Board on Human-Systems Integration (BOHSI)
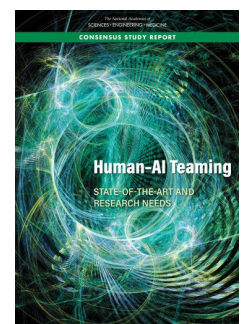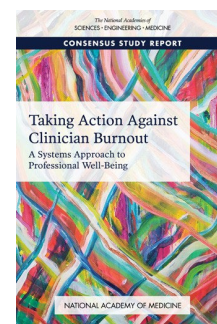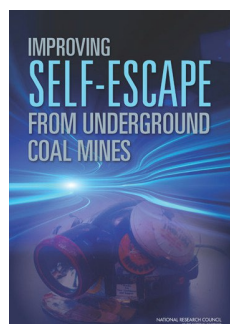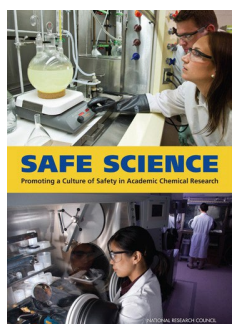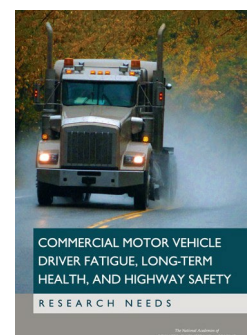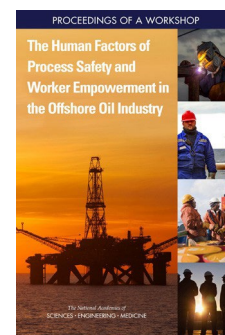## Division of Behavioral and Social Sciences and Education

Fueled by a guiding commitment to employing a human-systems framework with diverse inputs, BOHSI provides new scientific perspectives concerning the relationship of individuals and organizations to technology and the environment. The board identifies critical issues in the analysis of capability needs and solution approaches, requirements, testing, evaluation, communication, and use of new human-centered technologies. In addition, the board provides expert guidance on the research needed to expand the scientific and technical bases for designing technology that supports critical users' needs. Established in 1980, BOHSI has a long history of accomplishment in providing the U.S. government and other stakeholders with objective state-of-the-art policy advice based on human factors, human-systems integration, and other scientific approaches relevant to the design of technical systems for human use. BOHSI members work together to apply their deep expertise in exploring human capabilities, limitations, and performance across complex systems. These systems involve policy/doctrine, organizations/teams, people, processes, technology, and environments, with the ultimate goal of achieving robustness through resilience and human-system adaptation.

The expertise of BOHSI spans domains of science, engineering, and industry (e.g., human-systems integration, human factors and ergonomics, industrial-organizational psychology, cognitive engineering and psychology, and systems engineering). Substantive topics include human-computer interaction, naturalistic decision-making, personnel selection, training and development, teamwork, human reliability and resilience engineering as they apply to real-world problems (e.g., artificial intelligence, team coordination, safety culture, employee burnout). These real-world problems are studied in a range of settings, including federal agencies, military organizations, aviation, and healthcare systems.

REPORTS

BOHSI has issued a broad array of consensus study reports and proceedings that bring science to bear on problems and questions faced by researchers, policy makers, and practitioners in a range of domains. Selected recent BOHSI publications are shown below. For a complete list of BOHSI publications, please visit: www.nationalacademies.org/bohsi.

RECENT AREAS OF STUDY

- human-systems integration, including methods, tools, and data
- human factors and ergonomics
- human-computer interaction, user-centered design, user experience
- industrial and organizational psychology
- cognitive engineering and naturalistic decision-making
- workforce development, training, and education
- recruitment, selection, and assignment
- team and group dynamics
- safety culture
- military, occupational, and public health
- aging and technology
- artificial intelligence
- cybersecurity
- screening, domain awareness, incident management
- policing and forensics
- biomechanics
- neuroergonomics
- human-computer interaction, user-centered design, user experience
- systems engineering
- sociotechnical systems design
- healthcare and patient safety
- aviation and transportation
- human reliability and resilience engineering

CURRENT & FORMER SPONSORS

- American Psychological Association
- U.S. Air Force Research Laboratory
- Federal Aviation Administration
- Human Factors and Ergonomics Society
- National Aeronautics and Space Administration
- National Institute of Standards and Technology
- National Institute for Occupational Safety and Health
- National Oceanic and Atmospheric Administration
- Office of Naval Research
- Society for Human Resource Management
- Society for Industrial and Organizational Psychology
- U.S. Army Research Laboratory
- U.S. Environmental Protection Agency

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