

Case Study 18: Industry Group - Transit

Keywords: Program Design / Metrics / In-vehicle Monitoring / Safety Culture / Wellness / Transit

Overview of Industry Characteristics: Transit is a complex undertaking. Large fleets of vehicles must move through public streets on coordinated routes and schedules, consistently and reliably, day after day. The operational challenge is monumental, even for a modest-sized agency. Transit is also a very public undertaking, being publicly funded, providing a public service, and operating large vehicles on public streets. Thus, the nature of transit operations (i.e., coordinated passenger movement in public) dictates an ever-present awareness and concern with safety. Phrases like “Safety – Security – Schedule” used by a transit authority to describe their philosophy capture this priority. Safety programs are usually (but not always) fully integrated into the driver hiring process (referred to as “on-boarding”) and completion is a condition of employment. This situation creates a continuum between safety programs and individual performance/human relations concerns.

Traffic Safety Programs: There is a heavy reliance on packaged/commercial safety programs. Packaged programs, or slightly modified packaged programs dominate the industry. Transit agencies are highly networked with each other and highly risk-adverse. Industry practice is a common criteria and justification for selecting a given program, followed by previous experience with similar systems in other agencies. Modifications, when they are present, are usually hybrids of multiple packaged programs or a modest tailoring of a commercial package.

The primary traffic safety programs used by the transit industry are Smith System, TAPTCO (Transit and Paratransit Company, described as a bus version of the Smith System), and USDOT TSI (USDOT Transportation Safety Institute, TAPTCO is said to be TSI based). Programs are typically delivered as a mixture of classroom training, in-vehicle monitoring, and trainer/supervisor observation of revenue service (picking up fare-paying passengers).

Program Evaluation: Given the “total emersion” of transit authorities in safety, none of the interviewees were contemplating the possibility of terminating their current traffic safety program. They were only making incremental adjustments and/or conducting re-training/remedial training elements. The very idea of a separate safety program, separate from the business of the organization, is not really applicable to public transit authorities.

Metrics for Traffic Safety Program Success: Incidents, including preventable crashes, are meticulously monitored and tracked in the transit industry. Metrics are typically aggregate agency statistics (usually of “preventable crashes”) monitored over time, often along with benchmark statistics from the industry or peer agencies. However, these are most often used to adjust or refine safety programs. As a practical matter, the possibility of terminating a traffic safety program is not an option. This is because the safety programs are a condition of operations and because safety is so ubiquitous and pervasive. Safety is not perceived as a separate thing, apart from the business itself. Some transit authorities post company statistics

as an incentive, to motivate if positive or admonish if not, but most importantly to demonstrate the importance of safety.

In-Vehicle Monitoring: In-vehicle camera monitoring is an important element of transit safety strategies. Typically both driver behavior and external vehicle conditions are monitored. The justification is a mix of liability, driver performance and driver protection (security and exoneration). These systems are seen as a form of “behavior modification through performance triggers” approach, combining monitoring technology with a Smith System philosophy.

Safety Culture: Safety culture is defined here as the recognition and acknowledgment of safety as a core value, with the associated enforcement and support for safety procedures and practices. Safety is integral to transit operations and the transit industry. Consequently, all transit authorities recognize the importance of safety and incorporate it into their corporate culture, even though some do not call it out as a separate element. The “fish in water” metaphor occurred repeatedly in this context. (Fish are totally immersed in water so questions about the water would be meaningless to fish.) Safety culture is reflected in programs like an elaborate three-part program consisting of a hazard identification process for everybody, a “Safety Minute” clinic for operators, and quarterly safety meetings at the management level. Alternatively, in a large authority interviewed, safety culture is conveyed in a “Safety Blitz” which is an organized and coordinated agency-wide action involving training, operations and security groups focusing on incident hotspots (including but not limited to crashes).

Wellness Linkage: The physical and physiological challenges of bus driving are recognized and well understood within the transit industry. Most agencies have some form of wellness program designed for bus operators. These are so fully integrated into the fabric of the transit business that they are not seen as elements of a safety program per se, though the link to safety is recognized.

Key Points for Transit Authorities:

- Transit authorities are highly networked with each other, and highly risk adverse.
- The importance of safety dominates the transit industry.
- Safety culture as defined above (the recognition and acknowledgment of safety as a core value, with the associated organizational enforcement and support) is pervasive in the transit industry, to the extent that sometimes it is not recognized as a separate element of the safety program or safety strategy.
- In-vehicle monitoring is an important element in transit safety programs.
- The linkage between driver safety and wellness programs is longstanding and strong in the transit industry.