Maintaining Commercial Driver Alertness, Managing Fatigue, Fostering Driver Health and Wellness: Assessment of the National Academies Committee on National Statistics

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At the request of the U.S. Department of Transportation's Federal Motor Carrier Safety Administration (DOT-FMCSA) the NAS-CNSTAT convened a two-year Panel on: Research Methodologies and Statistical Approaches to Understanding Driver Fatigue, Long Term Health, and Highway Safety-Research Needs. Earlier at this Managing Fatigue Conference, Hal Stern, Dan Blower, Feng Guo, and Steven Smith described the CNSTAT Panel's methodology, its examination of the relationship between driver fatigue, hours-of-service (HOS) regulations, crash frequency, and findings concerning data sources.

This presentation addresses the CNSTAT Panel's assessment of information gathered on: a) the linkages between fatigue and health; b) the process of medical certification of driver health, including recent implementation of mandatory use of a national registry of certified medical examiners; c) the particular concerns of commercial drivers who may have obstructive sleep apnea (OSA), and whether OSA leads to more fatigue-related crashes ; and d) other medical conditions and the connection between lifestyle factors and drivers' health and operator fatigue. Next, the Panel identified attempts by regulatory agencies, research and safety advocates, and by commercial carrier employers to proactively assist truck and bus/motorcoach drivers in sustaining *alertness on the job*, to *manage operator fatigue levels*, and to achieve and maintain adequate employee *health and wellness* states. Among the many initiatives, these include: a) modifying HOS rules; b) offering driver fatigue and alertness training programs; c) promoting driver fatigue and risk management programs; d) configuring personal health and wellness education and participation programs for drivers, their families and their employers -- to include self-participating training modules on-line over the Internet; e) developing technological approaches to near real-time alertness monitoring systems; f) configuring bio-mathematical models for use in work-rest scheduling; g) implementing environmental countermeasures such as roadway rumble strips to prevent fatigue-related crashes; and others.

The CNSTAT Panel's perspective on each of the above is offered, followed by making recommendations about the direction subsequent research programs might take in continuing to address significant data voids in the areas of commercial driver health, wellness and related operator fatigue issues.