

Human Factors and Ergonomics Society

## Official Written Testimony in Support of Fiscal Year 2015: Driving Innovation through Federal Investments

Submitted to the Senate Committee on Appropriations United States Senate April 17, 2014

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On behalf of the Human Factors and Ergonomics Society (HFES), I am pleased to provide this written testimony to the Senate Committee on Appropriations for the official record. HFES urges the Committee to provide the highest possible funding levels for the science agencies in the fiscal year (FY) 2015 appropriations process.

HFES and its members recognize and appreciate the challenging fiscal environment in which we as a nation currently find ourselves; however, we believe strongly that investment in scientific research serves as an important driver for innovation and the economy and for maintaining American global competitiveness. We thank the Committee for its longtime recognition of the value of scientific and engineering research and its contribution to innovation in the U.S.

As your Committee considers the FY 2015 budget, HFES urges you to ensure that funding allocations robustly support research and training activities at the Department of Defense (DOD), NASA, Department of Transportation (DOT), National Institute of Standards and Technology (NIST), National Science Foundation (NSF), National Institutes of Health (NIH), Department of Energy (DOE), and the White House Office of Science and Technology Policy (OSTP). While science and technology within these agencies continues to be supported by your Committee, we encourage increased investment needed to drive innovation.

## The Value of Human Factors and Ergonomics Science

The Human Factors and Ergonomics Society (HFES) is a multidisciplinary professional association with 4,500 individual members worldwide, including psychologists and other scientists, engineers, and designers, all with a common interest in designing safe and effective systems and equipment that maximize and adapt to human capabilities.

For over 50 years, the U.S. federal government has funded scientists and engineers to explore and better understand the relationship between humans, technology, and the environment. Originally stemming from urgent needs to improve the performance of humans using complex systems such as aircraft during World War II, the field of human factors and ergonomics (HF/E) works to develop safe, effective, and practical human use of technology. HF/E does this by developing scientific approaches for understanding this complex interface, also known as "human-systems integration." Today, HF/E is applied to fields as diverse as transportation, architecture, environmental design, consumer products, electronics and computers, energy systems, medical devices, manufacturing, office automation, organizational design and management, aging, farming, health, sports and recreation, oil field operations, mining, forensics, and education.

With increasing reliance by federal agencies and the private sector on technology-aided decisionmaking, HF/E is vital to effectively achieving our national objectives. While a large proportion of HF/E research exists at the intersection of science and practice—that is, HF/E is often viewed more at the "applied" end of the science continuum—the field also contributes to advancing "fundamental" scientific understanding of the interface between human decision-making, engineering, design, technology, and the world around us through research funded by NSF. The reach of HF/E is profound, touching nearly all aspects of human life from the health care sector, to the ways we travel, to the hand-held devices we use every day.

## Conclusion

On behalf of the Human Factors and Ergonomics Society, I would like to thank you for the opportunity to provide this testimony. Please do not hesitate to contact me should you have any questions about HFES or HF/E research. HFES truly appreciates the Committee's long history of support for scientific research and innovation, and urges you to appropriate the highest possible funding level for these agencies in FY 2015.