



CENTER FOR EDUCATION AND RESEARCH IN CONSTRUCTION

Department of Construction Management, College of Built Environments

Foundations for Safety
Leadership
and
UW's Construction Health &
Safety Research

By
Dr. Ken-Yu Lin
06/13/2018



About Dr. Ken-Yu Lin

- > Associate Professor, P.D. Koon Endowed Professorship in Construction Management
- > Associate Director, Center for Education and Research in Construction (CERC)
- > CMOSH Program Director, Northwest Center for Occupational Health and Safety
- > Co-Director, Laboratory of Safety and Health Advancement through Research and Education (SHARE Lab)
- > Chair, ASCE Computing Division, Executive Committee
- > AGC 2014, 2015, 2016, 2018 Award Panel
- > OSHA certified outreach trainer
- > Co-author of “Construction Project Safety”



**Enthusiast for
Innovating
Construction
Safety and
Health**



THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

www.cpwr.com

- > Non-Profit
 - Established in 1990 by North America’s Building Trades Unions (NABTU)
- > Mission
 - To protect the safety and health of America’s construction workers
- > Service, Training, Research
- > Research to Practice (R2P)
- > Contact:
Dr. Linda Goldenhar (Lgoldenhar@cpwr.com)
Director of Research and Evaluation

From Safety Climate Assessment to Foundations for Safety Leadership

> 8 Leading Indicators of Jobsite Safety Climate



> Rubrics, Intervention Ideas, and Worksheets and Safety Climate Assessment Tool (S-CAT)

Safety Climate Assessment Tool (S-CAT)

Demonstrating Management Commitment

Management demonstrates commitment by engaging in the following activities:

1. Being present and visible on the jobsite.
2. Always using safety behaviors and safety practices on the jobsite.
3. Identifying and reducing job hazards.
4. Having processes for corrective action following a safety incident.
5. Compassionately reacting to employee injuries.
6. Reviewing and analyzing safety policies, procedures and trends.

For each item below, carefully read the descriptions in each box going from Inattentive all the way to exemplary. Circle the one that best describes management's commitment to that activity.

INATTENTIVE → REACTIVE → COMPLIANT → PROACTIVE → EXEMPLARY

1. In my company, management...	2. When management is present on the jobsite, they...	3. In my company, management...	4. In my company, management...	5. When employees are injured, management...	6. In my company...
Rarely comes to the actual jobsite.	Typically act as poor safety role models by breaking regulatory and organizational safety policies and procedures.	Does not participate in safety audits.	Does not want to know about any safety incident, unless it's a fatality. There are no investigations into incidents or close calls.	Immediately blames and punishes the employee (e.g., fired).	There is no formal safety management system; safety trends are not analyzed.
Only comes to the jobsite after an incident has occurred.	Are only concerned with adhering to OSHA regulations and organizational policies and procedures after an employee injury has occurred.	Only participates in safety audits in response to an employee injury or adverse safety event.	Resists taking steps to correct or prevent future incidents. Investigations into incidents or close calls result in punitive action toward employees.	Typically blames employees for injuries, threatening them with suspension or even termination.	The safety management system is reviewed and safety trends are only analyzed in response to employee injury or an adverse safety event.
Only comes to the jobsite when required, or makes infrequent visits.	Strictly conform to required OSHA regulations and organizational safety policies and procedures, never more or less.	Participates in safety audits only when required.	Investigates incidents but not in a "blame-free" manner. Initiates corrective actions that comply with owner or regulatory directives.	Only holds employees accountable for injuries according to organizational guidelines.	The safety management system is reviewed and safety trends are analyzed from time to time.
Makes regular visits to the jobsite. Interacts mostly with management.	Demonstrate safety behaviors above and beyond what is required.	Initiates and actively participates in internal safety audits.	Includes employees in both a root cause analysis and helping to come up with solutions to prevent future incidents and foster continued improvement.	Demonstrates appropriate organizational support for the employees involved in injuries.	The safety management system is reviewed and safety trends are analyzed annually to ensure effectiveness and relevance.
Frequently visits the jobsite; seeks out interactions with employees.	Consistently model safety behaviors above and beyond what is required and recognize employees who do the same.	Actively participates in internal safety audits and uses the information for management performance evaluation.	Relies on a formalized process for conducting a detailed root cause analysis that reviews both processes and behaviors. Findings are discussed with everyone and preventive solutions are implemented.	Proactively provides support to injured employees to facilitate return to work. Seeks to learn from employee injuries.	The safety management system is reviewed and safety trends are analyzed bi-annually to ensure effectiveness and relevance.

S-CAT #1

Foundations for Safety Leadership (FSL) by CPWR

By Linda M. Goldenhar, Stefanie K. Johnson, Natalie Schwatka

- > Develop an evidence-based leadership educational module that introduces trainees, especially those with supervisory responsibilities, to a number of critical leadership skills they can use to improve safety climate and safety outcomes.



Foundations for Safety Leadership (FSL) by CPWR

FSL Structure and Content:

> Section 1 - Foundational material - (50-55 mins)

- Costs of ineffective leadership
- Benefits of effective leadership
- Definition of safety leader
- How safety leaders improve safety outcomes
- 5 leadership skills

> Section 2 - Application - (85-90 mins)

- 7 real world construction scenarios
- Watch (videos), reading, role plays

Elective
Module for
OSHA 30
starting
January
2017

Foundations for Safety Leadership (FSL) by CPWR

Safety Leader is Defined as...

- > A person who has the courage to demonstrate that s/he values safety by working and communicating with team members to identify and limit hazardous situations even in the presence of other job pressures such as scheduling and costs.

Foundations for Safety Leadership (FSL) by CPWR

5 LEADERSHIP Skills

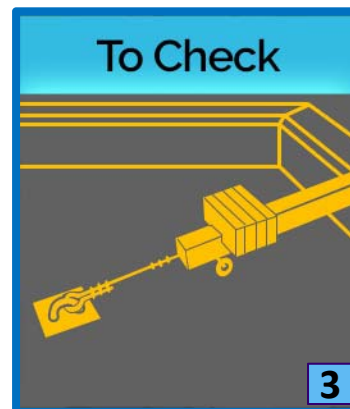
- > Leads by example
- > Engages and empowers team members
- > Actively listens and practices three-way communication
- > Develops team members through teaching, coaching, & feedback
- > Recognizes team members for a job well done

Foundations for Safety Leadership (FSL) by CPWR

What is the emotional impact?

- > Uncertainty/anger due being told what to do and how to act, but watching others, particularly leaders, not following the rules
- > Frustration at not being asked for ideas on how to do task even though they may know a safer and more efficient way to do it
- > Annoyance at not being listened to when raising an issue
- > Anxiety due to not understanding the desired outcome of the request being made
- > Apprehension due to fear of being ignored or ridiculed when asking for more direction on how to complete a task
- > Resentment from never being acknowledged for going above and beyond what's expected

Foundations for Safety Leadership (FSL) by CPWR



Foundations for Safety Leadership (FSL) by CPWR

Do We Have To?



6

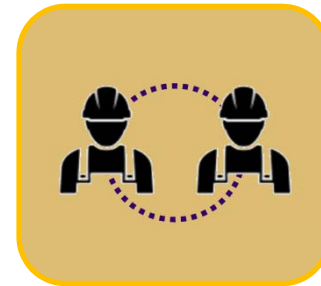
Who	Role
Floyd	<i>Painting Perfection</i> Foreman
Ed	<i>Painting Perfection</i> Experienced Worker
Tom	<i>Painting Perfection</i> Trainee/apprentice
Tina	<i>Painting Perfection</i> Trainee/apprentice



WATCH



READ



PLAY

Foundations for Safety Leadership (FSL) by CPWR

FSL Teaching and Supplemental Materials

> Primary Teaching Materials

- PPT (PC and MAC) – Original + 3 new scenarios
- Instructor Guides & Student Handouts
- Train the Trainer ppt & instructor guide

> Support Materials

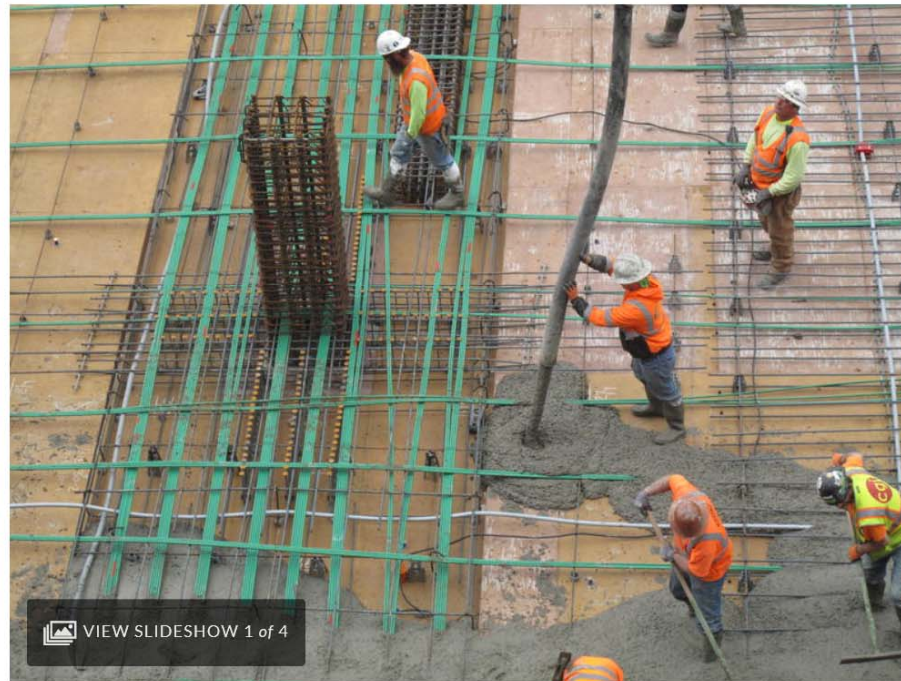
- Hard hat sticker
- Pocket reference card
- Toolbox talks
- FSL Handbook + Leadership skill self-assessment & plan
- Frequently Asked Questions

UW's Construction Health & Safety Research

A Seattle ironworker fell eight floors and survived. Here's why

By ANNA BOIKO-WEYRAUCH • MAY 15, 2018

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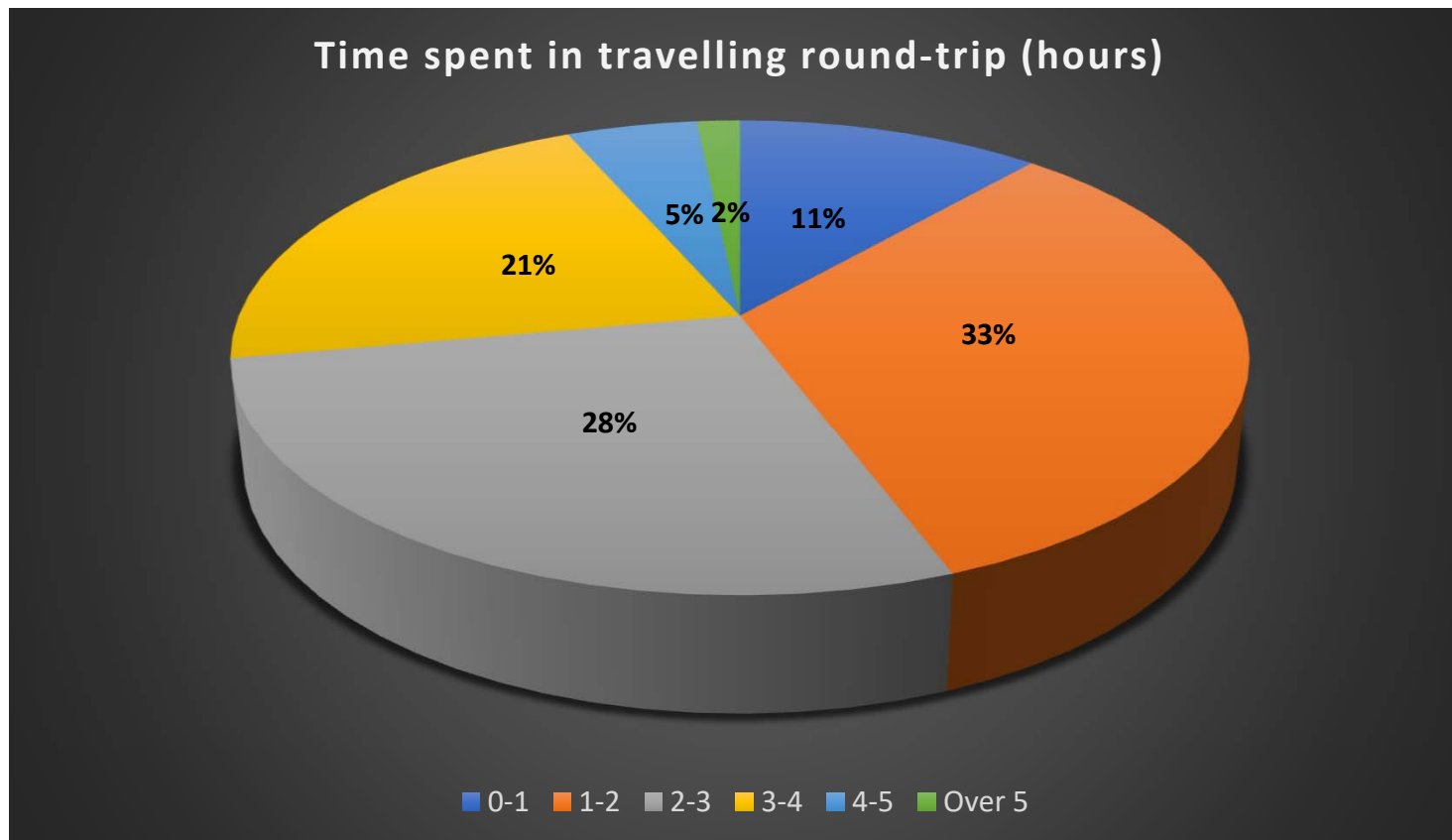


SLIDESHOW: Workers pour concrete for a floor of an office tower in Renton. Pouring concrete carries a lot of risk for workers.

KUOW PHOTO/ANNA BOIKO-WEYRAUCH

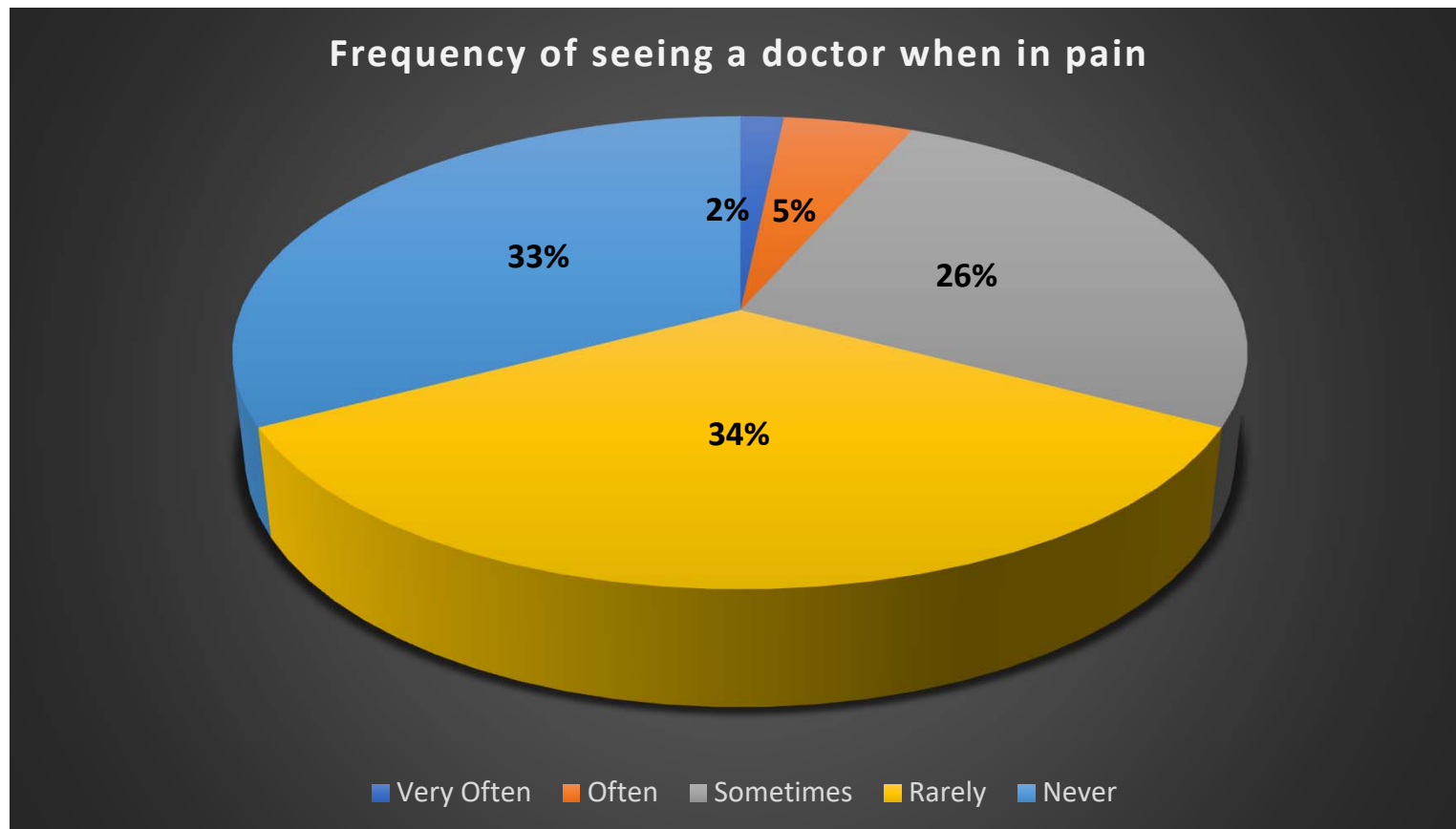
UW's Construction Health & Safety Research

Regional Total Worker Health Survey (by Nihar Trivedi)



UW's Construction Health & Safety Research

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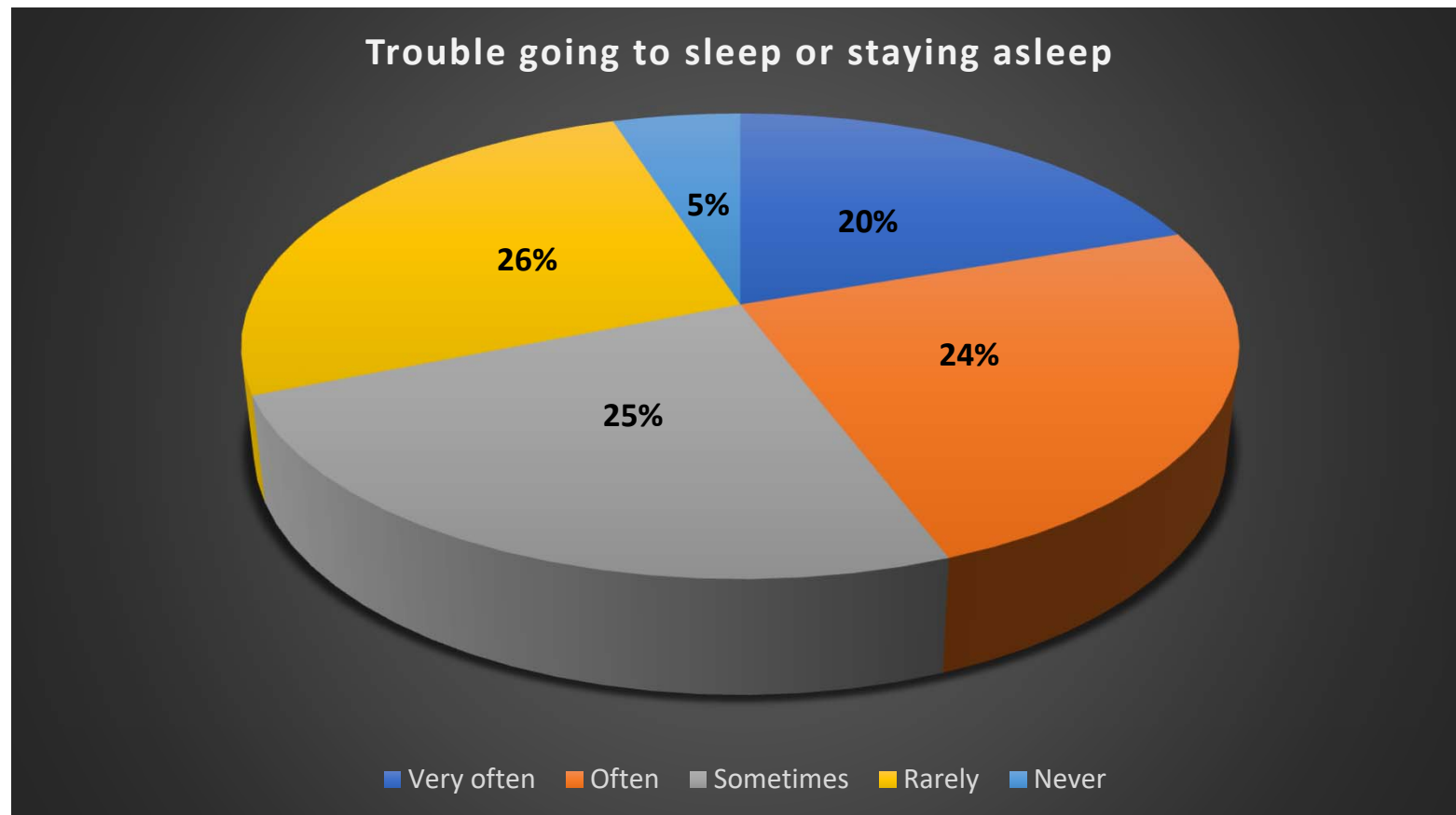


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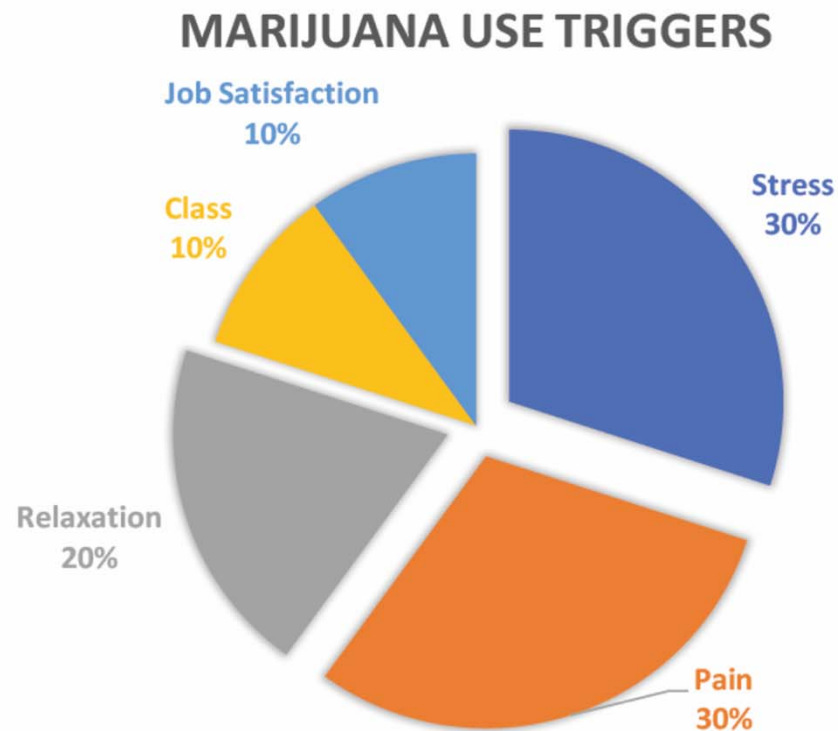


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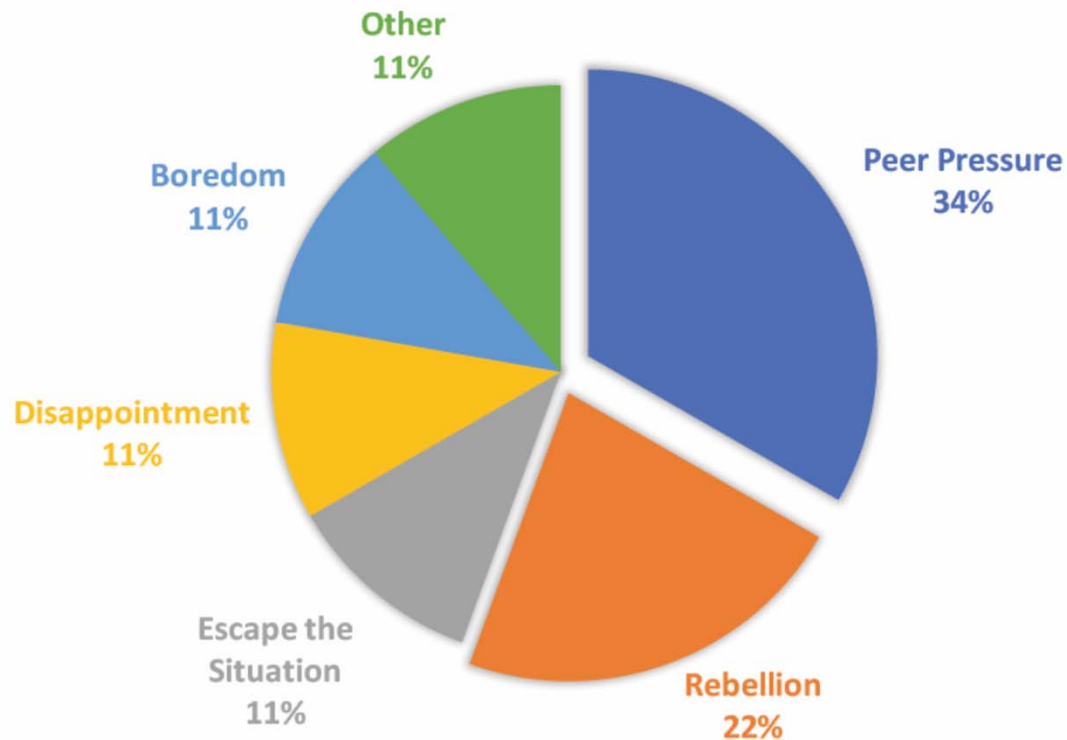
Marijuana Use Interviews (by Abby Patil)



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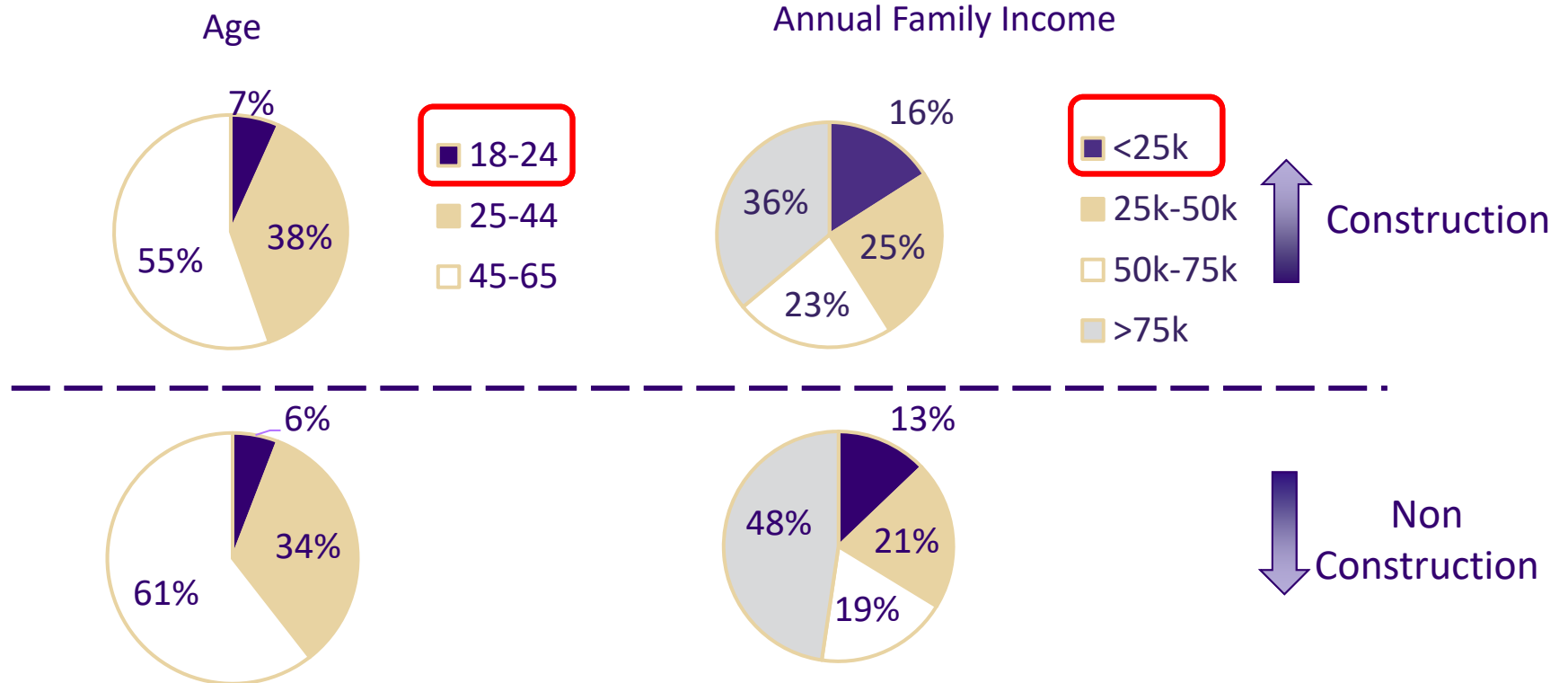
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WORKERS AFFECTED BY STRESS FACTORS



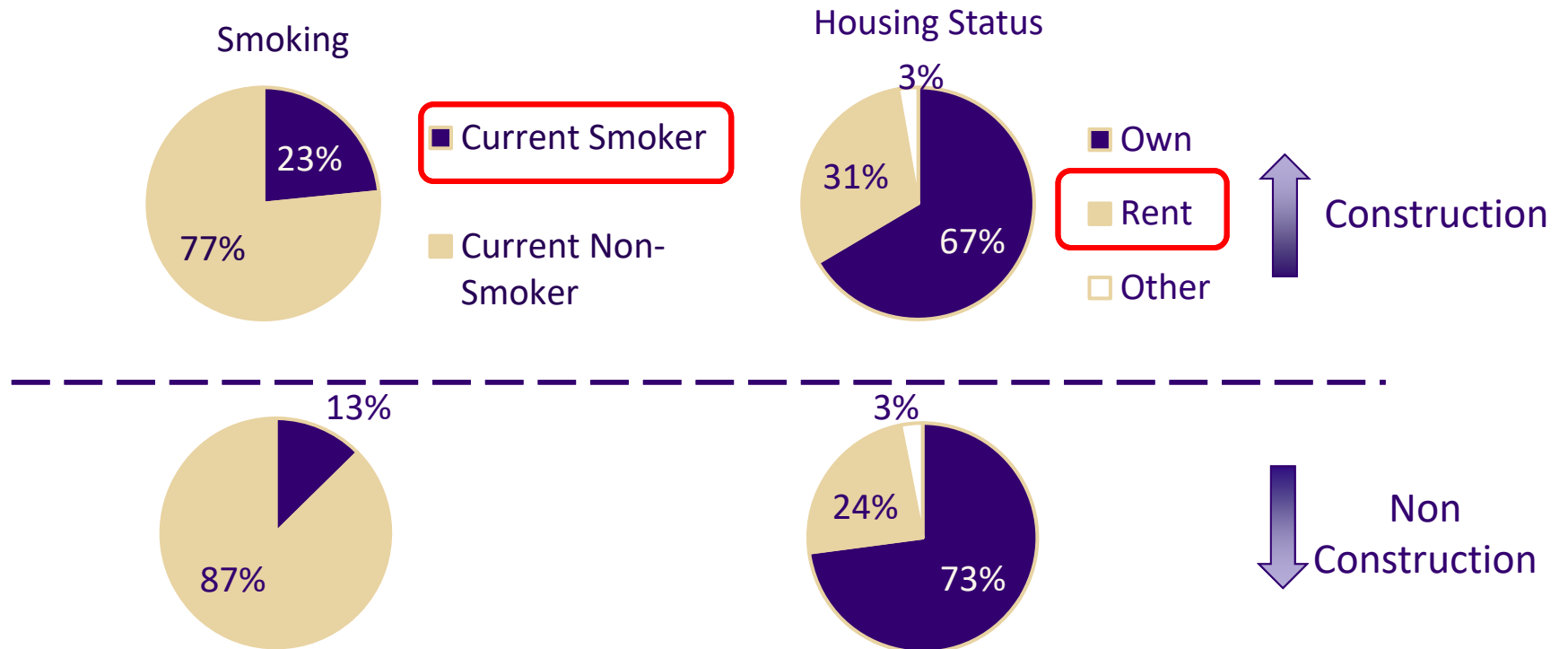
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Mental Health Among Construction Workers in WA (By Qinxue Lee)



UW's Construction Health & Safety Research

Mental Health Among Construction Workers in WA (By Qinxue Lee)



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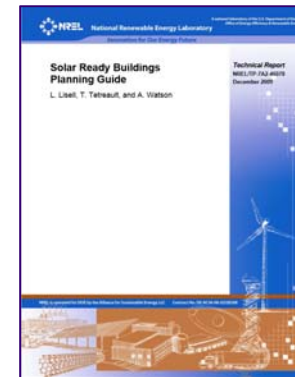
Upcoming Research

Safety and Health in Prefabricated Construction: A New Framework for Analysis
By Elena Franks



<https://youtu.be/Mn6PYOG6sWw>

Solar Ready for New Construction: Scope Effectives and Elements for S&H
By Jeremy Berke



National Renewable Energy Laboratory

UW's Construction Health & Safety Research

Upcoming Training Opportunity

VR-Infused Case Study on the Impact of Design Decisions Upon Project Logistics, Constructability, and S&H.

By Elena Franks

Contact: Dr. Ken-Yu Lin (kenyulin@uw.edu)/206-616-1915

- Sponsorship
- Research study collaboration
- Training / curriculum development
- Guest lecture opportunity @ UW
- Funded MS degree program with a S&H focus