

Assessing Awareness of Respiratory and Noise Hazards among Wisconsin Workers



WISCONSIN DEPARTMENT
of HEALTH SERVICES

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Learn from Workers. Become Inspired. Improve Worker Health & Safety.

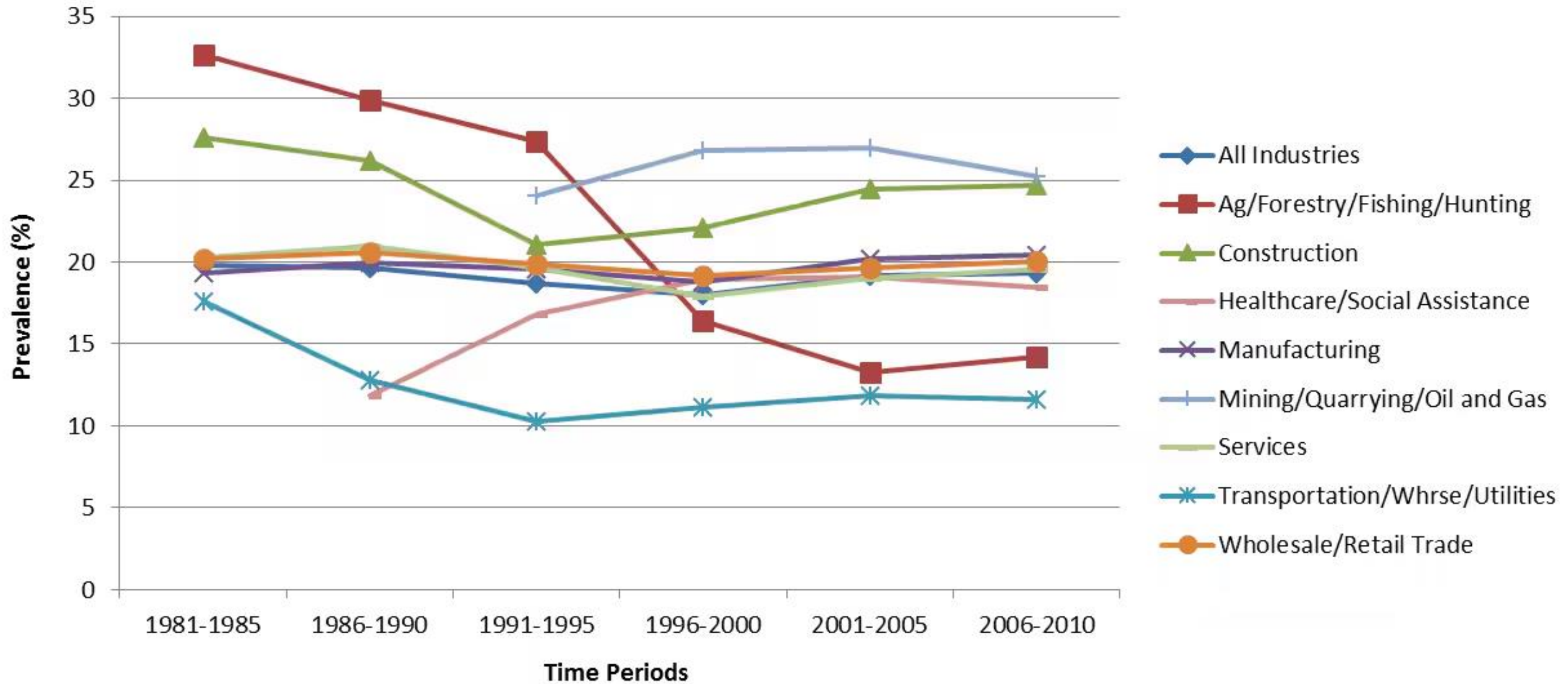
OHIP is a national summer internship dedicated to helping you learn about the field of occupational safety and health from those with most at stake: working people.

June 24- August 16, 2024

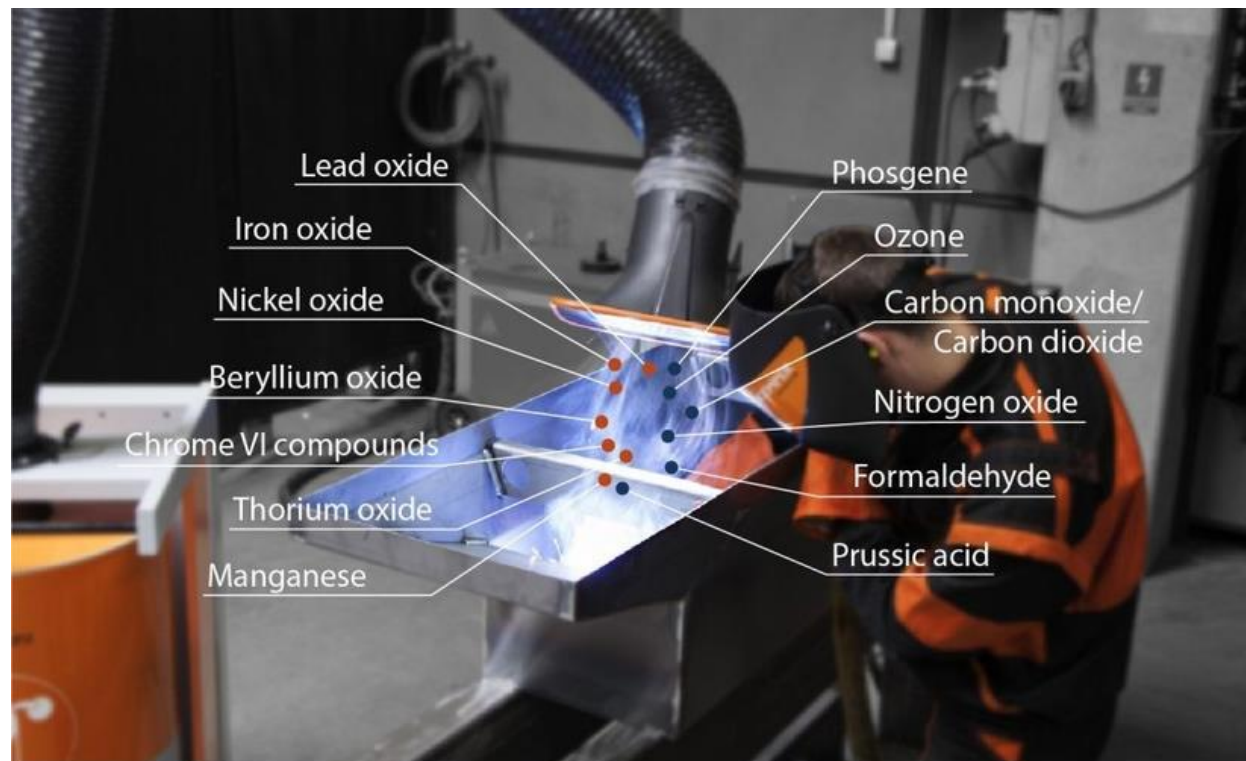
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Internship Dates

National 3-day Orientation: June 25-27, 2024

Prevalence of Hearing Loss by Time Period and Industry Sector, 1981 - 2010, for 1,816,812 Workers



Workplace Respiratory Hazards



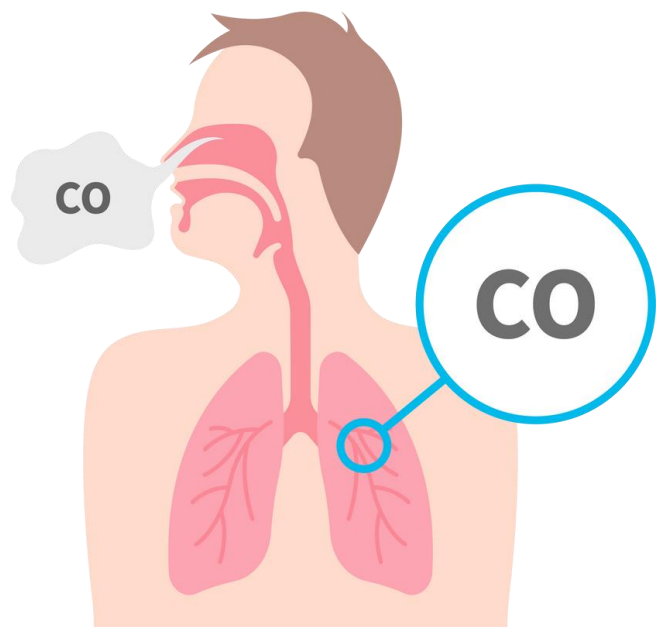
The Fabricator, 2018



Graphic courtesy of OSHA



NIOSH, 2018



Canva, 2024



OSHA, 2024

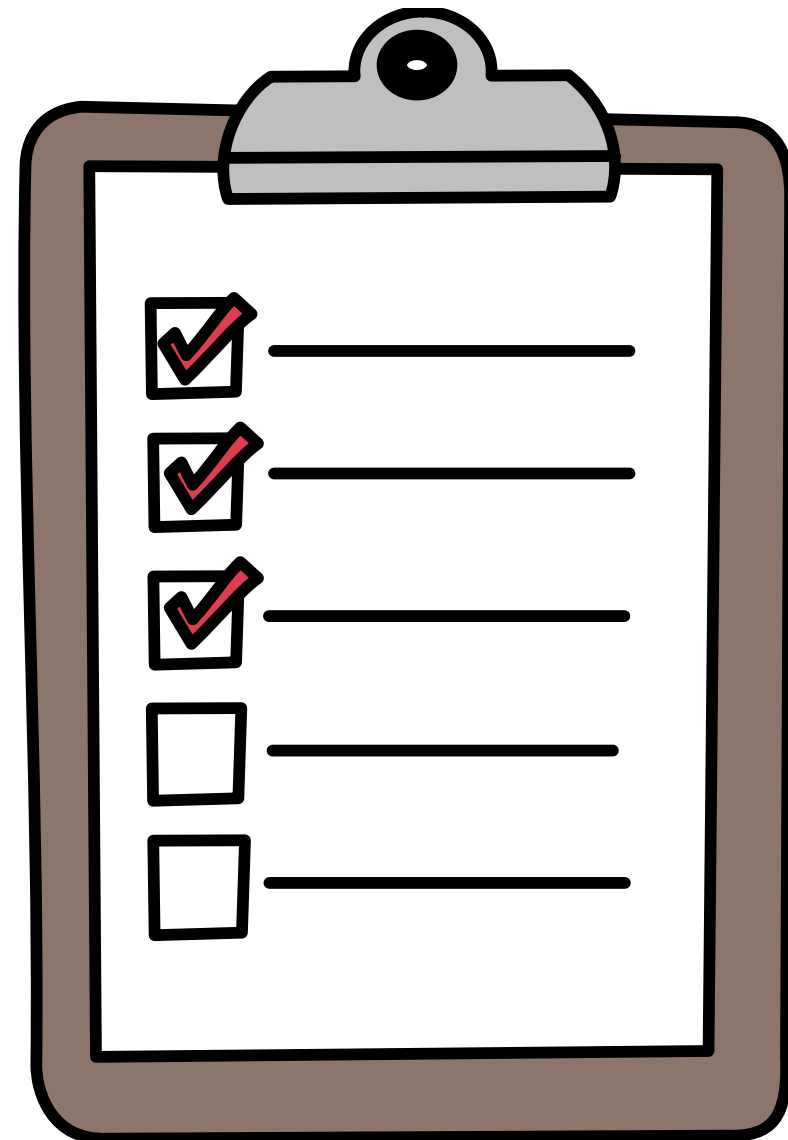
"harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors"

OSHA 1910.134(a)(1)

What is WisCon?



Project Objectives



Create noise and respiratory hazard questions for workers

Gain insight into worker perspectives

Develop recommendations to improve communication between employers and workers

Guiding Questions

- 1) What are workers' perceptions of respiratory/noise risks in their occupation?
- 2) Do workers have training/education in risk protection?
- 3) How does safety culture influence workers' perception of risk?



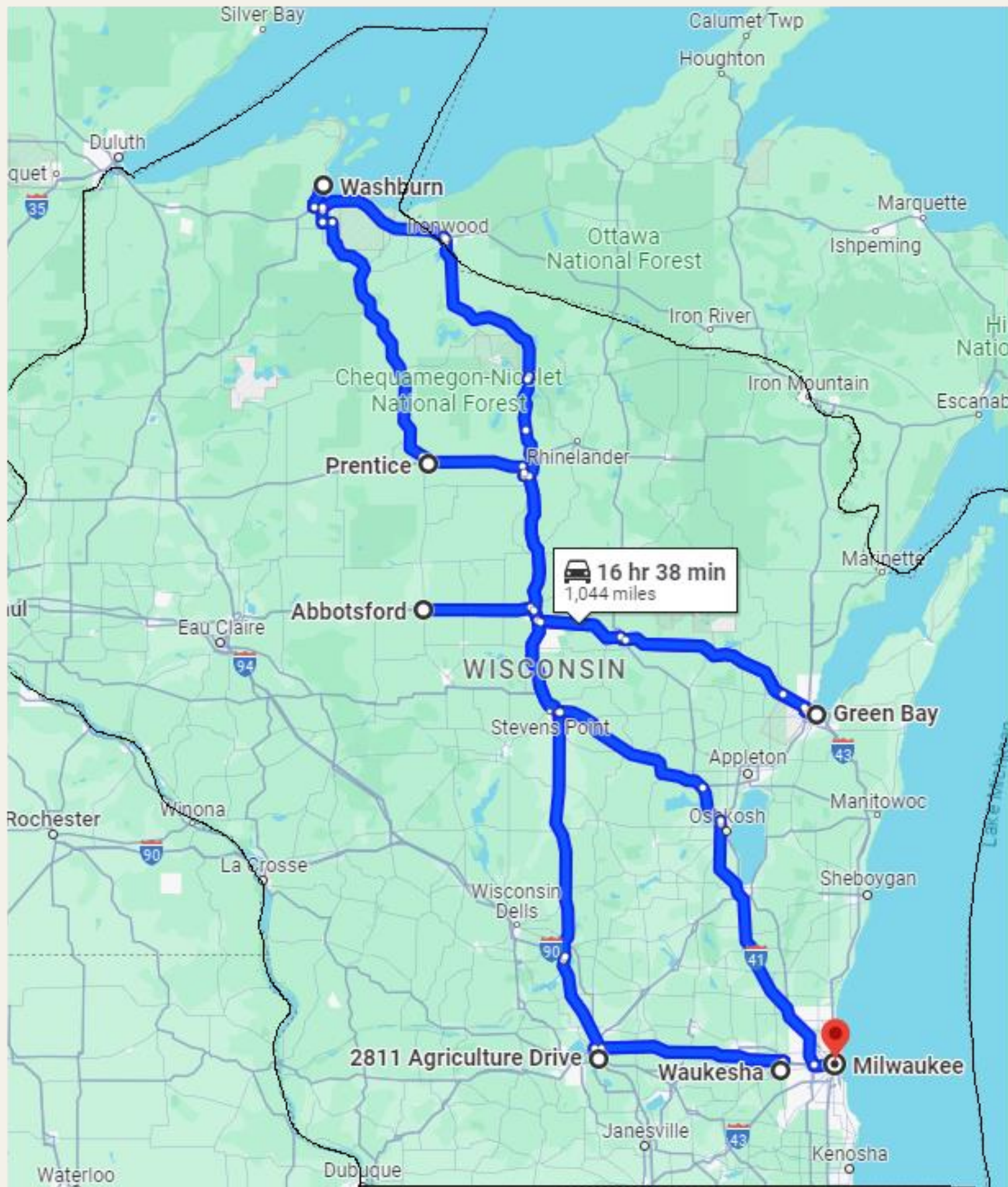
Hi, and thank you for agreeing to be part of our survey. Just a reminder that anything you say is kept confidential from your employer and we will not be reporting specific information said, but rather trends in the responses we receive. Your name will not be recorded.

1. Can you tell me what you do during a typical day?
 - a. What is the name of your position?
 - b. How many years have you worked in this trade?

2. Are you aware of any breathing hazards at work?
 - a. Have you experienced any eye or nose irritation at work?
 - b. Have you ever been concerned about what you are breathing at work?
 - c. How do you protect yourself from these breathing hazards?
 - d. Do you use PPE? If so, does your employer provide it?
 - e. Have you had any training for protecting yourself from these hazards?
 - i. How often? (RPP)
 - f. Have you ever seen anyone testing the air at work, and if so, have you seen the results?

3. Are you aware of any noise hazards at work?
 - a. Have you experienced stuffy ears, ringing, etc. after work?
 - b. Have you ever been concerned about your exposure to noise at work?
 - c. How do you protect yourself from these noise hazards?
 - d. Do you use PPE? If so, does your employer provide it?
 - e. Have you had any training for protecting yourself from these hazards?
 - i. How often? (HCP)
 - f. Have you ever seen anyone testing the noise levels at work, and if so, have you seen the results?

4. Do you feel that your workplace values safety and health?
 - a. Can you share an example of why you feel this way?
 - b. Do you feel comfortable raising a concern to your supervisor?
 - c. If you raise a concern, does your employer adequately address it?
 - d. What would you like to see happen for your workplace to be safer?



25 worker interviews

6 Worksite Visits

- *Construction*
 - *Automation*
 - *Poly Lumber*
 - *Sawmill*
 - *Foundry*
 - *Fabrication*
-

Results

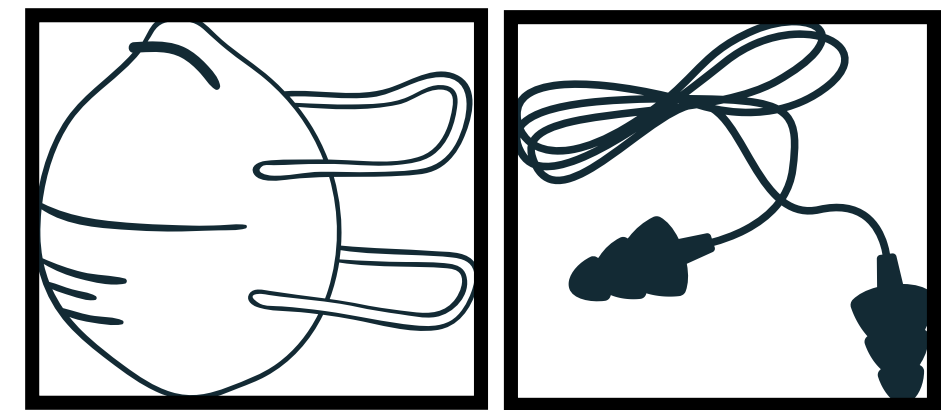
1) What are workers' perceptions of respiratory/noise risks in their occupation?



Employees were generally aware of both respiratory and noise hazards



Employees showed moderate concern about respiratory hazards, but less about noise hazards



PPE adherence varied, but most employees wore noise PPE

Results

2) Do workers have training/education in risk protection?

- Job task/position influences training and education
- Majority of employees do not see hazard monitoring results



Results

3) How does safety culture influence workers' perception of risk?

- Behavioral-based safety and strong safety culture are important
- Hazard concerns are thought to be addressed by feasibility



Results

Q: What would you like to see happen for your workplace to be safer?

“Not much...everyone looks out for each other.”

“Continue to improve [safety].”

“More donuts!”

“Keeping machinery running efficiently gets rid of hazards.”

“Nothing you can do to make an inherently dangerous job safer.”

Give Back Products

(still in development)

Foam Plugs

There are many types of foam plugs. Choose the one that works best for you.

- Roll the foam between your fingers
- Wrap arm behind head and grab ear. Insert rolled foam plug
- Make sure the plug is properly fit in the ear

Pre-Molded

Pre-molded ear plugs include V-51R, 2 flange, and 3 flange. These earplugs are great options and can be reused after a quick wash.

- Wrap arm behind head and grab ear. Grab plug by the stem and insert
- Make sure the plug is properly fit in the ear

Earmuffs

Earmuffs are a great option if you want to avoid something going into your ear, or need to quickly put on and take off the protection

- Make sure that the muffs are fully covering the ear and no part of the ear is sticking out

SCAN ME
WisCon Website

SCAN ME
WisCon Youtube Tutorial

(Inner page)

Hearing Protection

Respiratory Protection

OSHA 1910.134

- A respirator protects the user from inhalation of toxic atmosphere hazards such as:
 - harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors

Fit-Testing

OSHA 1910.134 (f) and Appendix A

- Fit-testing is used to make sure that a respirator fits the user appropriately. There are two types:
 - Qualitative (QLFT)
 - Relies on a user's sense of smell and taste to evaluate respirator leaks
 - A QLFT can only be used for negative pressure air-purifying respirators with a fit factor of < 100
 - Quantitative (QNFT)
 - A machine measures the amount of air that leaks from the respirator when being used
 - Can be used with any tight-fitting respirator

Employer Requirements for Employee Respirator Use	Required Use of Respirators	Voluntary use of more than a FFP****	Voluntary use of a FFP****
Written Program 1910.134 (c)	✓	✓	
Medical Evaluation* 1910.134(e)	✓	✓	
Fit Testing** 1910.134(f)	✓		
Training*** 1910.134(k)	✓		
Appendix D of 1910.134		✓	✓
Cleaning, storage, maintenance 1910.134 (h)	✓	✓	✓

*Medical evaluations must be repeated at a frequency specified by the reviewing PLHCP (physician or licensed healthcare provider)
**Initial fit tests followed by annual fit tests are required for tight-fitting respirators (eg. half-face respirators)
***Initial training followed by annual training is required.
****FFP = Filtering Facepiece Respirator (aka "dust mask")

(Inner page)

Respiratory Protection (2)

Wearing a Respirator?

When used properly, respirators are an important and effective way to protect yourself.

Improper use of a respirator will not protect you.

A respirator designed to filter dust particles will not protect against other hazards.

Improper use may cause overheating or may worsen pre-existing breathing conditions.

Using a dirty respirator or one that belongs to someone else may expose you to contaminants.

Follow manufacturer instructions for use and be aware of warnings.

Choose NIOSH-certified respirators to protect against contaminant(s) of concern.

Check that your respirator fits well and replace when dirty.

Only use your personal respirator and clean before use.

Voluntary Use of Filtering Facepiece Respirators (FFP):
OSHA CFR 1910.134 Appendix D

Recommendations

Dissemination of test results directly to workers

• Empower employees with information about their worker rights

Industry-specific surveys

• Better understanding of specific hazard awareness

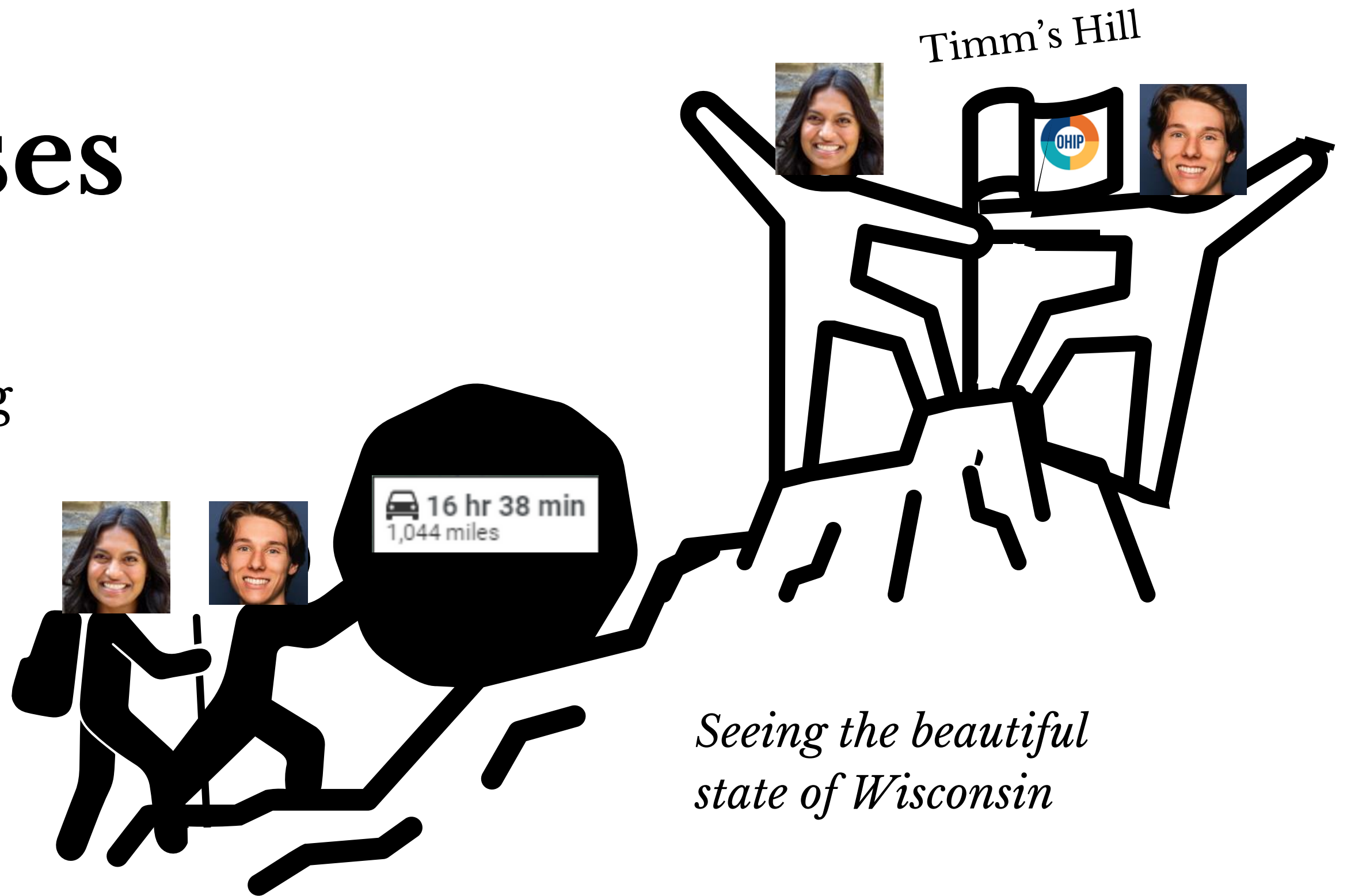
Implementation of safety committees and accessibility to safety

• Emphasize safety culture and provide translated materials

Challenges and Successes

- Project focus shift
- Worksite visit scheduling

- 25 conversations with workers about safety
- 3 give back products created



Personal Reflections



Acknowledgements

Mentors:

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Funders:



Occupational Health
Internship Program



CSTE

Thank You!
Any Questions?

