



SHORT LINE SAFETY INSTITUTE: 2025 SYSTEMATIC REVIEW

SUMMARY

The Short Line Safety Institute (SLSI) is dedicated to the continuous improvement of safety and safety culture across all “targeted railroads”: short line, regional, passenger, commuter, historic, and tourism railroads in the U.S. Strengthening a railroad’s safety culture may support positive safety outcomes such as less frequent or severe accidents and create a safer working environment. SLSI defines safety culture as the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands, based on the U.S. Department of Transportation (DOT) Safety Council’s safety culture definition (Morrow & Coplen, 2017).

SLSI conducts an annual analysis to assess the status of safety culture in the targeted railroads. This report summarizes findings from a systematic review of the 18 SLSI Safety Culture Assessment (SCA) Reports created in 2025 and discusses trends in industry strengths and opportunities for improvement related to safety culture practices. These strengths (e.g., employees feel comfortable communicating safety-related issues/concerns to management) and Opportunities for Improvement (“Opportunities,” e.g., employees express a desire for more recognition of safe work practices in the field) indicate the status of safety culture in the railroad industry. Lastly, this report introduces new ways SLSI can continue to serve the industry.

BACKGROUND

Since 2015, SLSI has conducted voluntary, non-punitive, and confidential assessments of the safety culture at participating short line and regional freight railroads (i.e., Class II and Class

III railroads) across the U.S. Since FY22, SLSI has also served passenger, commuter, historic, and tourism railroads. SLSI’s multi-method SCA model, which includes interviews, on-site observations, and surveys, provides tangible, action-oriented results for participating railroads.



Figure 1. SLSI created 18 Assessment Reports in 2025

After an SCA, the participating railroad receives an Assessment Report. Organized around the 10 Core Elements of a Strong Safety Culture (Morrow & Coplen, 2017), this report presents “Findings” about the strength of the safety culture at that railroad as well as “Opportunities for Improvement.” After the SCA, SLSI conducts periodic calls and offers technical assistance to railroads that seek to implement SCA recommendations. In addition, SLSI offers follow-up SCAs to further assist participating railroads in tracking progress and continuing to identify opportunities and make safety culture improvements. As of April 2026, SLSI has conducted 183 SCAs.

OBJECTIVE

The objective of the systematic review is to examine the strengths and Opportunities for Improvement in safety culture across the U.S. railroad industry, based on SLSI’s 2025 SCAs. The annual systematic review informs SLSI of industry needs as it continues to develop its programs, resources, and service offerings.



METHODS

SLSI collected and reviewed the 2025 SCA Reports (N = 18; 8 first-time SCAs and 10 second-time SCAs) (see [Figure 1](#)). SLSI analyzed the Findings (both positive and negative) and Opportunities in each report (see [Figure 2](#)).

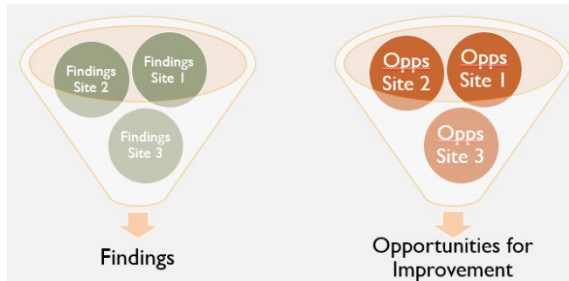


Figure 2. Findings and Opportunities for each site were identified

Report Elements: The Findings are the assessors' descriptions of safety culture indicators for a given railroad. These indicators are based on the 10 Core Elements of a Strong Safety Culture (Morrow & Coplen, 2017). SLSI aggregated, analyzed, and then classified the Findings as either positive or negative across the reports.

The Findings classified as “positive” show where a railroad demonstrates a characteristic supporting strength in safety culture. The Findings classified as “negative” identify a weakness in characteristics supporting a strong safety culture, indicating an area for improvement. Following the Findings in the SCA Assessment Reports, assessors list Opportunities that suggest organizational changes or actions that, if implemented, may strengthen a railroad’s current safety culture. Assessment Reports present Opportunities that address any identified gaps in safety culture (i.e., negative Findings). For example, a Finding may note the absence of a safety committee. Subsequently, an Opportunity may be that the railroad could establish a safety committee involving all departments, using a protocol that defines the roles and responsibilities for

committee members and communicates that information to employees.

ANALYSIS

The strengths and Opportunities for Improvement in safety culture identified in the reports were reviewed, themed, and coded into a two-level categorical hierarchy (see [Figure 3](#)). The prevalence of themes and the categories that comprised them were then estimated by calculating their frequencies across reports. The high-level themes identified in these reports closely align with safety culture constructs that have previously been established in the scientific literature. These themes and their measures have further been adapted and used as part of the SCA process (Kidda & Coplen, 2016).

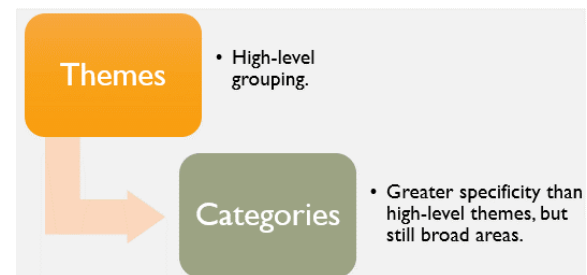


Figure 3. Overview of the data hierarchy

RESULTS

Frequency analyses revealed the prevalence of the strengths and Opportunities for Improvement as organized by the safety culture categories. Key results in order of prevalence (most to least) are listed below.

Safety Culture Strengths:

- Helping Coworkers: Employees are consistently willing to assist each other in understanding and performing safety-related work tasks.
- Approaching Management with Safety Concerns: Employees feel comfortable communicating safety-related issues/concerns.
- Employee Empowerment: Employees feel empowered to work safely.



- Provision of Personal Protective Equipment (PPE): Railroads provide PPE to employees as needed and it is readily available.
- Leadership/Management Field Presence: Senior leadership and management members are often seen in the field.

Safety Culture Opportunities for Improvement:

- System for Reporting Safety Concerns/Resolutions: Some railroads could improve their systems for tracking and reporting employee concerns and resolutions to these concerns.
- Housekeeping: The organization or maintenance of the property at some railroads could be improved.
- Safety Action Plan (SAP): Some railroads could create an SAP or make improvements to or better communicate an existing one.
- Recognition of Safe Work Practices: Some employees express a desire for more recognition (beyond awards) and reinforcement in the field for engaging in safe work practices.
- Safety Vision: Some railroads could create a safety vision or better communicate an existing one.

CONCLUSIONS

SLSI's systematic review of 18 Safety Culture Assessment Reports from 2025 suggests there are prominent strengths in safety culture across the short line and regional railroad industry, such as employees feeling comfortable approaching management with safety concerns and feeling empowered to work safely. However, there are also noteworthy Opportunities for Improvement that require attention, such as a need for creating SAPs and greater recognition of safe work practices while in the field. By assessing safety culture and examining the practices of U.S. railroads, SLSI can gain insight into the industry at large and take action to create and offer resources that address identified railroad safety Opportunities for Improvement.

FUTURE ACTION

Actions being taken based on this year's review are described below. SLSI is also considering additional ways to provide direct guidance on these topics.

An SAP is a living document that shows what a railroad has done and what it is planning to do regarding safety. It also assigns accountability and tracks progress on safety initiatives. SLSI continues to emphasize the importance and function of an SAP during interactions with participating railroads, including during post-assessment calls, and welcomes questions and requests for technical assistance. Given that gaps in SAPs have been a recurring Opportunity for Improvement, SLSI also hosted a well-attended webinar to provide additional guidance on the topic. Templates for developing an SAP, as well as the webinar recording, are available on SLSI's website.

A safety vision is a statement or slogan that is a guiding principle for the organization, connecting employees to a shared purpose of safety. When employees at every level are familiar with and aligned to the safety vision, safety can become a collective value rather than a top-down mandate. Posting the safety vision throughout the organization (e.g., in common areas, on equipment, in communications) helps keep it visible and top of mind in daily operations. SLSI continues to emphasize the importance of a clearly defined and communicated safety vision during interactions with railroads, including during post-assessment calls, and is always available for additional assistance.

Housekeeping, such as the proper storage and organization of tools, proper signage, clear walkways, etc., has been an Opportunity since 2020. To address this need, SLSI created two videos on facility and vehicle housekeeping to be displayed on railroad monitors. Assessors also distribute housekeeping checklists after a SCA so railroads can conduct their own reviews and learn more about what is included under the term "housekeeping."



During the final Close-Out meetings with railroads at the end of an SCA, SLSI assessors provide a Safety Culture Resource Guide comprised of hard copies of its various online resources and pages of templates and best practices. They help promote more meaningful discussions in these meetings around how to use SLSI resources and where they are located online. Assessors can answer questions and help clarify the intended use of these resources. In addition, SLSI is working to strengthen its post-assessment follow-up process to help ensure railroads have the knowledge, skills, and abilities to act on findings from their assessment.

REFERENCES

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