Public Policy Priorities

Strengthening the OEHS Professional Pathway and Improving the Learning and Working Conditions of Schools

The Challenge and Need for Action

AIHA has begun a new initiative to encourage more member involvement in the promotion of occupational and environmental health and safety (OEHS) as a career. We recognize there is a shortage of new professionals entering OEHS and are taking additional action to address this issue now before it becomes a greater crisis.

When working to improve workplace and community health and safety, we know that businesses, schools, governments, and other groups have an opportunity to make better decisions to solve the OEHS risks they confront; however, they often lack awareness of potential hazards or do not possess the needed technical expertise to control hazardous conditions.

For instance, there can be a lack of awareness of hazards associated with the site of a school, materials used to construct, systems within, or past uses of the school building. Examples of potential hazards within these areas include:

- **Site:** Soil and groundwater contamination from hazardous waste, soil vapor intrusion, radon.

- **Materials used to construct the school building:** Asbestos, lead, mercury, oil-containing devices, tanks, PCBs.

- **Building envelope:** Deficient roofing, windows, and grading, which can lead to water intrusion and mold growth.

- **Systems within the school building:** Heating, ventilation, and air conditioning (HVAC), plumbing, and electrical system deficiencies, which can lead to poor indoor environmental quality.
• **Occupant use:** Mercury contamination in laboratories and the health suite (e.g., broken barometers, thermometers), metals in photography labs, pesticides and herbicides from grounds maintenance, etc.

Other hazards may be present in and around schools. OEHS professionals can help students, parents, school personnel, communities, and other key stakeholders better understand the hazards that are present in schools and how to manage risks to improve learning and working conditions.

With more OEHS professionals, we can protect more workers, students, and businesses, helping communities flourish; to meet these challenges, however, we must fill and sustain the OEHS workforce pathway.

Because the built environment of schools greatly influences student learning and serves as a worksite for school personnel, improving school infrastructure is a key component of strengthening the OEHS workforce pathway that also benefits communities on a broad scale.

**Strengthening the OEHS Workforce Pathway**

Most people are not yet familiar with OEHS as a profession. This lack of awareness contributes to the false impression that additional OEHS professionals are not needed. Additionally, businesses, particularly smaller businesses, may be unable or unwilling to pay for OEHS professional services, which contributes to low demand for services, although the need remains high.

Except in cases of acute physical trauma, occupational injury and illness causality can be difficult to prove, which can make it challenging for some businesses to justify OEHS-related spending unless they are required to do so by government regulations or contractual obligations.

If non-technical stakeholders (e.g., the general public) are unaware of or undervalue the need for OEHS services, it makes it more difficult for policymakers to prioritize and fund OEHS agencies and projects, further contributing to low demand and the illusion that additional OEHS professionals are not needed.

**Improving School Infrastructure**

Improving the learning and working conditions of schools faces three primary challenges:

1) A lack of awareness of where potential hazards may exist.

2) A lack of technical expertise to select the right solutions, based on interests, needs, and local contexts, to identify and mitigate hazards.
3) A lack of funding.

Many public schools in the United States were constructed when hazardous building materials were used, including lead paint, asbestos-containing building materials, PCB ballasts in fluorescent lamps, mercury in thermostats, etc. Additionally, many of the HVAC systems in school buildings are antiquated and not designed to comply with ASHRAE Standard 62.1 Ventilation and Acceptable Indoor Air Quality, which establishes criteria for healthful and safe air conditions, including temperature, humidity, air contaminants, airflow, and outdoor air as a source of indoor air for new and existing buildings.

Health and safety hazards are present in many areas of a school, including shops, art studios, theaters, and dining facilities, which can expose students, teachers, other school personnel, and visitors to hazardous materials and hazardous equipment. Hazards, such as noise and thermal stress, are also present in music and athletic-related activities and areas. In order to identify, evaluate, control, and mitigate these and other hazards in and around schools, superintendents, school boards, principals, teachers, other school personnel, parents, and teachers all need and would benefit from health and safety training.

On the matter of funding, the 2021 State of Our Schools report revealed chronic underfunding of maintenance and repairs for aging school buildings. On average, our nation’s schools are approximately 54 years old (built in 1968). Additionally, a 2020 U.S. Government Accountability Office report found that “41 percent of districts required HVAC systems upgrades or replacements in at least half of their schools. In addition, 20 to 35 percent of all school districts had serious deficiencies in at least half of their roofing, lighting or safety and security systems.”

There are approximately 140,000 schools in the United States (133,000 elementary and secondary schools and 7,000 institutions of higher education). Working together with parents, teachers, school leaders, policymakers, businesses, other allied stakeholders, and the media, we can improve the learning and working conditions of schools while encouraging more students to pursue careers in OEHS – a noble, well-paying profession.

**Recommended Solutions**

The following is a list of actions that AIHA members, governments, businesses, nonprofits, and other stakeholders can take to improve the learning and working conditions of schools and encourage more students to pursue careers in OEHS. While it may not be possible to pursue all these actions immediately, progress on any of them represents a step forward.

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Strengthening the OEHS Workforce Pathway

- Encourage AIHA members to inspire students to pursue careers in OEHS and improve the learning and working conditions of schools through the I Am IH in Schools Movement program.

- Encourage policymakers to ensure that all students everywhere, regardless of zip code, have access to high-quality science, technology, engineering, the arts, and mathematics (STEAM) courses in elementary and secondary schools.

- Support the new development and strengthening of existing OEHS apprenticeship programs, including those involving high school or college students.

- Encourage investments in OEHS education programs and co-op opportunities by the private sector.

- Work with policymakers, secondary schools, colleges, universities, businesses, and nonprofits to increase student enrollment in existing OEHS college programs.

- Encourage Federal, State, and local governments to recognize a “Workplace Health and Safety Week”, modeled after Engineers Week.²

- Work with governments, nonprofits, and businesses to encourage an increase in the number of OEHS generalists and “technician-level” practitioners who are working with only a high school diploma or equivalent or are pursuing or have received a two-year associate’s degree.

- Encourage OEHS generalists and technician-level practitioners to explore the IH Professional Pathway³ to determine whether they wish to move to the next OEHS career level.

- Support new legislation and existing programs that allow secondary school students to earn high school graduation credits by completing an OSHA 10- or 30-hour training.

- Support new legislation and existing programs that allow secondary school students to earn credits applicable toward OEHS college degrees.

- Maintain and grow NIOSH’s Education and Research Centers (ERCs), which are university-based multidisciplinary centers that educate and train the current and next generation of OEHS professionals.⁴

² [https://www.nspe.org/resources/partners-and-state-societies/engineers-week](https://www.nspe.org/resources/partners-and-state-societies/engineers-week)
³ [https://www.aiha.org/ih-careers/ih-professional-pathway](https://www.aiha.org/ih-careers/ih-professional-pathway)
⁴ [https://www.cdc.gov/niosh/oep/ercportfolio.html](https://www.cdc.gov/niosh/oep/ercportfolio.html)
• Promote careers in OEHS by working with the U.S. uniformed services, which include the Army, Marine Corps, Navy, Air Force, Space Force, Coast Guard, Public Health Service Commissioned Corps, and the National Oceanic and Atmospheric Administration Commissioned Officer Corps.

• Work with the U.S. uniformed services to promote OEHS training and certification. This will help decrease occupational injuries, illnesses, and deaths in the uniformed services and prepare those in or exiting the military for successful careers in OEHS.

• Support NIOSH’s Health Hazard Evaluation (HHE) Program, which helps employees, unions, and employers learn whether health hazards are present at their workplaces and recommends ways to reduce hazards and prevent work-related illness. NIOSH HHE’s are done at no cost to the employees, unions, or employers.5

• Encourage increased use of OSHA's On-Site Consultation Program, which offers no-cost and confidential occupational safety and health services to small- and medium-sized businesses, with priority given to high-hazard worksites, and does not result in penalties or citations.6

• Encourage increased use of OSHA’s Voluntary Protection Programs, which recognize employers and workers in private industry and Federal agencies who have implemented effective health and safety management systems and maintain injury and illness rates below the U.S. Bureau of Labor Statistics averages for their respective industries.7

**Improving School Infrastructure**

• Support Federal, State, and local investments in school infrastructure to improve the learning and working conditions of schools.

• Advocate for establishing an OEHS task force at each school. This task force should be empowered by the superintendent and school committee to develop policies and procedures for every employee in the academic, administrative, and operations (facilities operation and maintenance) divisions of each school.

• Advocate for establishing an Office of School Infrastructure and Sustainability at the U.S. Department of Education.

• Advocate for re-establishing a national clearinghouse on educational facilities within the Federal government.

5 [https://www.cdc.gov/niosh/hhe/default.html](https://www.cdc.gov/niosh/hhe/default.html)
6 [https://www.osha.gov/consultation](https://www.osha.gov/consultation)
7 [https://www.osha.gov/vpp](https://www.osha.gov/vpp)
• Support congressional legislation directing the U.S. Secretary of Education to provide $50 million to State departments of education so they can provide technical assistance and training to improve the learning and working conditions of schools, particularly in high-need school districts.

• Support the White House’s Action Plan for Building Better School Infrastructure.\(^8\)

• Support the enactment of the Reopen and Rebuild America’s Schools Act in the U.S. Congress.\(^9\)

• Advocate for legislation that would require annual, comprehensive safety, health, and security inspections for all school facilities.

**Industries and Groups that AIHA Will Focus On**

The following is a list of industries and groups that are key to increasing the number of OEHS professionals and improving the learning and working conditions of schools. AIHA is open to working with all stakeholders who share our commitment to strengthening the OEHS professional pathway and improving school infrastructure.

• Building rating and recognition programs
  o Green Building Initiative (GBI)
  o U.S. Green Building Council (USGBC)

• Civic groups
  o 4-H
  o Big Brothers Big Sisters of America
  o Boys & Girls Clubs of America
  o Boy Scouts of America
  o Girl Scouts of America
  o YMCA

• Construction/built environment
  o Air Conditioning Contractors of America (ACCA)
  o Air-Conditioning, Heating, and Refrigeration Institute (AHRI)
  o Alliance to Save Energy (ASE)
  o American Institute of Architects (AIHA)
  o American Society of Interior Designers (ASID)
  o American Society of Landscape Architects (ASLA)
  o American Society of Mechanical Engineers (ASME)

\(^8\) [https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/04/fact-sheet-the-biden-harris-action-plan-for-building-better-school-infrastructure/](https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/04/fact-sheet-the-biden-harris-action-plan-for-building-better-school-infrastructure/)

• American Society of Civil Engineers (ASCE)
• ASHRAE
• American Speech-Language-Hearing Association (ASHA)
• Building Owners & Managers Association International (BOMA)
• Healthy Schools Campaign
• International Association of Plumbing and Mechanical Officials (IAPMO)
• International Code Council (ICC)
• National Association of State Energy Officials (NASEO)
• National Electrical Contractors Association (NECA)
• National Electrical Manufacturers Association (NEMA)
• National Fire Protection Association (NFPA)
• National Institute of Building Sciences (NIBS)
• National League of Cities
• Sustainable Buildings Industry Council (SBIC)

• Guidance counselors
  o American Counseling Association (ACA)
  o American School Counselor Association (ASCA)

• Institutions of higher education
  o Association of American Universities (AAU)
  o American Association of Colleges for Teacher Education (AACTE)
  o American Association of Community Colleges (AACC)
  o American Association of State Colleges & Universities (AASCU)
  o American Association of University Professors (AAUP)
  o American Indian Higher Education Consortium (AIHEC)
  o American Society for Engineering Education (ASEE)
  o Higher Education Consortium for Special Education (HECSE)
  o Hispanic Association of Colleges and Universities (HACU)
  o National Association for Equal Opportunity in Higher Education (NAFEO)

• Landscaping
  o American Society of Landscape Architects (ASLA)

• Parent-teacher groups
  o National Parent Teacher Association (PTA)

• School districts and boards
  o Association of School Business Officials International (ASBO)
  o Council of Chief State School Officers (CCSSO)
  o Council of the Great City Schools (CGCS)
  o National Association of State Boards of Education (NASBE)
  o National School Boards Association
• School leaders
  o AASA, The School Superintendents Association
  o American Council on Education (ACE)
  o American Federation of School Administrators (AFSA)
  o American Federation of State, County, and Municipal Employees (AFSCME)
  o Learning Disabilities Association of America (LDA)
  o Magnet Schools of America (MSA)
  o National Alliance of Public Charter Schools
  o National Alliance for Insurance Education & Research, Certified School Risk
    Manager (CSRM) designation
  o National Association of Elementary School Principals (NAESP)
  o National Association of Secondary School Principals (NASSP)
  o National Council on School Facilities (NCSF)
  o School Leaders Risk Management Association (SLRMA)

• Students
  o Key Club International

• Teachers
  o American Federation of Teachers (AFT)
  o National Education Association (NEA)

• Vocational educational programs
  o Association for Career & Technical Education (ACTE)

**Take Action Now**

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**About AIHA**

AIHA is the association for scientists and professionals committed to preserving and ensuring occupational and environmental health and safety in the workplace and community. Founded in 1939, we support our members with our expertise, networks, comprehensive education programs, and other products and services that help them maintain the highest professional and competency standards. More than half of AIHA’s nearly 8,500 members are Certified Industrial Hygienists and many hold other professional
designations. AIHA serves as a resource for those employed across the public and private sectors as well as the communities in which they work. For more information, please visit www.aiha.org.