

Don't Let Opportunities Slip Away – Strategies for Preventing Falls

MARCH 7, 2019

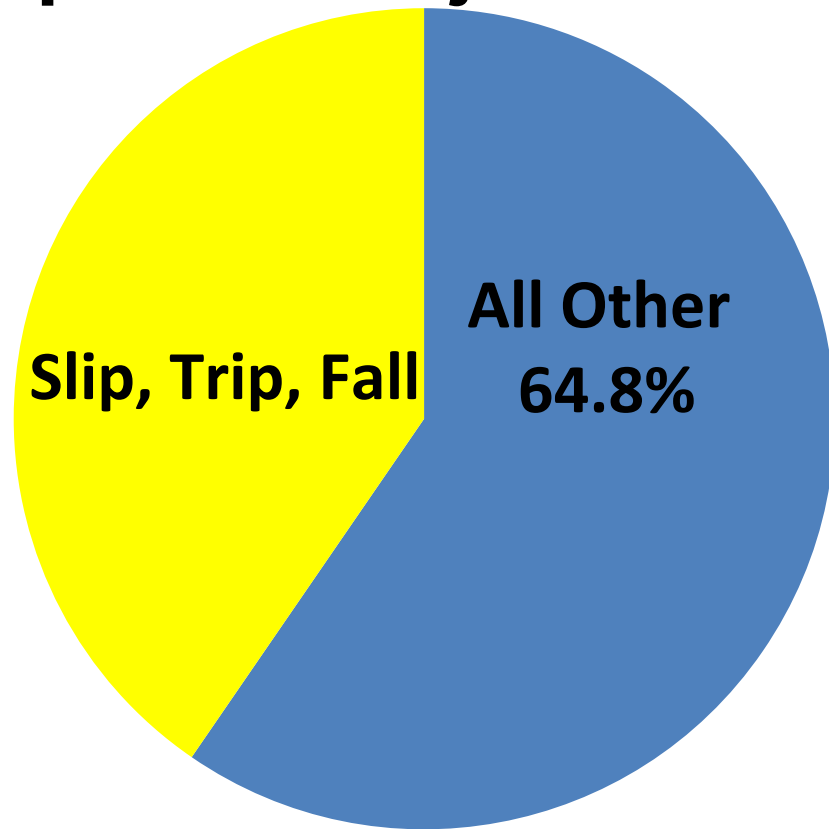
Rick Vohden, CSP, CPCU
Senior Vice President
Marsh Risk Consulting

Jeff Morris
Vice President for Operation and Finance
Coffeyville Community College

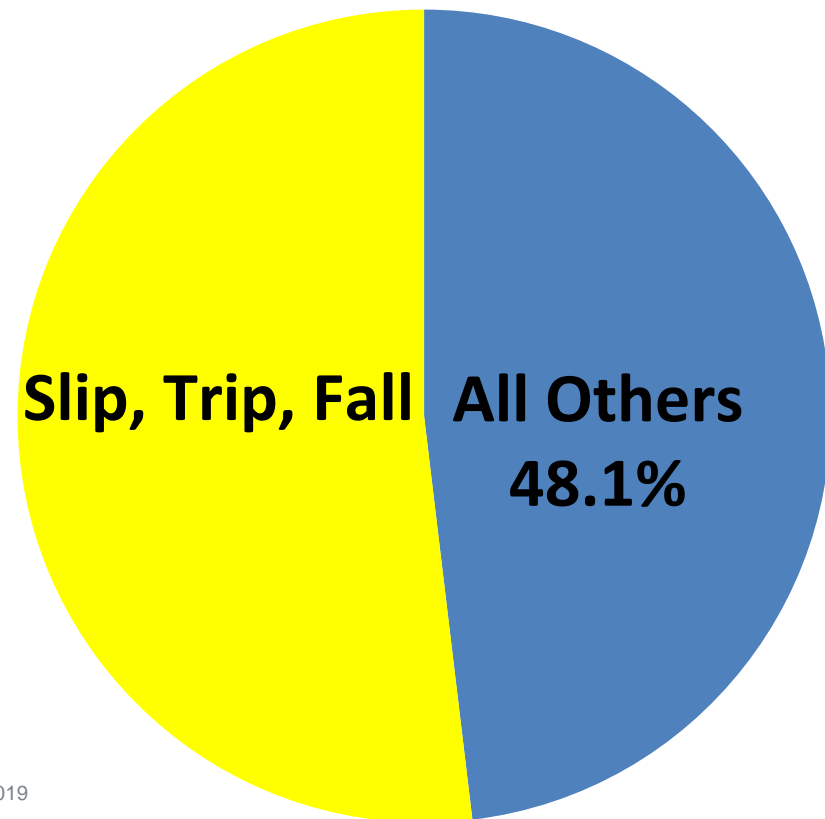
Impact of Slips, Trips and Falls

Occupational Injuries and Workers' Compensation

Occupational Injuries – 35.2%



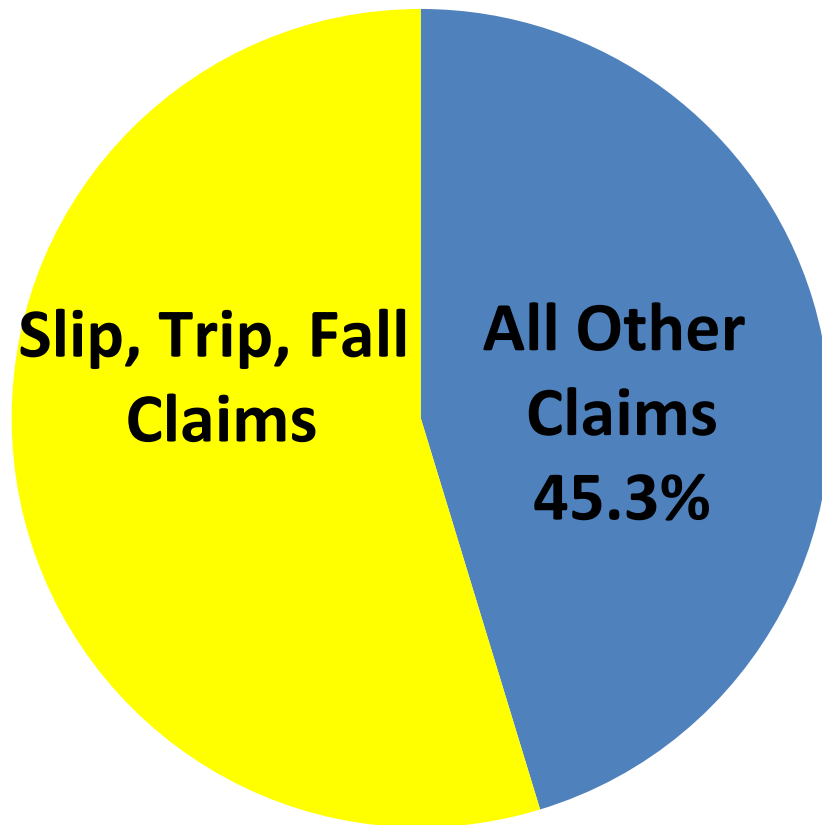
Occupational Injury Costs – 51.9%



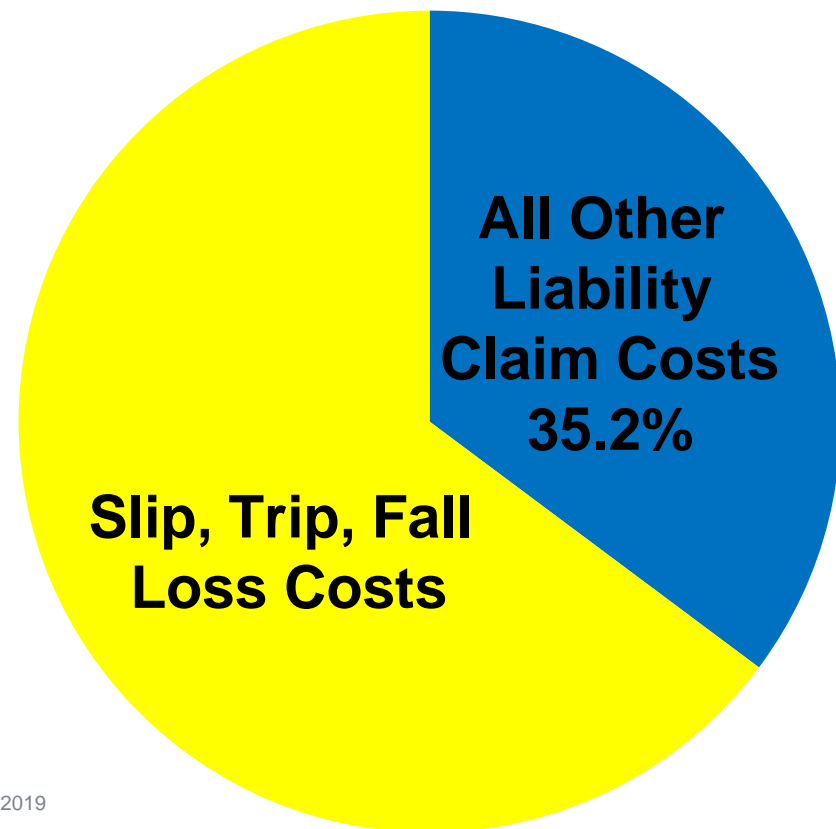
2017 Marsh Study
Public & Private Universities

Impact of Slips, Trips and Falls General Liability Claims

Liability Claims - 54.7%



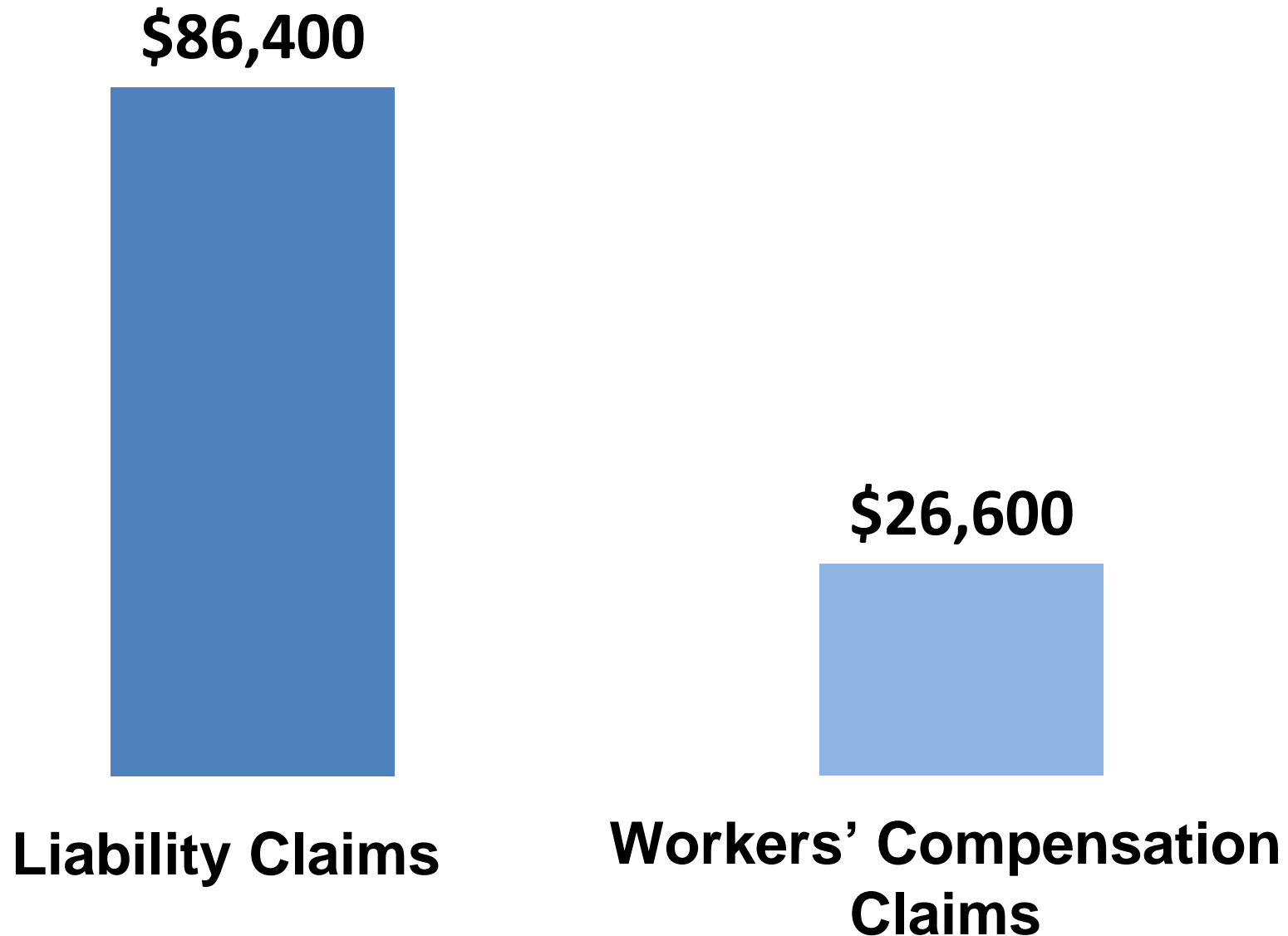
Liability Loss Costs – 64.8%



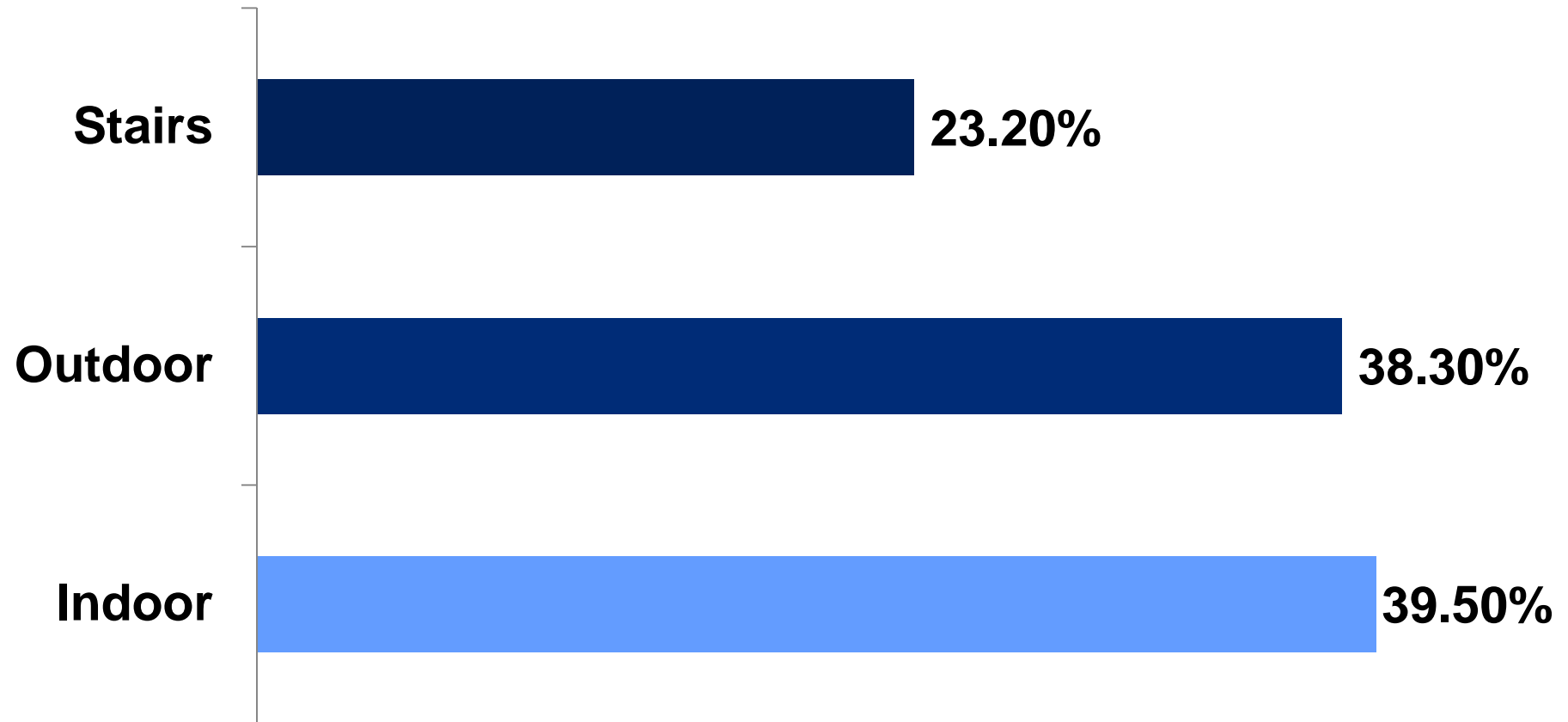
2017 Marsh Study, Private Universities

Impact of Slips, Trips and Falls

Average Loss Occupational Injuries and Liability Claims



Impact of Slips, Trips and Falls Liability Claims by Location



2017 Marsh Study, Private Universities

Impact of Slips, Trips and Falls

Emerging Liability Trend

- **Concussion Traumatic Brain injury Liability Claims**
- Non-student athletes
 - 2018
 - Settled - \$1,750,000 (Outdoor)
 - Settled - \$1,200,000 (Outdoor)
 - Settled - \$1,450,000 (Outdoor)

Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Entry Mats – in-floor construction with drain pit



Impact of Slips, Trips and Falls

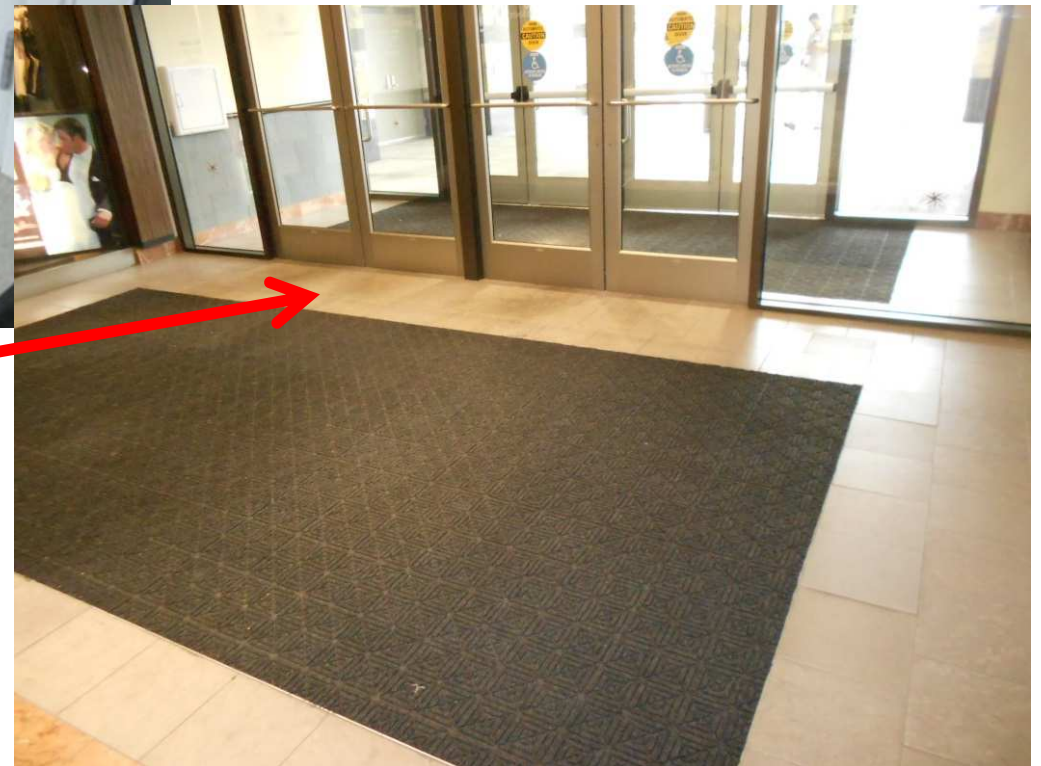
Indoor Fall Prevention

- Entry Mats – in-floor construction with drain pit



- Runs should be 20 feet
- Inspect for turned up corners

Avoid door gaps



Impact of Slips, Trips and Falls

Indoor Fall Prevention



Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Provide a building mop kit, a floor mop kit is even better.



- When mopping floors, swab no more than a 4' wide swath. This will reduce stress on the shoulders and lower back.

Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Use warning signs



Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Invest in floor drying equipment



!!! Be mindful of power cords.



Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Review floor cleaning procedures



- Employees are often required to mix cleaning solutions from concentrate.
- Misblending will waste solution.
- Inadequate mopping will leave solution on the floor which re-emulsifies creating a soapy floor.
- What is the slip resistance of the floor wax?

!!! Always work moving forward to keep the power cord behind.

Impact of Slips, Trips and Falls

Indoor Fall Prevention

- **Walking Surface Maintenance:** Static Coefficient of Friction (COF)
- Minimum Coefficient of Friction (COF)
 - OSHA - 29CFR 1920.22 recommends 0.5 COF
 - ADA Section 4.5.1, Appendix B: recommends 0.6 COF
 - ADA Section 4.5.1, Appendix B recommends 0.8 for sloped surfaces
 - ANSI A1264.2 recommends 0.5 COF
 - Target should be 0.65 COF

English XL Tribometer



Impact of Slips, Trips and Falls

Kitchen Fall Prevention

- Eliminate raised door saddles



!!! Replace broken tile.

Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Rule: Clean up when it falls !



- Design with slip resistant floor tiles or epoxy coating.



Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Mats at “wet” stations double as anti-fatigue mats.



- Self serve stations
 - Salad
 - Drinks



Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Mats at Self serve stations.



- Salad bar
- Drink stations



Impact of Slips, Trips and Falls

Indoor Fall Prevention

- Slip resistant footwear



- Plug: Shoes for Crews
<https://www.shoesforcrews.com/>



Impact of Slips, Trips and Falls

Outdoor Fall Prevention

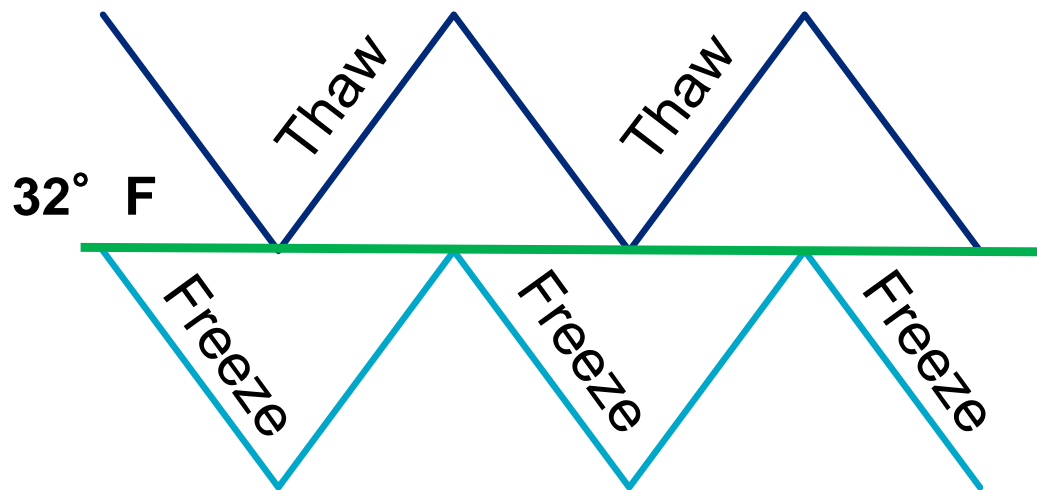
- Snow and Ice Care Guideline
 - Assignment of crews to geographic areas.
 - Designated contractor routes and parking lots,
 - Preseason equipment maintenance plan.
 - Overnight accommodations for staff.
 - Prioritize campus routes and stairs by usage.



Impact of Slips, Trips and Falls

Outdoor Fall Prevention

- Snow and Ice Care Guideline
 - Provide ice melt stations around campus to minimize carrying.



Impact of Slips, Trips and Falls

Outdoor Fall Prevention

- Off-Season Projects / Repairs
 - Spring Inspection:
 - Walkways “pooling” of rainwater.



Impact of Slips, Trips and Falls

Outdoor Fall Prevention

- Off-Season Projects / Repairs
 - Misaligned concrete slabs.
 - Replace or wet grind (note the silica exposure)



Impact of Slips, Trips and Falls

Outdoor Fall Prevention

- Fall Maintenance
 - Leaves blocking storm drains.
 - Wet leaves on walking surfaces.



Impact of Slips, Trips and Falls

Outdoor Fall Prevention

- Walking / Driving Intersections
 - Marked transition points



Impact of Slips, Trips and Falls

Stairs

- Center Handrails
 - 88 inches width or less
 - In good condition



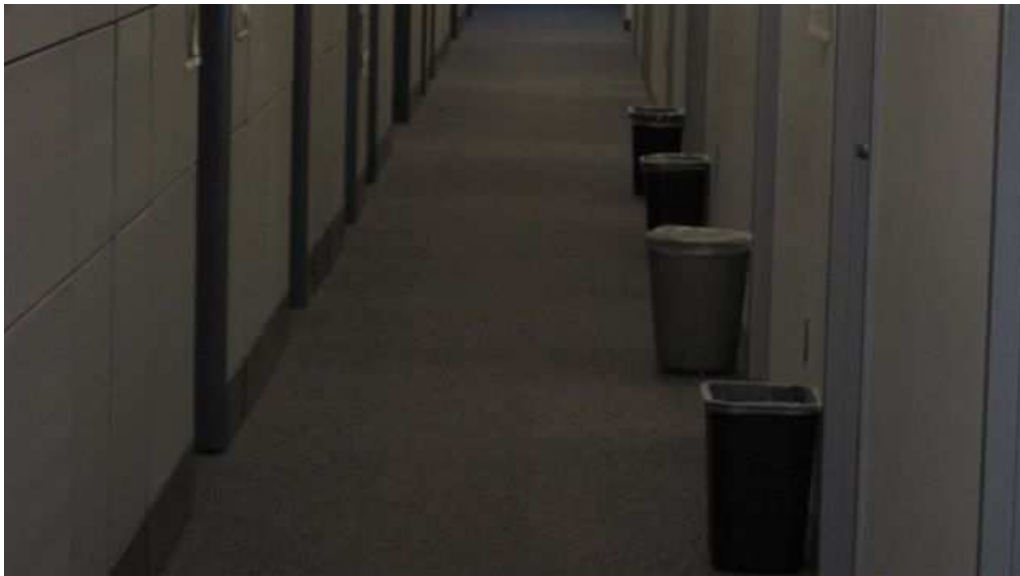
Impact of Slips, Trips and Falls Offices

- Strap up cords
- Educate employees



Impact of Slips, Trips and Falls Offices

- Be sensible about siting waste disposal containers.



Impact of Slips, Trips and Falls Offices

- Color contrast for changes in surface textures.



Impact of Slips, Trips and Falls

Human Factors

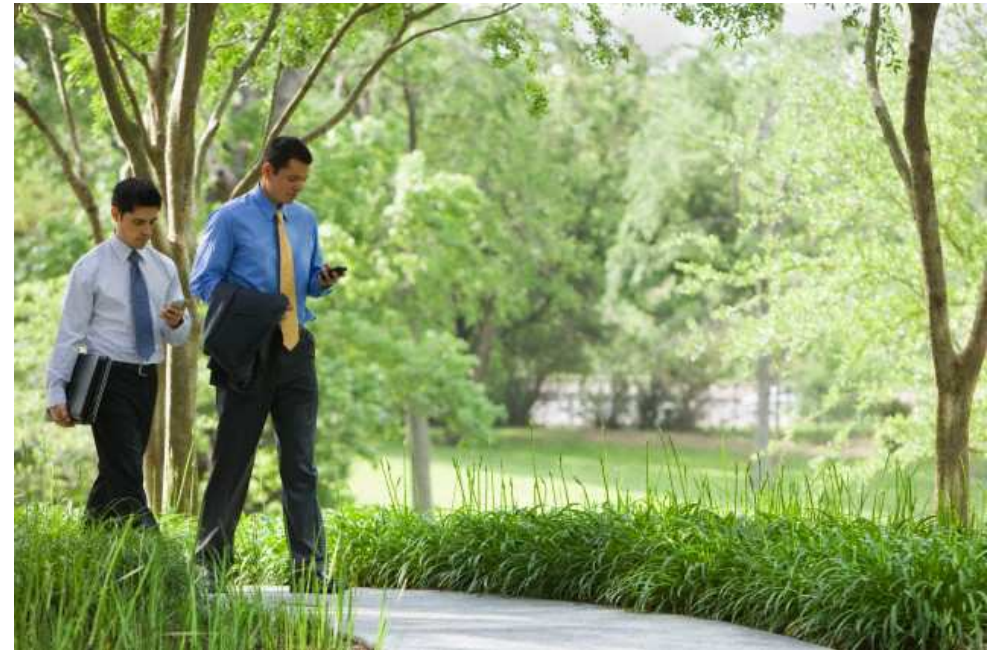
- Aging Workforce
 - A little heavier
 - Not as agile
 - Not as resilient when we do fall
 - Don't see like we used to
- “3 Points of Contact” on stairs
- Dress code addresses footwear
- Encourage vision care



Impact of Slips, Trips and Falls

Human Factors

- Distracted Walking
 - The problem is not just over the road.



Impact of Slips, Trips and Falls

Human Factors

- Signage



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Typical Phases of Incident Investigations and How to Conduct Them

Respond to the Scene

- Verify it is ok to approach safely
- Secure the area to prevent further injuries
- Assess any injuries and get medical care, if needed
- Notify appropriate personnel of the accident
- Preserve evidence



Interview Injured Individual and Witness(es)

- The injured individual should complete an incident report
- Witnesses should complete witness reports
- Questions to ask:
 - What was the individual doing at the time of the accident?
 - Was the employee qualified to perform this operation?
 - Were procedures being followed?
 - Were proper tools and equipment being used?
 - Had the employee received proper training for the operation prior to the incident?

Interview Injured Individual and Witness(es)

- Questions to ask:
 - What was the physical condition of the area when the incident happened? (Wet, muddy, hot, cold, debris in the way or clear)
 - What were the witnesses doing at the time of the incident?
 - What immediate or temporary action could have prevented or minimized the incident?
 - What long-term or permanent action could have prevented or minimized the incident?



Analyze the Scene

- Take photos of the area
- Focus on finding causes
- Had a previous action been taken to prevent the incident? If so, why did it fail?



Develop Corrective Actions

- How do we prevent/minimize a reoccurrence?
 - Physical change
 - Safety rule or process change
- Assign someone to assure corrective actions are completed
- Follow-up to assure they were completed