a+5b$. The first equation tells us that $b=1-3a$, and substituting this into the second equation tells us that $4=10a+5$, so we have $a=-0.1$ and $b=1.3$. This finishes the computation of the parabolic trajectory of the Rock: $y=-0.1x^2+1.3x$.

-
- The parabola doesn't solve our problem, though. Now we have to deduce the Rock's necessary initial velocity. In plain English: How fast does he have to be running to make that jump? And is it within the realm of human possibility?

-
- Get ready for a trip back to high school physics

-
- *His horizontal velocity is constant. Call it h (and note it's negative because he's going to the left). Writing t for time (and starting at time $t=0$), we know that $x=ht+5$, so $t=(x-5)/h$. We also know that if v is his initial vertical velocity, then $y=-2.3t^2+vt+4$ (the 2.3 comes from half the gravitational constant "g," being roughly 2.3 Rocks per second squared).*

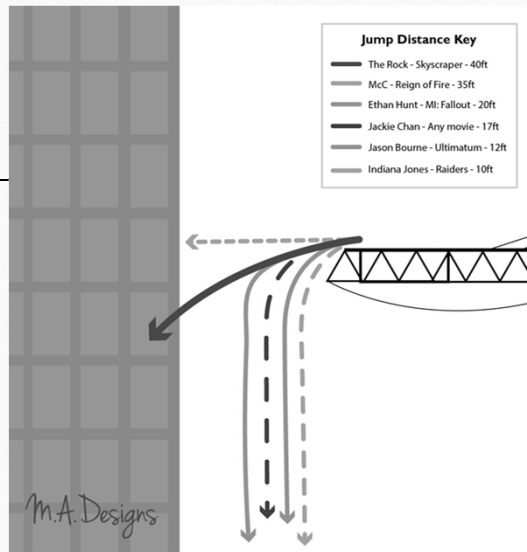
-
- Plugging $t=(x-5)/h$ into this we get $y=(-2.3/h^2)(x-5)^2+(v/h)(x-5)+4$. The coefficient on x^2 is $-2.3/h^2$, and we also know it must equal -0.1 , so we conclude that the initial horizontal velocity h is roughly -4.8 Rocks per second (remember it's negative since it's to the left), so -33.6 feet per second, which is about 23 miles per hour to the left.

-
- Next, the coefficient on x is $(23/h^2 + v/h)$, and we also know it must equal 1.3, so plugging in $h=-4.8$ we get that the initial vertical velocity is $v=-1.44$ Rocks per second, or about 6.9 mph downward.

-
- To paraphrase Zaremsky's work, the Rock needs to run along the crane at 23 mph, then jump slightly *downward* with a velocity of about 6.9 mph. That will let him grab the bottom of the window in the most dramatic way possible. He could also make it if he jumps upward or directly forward with a slightly slower initial velocity.

-
- And yes, that sounds incredibly fast—but it's entirely possible. The world record for human speed on foot is Usain Bolt's 27.8 mph.
 - "This jump," Zaremsky concludes, "is technically possible. Or, well, at least Usain Bolt could do it."

Easily fixed:



Danny D Pearson
@Danny_D_Pearson

Follow

Replying to @TheRock

The Rock and Jordan 🤖
#SKYSCRAPER



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therock • Follow

therock The crew member on the ground holding the green screen panel is like "please don't land on me, please don't land on me".

Every film has a moment designed to take your breath away when you see the final product on screen.

This is one of those moments.

I only get one take.

Go for it or I don't.

Sooooooo.. #GoForIt #SkyscraperMovie

@kimberleyfrench



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