

**Richard E. Keefer, P.E.**  
**Principal Engineer**

**Professional Profile**

Mr. Richard Keefer is a Principal Engineer in Exponent's Vehicle Engineering practice. He addresses issues related to mechanical design and automotive engineering, accident reconstruction and analysis, vehicle testing and crashworthiness evaluations, and vehicle subsystem performance. His projects include failure and safety analysis of mechanical systems encompassing automotive body and components for light trucks, multi-purpose, and passenger vehicles; design and testing of vehicular products for regulatory compliance; quality control testing and reliability analysis; automotive products; and program planning for new products. Mr. Keefer is highly experienced in analyzing steering systems, transmissions and controls, suspension, fuel, brake, roof and body structures, and exhaust systems design and development.

Prior to joining Exponent, Mr. Keefer spent 22 years as a manager and engineer at the Ford Motor Company. He worked primarily with light truck products and components and held design, staff, and design analysis engineering positions. Before that, he was a tire test engineer for the General Tire and Rubber Company. He most recently held the position of Manager of Light Truck Design & Manufacturing Analysis Engineering for the company.

**Academic Credentials and Professional Experience**

M.S., Industrial Administration, Purdue University, 1964  
B.S., Mechanical Engineering, Case Institute of Technology, 1962

**Licenses and Registrations**

Registered Professional Engineer, Ohio, #E-032526  
Registered Professional Engineer, Michigan, #6201057358

## **Publications**

Heckman GM, Jackson GW, Keefer RE, Ray R, Harley EM, Young DE. Mechanisms of automatic transmission console shift selection and driver egress. Society of Automotive Engineers 2009 World Congress, April 2009. Paper judged to be among the most outstanding SAE Technical Papers of 2009 and thus further published in the SAE International Journal of Engines, Volume 2, September 15, 2009.

Parker DD, Ray RM, Moore TLA, Keefer RE. Rollover severity and occupant protection—A review of NASS/CDS data. SAE Technical Paper Series, 2007-01-0676.

## **Professional Affiliations**

- Society of Automotive Engineers (member; past Committee Chairman for Occupant, Environment and Safety Systems)