



Building Equal Opportunity for 37 years



**WOMEN IN  
CONSTRUCTION:  
PROVIDING EQUAL  
OPPORTUNITIES IN  
SAFETY AND HEALTH  
PROTECTION**

# AGENDA



- Why gender matters in health and safety issues in the construction industry.
- How health and safety issues are impacted by gender.
- How issues that are specific to gender can be safety concerns.
- What individuals can do to protect themselves and their co-workers.
- Promote equitable health and safety practices and policies in the workplace.
- Advocate for an equitable and Workplace

# GENDER ECONOMICS QUIZ

1. Women today earn how much for \$1.00 earned by men?
2. 42% of men earn over \$50,000. What percentage of women earn over \$50,000?
3. One-half of all working women are clustered into just        of 534 occupations.
4. What is the % of female enrollments into construction apprenticeships?
5. Construction jobs account what % of blue-collar jobs paying wages above \$20 per hour?
6. What is the lifetime difference in earnings of a woman working in the construction trades vs. working as a CNA \$\_\_\_\_\_



# GENDER EQUITY IQ - ANSWERS

1. Women today earn, on average, how much for \$1.00 earned by men **80%**
2. 42% of men earn over \$50,000. What percentage of women earn over \$50,000 **9%**
3. One-half of all working women are clustered into just **13** of 534 occupations.
4. What is the % of female enrollments into construction apprenticeships? **2.8%**
5. Construction jobs account what % of blue-collar jobs paying wages above \$20 per hour? **38 %**
6. What is the lifetime difference in earnings of a woman working in the construction trades vs. working as a certified nurse assistant?  
\$ \_\_\_\_\_



# LIFETIME DIFFERENCE IN EARNINGS

## Traditional

Certified Nurses Assistant

\$10.29 per hour

\$20,581 per year

\$617,430/30 years

## Nontraditional

Electrician

\$37.50 per hour

\$ 73,000 per year

\$ **2,190,000**/30 yrs

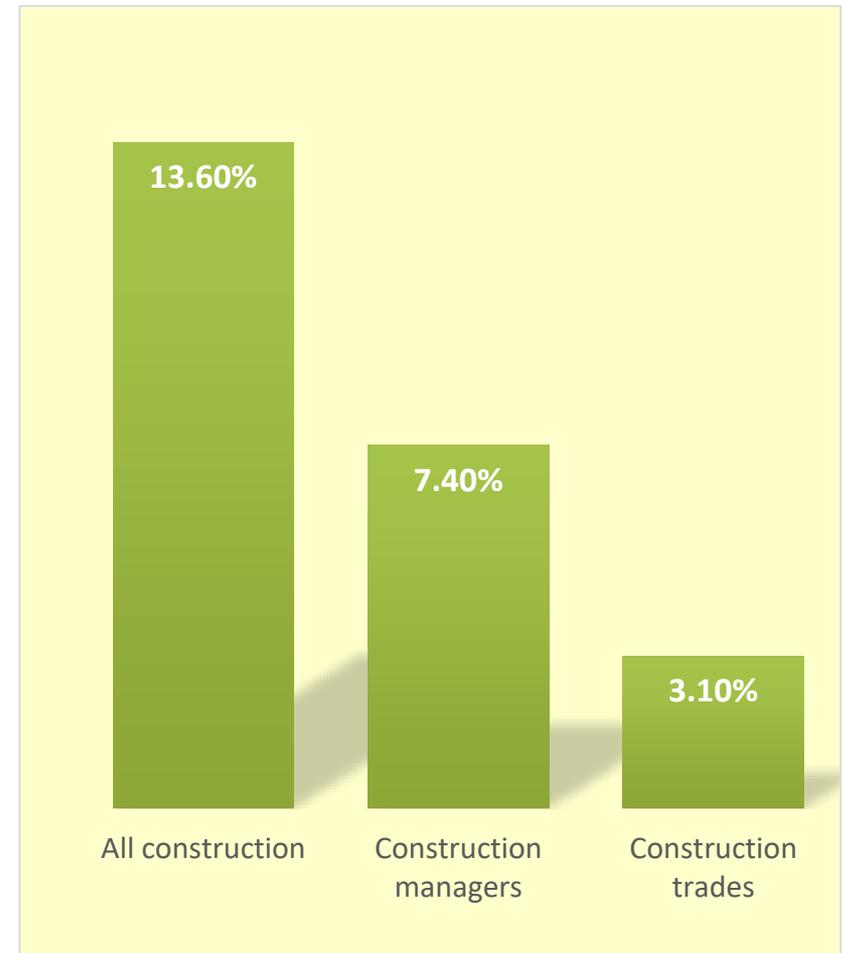
Earnings DIFFERENCE: \$1,588,770

But wait:

What about Real Economic Security?!

# BY THE NUMBERS

- 888,000 women work in the construction industry across all jobs
- 243,000 women work in construction trade occupations
- 80,000 women work as construction managers
- 66,000 women work as construction inspectors



# IMAGES AND WORDS ARE POWERFUL

## We Heard the Call



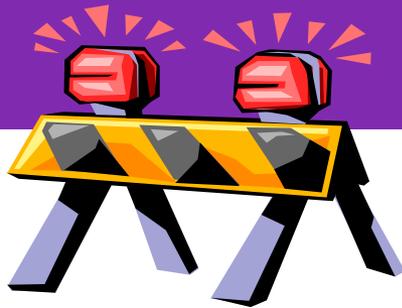
# BENEFITS FOR INDUSTRY OF WOMEN'S PARTICIPATION IN THE SKILLED CONSTRUCTION TRADES



- Diversity in Workforce
- Expanded Pool of Candidates
- Public Image
- Social Justice
- Equal Employment Opportunity
- Affirmative Action Regulations

# ROOTS OF INEQUALITY: RETENTION

## BARRIERS TO WOMEN'S RETENTION



- Differentiated on-the job training, hiring, job assignments
- Isolation/Lack of Support
- Sexual Harassment
- Lack of Advancement Opportunities
- Micro-inequities – molehills that become mountains

# HASWIC Report of the U. S. Department of Labor OSHA Advisory Committee on Construction Safety and Health (ACCSH)

## Key Findings

- In addition to the primary safety and health hazards faced by all construction workers, there are safety and health issues specific to female construction workers.
- The small percentage of females within the construction trades and the serious health and safety problems unique to female construction workers have a circular effect.
- Safety and health problems in construction create barriers to women entering and remaining in this field.
- In turn, the small numbers of women workers on construction worksites foster an environment in which these safety and health problems arise or continue.



# WHY DOES THIS MATTER?

- Gender inequity and gender differences create distinct health and safety issues for women
- The lack of a “gender lens” on health and safety creates disparate impact
- Women’s participation in the industry will continue to grow

*“The problem is that there's a mixture of skills you don't have as a woman, and, at the same time, you're dealing with hostile men. You could deal with the dangerous work if the men treated you right, or you could handle the men if the work wasn't so dangerous. It's the combination that's so hard.”*

*(**Breaking New Ground**, Chicago Women in Trades 1992)*



# HASWIC QUIZ

- 1) Name three things that might be a health and safety issue for tradeswomen?
- 2) Who has recognized sexual harassment as a health and safety issue, as well as a civil rights issue?
  - a) The Canadian Labor Council
  - b) The AFL-CIO
  - c) The International Labor Organization
  - d) All of the above
- 3) What percentage of tradeswomen reported that they had experienced sexual harassment on the job?
  - a) 45%
  - b) 62%
  - c) 74%
  - d) 88%
- 4) Percentage of tradeswomen who reported finding inadequate, unsanitary facilities or no bathroom facilities on their jobsites?
  - a. 30%
  - b. 56%
  - c. 69%
- 5) Co-ed porta-potties raise safety and health concerns for women because they can:
  - a. Cause fainting and dizziness upon entry
  - b. Topple over
  - c. Transmit disease
  - d. All of the above

# SUPPORT FOR WOMEN'S RETENTION: ADDRESSING SAFETY AND HEALTH CONCERNS

- ❑ Workplace culture
- ❑ Sanitary facilities
- ❑ Personal Protective Equipment
- ❑ Ergonomics
- ❑ Reproductive Hazards
- ❑ Health and Safety Training
- ❑ Injury and Illness Data and Research



# SANITARY FACILITIES

- ❑ Lack of access
- ❑ Lack of privacy
- ❑ Lack of hygienic conditions
- ❑ Inability to use can lead to urinary tract infections, heat stroke



# SANITARY FACILITIES

Needing to leave the jobsite for a sanitary facility can take longer than the allowed break time, which can lead to disciplinary action

- One woman explained that, if a new employee complained about the lack of adequate restroom facilities for women, "You'd see yourself bye-bye."
- "When I complained that there was no toilet they transferred me to another jobsite. They took me away from a really good partner and good overtime."

# SANITARY IS POSSIBLE – AND THE LAW

## Toilets at Construction Jobsites.

### California State Law 1526.

- (a) A minimum of one separate toilet facility shall be provided for each 20 employees or fraction thereof of each sex. Such facilities may include both toilets and urinals provided that the number of toilets shall not be less than one half of the minimum required number of facilities.
- (b) Under temporary field conditions, not less than one toilet shall be available.
- (d) Toilet facilities shall be kept clean, maintained in good working order, designed and maintained in a manner which will assure privacy and provided with an adequate supply of toilet paper.



# WHAT OSHA SAYS:



## **Best Practice:**

In addition to compliance with OSHA regulations, employers should provide separate bathrooms for male and female workers and also, a container of hand sanitizer and if the work is at night, maintain bathroom facilities in an open area that is well illuminated.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)



- ❑ Equipment on a worksite is often not properly designed to fit women's body sizes
- ❑ "One size fits all" means all men's sizes; women's sizes are not small men's sizes
- ❑ **Poor fit may mean no fit and unworn**
- ❑ Poor fit or retrofit compromises protection
- ❑ **Equipment that does not fit is a safety hazard to others**
- ❑ Difficulty in doing certain tasks
- ❑ Working less efficiently and slower

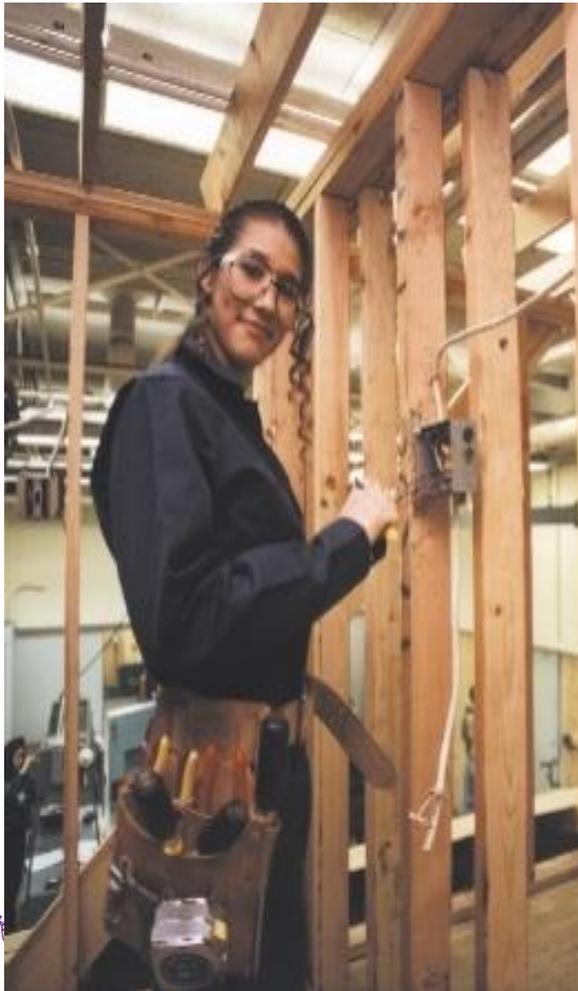
# PERSONAL PROTECTIVE EQUIPMENT



- ❑ Studies by NIOSH & U.S. Army found that most tools, equipment, and clothing are not designed for a woman's physique.
- ❑ One survey of manufacturers of protective equipment found that only 14% offered ear, head, and face protection equipment in women's sizes.
- ❑ Only 59 percent of the manufacturers surveyed reported offering foot protection in women's sizes.

***When asked if they could easily find protective clothing to fit, 46% of women in the NIOSH survey said "no" with respect to work shoes and 41% with respect to finding work gloves.***

# PERSONAL PROTECTIVE EQUIPMENT



Improperly-fitting equipment can mean:

- ❑ Compromised protection; more risk of exposure
- ❑ Difficulty in doing certain tasks (e.g. jobs requiring fine, detailed movements)
- ❑ Working less efficiently (over-sized gloves may cause a worker to grasp a tool tighter than she should in order to get a good grip)
- ❑ Slower work (muscular fatigue or frequent readjustments can slow a worker down)
- ❑ Greater number of errors
- ❑ Additional safety risks

# What OSHA says:



## Best Practice:

- In addition to compliance with the OSHA regulations, whenever employers are required to purchase PPE, they should purchase these items in size ranges suitable for women.
- Employers should maintain a directory of PPE manufacturers and suppliers on hand, identify a wide selection of size ranges for PPE, keep appropriate size ranges in stock, and ensure access

**Remember: One size does not fit all!**

# ERGONOMIC HAZARDS: A GENDERED VIEW

## Gender Differences:

- Female body size and build require distinct techniques for lifting and handling materials and tools
- The grips of tools are typically too thick. Tools like pliers require a wide grasp which puts inappropriate pressure on the palm



## Leads to:

- Heavy, frequent, or awkward lifting
- Using excessive force, overexertion
- Using wrong tools for the job or using tools improperly
- Awkward grips and postures
- the loss of functional efficiency



# ERGONOMIC HAZARDS: A GENDERED VIEW



- Tool and equipment size designed for male physique
- Handle size and tool weight -average hand length of women is 0.8 inches shorter than the average man's. Their grip strength averages two-thirds the power of a man's grip.
- Female body size and build require distinct techniques for lifting and handling
- There is a critical need to increase our knowledge of the "safe limits" for women for lifting and other motions, such as forward flexion of the trunk (bending over)

- *Ergonomics for Women in the Trades*, Jennifer Hess, DC, MPH  
Labor Education and Research Center, University of Oregon

# HEALTH AND SAFETY: CONSIDERATIONS FROM BIOLOGICAL GENDER DIFFERENCES



- ❑ Menstrual cycles influence women's bodies.
  - Ligaments more stretchy the week prior to period
  - Ligaments get more stiff at the onset of the period
  - Water retention may contribute to carpal tunnel symptoms
- ❑ Knee joint angle (Q angle) greater due to broader hips.
  - 13° males, 18 ° females
  - Knees are under slightly more stress
- ❑ Stature
  - Tools and work stations may not be designed for women's frames

- **Ergonomics for Women in the Trades** , Jennifer Hess, DC, MPH  
Labor Education and Research Center, University of Oregon

# MALE-DOMINATED WORKPLACE CULTURE

“Women in the construction trade...can't go out there whining...or we can't go out there and complain. We just have to bite our lip and deal with it if we want to keep our job and if we want to get along with fellow workers”.

- ❑ Concern with “fitting into” macho culture may preclude women from using PPE
- ❑ Women may receive less training to do their job correctly due to protectiveness, isolation or hostility
- ❑ Lack of job security, or desire for inclusion in male camaraderie limits hazard reporting or requesting safety equipment or practices

# MALE-DOMINATED WORKPLACE CULTURE

52% of the survey respondents in the CWIT study reported that men refused to work with them during their construction careers

Isolation, working as the only female on a job site, or being ostracized by co-workers:

- Can lead to lack of training or support for handling unsafe conditions and stress.
- Can lead to accidents and unsafe actions
- Can lead to sexual harassment, assault or placing someone in harm's way

# SEXUAL HARASSMENT: A SAFETY AND HEALTH CONCERN

Targets of Sexual Harassment may experience:

- ❑ Distraction
- ❑ Inability to concentrate
- ❑ Fear
- ❑ Lack of trust and collaboration

Tradeswomen reported the following:

- ❑ 88% had been confronted with pictures of naked or partially dressed women;
- ❑ 83% experienced unwelcome sexual remarks;
- ❑ 57% reported being touched or asked for sex.
- ❑ 43% had, at some point in their career, experienced uninvited sexually suggestive looks, comments, joking, or gestures from their supervisors.
- ❑ 72% reported uninvited sexually suggestive looks, comments, joking, or gestures from co-workers.

# STRESS STRESS STRESS STRESS

Sexual harassment, isolation, discrimination, fear of losing one's job, fear of stereotype threat, lack of trust and collaboration leads to:

- Stress
- Distraction
- Inability to concentrate

- ***“When you have more than one woman working with you, you have a better chance. You don't want to be alone. The stress is incredible. I had too many illnesses because of that. The more women there are, the more the climate begins to change.”***

# REPRODUCTIVE ISSUES AND HAZARDS



- ❑ Physical concerns – mobility, balance, lifting
- ❑ Biological and chemical exposures
- ❑ Limited research on affect of hazards on women and men
- ❑ Studies have shown that male reproductive organs can be as affected as female

[dreamstime.com](http://dreamstime.com)

# NIOSH Recommends:

## Protecting Pregnant Workers

- Employers should post Material Safety Data Sheets for each chemical present on the work site.
- Workers should read all Material Safety Data Sheets and share the information with their physicians, if they are pregnant or planning to start a family.
- All workers should educate themselves about the potential reproductive risks from exposure to certain chemicals.
- During the later stages of pregnancy women should consult with their physician about strenuous physical activities on the job.

# Ironworkers Pregnancy Accommodation and Maternity Leave Policy

Employers should make reasonable accommodations for workers in later stages of pregnancy, rather than forcing them out of the workplace.

- ❑ Pregnancy (Pre-Delivery/Birth): Six (6) Months Maximum Benefit. Maternity Leave can commence prior to delivery/birth, if member is deemed unable to work by their medical doctor due to physical limitations arising from the pregnancy but not sooner than the 4th month of pregnancy.
- ❑ This cumulative pre-delivery/birth benefit may be intermittent - not exceed six (6) months.
- ❑ Post-Delivery/Birth: Six (6) Weeks Maximum Benefit, Eight (8) Weeks Maximum for Cesarean birth.
- ❑ The benefit payment is equal to 66.67% (to a maximum of \$800) of the normal weekly earnings

# HEALTH AND SAFETY TRAINING



- ❑ Limited skill training or menial assignments can impede safe working practices
- ❑ Workplace cultural (macho/production demand) disdains and discourages attention to safety and H&S training

***“Many men don't want to go to safety meetings. I don't know if it's a machismo thing or what. They're getting paid. But then there's always the contractor or boss breathing down your neck, saying 'how come this [work] wasn't done?' The boss doesn't say, 'You'd better go to that safety meeting because I don't want my workers' comp bill going up this year.’”***

# WOMEN BENEFIT FROM PREPARATORY PROGRAMS



- Exposure to work and tools
- Spatial and Mechanical Aptitude
- Building Physical Fitness
- A safe and supportive place for:
  - breaking through stereotypes
  - overcoming fear of the unknown
  - Trying and practicing new things
  - Peer networking and support
- Strategies for surviving and thriving in a white, male-dominated environment

# SAFER, HEALTHIER WORKPLACE FOR ALL

Everyone benefits when safety and health issues for women are addressed

All workers benefit from:

- ❑ Better sanitary facilities
- ❑ More fit-testing to ensure adequate PPE
- ❑ More respectful and productive workplace
- ❑ Better attention to safety
- ❑ Less adherence to the unsafe practices supported by a “macho” culture
- ❑ Less fear of reprisal for asking for health and safety practices
- ❑ More knowledge about chemical and material health hazards.

# Risk Management/Risk Assessment

- Are risk assessments carried out and implemented by the employer? Do they take into account gender differences?
- Are gender differences assessed in terms of work equipment/tools, in handling, and work stations use?
- Are gender differences taken into account when dealing with workwear & PPE?
- Are risk assessments relating to pregnancy, breastfeeding and maternity carried out properly and in good time?
- Are risks assessed for any special reproductive health concerns of women and men such as work-related issues relating to fertility, menstruation?
- Are harassment (including sexual harassment) and bullying treated as health and safety issues?

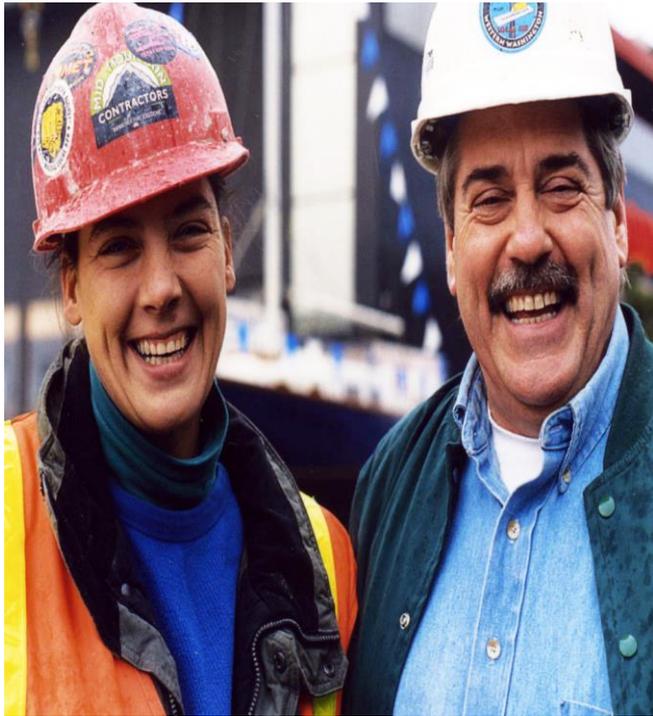
# SAFER & HEALTHIER WORKPLACE: THINGS EMPLOYERS CAN DO

- Provide gender specific sanitary facilities
- Provide clean sanitary facilities and hand-washing on site

# EQUITY IN ON-THE-JOB TRAINING (OJT)

- Monitoring of work assignments, equal distribution of responsibility, training opportunities
- Fair amount of work on sequential projects
- Monitoring of equity within a teamwork or crew environment.
- Mentoring/coaching/evaluation practices

# BEYOND HIRING: SUPPORT FOR WOMEN'S RETENTION



- Gender equity training for supervisory and frontline workers
- Critical mass – more than one
- Goals/strategies for retention
- Monitor for micro-inequities
- Personal Protective Equipment
- Sanitary facilities
- Workplace culture
- Ergonomics
- Mentorship and Allyship

# SAFER & HEALTHIER WORKPLACE: THINGS UNIONS CAN DO

- CONTRACT LANGUAGE
- STEWARD TRAINING

# SAFER & HEALTHIER WORKPLACE: THINGS OSHA CAN DO

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# SAFER & HEALTHIER WORKPLACE: THINGS NIOSH CAN DO

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# NIOSH/CWIT BROCHURE



## Providing Safety and Health Protection for a Diverse Construction Workforce: Issues and Ideas

Issues and Ideas



**C**onstruction work appeals to many people. It offers varied assignments, a chance to work outdoors, good pay and a sense of accomplishment. Over the next 10-15 years, the 'face' of the construction industry will change. Its workforce will become more diverse. It will include more women workers and workers with different backgrounds and experiences. Read on to learn about health and safety issues found in such a diverse workforce.\*

### HEALTH AND SAFETY TRAINING

#### ■ AVAILABILITY OF TRAINING

- Many women think that their male co-workers are more adept due to the benefits they receive from mentoring, coaching, and general acceptance by their male colleagues.

"[The men] had a lot of little tricks that made the job easier. But no one ever showed me those tricks."

"I'm almost a third year apprentice, and I should be more advanced."

#### ■ LACK OF SUPPORT FOR WORKPLACE TRAINING

- In many instances productivity comes before safety.

"Many [workers] don't want to go to safety meetings . . . there's always the contractor or boss breathing down your neck, saying, 'how come this [work] wasn't done?' The boss doesn't say, 'You'd better go to that safety meeting because I don't want my Workers' Comp. bill going up this year.'"

\* Most of these data were collected from interviews and surveys with 476 tradeswomen across the United States.

## HEALTH



### PERSONAL PROTECTIVE EQUIPMENT & CLOTHING (PPE/PPC)

- PPE/PPC (respirators, gloves, work boots) are mostly designed to fit average-sized men.
- When PPE/PPC don't fit, the protection offered is reduced.

"They gave me gloves so humongous, I couldn't even pick anything up."

"You can be hurt . . . that glove could get wrapped up in a fan belt."



### SANITARY FACILITIES

- Most construction workers have encountered worksites with dirty toilets or no toilets.
- Holding urine in the bladder for long periods of time leads to a higher incidence of urinary tract infections.
- The lack of water for washing up is also a problem.

"Today I used a portable toilet without a hood. They can see your head. I felt like the whole world was watching."

"I think the guys have problems also, but they take it for granted. They accept the conditions as part of this rough world that they function in."

## & SAFETY ISSUES



### WORKPLACE CULTURE

#### ■ HOSTILE WORKPLACE

- Working in a hostile workplace can cause a worker to become distracted. Distractions while working can lead to overlooking proper safety precautions, resulting in on-the-job injuries.

"Sometimes they drop things on you, hammers and wrenches—dangerous things like that, supposedly by accident. . . ."

". . . every morning [they] came in, punched the time clock and then spat on the floor in front of me."

#### ■ SEXUAL HARASSMENT

- A majority of the respondents reported sexual harassment.
- Many had experienced uninvited sexually suggestive looks, comments, joking, or gestures from their supervisors.
- Many reported being touched or being asked for sex.

"The sexual harassment was low level, but it was constant. They were always eyeballing me. . . . The problem is that you can't really put a finger on the low-level stuff. And, if it had gotten to a higher level, if you reported it, there would have been problems with even the more normal guys."

#### ■ IMPACT OF ISOLATION ON SAFETY AND HEALTH

- Isolation can add to fear of harassment and assault.

"When you have more than one woman working with you, you have a better chance. You don't want to be alone. The stress is incredible."

#### ■ HAZARD REPORTING AND THE LINK TO JOB SECURITY

- A majority of women interviewed felt insecure about getting and keeping their jobs.

"We just have to bite our lip and deal with it if we want to keep our job and if we want to get along with fellow workers."

"When I complained that there was no toilet they transferred me to another jobsite. They took me away from a really good partner and good overtime."

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# ENHANCEMENT MATTERS

- The Same Practices May Not Work
- The Same Policies May Not Work
- Knowledge Matters
- Intentionality Matters



# Making HASWIC Work



- Be intentional about gender inclusivity, neutrality and sensitivity
- Advocate for women's health and safety on the job site
- Share the HASWIC report with union, employer and apprenticeship programs
- Conduct a scan/survey of your OSH policy, practices using a gender lens

<http://womensequitycenter.org/>