



NIOSH/OSHA
General: Talking Points

A. Every worker deserves to return home safe and healthy at the end of their shift.

1. Reducing the National Institute for Occupational Safety and Health (NIOSH) 's role and resources threaten to undermine decades of progress in worker health and safety.
2. Each year, over 5,000 workers are killed by workplace injuries, approximately 135,000 die from occupational diseases, and millions more suffer work-related injuries. These numbers will likely rise as the government dismisses the federal experts dedicated to making workplaces safer and healthier. (Adapted from: AFL-CIO Press Release)

B. NIOSH plays a vital role in protecting the health and safety of America's workforce.

1. As a highly skilled and efficient federal agency, NIOSH provides essential expertise to both workers and employers across some of the nation's most hazardous industries—including coal mining, firefighting, construction, and health care. It also delivers critical medical monitoring and services to 9/11 responders and survivors.
2. Eliminating the NIOSH workforce could trigger a dangerous chain reaction. Without this agency, the federal government would no longer conduct research on emerging occupational health hazards, develop methods to prevent mine explosions, or certify the safety of respirators and other essential personal protective equipment. (Adapted from: AFL-CIO Press Release)

C. Without NIOSH, there is no scientific foundation for workplace safety.

1. A healthy workforce is a strong workforce. Re-shoring jobs, rebuilding manufacturing capacity, and securing critical mineral extraction—key components of national economic resilience—requires science-based safety standards. Neglecting worker health and safety would ultimately benefit foreign competitors, not American workers or industries.
2. NIOSH operates on a remarkably modest budget—just \$2.20 per worker annually, totaling approximately \$338 million. Meanwhile, occupational injuries and illnesses cost the U.S. economy an estimated \$250 billion each year. Even modest improvements in workplace safety can lead to substantial savings in healthcare costs, workers' compensation, and lost productivity. (Source: PubMed Central)
3. Investing in NIOSH is one of the most cost-effective ways the Department of Health and Human Services can protect America's workforce through science and evidence-based practice.
4. The dissolution of NIOSH affects 23 states whose occupational health programs conduct injury and illness surveillance and intervention activities for worker health. (Source: CSTE)

Talking Points: The Impact of NIOSH on Research and Key Resources in Occupational Health and Safety

Adapted from the Association of University Programs in Occupational Health and Safety (AUPOHS)

- A. NIOSH plays a vital role in advancing research to meet the evolving needs of the modern workforce.** As work practices change and new hazards emerge, NIOSH continues to fund and promote critical research that supports both employers and employees in navigating these challenges.
- B. NIOSH provides rapid-response expertise to address urgent health and safety concerns.** For example, NIOSH has deployed specialized teams across the country in response to industry requests—including initiatives to address the growing mental health crisis among healthcare workers.
- C. NIOSH offers federal leadership, guidance, and decision-support tools across a wide range of industries.** These include construction, manufacturing, agriculture, food service, mass transit, trucking, childcare, and education. Without NIOSH, many of these services would be cost-prohibitive for industries to develop or implement independently.
- D. NIOSH funding supports essential research and programs foundational to occupational medicine and worker health protection.** These efforts directly inform clinical decision-making, employer guidance, and public health response. Key areas include:
 - **Personal Protective Equipment (PPE) Innovation and Certification:** Ensures clinicians and workers alike can rely on PPE that meets rigorous safety standards—vital for preventing occupational exposures in healthcare, industrial, and emergency response settings.
 - **Advanced Respiratory Protection Systems:** Supports the development and validation of respiratory protection for high-risk environments, critical for safeguarding workers exposed to airborne toxins, infectious agents, and industrial particulates.
 - **Disaster Response Research:** Provides occupational health professionals with evidence-based strategies for protecting response teams and affected workers during natural disasters, pandemics, and chemical or radiological emergencies.
 - **Mental Health in the Workplace:** Addresses the growing burden of occupational stress, burnout, and trauma—particularly in high-risk professions such as healthcare, first response, and public safety—offering data and tools to inform screening and intervention.
 - **Per- and Polyfluoroalkyl Substances (PFAS) Exposure:** Investigates the long-term health impacts of PFAS and guides exposure assessments and medical monitoring for workers in manufacturing, firefighting, and environmental remediation.
 - **Workplace-Related Substance Use Disorders:** Supports research into prevention, early identification, and treatment approaches for substance use disorders rooted in workplace culture, injury-related opioid prescribing, or occupational stressors.
 - **Eliminating NIOSH would cut off access to foundational resources essential to occupational and environmental health and safety professions and the nation's economic health.** Key tools developed and maintained by NIOSH include, but are not limited to:
 - [NIOSH Manual of Analytical Methods \(NMAM\)](#)

- [Certified Equipment List \(CEL\) – National Personal Protective Technology Laboratory](#)
- [NIOSH Pocket Guide to Chemical Hazards](#)
- [NIOSH List of Hazardous Drugs in Healthcare Settings, 2024](#)
- [Prevention Through Design \(PtD\) Program](#)
- [Hierarchy of Controls Framework](#)
- [Occupational Exposure Banding e-Tool](#)

Talking Points: Medically Directed and Clinically Relevant NIOSH Programs

- A. **[World Trade Center \(WTC\) Health Program](#)**: Medically directed program providing long-term health monitoring and treatment for 9/11 responders and survivors—covering cancer, respiratory diseases, and mental health conditions.
- B. **[Coal Workers' Health Surveillance Program \(CWHSP\)](#)**: Offers chest X-rays and lung function testing to detect black lung disease. Led by NIOSH physicians and interpreted by NIOSH-certified B Readers.
- C. **[Health Hazard Evaluation \(HHE\) Program](#)**: Medically guided investigations into workplace health concerns. NIOSH clinicians assess worker symptoms, exposure risks, and recommend follow-up care and hazard controls.
- D. **[Medical Monitoring and Surveillance Initiatives](#)**: Includes targeted clinical surveillance programs for workers exposed to lead, silica, beryllium, and other toxic agents—often with direct physician involvement in assessment and guideline development.
- E. **[Total Worker Health® Program](#)**: Integrates occupational safety with broader health promotion strategies. While not fully physician-directed, it applies occupational medicine principles to support worker well-being.
- F. **[Respiratory Health Division \(RHD\)](#)**: Conducts clinical research and surveillance on occupational lung diseases. Supports spirometry training, respiratory disease diagnostics, and evidence-based policy development.
- G. **[Emergency Preparedness and Response Office \(EPRO\)](#)**: Engages physicians and occupational health experts during national emergencies to assess risk, recommend protections, and support worker safety in crisis settings.

Talking Points: The Human and Economic Toll of Workplace Injuries and Illnesses

Adapted from: Association of University Programs in Occupational Health and Safety (AUPOHS)

A. Too many workers in the U.S. are still dying or becoming seriously ill simply because of their jobs.

- In 2021, a worker died every **101 minutes** due to job-related injuries.
- In 2023 alone, there were **5,283 occupational fatalities**—a stark reminder that preventable deaths are still occurring in every sector, from construction and agriculture to retail and emergency response.

B. The toll extends beyond fatalities—millions are seriously injured or become ill at work each year.

- In 2023, **2.6 million workers** suffered serious workplace injuries, with **one-third requiring time away from work** for recovery.
- These injuries affect already strained sectors such as **transportation, warehousing, food production, and public safety**, amplifying workforce shortages and operational challenges.

C. Occupational diseases are a silent epidemic.

- An estimated **145 deaths per day** in the U.S. are attributed to **work-related diseases**, many of which—such as cancers, respiratory conditions, and musculoskeletal disorders—are preventable with proper surveillance and exposure control.

D. These events are not just clinical challenges—they are public health and economic crises.

- The **direct cost of serious, non-fatal workplace injuries and illnesses exceeds \$1 billion every week**—a burden carried by businesses, insurers, healthcare systems, and most importantly, the affected workers and their families.

E. Many injuries and illnesses go undocumented or underreported.

- Occupational medicine professionals are on the frontlines of recognizing, reporting, and treating work-related conditions that may otherwise be missed or misclassified.

F. OEM plays a vital role in reversing these trends.

- Prevention, early diagnosis, medical surveillance, return-to-work planning, and systems-based interventions are key areas where occupational medicine can—and does—save lives.

Talking Points: The Changing Work Environment – Implications for Occupational and Environmental Medicine

Adapted in part from the Association of University Programs in Occupational Health and Safety (AUPOHS)

- A. The modern workplace is rapidly evolving, and with it, new risks to worker health and well-being are emerging.** While traditional hazards—such as chemical exposures, physical injuries, and ergonomic strain—remain significant, the occupational medicine community must also respond to the shifting landscape of work itself.
- B. Workforce shortages, understaffing, and burnout are straining critical sectors.** Healthcare professionals, long-term care workers, educators, and emergency responders are experiencing unprecedented levels of psychological distress and physical exhaustion. These issues directly contribute to mental health conditions, musculoskeletal injuries, and decreased workforce sustainability.
- C. Mental health concerns are increasingly urgent in certain high-risk industries.** Construction workers and farmers continue to experience disproportionately high suicide rates. OEM professionals must be at the forefront of developing targeted prevention strategies and integrating mental health into workplace health programs.
- D. Emerging technologies are reshaping occupational risks.** Automation, artificial intelligence, and algorithm-driven workflows are introducing new ergonomic, psychosocial, and cognitive stressors. These shifts require updated risk assessments and adaptive health surveillance strategies. OEM professionals are well positioned to inform emerging innovative technologies to prevent or swiftly respond to occupational risks.
- E. Workplace structure and stability are in flux.** A multigenerational workforce, irregular schedules, shift work, high turnover, and reduced job security are contributing to chronic stress, sleep disruption, and long-term health consequences that fall within the scope of occupational medicine.
- F. The rise of non-traditional employment models poses new health equity challenges.** Gig workers, contractors, and temporary employees often lack access to employer-sponsored health care, paid leave, and workers' compensation—leaving vulnerable populations without basic occupational health protections.
- G. OEM must adapt to meet the needs of a changing workforce.** As work becomes more decentralized, dynamic, and diverse, the role of OEM becomes even more critical in guiding policy, promoting worker resilience, and designing evidence-based interventions that protect health and productivity across all employment sectors.

Talking Points: NIOSH-Funded Centers of Excellence – Advancing Workforce Health and Safety

Adapted in part from the Association of University Programs in Occupational Health and Safety (AUPOHS)

- A.** NIOSH-supported Centers of Excellence—including the **Education and Research Centers (ERCs)**, **Centers for Agriculture, Forestry, and Fishing (AgFF)**, and **Total Worker Health® (TWH) Centers**—are essential national assets that address both existing and emerging occupational health threats. These Centers provide rapid, evidence-based support to protect the health and safety of the U.S. workforce across diverse industries.
- B.** **For occupational and environmental medicine professionals, these Centers serve as critical hubs of expertise, training, and applied research.** They help develop the next generation of OEM clinicians, researchers, and health and safety leaders through interdisciplinary education and robust training programs.
- C.** **Sustained federal funding is essential** to ensure these Centers can maintain long-term capacity, retain skilled faculty and staff, and continue delivering high-impact research, surveillance, and training at the state and regional levels.
- D.** **These Centers are actively engaged in real-world problem-solving.** Through over **100,000 hours of outreach and training**, they deliver practical, research-informed solutions to employers and workers—helping prevent injuries, manage chronic occupational illnesses, and respond to mental health crises and emerging environmental exposures.
- E.** **As workplaces evolve—driven by new technologies, workforce demographics, and global challenges—OEM must keep pace.** The NIOSH-funded Centers provide the infrastructure to conduct timely investigations, develop adaptive interventions, and disseminate guidance that supports clinical practice, policy, and prevention.

Talking Points: The Role of NIOSH-Funded Education and Research Centers (ERCs) in Workforce Health and Resilience

Adapted in part from the Association of University Programs in Occupational Health and Safety (AUPOHS)

- A. The 18 university-based Education and Research Centers (ERCs)** serve as vital local, regional, and national resources for occupational and environmental health and safety. These centers provide academic, clinical, and technical expertise to address both persistent and emerging workplace challenges.
- B. ERCs are central to workforce development in occupational health and safety disciplines—including occupational medicine, industrial hygiene, occupational health nursing, and safety engineering.** Through graduate and post-graduate training, ERCs build a pipeline of highly skilled professionals who are trained to prevent, diagnose, and manage work-related injuries and illnesses. Without ERC support, student funding would be severely limited, jeopardizing the future workforce in OEM and related fields.
- C. ERCs ensure national coverage, training occupational health and safety professionals in every federal region of the U.S.** These professionals are equipped to identify and mitigate risks across diverse industries—and are also trained to respond to complex threats such as chemical, biological, radiological, or nuclear incidents.
- D. OEM and other ERC-trained professionals have played leading roles in disaster preparedness and response.** From Hurricanes Ian, Harvey, Irma, and Maria to the wildfires in California, ERCs have provided rapid, evidence-based guidance to protect workers involved in cleanup, restoration, and emergency operations. Their clinical expertise has been critical in minimizing short- and long-term health risks for responders and affected communities.
- E. ERCs support the operational readiness of public and private sectors.** Graduates contribute to federal, state, and local health departments; industry; labor organizations; academic institutions; not-for-profits; and healthcare systems. Many also become leaders in clinical occupational medicine, public health policy, and workforce health management.
- F. ERCs are also a key provider of continuing education for the OEM community.** They offer ongoing training to practicing professionals, ensuring the workforce stays current with best practices, emerging research, and regulatory updates.
- G. Without sustained NIOSH funding, most ERC programs would not survive.** This would result in a critical loss of capacity to train and retain occupational health professionals, undermining national preparedness and the ability to protect worker health across sectors.

Talking Points: Total Worker Health® (TWH) Centers of Excellence – A Holistic Approach to Workforce Health and Resilience

Adapted in part from the Association of University Programs in Occupational Health and Safety (AUPOHS)

- A. **NIOSH supports ten Total Worker Health® (TWH) Centers of Excellence**, each dedicated to conducting multidisciplinary research and translating it into practical, organizational-level solutions that enhance workforce safety, health, and productivity.
- B. **These Centers emphasize systems-based prevention—addressing the full spectrum of workplace risks, from physical safety to mental health and chronic disease.** Their research and interventions are grounded in real-world challenges identified by employers, employees, and labor partners, and are implemented across a wide range of industries and work settings—from hospitals and factories to construction sites, offices, and small businesses.
- C. **TWH Centers deliver impactful results from clinical and operational perspectives.** Their research has produced measurable improvements in mental health, stress reduction, and worker resilience—particularly for essential and frontline workers impacted by COVID-19 and other high-stress environments.
- D. **TWH Centers contribute directly to the practice of occupational and environmental medicine by integrating workplace health promotion with hazard protection.** This approach recognizes that injury prevention, disease management, and behavioral health are interconnected and best addressed through coordinated strategies.
- E. **Real-world examples highlight the value of TWH partnerships:**
 - The **Recovery Friendly Workplace Initiative** supports workers facing substance use disorders by promoting inclusive workplace practices that help individuals remain employed, engaged, and on the path to recovery.
 - Collaborative research with fire departments across multiple states has led to effective interventions to reduce slips, trips, and falls—one of the most common and costly categories of workplace injury.
 - In the construction industry, which faces some of the highest suicide rates among all occupations, a validated **suicide prevention and mental health program** is being scaled nationally with promising outcomes.
 - In school systems, TWH Centers are improving emergency preparedness, job quality, and educator well-being—helping boost retention and student success while safeguarding staff.
- F. **TWH Centers are not just academic institutions—they are engines of innovation, implementation, and prevention.** By linking research with practice, they help employers improve job quality, reduce health-related costs, and promote overall workforce resilience.

- G. Investing in TWH Centers is an investment in clinical prevention, economic productivity, and public health.**
Their work ensures that American workers—across all industries and job types—can return home safe, healthy, and supported at the end of each workday.

Talking Points: NIOSH Agriculture, Forestry, and Fishing (AgFF) Program – Protecting Health in the Nation’s Most Dangerous Industries

Adapted in part from the Association of University Programs in Occupational Health and Safety (AUPOHS)

- A. The NIOSH Agriculture, Forestry, and Fishing (AgFF) Program addresses the most hazardous industries in the United States, serving as a vital source of research, outreach, and clinical expertise for rural and underserved worker populations.** Established by Congress in 1990 (PL 101-517), the program exists because AgFF workers face significantly higher rates of injury, illness, and fatality compared to other sectors.
- B. Agricultural workers are among the most at-risk in the U.S. workforce.** In 2023, there were **511 fatalities** in agriculture—a rate of **19.2 deaths per 100,000 workers**, compared to the national average of **3.5 per 100,000**. Additionally, **4 out of every 100 agricultural workers** sustained recordable nonfatal injuries. These high-risk conditions directly threaten worker health and the nation’s food security.
- C. Today, the AgFF program includes 11 regional Agricultural Centers and one national Children’s Center for Agricultural Health and Safety.** These are the **only federally supported programs** focused exclusively on occupational health and safety in agriculture, forestry, and fishing—sectors that are largely exempt from OSHA coverage due to high rates of self-employment.
- D. The AgFF Centers provide critical services often unavailable elsewhere, including:**
- **Clinical testing and health monitoring** for exposure to zoonotic and infectious agents (e.g., H5N1).
 - **Technical support and guidance** for biosecurity and depopulation protocols during disease outbreaks.
 - **Health and safety training** tailored to the unique conditions of farms, logging operations, and fishing vessels.
- E. Forestry and fishing workers face fatality rates many times higher than the national average.**
- Forestry/logging: Over **30 times higher** than the average fatality rate.
 - Commercial fishing: From 2000–2017, an estimated **114 deaths per 100,000 full-time workers—29 times** the national average. The injury and illness statistics enumerated above are expected to worsen without NIOSH.
- F. AgFF Centers have driven lifesaving, evidence-based interventions:**
- **Rollover Protective Structures (ROPS) and seatbelt adoption** have significantly reduced tractor-related fatalities—the leading cause of farm deaths.
 - In commercial fishing, AgFF Centers helped develop **fishermen-approved lifejackets**, improving survival rates in man-overboard incidents.

- **Mental health research** has highlighted systemic issues such as inadequate childcare, which forces farm parents to bring children into hazardous work environments. Over the past decade, an estimated **1,000 children** have died doing agricultural work.

G. From an OEM standpoint, the AgFF Centers fill a critical gap in clinical surveillance, injury prevention, and population health. They are often the only resource for underserved rural workers who lack access to traditional occupational health services and protections.

H. The lifesaving, cost-effective work of the AgFF Program is not duplicated by any other federal agency. Without NIOSH funding, these vital services—ranging from targeted safety interventions to mental health outreach—would cease to exist, leaving a high-risk workforce with few, if any, protections.

Talking Points: Economic Impact by NIOSH Facility

A. Dollars Invested in each city (Personnel, Research Funding and Contracts)

Location Totals	FY23	FY24
Cincinnati, OH	\$63,772,588	\$51,770,383
Morgantown, WV	\$13,920,944	\$8,533,995
Pittsburgh, PA	\$18,924,206	\$15,959,576
Spokane, WA	\$4,797,179	\$3,566,210

B. To date, the anticipated total loss of jobs across all locations is 1474, a relatively small number of workers that illustrates a significant return on investment on the profound value of work produced by each of these facilities. NOTE: Total less 89 associated with the World Trade Center Program and 28 associated with the Energy Employees Occupational Illness Compensation Program, which are moving to the new Administration for Healthy America (AHA).

C. The breakdown is as follows:

- Cincinnati, OH: 414
- Morgantown, WV: 401
- Atlanta, GA: 133
- Spokane, WA: 89
- Washington, D.C.: 47
- Pittsburgh, PA: 39

Talking Points: Direct Services Provided by NIOSH to the Nation

Source: Association of University Programs in Occupational Health and Safety (AUPOHS)

A. Research, Exposure Assessment, and Disease Prevention

- **NIOSH provides direct services to workers, industry, and government agencies** that improve the health, safety, and productivity of the U.S. workforce.
- NIOSH has a long-standing role in conducting **cohort studies on chronic disease risks** associated with occupational exposures—such as radiation, metals, organic compounds, pesticides, fibers (e.g., asbestos), and particulates. These studies inform federal policy, workplace practices, and clinical decision-making.
- NIOSH develops and validates **exposure assessment methodologies** used by companies, regulators, and researchers to evaluate workplace hazards.
- NIOSH also supports other federal agencies—such as NIEHS—by **field-testing new exposure methods** and providing scientific feedback to improve accuracy and implementation.

B. Engineering Controls and Industry Solutions

- **NIOSH partnerships with industry, labor, and government** have led to impactful engineering controls:
 - Development of **ventilation systems** to reduce asphalt fume exposure during paving operations now standard on all new highway paving machines.
 - Health Hazard Evaluations (HHEs) that identified **powdered latex gloves** as a major allergy risk in healthcare, contributing to widespread adoption of powder-free gloves.
 - Collaborations with equipment manufacturers to **reduce carbon monoxide exposure** on houseboats, improving safety for workers and the public.
 - Research on **safe use of methylene chloride** in furniture stripping helped small businesses adopt safer practices while maintaining operational viability.

C. Emergency Response and National Crisis Support

- NIOSH has supported over **45 national emergency response efforts**, offering technical expertise at individual worksites and across entire sectors. Examples include:
 - **COVID-19 pandemic:** Evaluated exposure risks at hundreds of high-risk settings—airports, prisons, nursing homes, food plants, and more.
 - **2023 Maui wildfires:** Provided the first-ever biomonitoring for emergency responders in Maui County and the Hawaii National Guard.
 - **East Palestine train derailment:** Offered on-site occupational health support to emergency responders.
 - **Ebola outbreaks (2015, 2022):** Trained hospital staff in safe care protocols; developed [guidance](#) for safe handling of remains.
 - **Anthrax attacks (2001–2005):** Conducted 60 building vulnerability assessments and issued national [guidelines](#) to protect ventilation systems.

- **Deepwater Horizon oil spill:** Released 9 interim reports on worker exposures to support response decisions.
- **Zika response:** Designed a multi-site study to assess birth defect risk after prenatal Zika exposure.
- **Mpox and measles outbreaks:** Provided infectious disease control guidance to hospitals and correctional facilities.

D. Firefighter and First Responder Health

- NIOSH leads the **National Firefighter Registry for Cancer**, launched in 2023, which tracks cancer rates among firefighters and shares insights through a public dashboard and quarterly updates. The registry already includes nearly **24,000 participants** and supports targeted prevention efforts.
- NIOSH research on firefighter chemical exposures has led to **over 50 peer-reviewed studies**, influencing policies, protective equipment standards, and firefighter health protocols nationwide.

E. Worker Compensation and Economic Impact

- The **NIOSH Center for Workers' Compensation Studies (CWCS)** has published over 100 studies and influenced state safety grant programs. RAND estimates this research saves:
 - **\$4–\$7 million annually** in avoided compensation costs
 - **\$7–\$11 million annually** in productivity gains
 - Up to **\$16 million annually** in avoided wage losses

F. Innovative Tools and Resources for Employers and Clinicians

- **Personalized Exposure Letters:** Workers involved in HHEs receive individualized letters explaining their exposure or medical results, supporting informed care and workplace follow-up.
- **Silica Exposure Controls:** NIOSH-developed ventilation systems were adopted by major pavement milling machine manufacturers and are credited with saving **up to \$1.1 billion annually**, per [RAND](#).
- **Stone Fabrication Industry:** The largest countertop fabrication chain in the U.S. adopted [NIOSH silica controls](#) in all facilities during the current silicosis outbreak.
- **Biohazard Mail Risks:** Provided USPS and manufacturers with evaluation and [guidance](#) to reduce anthrax and biohazard exposure during mail processing.

G. Sector-Specific Interventions

- **Veterans Affairs Partnership:** NIOSH helped develop national [safe patient handling protocols](#) to reduce musculoskeletal injuries among healthcare workers.
- **Air Travel and TSA Workers:** Recommendations on airport baggage handling and aircraft ventilation reduced musculoskeletal and infectious disease risks for workers and travelers.
- **Hearing Protection:** NIOSH created:

- The [Sound Level Meter App](#) to help 22 million noise-exposed workers assess the need for hearing protection.
- The [Safe-in-Sound Award](#) to recognize exemplary hearing loss prevention programs.
- [Fit-testing recommendations](#) to improve effectiveness of hearing protection devices.

H. Data, Informatics, and Public Tools

- [NIOCCS \(Industry and Occupation Coding and Classification System\)](#): A free AI tool used by researchers and agencies to categorize narrative job data, enabling early detection of occupational risks. It currently processes **1–2 million records daily**.
- [Worker Health Charts](#): Offers interactive data visualizations on occupational illness, injuries, and trends, supporting decisions by employers, researchers, and policymakers.

Additional Case Studies

1. Prevented Costly Manual Handling Injuries

- Lifting heavy loads, especially at work, can cause serious musculoskeletal injuries, costing \$12.49 billion per year, according to Liberty Mutual Insurance.
- **NIOSH Research:** The NIOSH Lifting Equation (NLE), first introduced in 1981 and revised in 1991, helps users assess the biomechanical demands of lifting tasks and offers guidelines to reduce risk. NIOSH developed the NLE Calc App, a smartphone application that helps employers and workers calculate how much weight can be safely lifted.
- **Impact:**
 - **Highly regarded:** The NLE Calc App was recognized as one of the top 10 workplace safety apps of 2025 by Safety Culture, endorsed by OSHAToday.com, featured on the Texas Mutual Workers' Compensation Insurance website, and consistently listed as a top ergonomics resource by the Center for Construction Research and Training (CPWR).
 - **Widely used:** The app has over 344,000 downloads in the Apple Store alone and has seen adoption by major companies such as GM and Toyota.
- **Statute:** Conducted under 42 C.F.R. Part 85a

2. Prevented Pesticide Injuries and Illnesses

- Pesticide poisonings still occur during both work-related and non-work-related activities. Symptoms include headaches, hearing loss, paralysis, and more.
- **NIOSH Research:** The SENSOR-Pesticides Program collects and analyzes data to understand the frequency and causes of pesticide poisonings. Findings are shared with researchers, public health professionals, and policymakers.
- **Impact:**
 - Influenced federal regulations, including the Worker Protection Standard for agricultural workers.
 - Led to changes in pesticide labeling and state laws in California, Florida, North Carolina, and New York.
 - Supported mandates for safer pest control in schools.

3. Worked with Industry Partners to Reduce Occupational Hearing Loss

- Hearing loss is one of the most common work-related illnesses and is linked to reduced cognitive function, heart disease, and depression.
- **NIOSH Research:** The Occupational Hearing Loss Surveillance Program collects and analyzes hearing data from industry partners to identify high-risk groups.
- **Impact:**
 - Data has been used by government agencies, standards bodies, and employers to implement prevention strategies and evaluate their effectiveness over time.

4. Worked with States to Protect Workers from Lead

- Lead exposure is linked to heart disease, brain damage, paralysis, and death. Over 90% of adult lead exposure occurs in the workplace.
- **NIOSH Research:** The ABLES program monitors adult blood lead levels in collaboration with 37 states.
- **Impact:**
 - Helped public health agencies track and respond to spikes in exposure.
 - Findings have been used in Congressional reports and have contributed to a decline in workplace lead exposure.

5. Responding to the 2001 Anthrax Attack

- In October 2001, anthrax mailings killed five and sickened 17.
- **NIOSH Response:**
 - Participated in over 25 investigations involving potential contamination.
 - Helped design standardized sampling protocols.
 - Recognized by the National Academies as a federal leader in emergency response.

6. Identified and Prevented "Popcorn Lung"

- Obliterative bronchiolitis, or "popcorn lung," is a serious, incurable lung disease.
- **NIOSH Research:** HHEs conducted from 1985–2006 linked diacetyl, a butter flavoring chemical, to the disease in popcorn plant workers.
- **Impact:**
 - Informed California OSHA standards and NIOSH recommendations.
 - Spurred voluntary removal of diacetyl in some facilities.
 - Raised awareness among pulmonary physicians.

7. Preventing Carbon Monoxide Poisonings on Houseboats

- From 1990 to 2004, about 540 CO poisonings were linked to recreational boats.
- **NIOSH Research:** Partnered with the National Park Service and Coast Guard to evaluate exposures and develop engineering controls.
- **Impact:**
 - Led to introduction of low-emission generators and safer engine designs.

8. NIOSH Research Drives Extension of Benefits for Uranium Miners

- Uranium miners faced long-term health risks from exposure to silica dust and radiation.
- **NIOSH Research:** Provided evidence that miners were still developing compensable diseases even after RECA benefits ended.
- **Impact:**
 - Findings were cited in Congressional debate, contributing to passage of the RECA Extension Act of 2022.

9. NIOSH Health Hazard Evaluation (HHE) Program

- Has completed over 17,500 HHEs in all 50 states.
- Provides businesses with solutions that reduce hazards and improve worker health.
- Bridges science, regulation, and best practices for employers.

10. NIOSH Workplace Survey Reports

- Over 600 public reports document engineering evaluations and consultations.
- Supports low-cost engineering control solutions for companies to comply with OSH standards.
- Includes ~350 investigations of firefighter line-of-duty deaths.

11. NIOSH Services to the Department of Defense

- **Study Mandate:** FY2021 National Defense Authorization Act

- **NIOSH Role:** Leading cancer incidence and mortality study among 800,000 military aviators and support personnel.

12. National Firefighter Registry for Cancer

- Tracks cancer incidence and risk factors among firefighters.
- Since launching in 2023, nearly 24,000 firefighters have joined.
- Data shared through dashboards, newsletters, and training courses to support prevention.

13. NIOSH Center for Workers' Compensation Studies (CWCS)

- Uses data science to analyze claims and guide injury prevention.
- **Impact:**
 - 100+ publications
 - Millions saved in avoided claims and productivity losses
 - Created tailored exposure reports for workers and providers
 - Developed CDC-leading data dashboards for stakeholders

14. Silica Exposures Study

- Partnered with industry to create controls for pavement milling and countertop fabrication.
- **Impact:**
 - All pavement milling machines now include controls.
 - OSHA silica standard incorporates NIOSH-validated controls.
 - Economic benefit estimated between \$304M and \$1.1B annually.

15. USPS Biohazards Project

- Evaluated and provided recommendations for reducing biohazard risks in mail processing.
- Ongoing studies have improved firefighter safety and reduced cancer risks.

16. NIOSH's Work on Airplane Interior Ventilation

- Incorporated into Boeing, FAA, and CDC's safety risk management plans.
- TSA implemented baggage handling interventions to reduce musculoskeletal injuries.

17. Safe Patient Handling and Mobility

- Partnered with VA to develop national best practices, reducing injuries among healthcare workers.

18. Free NIOSH Sound Level Meter App

- Helps noise-exposed workers (approx. 22 million in the U.S.) decide when hearing protection is needed.

19. Individual Fit-testing for Hearing Protection Devices

- Published guidance to help employers verify that hearing protection is effective for each worker.

20. Emergency Response–Related Work

- Evaluated engineering controls and ventilation during disease outbreaks and CBR (chemical, biological, radiological) incidents to reduce airborne transmission risks.