

Pursuing a Career in Human Factors and Engineering Psychology

ALL ABOUT HUMAN FACTORS AND ENGINEERING

Is using a hands-free telephone to make a call while driving any less dangerous than making the call with a hand-held device? That's one example of a research question that human factors and engineering psychologists are trying to answer.

Human factors and engineering psychologists use scientific research to improve technology, consumer products, energy systems, telecommunication, transportation, decision-making, work settings and living environments. The goal of their work is to bring a better understanding of what people expect and how people interact with these products and technologies to create safer, more effective and more reliable systems.

Human factors and engineering psychology focuses on improving and adapting technology, equipment and work environments to complement human behavior and capabilities.

WHAT YOU CAN DO

Human factors and engineering psychology offers many career paths. If you break it down to the relationship between people and machines, people and tasks, and people and environments, the possibilities become clearer.

These psychologists study how humans interact with machines and technology. They also study human traits and capacities like vision, attention and decision-making to help design machines and systems people can use correctly, safely and comfortably.

Human factors and engineering psychologists consult with architects and designers of consumer products like telephones, cameras and home appliances to determine such features as the size and placement of operating buttons on these devices.

They also inform strategies for the design of tools and workplace environments that are critical to performance and in many cases, personal safety. For example, human factors psychologists contribute research that guides the design of health care equipment and the layout of operating rooms to minimize the risk of medical errors.

Human factors and engineering psychologists work in academia and within government agencies — such as the U.S. Department of Transportation, the Federal Highway Administration and NASA — although the private sector makes up one of their largest areas of employment. Regardless of the sector where you work, there are many areas within human factors and engineering psychology to focus on, ranging from designing or improving navigation systems to mobile phones, medical equipment, military equipment, aviation technology, traffic systems, motor vehicles and office technology.

MAKING IT HAPPEN

Although obtaining a master's degree in psychology or a related field is generally considered the minimum needed for a career in human factors and engineering psychology, more opportunities and higher pay often come with a doctoral degree. Coursework for graduate and doctoral degrees in human factors and engineering psychology often include focus areas such as cognition, engineering, perception, statistics, research methods and development.

WHAT YOU CAN EARN

According to the Human Factors and Ergonomics Society's 2005 Salary and Compensation Survey, starting salaries for human factors and engineering psychologists ranged from \$48,000 to \$75,367 annually. Private consultants with doctoral-level degrees earned an average of \$179,160 per year. Salaries are highest for those employed in the private sector.

Doctoral-level engineering psychologists working at for-profit businesses earned an average of \$111,368 in 2005, while those in academia earned an average of \$92,614 annually and those in government earned an average of \$107,314 annually. Those with master's degrees earned \$90,164 annually in business settings, \$75,150 annually in university positions and \$90,500 annually in government.

Find out where psychology can take you at **WWW.PSYCHSCIENCEACTION.ORG**.