Preparing the Emerging Workforce for Safe and Healthy Employment

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The findings and conclusions in this report are those of the author and do not necessarily represent the views of the National Institute for Occupational Safety and Health.
Presentation overview

- About NIOSH
- NIOSH Safe • Skilled • Ready Workforce (SSRW) Program
- Young worker safety and health
- Contingent worker safety and health
- Partnership opportunities
- Discussion
Occupational Safety and Health Act of 1970

To assure safe and healthful working conditions for working men and women.
Federal Organization for Workplace Safety and Health

U.S. Department of Health and Human Services

Centers for Disease Control and Prevention (CDC)

National Institute for Occupational Safety and Health (NIOSH)

Research and Recommendations

Department of Labor

Regulation and Enforcement

Mine Safety and Health Administration (MSHA)

Occupational Safety and Health Administration (OSHA)
NIOSH Locations & Staff

~1,300 people in:
- Anchorage
- Atlanta
- Cincinnati
- Denver
- Morgantown
- Pittsburgh
- Spokane
- Washington, D.C.
Occupational Injuries & Illnesses: A Major Public Health Concern

Each year:

- Over 5,000 people die on the job (~300 in local government)
- ~3M people suffer from non-fatal work-related injuries and illnesses in private industry (+ ~800,000 in local government)
  - Equivalent to the size of the population of Los Angeles!

Some local data (most recent available):

<table>
<thead>
<tr>
<th>State</th>
<th>Fatal</th>
<th>Nonfatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>376 (2017)</td>
<td>466,600 (2017)</td>
</tr>
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www.bls.gov/iif/oshstate.htm
The Cost of Occupational Injuries & Illnesses

- Unquantifiable social/emotional toll
- Long-term health & wellbeing impacts
- Substantial economic burden
  - Occupational injuries and illnesses in the U.S. cost an estimated $250 billion per year (Leigh, 2011)
- Potential savings (National Safety Council, 2013)
  - 1 prevented lost-time injury or illness = $37,000
  - 1 prevented fatality = $1.4 million

<table>
<thead>
<tr>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Workers’ compensation</td>
<td>• Accident investigations</td>
</tr>
<tr>
<td>• Medical expenses</td>
<td>• Training &amp; replacing employees</td>
</tr>
<tr>
<td>• Legal services</td>
<td>• Lost productivity</td>
</tr>
<tr>
<td></td>
<td>• Repairs</td>
</tr>
<tr>
<td></td>
<td>• Implementation of corrective measures</td>
</tr>
<tr>
<td></td>
<td>• Reduced morale</td>
</tr>
</tbody>
</table>

www.osha.gov/dcsp/products/topics/businesscase/index.html
NIOSH SSRW program

Before joining the U.S. workforce for the first time, or starting a new job, all workers will have the foundational knowledge and skills they need to stay safe at work and to contribute to a safe, healthy, and productive workplace.

Workplace safety and health knowledge, skills, and abilities (NIOSH & Core Competencies) are the foundation for a lifetime of safe and healthy work.
NIOSH Core Competencies

Ability to:

- Understand short-and long-term effects of job injuries & illnesses;
- Identify job hazards & control methods;
- Understand worker rights & responsibilities;
- Communicate about safety problems on the job

- Theoretically grounded in the health belief model (Hochbaum, 1958; Okun, Guerin & Schulte, 2016; Rosenstock, 1974)
- Fundamental, portable, transferable (ACT, 2013)
- Missing from employability skills/career readiness frameworks

[Image: However, the image link is not valid or accessible.]

https://www.cdc.gov/niosh/safe-skilled-ready/core.html
Executive Order – July 19, 2018

“We need to prepare Americans for the 21st century economy and the emerging industries of the future. We must foster an environment of lifelong learning and skills-based training...and champion effective, results-driven education and training so that American students and workers can obtain the skills they need to succeed in the jobs of today and of the future.”

NIOSH + U.S. DOL: Competency Models

“Building Blocks” Model

http://www.careeronestop.org/CompetencyModel/competency-models/building-blocks-model.aspx
NIOSH SSRW Program

Goals
- Promote Core Competencies
- Develop, maintain, and evaluate workplace safety and health training curricula
- Conduct intervention/evaluation research
- Translate research to practice (and practice to research)

Focus
- Young workers
- Contingent workers
- Other vulnerable groups

Partners
- Education
- Industry
- Labor, trade & professional associations
- Workforce Development
- Community organizations
- Government
- Academia
Young Worker Safety and Health
Work: A Formative Experience

- Young workers: ≤ age 24; < 18 a special group of interest
- In the U.S., work has a positive impact on young people’s lives
  - Develop independence, self-efficacy (Mortimer, 2010)
  - Paid work a “unique, consequential microsystem” (Staff, Messersmith & Schulenberg, 2009)
- 80% - 90% of teens work while in high school (BLS, 2005)
- Teens < 18 mostly work in services (restaurants), office, retail

![Distribution of Employed Youth FTEs (Ages 16-17) by Occupation, United States, 2015](source)
Young Worker Injuries

In the United States, adolescents:

- 16-19 had the third highest incidence rate among all age groups (101.9/10,000 FTEs) of nonfatal occupational injuries/illnesses (BLS, 2017)

- 15-17 are ~ 2x more likely as adults (over 24) to be seriously hurt at work (CDC, 2010)

RATE OF EMERGENCY DEPARTMENT TREATED NON-FATAL INJURIES (PER 100 FTE) FOR WORKERS AGES

Source: NIOSH NEISS Work-RISQS
Contributing Factors

- **Unique physical development and cognitive maturational factors** (Sudhinaraset & Blum, 2010)
- **Excessive work hours** (Weller, Cooper, Tortolero, Kelder, & Hassan, 2003)
- **Exposure to physical hazards** (Mardis & Pratt, 2003)
- **Minority and/or low SES status** (Mardis & Pratt, 2003; Rauscher & Myers, 2008; Zierold, & Anderson, 2006)
- **Lack of understanding of legal protections** (Rauscher, Runyan, & Schulman, 2010)
- **Inexperience; lack of job control; lack of supervision and training** (Tucker & Turner, 2013; Zierold, & Anderson, 2006)
Youth @ Work – Talking Safety
NIOSH Young Worker Curriculum

- Free, fun & interactive
- Evidence and theory-based
- Designed for middle schools and high schools
- Teaches Core Competencies
- Aligned with: National Health Education Standards, Common Career Technical Core, Common Core
- Customized for each state and U.S. territory – 54 versions (& Spanish); Six 45-minute lessons
- Has an online assessment, digital badge

http://www.cdc.gov/niosh/talkingsafety/
Building the Evidence Base

Miami-Dade Public Schools
- 4-year intervention/evaluation study, 8th graders
- Students ($N \approx 4,300$) had significant increases in workplace safety knowledge, attitude, norms, self-efficacy, behavioral intention (Guerin et al., 2018)

Oklahoma
- Passage of SB262 in April 2015
- 4-year intervention/evaluation study in OKCPS, ~8,000 9th graders
- Preliminary results: statistically significant shifts in OSH knowledge
Contingent Worker Safety and Health
Increased Injury Risk for Contingent Workers

Contingent workers: “Persons who do not expect their job to last or describe their job as temporary” (BLS, 2005)
- Temporary staffing employees
- Contractors
- On-call workers
- Seasonal workers

Evidence of increased risk (Boden et al., 2016; Foley et al., 2017; Howard, 2017; Smith et al., 2010)

Some contributing factors:
- Hazardous jobs
- Young/inexperienced/new
- Dual-employment
- Job insecurity

SSRW Contingent Worker Activities: Two Pathways

**Workforce Development**
- Serves over 15 million people/year, one-stop career centers
- Youth, dislocated workers

SSRW project partners:
- Workforce Tulsa
- National Association of Workforce Boards (NAWB)
- USCM WDC?

**Temporary Staffing**
- ~20,000 staffing companies in the U.S. that employ ~15 million annually
- Represents multiple industries

SSRW project partners:
- Temporary staffing companies and associations

[Pie chart showing distribution of industries with Industrial at 37%, Office-Clerical and Administrative at 28%, Professional-Managerial at 13%, Engineering, Technology, and Scientific at 13%, and Healthcare at 9%.]
NAWB Survey (Jan 2018)

**Goal:** Learn about the role of workforce boards in providing workplace safety & health training to job seekers at American Job Centers (AJCs)

Sent to 567 Executive Directors of local workforce development boards across all U.S. regions (incl. territories)

Received 93 completed surveys (16.4% response rate)

NAWB disseminated results to respondents & published them in March 2018 newsletter
NAWB Survey – Key Findings

- 82.6% felt it was *moderately to extremely important* for AJC participants to receive general OSH training
- 67.4% indicated it was *moderately to extremely likely* that employers would give a hiring preference to a person with this training
- 20.4% said the AJCs in their region provide such training
- 69.2% would consider adopting a free, general OSH training
  - Computer-based preferred, **65.1%**

**Barriers to delivering general OSH training. Lack of:**
- Trained staff (74.1%)
- Tailored training materials (65.9%)
- Time (45.9%)
- Space (14.1%)
Other vulnerable populations
**Staying Safe @ Work**

- High work injury rate for workers with intellectual and developmental disabilities (IDD)
- OSH training limited

**SS@W:**

- Developed with the Labor Occupational Health Program (LOHP)
- Built on NIOSH Core Competencies
- Designed for workers with IDD
- Used by employment agencies, community vocational rehabilitation programs, and others

[https://www.cdc.gov/niosh/docs/2016-159/default.html](https://www.cdc.gov/niosh/docs/2016-159/default.html)
Partnership Opportunities
USCM WDC & NIOSH SSRW

- Form workgroups focused on:
  - Promoting/delivering foundational workplace safety and health skills to schools, workforce development programs
  - Creating buy-in from USCM Committee on Jobs, Education and Workforce, and employers (including local governments), about the economic/social benefits of developing a safe, skilled, ready workforce.
- Collaborate on USCM policy statement that promotes the importance of a safe, skilled, ready workforce
14 WIOA Youth Elements

1. Tutoring
2. Alternative secondary school services, dropout recovery services
3. Paid and unpaid work
4. **Occupational skills training**
5. **Education as workforce preparation**
6. Leadership development
7. Supportive services
8. Adult mentoring
9. Follow-up services
10. Guidance and counseling
11. Financial literacy education
12. Entrepreneurial skills training
13. Employment information, career exploration
14. **Preparation for transition to postsecondary education and training**
Questions?
Thank you!

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1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
References

ACT (2013). Work readiness standards and benchmarks: The key to differentiating America’s workforce and regaining global competitiveness. Iowa City, IA: ACT.


