

Emanuel Robinson, PhD — Human Factors Psychologist

IN THE DRIVER'S SEAT

Car crashes — the No. 1 killer of teens — take thousands of young lives every year in the U.S. If there is good news to be found, it is that such crashes are preventable, and the science of psychology can help to save lives behind the wheel.

Take the work of human factors psychologist Emanuel Robinson, PhD, a senior research scientist in the Transportation and Safety Research Group at Westat, in Rockville, Md. He takes problems that need creative solutions and examines how to achieve a better outcome. Over time, he sees how the solution plays out in the real world.

"I want to understand how people think in complex situations and what strategies they utilize," says Robinson.

Robinson thinks about "impact" differently than most of us. He conducts research into the effectiveness of public health interventions such as Graduated Driver Licensing (GDL) programs that are designed to prevent teen motor vehicle crashes and save lives. Although specific restrictions vary from state to state, GDL programs grant privileges to new drivers in stages — from the learner's permit, to the intermediate stage, to full, unrestricted licensure — in an effort to build driving skills under increasingly challenging conditions.

And you've probably seen the new car technologies on TV that allow drivers — whether distracted, in dangerous conditions or simply a poor parallel parker — to improve their ability to operate the car safely. At Westat, Robinson works with a team to develop standard methodologies for evaluating and comparing the effectiveness of warning interface designs — i.e., in-car systems that alert drivers to road hazards — which include conducting empirical research, performing analyses and working with stakeholders to develop an extensive set of detailed test protocols known as Crash Warning Interface Metrics (CWIM).

For Robinson, it's heartening to know that GDL programs and crash warning technologies are doing exactly what they were designed to do: reducing crashes and keeping teens safer on the road. "There is satisfaction in doing work that can directly save and improve lives," he adds.

RESEARCHING A CAREER

Upon earning his PhD from Georgia Tech, Robinson considered how to apply what he had learned via a meaningful career. "It seemed like academia was the only outlet," he says. However, the slower pace of academia didn't mesh with his work style, and he was interested in doing work that had a direct impact on improving lives. So he focused on finding his professional niche.

"I methodically researched everything I could find about types of jobs and places to work," says Robinson, such as consulting conference directories, search engines and other obvious places. He also read through the American Psychological Association's Nonacademic Careers for Scientific Psychologists, which offered some terrific leads and unexpected paths.

Networking through personal and professional contacts led to a meeting with the manager of the human factors division within the transportation and safety research group at Westat. "A few minutes into the conversation, we were discussing railroad crossing accidents and how people take unnecessary risks to beat the train," he says. "The rest is history."

NOT SO FAR FROM CAMPUS

Although the pace at Westat is faster, Robinson notes a number of similarities between working there as a psychologist and the life of a university researcher, including the value of publishing scientific articles, presenting at conferences, exploring new research interests and receiving funding from government agencies.

"Our team also competes and collaborates with researchers at many major universities," he says. "There is a nice amount of freedom and independence, allowing us to move in different research areas based on new opportunities and interests."

For Robinson, researching a career that uses science to save lives is still paying off.



"I can focus on existing real-world problems that need novel solutions — and see the direct impact of my work."

HUMAN FACTORS AND ENGINEERING PSYCHOLOGY

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