

## RAILROAD WORKER SAFETY AND HEALTH: INTRODUCTION

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The Federal Railroad Administration's (FRA) Office of Research and Development and the Office of Safety sponsor research and demonstration projects to improve the safety and health of railroad employees. FRA aims to reduce accidents and enhance employee safety and health by reducing the human factors causes of accidents by non-prescriptive programs that function within the regulatory and operational context.

For instance, unlike other transportation modes that directly regulate hours of service, safety critical railroad employees' hours of service are set in federal law. Research on when these employees work and sleep, together with a model of fatigue, has shown that fatigue is prevalent in the industry and is a contributing cause in 25% of human factor accidents. Regulations are needed to maintain a minimum standard of protection from excessive work schedules, but these regulations must be sufficiently flexible to allow railroads to use the available non-prescriptive fatigue risk management strategies appropriate for their operations.

There are approximately 850 fatalities each year involving grade crossing collisions and trespassers. Many locomotive engineers and conductors are exposed to psychological trauma because they have struck, injured or killed someone, which may then lead to the onset of post traumatic stress disorder (PTSD) and its subsequent impact on their operational safety. FRA is identifying "best practices" for early responses to traumatic exposure in the railroad industry to help prevent the onset of PTSD, as well as any negative health or safety consequences due to the traumatic exposure.

Organizational climate is known to influence safety and productivity. In the railroad industry, historic animosities between labor and management have been preserved by laws such as the Federal Employers Liability Act (FELA). FELA, unlike workmen's compensation, puts labor and management in adversarial legal roles when a worker is injured. Moreover, FRA's role as regulator places both labor and management at risk of fines and loss of employment. Consequently, participants in an accident are unwilling to provide candid information about the sequence of events that led to the accident. In the absence of accurate information about the causes of an accident, remedial actions cannot be taken to prevent similar types of accidents from occurring. The Close Call Confidential Reporting System, Behavior-Based Safety, and Root Cause Analysis projects have the common aim of changing the organizational climate in the railroad industry by fostering labor-management-FRA cooperation and trust in activities focused on improving safety (better knowledge of safety risks and action to reduce those risks).

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