

Health and Safety Engineers

SOC: 17-2111 • Career Profile Report

■ Key Facts

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|-----------------------------------|-----------------------------|-----------------------------|
| \$109,660 Median Salary | 23,800 Employment | +4.0% Growth Rate |
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■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 17.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

7.2/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

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|--------------|--------|---------------|--------|
| Realistic | 8.2/10 | Investigative | 8.8/10 |
| Artistic | 6.4/10 | Social | 5.2/10 |
| Enterprising | 5.8/10 | Conventional | 6.6/10 |

■ Top Skills Required

Communication skills, Critical-thinking skills, Interpersonal skills, Observational skills, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Health and Safety Engineers typically perform the following tasks:

- Investigate industrial accidents, injuries, or occupational diseases to determine causes and preventive measures.
- Conduct research to evaluate safety levels for products.
- Evaluate product designs for safety.
- Conduct or coordinate worker training in areas such as safety laws and regulations, hazardous condition monitoring, and use of safety equipment.
- Maintain and apply knowledge of current policies, regulations, and industrial processes.
- Recommend procedures for detection, prevention, and elimination of physical, chemical, or other product hazards.
- Report or review findings from accident investigations, facilities inspections, or environmental testing.
- Evaluate potential health hazards or damage that could occur from product misuse.
- Evaluate adequacy of actions taken to correct health inspection violations.
- Interpret safety regulations for others interested in industrial safety, such as safety engineers, labor representatives, and safety inspectors.
- Review plans and specifications for construction of new machinery or equipment to determine whether all safety requirements have been met.
- Participate in preparation of product usage and precautionary label instructions.
- Interview employers and employees to obtain information about work environments and workplace incidents.
- Provide expert testimony in litigation cases.
- Review employee safety programs to determine their adequacy.
- Conduct or direct testing of air quality, noise, temperature, or radiation levels to verify compliance with health and safety regulations.
- Provide technical advice and guidance to organizations on how to handle health-related problems and make needed changes.
- Develop industry standards of product safety.
- Maintain liaisons with outside organizations, such as fire departments, mutual aid societies, and rescue teams, so that emergency responses can be facilitated.
- Plan and conduct industrial hygiene research.