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SCAN TEAM REPORT NCHRP Project 20 68A, Scan 14-03

Successful Approaches For The Development Of An Organization-Wide Safety Culture In Transportation Agencies

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Executive Summary

Organizations need to establish safety programs that reinforce behavioral compliance with existing safety policies, procedures, and regulatory requirements (i.e., compliance safety programs) and motivate spontaneous and innovative behaviors that proactively support the safety of others within the organization (i.e., proactive safety programs). However, the success of implementing such programs is dependent on the organization's safety culture. Therefore, it is necessary to understand the factors that support strong safety cultures within organizations.

For this scan, we have adopted a simplified version of the definition of organization safety culture proposed by the US Department of Transportation 1 :

Safety culture within an organization is exemplified by "the shared values and behaviors that demonstrate a commitment to safety over competing goals."

Based on this definition, safety programs can strengthen (i.e. transform) the culture of an organization by several means, including increasing the valuation of safety and expanding behavioral strategies to achieve safety goals. In addition, we suggest that a strong safety culture is also evident from the use of strategies that recognize the role that local culture plays in the engagement of protective or risky behaviors.

Specifically, the focus of this scan was on the organization conditions in which successful programs emerged and the process by which successful programs were implemented.

This scan used a case study methodology whereby the scan team obtained detailed data about safety programs² from a select group of safety-related organizations. Specifically, the team selected these organizations because of their reputation for demonstrating strong safety cultures. The presumption was that factors common to these organizations should be related to their shared ability to establish successful safety programs.

The data collection method involved two phases. In the first phase, representatives of each organization completed a comprehensive questionnaire. In the second phase of data collection, a representative from each organization made a presentation to the NCHRP scan team about their implemented safety programs.

¹ Safety Council (2011), Safety Culture: A significant driver affecting safety in transportation, research paper prepared for the USDOT Safety Council, U.S. Department of Transportation, Washington, DC, p 2

² Safety program refers to a systematic set of actions an organization takes with the intent to improve safety (e.g., reduce reportableinjuries related to work activities).

Consistent with prior research ³,⁴, the data the participating organizations provided revealed several existing contextual factors that appeared to establish the conditions for successfully developing the safety program:

- Employees shared a common bond with organization values and mission.
- The organization's management and leadership are publically committed to safety.
- Safety goals are formalized in organization planning and in strategic documents.
- There is open communication within the organization about safety programs and goals.
- The organization provides safety training for all employees.
- The organization has policies and equipment that promote and support safety in workplace.
- There is low turnover in the organization workforce, including its leadership.
- The organization has a democratic style of management and leadership (i.e., based on worker input).
- The organization emphasizes safety as part of its internal and public image.
- The organization has a vision for the goal (i.e., success) of the safety culture program.
- Many organizational levels are involved in the program's design and implementation.
- Failure of safety can be catastrophic and will affect the organization's public reputation.

It was also apparent that these successful safety programs shared several aspects of program implementation that can be represented by Kotter's⁵ eight-step model for implementing programs to transform organization culture.

³ Austin EK (2010), The possibility of effective participatory governance: The role of place and the social bond, *Public Administration* and Management, 15(1), 221–258

⁴ Sorensen JN (2002), Safety culture: A survey of the state-of-the-art Reliability Engineering and System Safety, 76, 189–204

⁵ Kotter JP (2002), Leading change: Why transformation efforts fail, Harvard Business Review, January, 1–9