

Improving Bus Transit Safety Through Rewards and Discipline

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TRANSIT COOPERATIVE RESEARCH PROGRAM

TCRP SYNTHESIS 97

**Improving Bus Transit
Safety Through Rewards
and Discipline**

A Synthesis of Transit Practice

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the Transit Development Corporation

TRANSPORTATION RESEARCH BOARD

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TRANSIT COOPERATIVE RESEARCH PROGRAM

The nation's growth and the need to meet mobility, environmental, and energy objectives place demands on public transit systems. Current systems, some of which are old and in need of upgrading, must expand service area, increase service frequency, and improve efficiency to serve these demands. Research is necessary to solve operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the transit industry. The Transit Cooperative Research Program (TCRP) serves as one of the principal means by which the transit industry can develop innovative near-term solutions to meet demands placed on it.

The need for TCRP was originally identified in *TRB Special Report 213—Research for Public Transit: New Directions*, published in 1987 and based on a study sponsored by the Federal Transit Administration (FTA). A report by the American Public Transportation Association (APTA), *Transportation 2000*, also recognized the need for local, problem-solving research. TCRP, modeled after the longstanding and successful National Cooperative Highway Research Program, undertakes research and other technical activities in response to the needs of transit service providers. The scope of TCRP includes a variety of transit research fields including planning, service configuration, equipment, facilities, operations, human resources, maintenance, policy, and administrative practices.

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The TCRP provides a forum where transit agencies can cooperatively address common operational problems. The TCRP results support and complement other ongoing transit research and training programs.

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FOREWORD

Transit administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to the transit industry. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire transit community, the Transit Cooperative Research Program Oversight and Project Selection (TOPS) Committee authorized the Transportation Research Board to undertake a continuing study. This study, TCRP Project J-7, "Synthesis of Information Related to Transit Problems," searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute a TCRP report series, *Synthesis of Transit Practice*.

This synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

By Donna L. Vlasak
Senior Program Officer
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Research Board

This synthesis addresses the current practices and experiences of public transit agencies in applying both corrective actions and rewards to recognize, motivate, and reinforce a safety culture within their organizations. The synthesis may be used to aid public transit agencies and other stakeholders in deciding how to proceed in this area.

A literature review summarizes reports and documents, addressing the connection between employee safety performance and reward programs, as well as the effectiveness of reward/discipline initiatives in transit organizations. The survey of selected transit agencies yielded an 83% response rate, 25 of 30. Follow-up telephone interviews held across the country included a range of small to large transit agencies, rural and urban, and multimodal systems and addressed such issues as organizational commitment to safety, engagement of the work force, labor partnerships, safety standards and practices, rewards and discipline, and operations and maintenance.

Nine case studies offer additional insight on active and innovative practices and related issues on the use of reward and discipline programs to promote and improve bus transit safety. Case study agencies were: Dallas Area Rapid Transit (Texas); Fayetteville Area System of Transit (North Carolina); GO Transit (Ontario, Canada); King County Metro (Seattle, Washington); Minnesota Valley Transit Authority (Twin Cities, Minnesota); River Cities Public Transit (Pierre, South Dakota); SouthWest Transit (Eden Prairie, Minnesota); Utah Transit Authority (Salt Lake City, Utah); and Wind River Transportation Authority (Riverton, Wyoming).

Jay Goodwill and Amber Reep, Center for Urban Transportation Research, University of South Florida, and Randall Pine, Pine and Associates, Inc., collected and synthesized the information and wrote the report, under the guidance of a panel of experts in the subject area. The members of the topic panel are acknowledged on the preceding page. This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As progress in research and practice continues, new knowledge will be added to that now at hand.

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Note: Many of the photographs, figures, and tables in this report have been converted from color to grayscale for printing. The electronic version of the report (posted on the Web at www.trb.org) retains the color versions.

IMPROVING BUS TRANSIT SAFETY THROUGH REWARDS AND DISCIPLINE

SUMMARY Safety is a paramount concern for all transit operations. Public transit agencies have used a combination of rewards and corrective actions to recognize, motivate, and reinforce a safety culture within their organizations. Although this project was intended to document current practices in bus operator safety with a focus on rewards and discipline programs, it does not attempt to make any determination as to recommended or best practices.

Progressive discipline is widely used in the transit industry and offers employees and management alternatives that may reduce negative behavior. The process that an employer may utilize consists of a series of consequences, increasing in severity over time, which may result in a modification of any negative behavior, including misconduct, poor performance, violations of company policy, absenteeism, and tardiness.

Traditionally, progressive discipline has been used to address safety-related performance deficiencies and to correct behaviors that have led to unsafe acts. Now, however, a growing number of transit systems have begun to offer incentive programs rewarding employees or groups of employees who have achieved safety and performance milestones. Importantly, new and innovative safety programs are emerging to motivate and engage a diverse and changing workforce. This synthesis can be used to aid public transit agencies and other stakeholders in deciding how to proceed in this area.

A literature review on the use of rewards and discipline programs for bus operators in the public transit industry, a survey of 30 North American transit agencies with active bus operator safety programs, and case examples of selected transit agencies were undertaken to document the state of the practice, including lessons learned and gaps in information.

Each of the selected transit agencies was sent a link to the online survey explaining the purpose and importance of the survey. Follow-up e-mails were sent approximately two weeks after the original contact to encourage participation. Partial responses were received from the candidate transit agencies; however, a closer examination revealed that only 25 of the responses were substantially complete, resulting in a response rate of 83.3%.

The literature review and survey results provided a wealth of detailed information on the core issues related to bus operator safety programs. Following the review and analysis of this information, nine transit agencies, eight from the United States and one from Canada, were selected as case example sites. The case examples provided additional detail and insight on active and innovative practices and related issues on the use of reward and discipline to promote transit safety.

The major findings of this synthesis included:

- Every participating transit agency in the study emphasized the importance of safety in its mission and in its operations. Differences between agency approaches to safety were obvious in the variation of methods and level of agency commitment directed toward accomplishing the agency's safety goals.

- The presence of a disciplinary code for safety-related matters was a constant among all agencies. All approaches were progressive in nature with exceptions only for the most serious of safety-related offenses. Determining the effectiveness of discipline as a method for improving safety was recognized as difficult for a number of reasons, most notably the absence of a control group (i.e., an agency that does not have a disciplinary code by which to compare). Because disciplinary policies are rarely changed, a pre-/post-evaluation of the effectiveness of the change is also difficult to evaluate.
- Based on the survey responses and case examples, safety incentive programs appear to be successful when used in conjunction with an existing safety program. An effective safety incentive program encourages employees to exceed the expectations of the program. These programs raise awareness of the organizations' commitment to safety. Additionally, safety programs can engage and educate employees, encourage positive behavior change, and reward and recognize employees for contributing to a safe work environment.
- Transit agencies have used a variety of reward programs in conjunction with corrective action procedures to reinforce organizational safety culture. Based on the findings, agencies that incorporated employee safety reward programs find the programs to be effective tools to improve employee morale, motivate employees to work safely, and help to improve the employee-employer relationship. These affirmative approaches to safety management, along with the assimilation of consistent discipline programs, have been reported by respondents to be model programs.
- Owing to decreasing budgets and increasing operating costs, many transit systems were unable to maintain or implement transit operator reward programs.
- Although only a few of the agencies that participated in this study have active employee health and wellness programs, additional research could be conducted to determine if there is evidence to support the need for workplace wellness programs, and to identify any possible benefits associated with these programs. Although there are no empirical data related to the transit industry, the agencies that have comprehensive employee health and wellness programs report increased morale, reduced turnover and less absenteeism.
- A number of agencies reported success, some noting measured success, with reward or incentive programs. A variety of program elements were mentioned, including group awards, individual awards, goal-setting, competition, public display of performance, short-term and long-term awards, recognition and sponsored social functions. Also included in the survey findings was the successful use of incentives for those agencies that utilized a contracted service provider with actual performance measured against agency-set performance standards. This was used to trigger penalties or incentive payments through the contractor.
- The study does not draw conclusions on the effectiveness of disciplinary programs on improving transit safety. It does provide some evidence that those participating agencies that recently implemented some form of reward or incentive program that incorporates safety have met with some degree of success. No conclusion can be drawn between any measure of success and individual reward program elements. However, it is important to note that a common theme among the successful award programs is that they were "recent" implementations. This could indicate that a shift in focus from the status quo to a new program might, in itself, result in participants paying more attention to program goals—a solid foundation for any program to build on.

This analysis suggests that additional research opportunities and efforts might be undertaken to measure the effectiveness and benefits of employee incentive programs and to identify industry specific discipline programs' best practices. Potential areas for future research include:

- A scientifically controlled research study to evaluate the effectiveness of rewards and incentives in reducing accidents. Although research collected during this project suggests that the two programs, developed and incorporated with the participation of the employer, employee, and union, can work effectively, additional research might be conducted to make conclusions based on a larger sample size and quantifiable statistical safety data.

- Research directed toward the development of a standardized, participative process to implement program or policy changes aimed at improving safety. This effort might detail what employee input and participation are necessary to develop successful and effective reward/incentive programs.
- Research conducted to examine the opportunities that may exist for public transit agencies that contract with service providers to use rewards and penalties within the contract structure for improving safety and overall performance.
- Research into whether, and to what degree, health and wellness programs factor into an organization's safety program. Additional research to measure the value of a workplace wellness program to organizational safety and to identify any correlation between these programs and the effects on employee absenteeism, health care costs, work-related injuries, employee morale, and retention is indicated.
- Other departments within a transit system contribute to the organization's safety culture. Research conducted to identify successful practices of developing and enhancing the overall safety culture of transit agencies, expanding the focus to all aspects of the organization, not just bus operators, is also indicated.

CHAPTER ONE

INTRODUCTION**OVERVIEW**

This synthesis addresses the current practices and experience of public transit agencies in applying both corrective actions and rewards to recognize, motivate, and reinforce a safety culture within their organizations.

This synthesis project surveyed and interviewed a range of small to large transit agencies, including rural and urban multimodal systems. The survey and follow-up interviews addressed the following items:

- Organizational commitment to safety
- Rewards and discipline
- Engagement of the work force
- Partnerships with organized labor
- Operations and maintenance
- Agency safety standards and practices
- Other industry examples.

METHODOLOGY

The approach to this synthesis included a literature review, a survey of transit agencies, and telephone interviews with transit agencies selected as case studies.

A literature review was conducted with a focus on the current state of the practice in the use of rewards and discipline programs for bus operators in the public transit industry. This effort included an on-line search of the Transportation Research International Documentation (TRID) and other relevant databases (e.g., industry, university, and government sources). In addition, conference proceedings and trade magazines were reviewed to obtain relevant papers and presentations. The results of the literature search are summarized and included in chapter two.

The online survey “Improving Transit Safety through Rewards and Discipline” was designed to elicit information on each organization’s safety policies, safety discipline programs and safety incentives and rewards programs. A targeted list of 30 North American transit agencies with active bus operator safety programs was identified based on recommendations from TCRP panel members, trade organizations such as APTA and the CTAA, and agencies identified

in the literature review. Each of the selected transit agencies was sent an e-mail with a link to the online survey instrument; follow-up e-mails were sent approximately two weeks later. Twenty-five of the responses were substantially complete, a response rate of 83.3%.

Based on the information obtained through the literature review and survey results, telephone interviews were conducted with selected transit agencies and used as case examples. The case examples provide additional detail and insight on active and innovative practices and related issues on the use of reward and discipline programs to promote and improve bus transit safety.

REPORT ORGANIZATION

This synthesis report is composed of five chapters, including the introduction provided in this chapter.

Chapter two presents the findings of the literature review. This effort focused on reports and documents addressing the connection between the effectiveness of reward/discipline programs in transit organizations and employee safety performance and reward programs.

Chapter three includes the results of an on-line survey of 30 U.S. and Canadian transit agencies identified as having active and innovative safety programs. The survey focused on collecting information on the organization’s commitment to safety, reward and discipline programs, and agency safety standards and practices.

Chapter four provides findings of nine case examples highlighting those agencies that have active safety programs that successfully use employee rewards and discipline programs to improve safety for bus operations.

Chapter five includes a summary of lessons learned, presents conclusions, and offers suggestions on future research.

Appendix A is a copy of the survey as it appeared online.

Appendix B provides a list of the transit agencies that participated in the survey.

CHAPTER TWO

LITERATURE REVIEW

This chapter summarizes the findings from the literature review of reports and documents that address the connection between reward programs and employee safety performance, as well as the effectiveness of reward and discipline programs in transit organizations.

A literature review of the topic identified one study that establishes a “definite link” between a transit behavioral intervention program and a reduction in the rate, severity, and cost of accidents. Additionally, a number of studies tangential to transit also appear to establish a connection between “consequence management” programs and practices (i.e., involving the systematic application of reward and discipline) and performance.

Component elements linked to the success of these programs and practices generally include incentives, training, goal-setting, feedback, positive reinforcement, teams, behavioral intervention, management support, organizational culture, employee awareness, and accountability. Each element is designed in some way to influence both the skill level and subsequent motivation of the employee to actively apply those skills. Noticeably lacking are published studies that isolate and equate disciplinary action with individual or organizational improvement.

Feyer and Williamson (1998) noted that “incentives must be distinguished from unexpected rewards. Incentive programs differ from safety engineering and safety education by attempting to strengthen the *motivation* to be safe.” Their suggestion was that expected rewards would tend to motivate safety behaviors in a way that unexpected rewards, system engineering, and training would not. Therefore, the use of rewards as an incentive would necessitate that the reward be defined in advance, publicized, and tied directly to performance.

Mejza et al. (2003) concluded that evidence exists linking reinforcement action to transportation safety outcomes. They cite Geller (1998) as concluding, “Reinforcement activity is characterized by antecedent events (incentives and disincentives) and/or consequent events (rewards and penalties) that can be used in combination to support specific behavior intervention strategies.”

McAfee and Winn (1989) reviewed 24 studies of those programs that have used positive reinforcement and feedback to enhance safety. They concluded that all studies found that

incentives or feedback were successful, to some degree, in improving safety conditions or accident reduction. Chhokar and Wallin (1984) confirmed the applicability of a behavioral approach to safety as part of a more comprehensive approach that included training, goal-setting, and feedback.

One published study by Beaudry et al. (2006) examined the effects of an incentive program at a small, non-profit transit agency on driver performance, including at-fault accidents. The study concluded that incentives resulted in improved driver performance at a private, nonprofit agency.

Guzzo and Dickson (1996) promote the idea that the utilization of a team approach is effective in enhancing the safety performance of both the individual and the team in general. Teams, by design, incorporate motivational elements of peer pressure within the team and an element of competition between teams if results are shared.

Miozza and Wyld (2002) reaffirmed a standing belief that the success of both behavior-based and incentive-based programs correlate to the degree of support from upper management. Cooke and Rohleder (2006) provided a model whereby managers are shown to be motivated to move the safety performance of employees from normal to high reliability through the use of a safety incident learning system.

Dilley and Kleiner (1966) expanded their study beyond management support and link the organization culture to maintaining safety, including employee awareness and accountability. The study even linked employee driving safety behavior to the individual’s perception of the fleet manager’s safety attitude.

Short (2007) cites Uttal (1983) relating organizational culture and, intuitively, its relationship to safety as “shared values (what is important) and beliefs (how things work) that interact with an organization’s structure and control systems to produce behavioral norms (the way we do things around here).” However, Clarke (2000) noted that “academic discussions in this area suggest that the concept remains vague, lacks empirical validation and is used as an ‘umbrella term’ for all social and organizational factors that affect accident rate.”

A connection between employee safety performance and reward programs appears to exist, substantially influenced by the safety culture of the organization, including manage-

ment's perception of safety. However, the effectiveness of the reward/disciplinary program or practice is difficult, if not impossible, to measure because systematic or on-going programs in general have no control group or baseline with which to compare results. Although disciplinary programs in transit organizations tend to be more commonplace than reward programs (in part because the organizations may face liability issues if they do not establish a disciplinary procedure), current studies that draw conclusions as to their effectiveness in improving transit safety appear to be nonexistent.

TRANSIT INCENTIVE PROGRAM CONTEXT

TCRP Synthesis 3: Incentive Programs to Improve Transit Employee Performance (Hartman et al. 1994) examined the concept of linking employee compensation or recognition to specific accomplishments in the public transit industry. For the purpose of the synthesis, incentive programs were considered to be those that provide a one-time cash payment, gift, or recognition for a particular job.

The report detailed that the structure of the incentive programs reviewed generally included:

- The definition of the accomplishment to be recognized
- The population eligible for recognition
- The period of time over which the performance will be rewarded
- Provisions for measuring and evaluating accomplishments
- The program budget
- The mechanism to review the program effectiveness.

The synthesis report highlighted some of the challenges that incentive programs in the public sector encountered in contrast to private sector programs. These challenges included:

- The public sector programs' shortage of profits, which are typically used to both measure the program and fund the private sector incentive programs
- The public sector's need to be accountable to the taxpayers, making it difficult to justify the "extra pay"
- The public sector's tendency not to differentiate among employees
- The difficulty of data collection to measure and justify the incentive
- The difficulty in defining performance measures that are objective and within the employee control
- The acceptability of the incentive rewards in the context of collective bargaining agreements.

Among the report's conclusions were that the incentive programs tended to operate in isolation, received mixed reviews, most commonly dealt with safety and absenteeism, and had limited documentation of program results.

OTHER INDUSTRIES AND INCENTIVES

Similar observations were made in other industry examples where incentives are part of an organizational attempt to institutionalize motivation toward safe behaviors. Prichard notes that "the effect of rewards on motivation and performance is a well-studied subject in both management and safety literature. A majority of U.S. businesses use some sort of safety incentive, and most safety professionals believe that they are an important element in any safety and health program." For example, "Even research of best practices within the Construction Industry (conducted by the Construction Industry Institute) indicate that the inclusion of incentive programs among the top ten practices was based on popularity of use, not on demonstrated effectiveness" primarily because "most programs have not been formally evaluated, examined or measured. Effectiveness . . . is generally based on anecdotal evidence."

CHAPTER THREE

SURVEY RESULTS

The primary focus of this synthesis project was to document the effectiveness of bus operator rewards and discipline programs on bus transit safety. As part of this effort, an on-line survey was sent to 30 U.S. and Canadian transit agencies pre-identified as having active and innovative safety programs. The survey focused on collecting information from transit systems on their organization's commitment to safety, reward, and discipline programs, and agency safety standards and practices.

The survey's three focus areas included:

- The Organization and Safety
- Organizational Policies Related to Safety Discipline
- Safety Incentives and Awards.

This chapter describes the process used to conduct the survey and summarizes the results.

METHODOLOGY

The online survey "Improving Transit Safety through Rewards and Discipline" was designed to elicit information on each organization's safety policies, safety discipline programs, and safety incentives and rewards programs. Once finalized by the TCRP synthesis Topic Panel, the survey was posted online and pretested by three transit agencies. The pretest resulted in minor changes to the survey. The final survey is included in Appendix A.

A targeted list of transit agencies with active bus operator safety programs was used in this effort. These candidate transit agencies were identified based on recommendations from TCRP panel members, trade organizations such as APTA and CTAA, and from agencies identified in the literature review. The project team contacted the candidate participants to gauge their interest and willingness to participate in the study effort and to identify an agency contact person.

Thirty transit agencies were identified to participate in the synthesis study. Each of the selected transit agencies was sent an e-mail explaining the purpose and importance of the survey and providing a link to the online survey instrument. Follow-up e-mails were sent approximately two weeks after the original contact to encourage participation. Complete responses were received from 25 of the 30 candidate transit agencies, a response rate of 83.3%. The list of the 25 respondents is included in Appendix B.

It should be noted that several figures included later in this chapter incorporated responses from those surveys deemed incomplete. Therefore, there is representation from more than the 25 responses deemed substantially complete.

OVERVIEW OF RESPONDENTS

The analysis of the 25 responses categorized as "substantially complete" revealed a good balance in transit agency size and geographic location. The respondents were located in 14 U.S. states, the District of Columbia, and Canada. Table 1 and Figure 1 show the respondents' disbursement.

In addition, the size of the responding transit systems was examined using the National Transit Database. Systems were subdivided into four groups based on their annual passengers transported. As detailed in Table 2, a good cross section of transit agency sizes was represented in the survey respondents.

Finally, the responding systems were examined to determine the types of transit services that each agency provided.

Figure 2 indicates that the responding transit agencies all operated fixed route bus service, most also provided para-transit services, and several operated heavy rail, light rail, commuter rail, and/or bus rapid transit.

Figure 3 provides a summary of the types of areas served by the respondents.

Overall, the respondents represent a good cross section of service modes and service areas.

THE ORGANIZATION AND SAFETY**Organization Mission Statements and Culture**

A mission statement is a formal, written statement clearly identifying the purpose of a company or organization. The objective of a mission statement is to provide a framework for decision making, identify organizational goals, and provide a sense of organizational direction. In addition to defining the purpose of a company or organization, the public transit industry uses mission statements to create the organization's overall culture and typically includes specific language about safety, mobility, impact on the environment, and the economy.

TABLE 1
GEOGRAPHIC DISTRIBUTION OF RESPONDENTS

Geographic Distribution			
	State/Country	No. of Respondents	Percent of Respondents
1	FL	7	28
2	CA	2	8
3	TX	1	4
4	WA	1	4
5	MN	2	8
6	NY	1	4
7	OH	1	4
8	IN	1	4
9	KY	1	4
10	IL	1	4
11	CT	1	4
12	NC	1	4
13	VT	1	4
14	UT	1	4
15	DC	1	4
16	Canada/ON	2	8
	Total	25	100

As part of the “Improving Transit Safety through Rewards and Discipline” survey, several questions were proposed to respondents about their organization’s mission statement.

The first survey question simply asked respondents if their agency had a mission statement. All survey respondents indicated that their transit system had a mission statement (Figure 4).



FIGURE 1 Locations of North American transit operators participating in study.

An important follow-up question inquired if the topic of safety was declared in the mission statement. Only 58.6% of respondents indicated that safety was mentioned in their agency’s mission statement (Figure 5).

Critical to the effectiveness of any mission statement is that employees not only know what the mission statement is, but that its essence permeates the organization. When asked if and where the agency mission statement was posted or displayed within their agency, 71.6% of the respondents reported that their agency’s mission statement was posted within their organization or included in organizational documentation.

Table 3 provides a summary of the responses identifying how the agencies incorporate the agency mission statement within the organization.

System Safety Program Plans

According to APTA,

the primary purpose for the existence of a transit system is to move people safely. To accomplish this goal, an individual transit system must be able to identify all hazards in order to eliminate, minimize, or control them, and identify all safety-related responsibilities, delegating these responsibilities to the proper units within the organization and providing these units with the resources to carry out their assigned responsibilities. A transit

TABLE 2
RELATIVE SIZE OF RESPONDENTS

Size System	Annual Passengers Carried		
	No. of Respondents	Percent of Responses	Definition (annual passengers)
Small	11	44	up to 10 million
Medium	6	24	10–20 million
Large	3	12	20–50 million
Mega	5	20	>50 million

system has the responsibility of applying operating, technical, and management techniques and principles to the safety aspects of the system throughout its life cycle to reduce hazards to the lowest practical level through the most effective use of available resources. This process is known as system safety.

A transit system establishes a System Safety Program Plan (SSPP) (or similar document) by formalizing this process in a written document. Although such a plan is not a federal requirement, many states require the development,

incorporation, and maintenance of a transit SSPP. All survey respondents indicated that their agency has a written SSPP or similar document (Figure 6).

The topic of transit safety has evolved over time and, in many cases, is now a key performance indicator for transit systems. As a result, the transit industry, along with many other safety-oriented industries, including the nuclear industry, developed the concept of “safety culture,” a term that

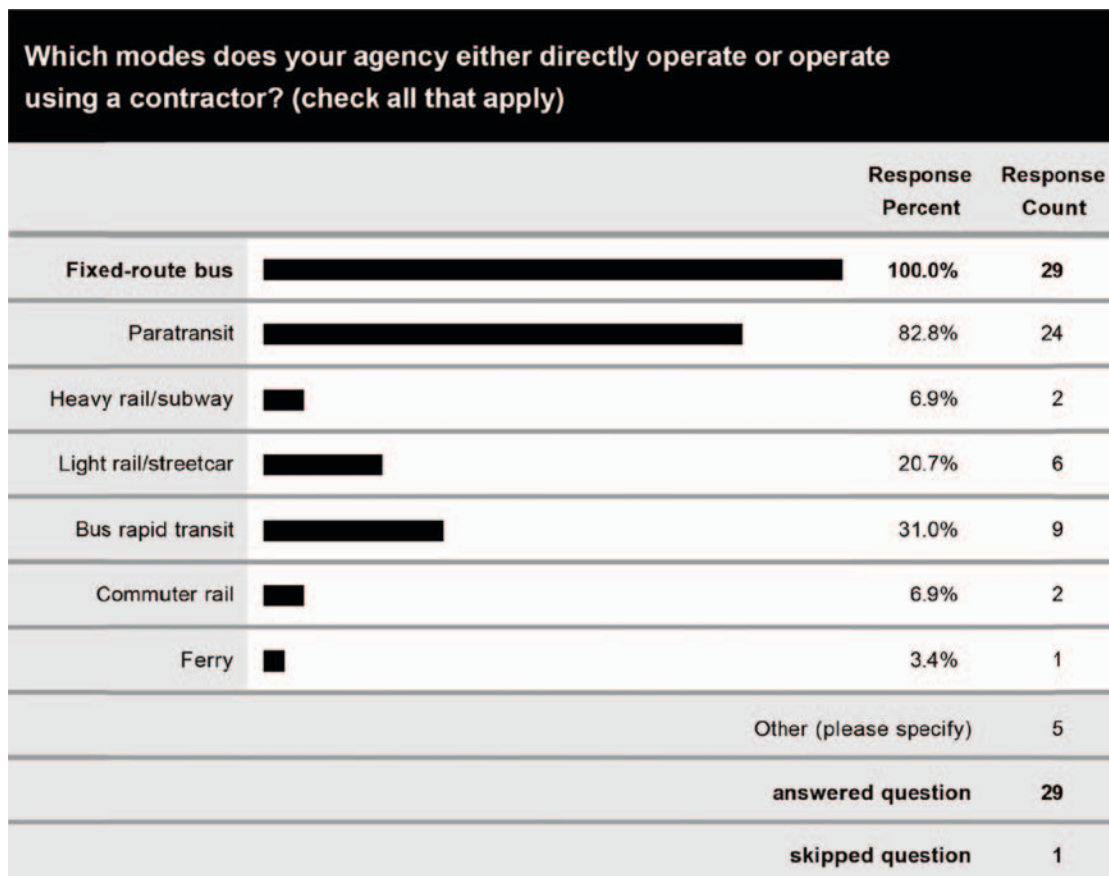


FIGURE 2 Types of services provided.

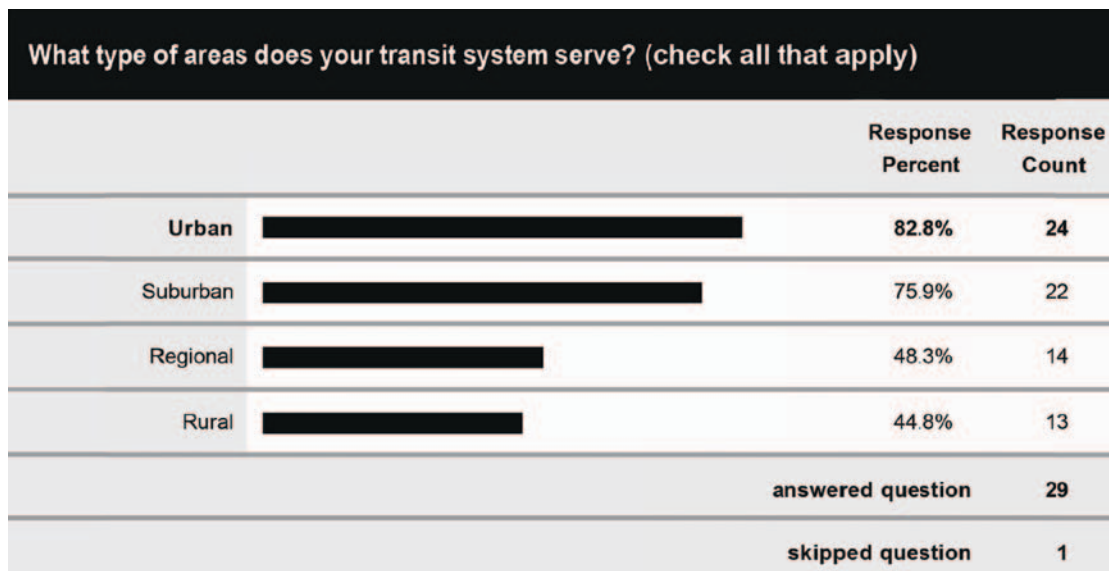


FIGURE 3 Types of areas served.

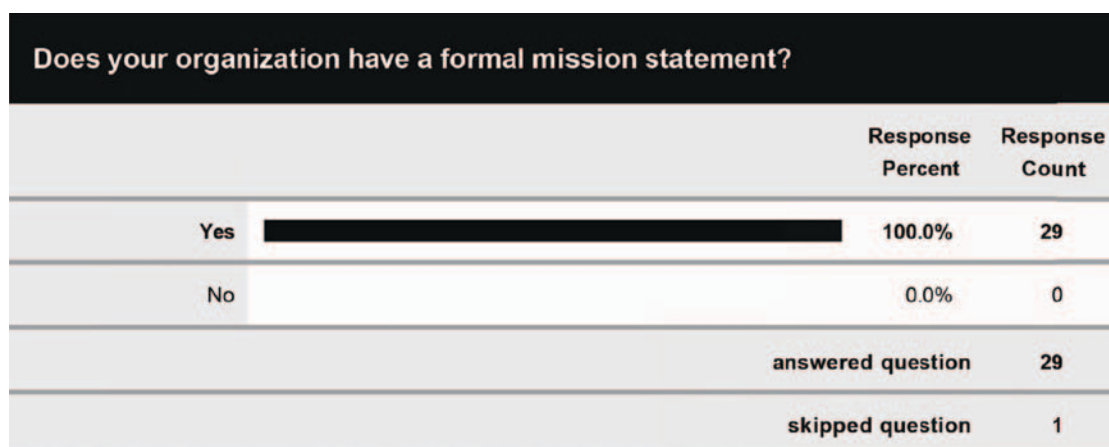


FIGURE 4 Agency mission statement.

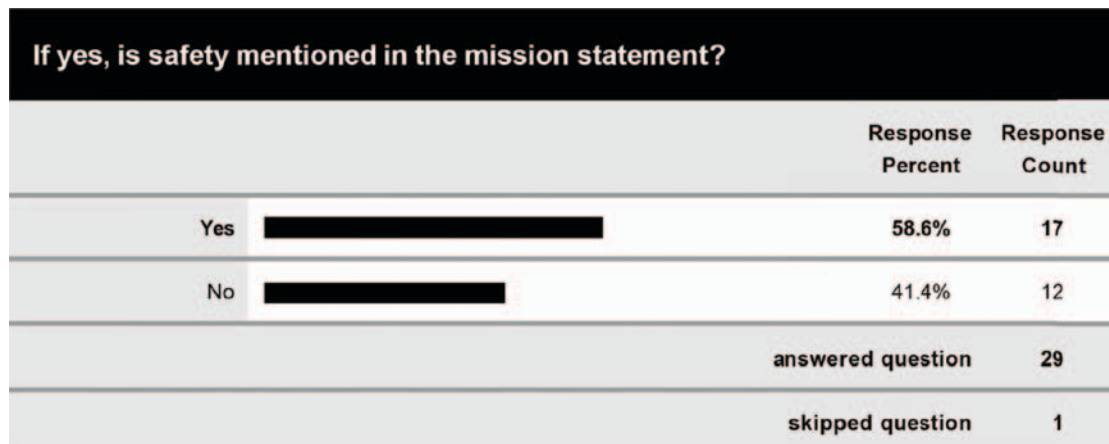


FIGURE 5 Mention of safety in mission statement.

TABLE 3
USE OF THEIR MISSION STATEMENT

Agency	State	Lobby	Office Building/ Hallway	Website	Annual Reports	Intranet	Business Cards	E-Signature (emails)	Marketing Documents (bus schedules, service directory)	Internal Materials	Not Posted
Go West Transit	IL			√					√	√	
IndyGo	IN	√	√								
South West Transit	MN	√									
Rural Community Transportation, Inc.	VT				√				√		
Lee County Transit	FL										√
Southwest Ohio Regional Transit Authority	OH			√							
Minnesota Valley Transit Authority	MN										
Sacramento Regional Transit District	CA		√				√				
Pinellas Suncoast Transit Authority	FL		√	√							
Houston Metro	TX		√								
WMATA/Metro	DC		√	√		√				√	
LYNX	FL									√	
Broome County Transit	NY	√	√							√	
TARC	KY		√								
KC Metro	WA										√
Utah Transit Authority	UT		√			√	√			√	
Foothills Transit	CA		√				√				
Greater Bridgeport Transit	CT		√							√	
HART	FL		√	√				√			
Fayetteville Area Transit	NC	√	√	√							
Miami-Dade Transit	FL	√	√	√							
York Region Transit	Can	√	√	√			√				
Manatee County Transit	FL	√	√			√				√	
Space Coast Area Transit	FL									√	
GO Transit	Can	√	√						√		

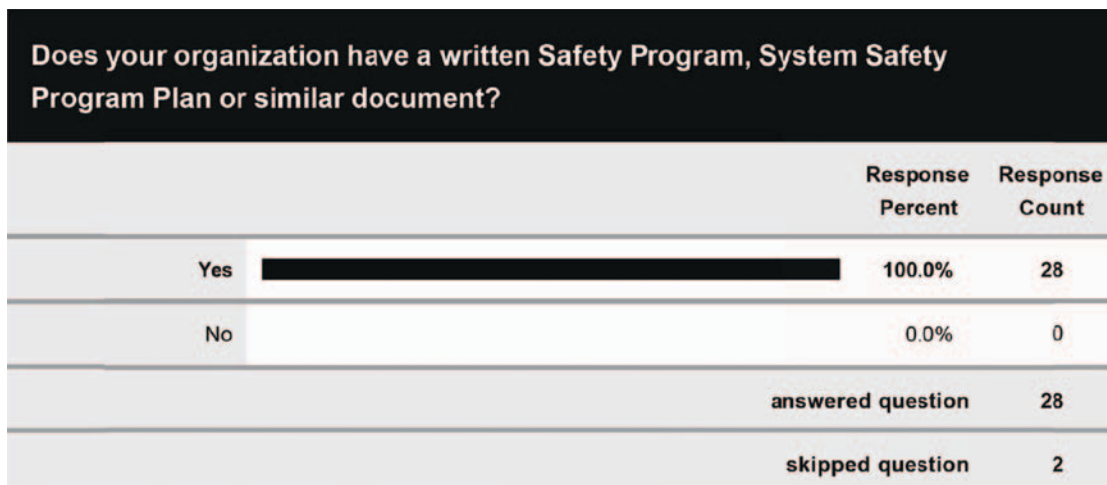


FIGURE 6 System safety program plans.

originated sometime in the late 1980s. Safety culture is often used to describe the way in which safety is managed in an organization, and typically echoes the mission, attitudes, perceptions, and principles valued by employees as they relate to safety.

The SSPPs typically include requirements for regular updates and revisions. The plans also detail specific responsibilities for the operating units within the agency. The endorsement of the plan by the agency general manager is a common requirement.

In most medium to large transit agencies, responsibility for plan oversight and management is assigned to safety, security, risk, and/or training departments, with those duties typically assigned to directors of operations or maintenance in smaller systems. While one office or individual is usually assigned lead responsibility, most agencies employ some form of designated safety committees.

Most of the respondents providing details used an internal safety committee as a method of communicating and evaluating safety-related incidents and accidents. In each agency, the safety committee was an organizational structure where members represent a group of employees. However, the size of the safety committee and the membership varied. Although survey respondents were not specifically asked to provide detailed information about their safety committees, additional information was extrapolated from case example interviews. Most agencies reported that safety committees included a mix of representatives from both organized labor (if applicable) and management, and typically would include a safety officer, lead trainer, transit supervisor, maintenance representative, and bus operator representative (peer). Many of the respondents indicated that having membership diversity on the safety committee was advantageous, leading to better overall participation and providing the employees with a sense of ownership of the agency’s safety program.

Employee Involvement

The existence of a SSPP does not ensure effective self-implementation and regulation. The key to any safety program is employee (i.e., employees, unions) “buy-in” (i.e., acceptance of and commitment to the plan). Some research has shown that behavior-based safety can be an excellent means of increasing employee involvement, encouraging peers to provide safety and risk feedback to one another. With proactive management of occupational safety and risk, employees are praised for safe behaviors, reinforcing them.

With the concept of “buy-in” in mind, survey respondents were asked several questions about union and employee involvement and education of the agency’s SSPP.

Figure 7 reveals that 50% of survey respondents included organized labor unions in the application of organizational safety programs or processes. Additionally, most of the respondents who indicated that organized labor unions are involved in the application of the agency’s safety programs/process noted their involvement through regular participation in monthly or quarterly safety committees meetings.

As detailed in Appendix B, 4 of the 25 responding transit agencies are not unionized. When adjusting the survey responses for these nonunionized systems, the percent involving their unions in the application of their safety program or process increases to 59%.

Several of the questions in the survey provided an opportunity for the respondents to supply open-ended responses to provide additional details. These responses are being provided following the related question in a consolidated format.

Consolidated Open Ended Responses:

- The union participates in the safety committee meetings and accident review committees.



Is organized labor involved in the application of the safety program or process?			
		Response Percent	Response Count
Yes		50.0%	13
No		50.0%	13
answered question			26
skipped question			4

FIGURE 7 Involvement of organized labor in safety.

- The union is solicited for safety suggestions and recommendations.
- The union participates in the development and implementation of the SSPP.

Focus on Safety (New and Existing Employees)

Following the concept of buy-in, the survey posed an additional question to survey respondents about new bus operator orientation. As anticipated, 100% of survey respondents indicated that safety was addressed in orientation. Respondents further described the importance of safety in their organization, stating that it is the first topic emphasized in new bus operator orientation. Respondents added that safety is the principal theme taught in operator training and that it is also pervasive throughout their agency’s entire training program.

In addition to bus operator orientation and training, survey respondents were also asked about the involvement of bus operator participation in safety meetings. As detailed in Figure 8, 96% of the agencies surveyed reported that bus operators participated in the meetings, with the frequencies of the meetings ranging from monthly to quarterly.

Consolidated Open Ended Responses:

- Meetings included basic introduction to safety policies and introduction to bus safety and yard safety.
- Topics included violence in the work place, health and safety orientation, and specific work site safety orientation as well as supporting safety messaging throughout the new bus driver training program.
- Training covered defensive driving and bus maneuvering training through lecture and discussion, and videos.
- As part of our performance-based contract with our contractors, new driver training requires orientation by the company which includes safety elements.
- It is our number one priority and is reinforced it in every section of our training.

- There is a one-hour training session that explains the concepts of safety and how to safely perform each function. Safe procedures are also described to each new operator beginning a new project.
- Safety is covered in every aspect of our six-week training program.
- Introduction to safety programs vary at all locations.
- Safety is taught as the first of three main priorities.
- The curriculum repeatedly emphasizes the importance of safety—that the 3 S’s are safety, service, and security.
- Operator training involves numerous presentations including a piece by the director of safety, the executive director, and others.
- All new bus operator hires are required to attend a four-week training program. TSI (Transportation Safety Institute) Bus Operator Training Program is this agency’s formal training program. The program includes a combination of classroom training and road training.
- Staff from safety/security provides an overview.
- This training lasts two days. The System Safety and Environmental Management Department each oversees one day, familiarizing new bus operators/employees with the different types of Occupational Safety and Health Administration mandatory classes, the system safety program plan, and systems training.
- It is explained that safety is mandatory and a condition of employment.
- Safety is discussed at orientation and during our eight-week new operator training program.
- Each new employee, whether an operator or from any other discipline, and whether union or management, goes through safety orientation training upon hiring.
- All new operators learn immediately that safety is number one and receive extensive safety training.
- Safety and security, and defensive driving techniques are covered during driver training.
- All drivers receive passenger assistance training and videos on safety and security.
- Safety is pervasive throughout the training process.

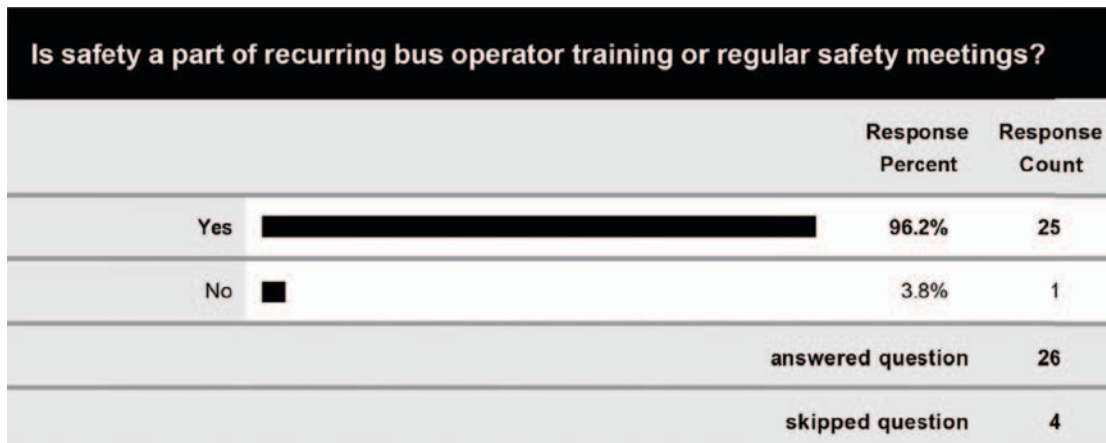


FIGURE 8 Integration of safety in operator training and meetings.

- The risk manager and safety and security director have a module and spend a whole day on this subject.
- Safety procedures are included throughout the syllabus in terms of creating the right habits—we cover each aspect of a safe driving system and review based on the five keys at each opportunity.

Hazard Identification Programs

Hazard identification is another foundation of a safety management system. Hazard identification programs teach employees how to identify, report, record, and correct potential safety and security risks. The most important requirement of a hazard identification program is that it be continuously assessed and improved to ensure that all hazards are identified and controlled when new work starts or work processes change.

In another attempt to gauge how transit organizations integrate safety into the culture of the organization, as well as explore hazard identification programs, survey respondents were asked two questions.

- Does your organization have a “hazard identification” process?
- If yes, how does it work?

Figure 9 illustrates that more than 88% of respondents have a hazard identification process. The following provide some of the varied approaches used to the hazard identification process:

- Safety committee responsibility
- Procedures detailed in operator manual
- Preventable accident committee
- Monthly job site inspections
- Reporting process
- Multiple reporting options: radio, phone, forms—all requiring a written response
- Signage and tagging

- Severity of hazard categorized and prioritized
- Use of a hazard identification and mitigation matrix to prioritize the identified hazards
- Use of Material Safety Data Sheets (MSDS).

Consolidated Open Ended Responses:

- Employees are encouraged to submit reports to the superintendents of each facility. Superintendents evaluate the reports and sort out the departments that need to take action for each such hazard.
- We have a formalized reporting structure and documents to record data for tracking and compliance improvement purposes.
- Each of the contractors has its own process and these are identified in their training programs.
- Our Office of Safety and Security has provided manuals and training to all managers and supervisors regarding hazardous materials and how to contain any spills and how to deal with different situations.
- Right-To-Know (MSDS) and annual PPE (personal protective equipment)/Haz COM (hazard communication) training.
- The employee finding a hazard is requested to bring it to the supervisor’s attention.
- There is a Safety and Environmental Inspection Plan which provides for monthly inspections using a safety checklist.
- Tagging and signage.
- The hazard identification and mitigation matrix is used during the facility safety audit conducted by the safety committee.
- Training is based on the SSPP plan: evaluate, determine risk, rate, and then address.
- Hazards are normally categorized in terms of severity and probability of occurrence.
- Maintenance employees are trained to identify hazards and to deal with them accordingly. Operators are trained to contact the dispatcher about possible hazards.

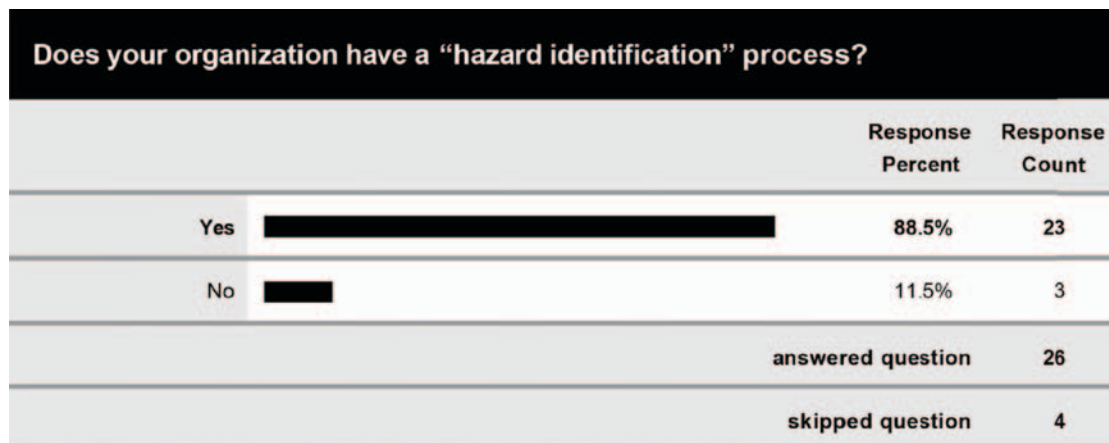


FIGURE 9 Hazard identification process.

- The process involves reporting of unsafe conditions and hazards to supervisors by radio, telephone, or by filling out a form. Each reported unsafe condition or hazard has to be responded to by a supervisor.
- Employees conduct monthly job site safety inspections and regularly report all hazards to management.
- The safety committee discusses current safety hazards as well as possible solutions. We also have a preventable accident team made up of managers and administrative employees who meet to watch videos and analyze trends.
- When a hazard is identified, it is reported to management, and the proper person is notified to mitigate the hazard. The maintenance manager walks the property every day to check for hazards and resolves simple ones daily.
- Safety and security protocols are included in the manual given to each new driver and are reviewed periodically.
- Anyone who has safety concerns brings it to the attention of the safety committee, which meets monthly.
- Before starting a task or project it is recommended that employees perform a risk assessment, which includes identifying all potential sources of harm and developing a safety strategy.

ORGANIZATIONAL POLICIES RELATED TO SAFETY DISCIPLINE

Progressive discipline is a management tool for dealing with job-related behavior that does not meet expected and communicated performance standards. A progressive discipline system or policy provides a basic framework for handling employee problems fairly and consistently by prescribing a series of consequences, increasing in severity, for any negative behavior including misconduct, poor performance, violations of company policy, absenteeism, and tardiness.

Employee Discipline Practices for Safety-Related Incidents

Survey respondents were asked to describe in detail how their organization handles disciplinary actions and related follow-

ups, including the appeal process, for bus operators involved in accidents and other safety infractions or incidents.

The most common method of disciplinary action prescribed progressive steps of verbal warning, written warning, suspension, then termination. Many of the agencies reported that the process is imposed jointly by management and union.

When asked if bus operators could be discharged for safety-related accidents or incidents, close to 96% of respondents answered affirmatively, as detailed in Figure 10. The respondents explained that the severity, cause, and frequency were all justifiable causes to discharge a bus operator because of a safety-related accident or incident.

Consolidated Open Ended Responses:

- It would need to be a very severe accident, such as a fatality, for an operator to be terminated for a first offense. If the operator were involved in several lesser accidents, he/she would move through progressive discipline to suspension, then termination.
- Although it is not mandated, most contractors have a policy that operators involved in three preventable accidents in a 24-month period are immediately dismissed.
- Disciplinary action is determined by the severity of the safety violation and also by the progressive discipline process.
- The plan imposes progressive discipline for recurring avoidable accidents and immediate termination for a severe display of negligence.
- Depending on the severity of the accident, an operator can be charged with gross negligence and terminated. However, this rarely occurs.
- Under contract language, only a “serious” infraction evokes the option for discharge.
- The operator can be discharged in two ways: through progressive discipline or immediately, depending on the severity of the negligence involved.

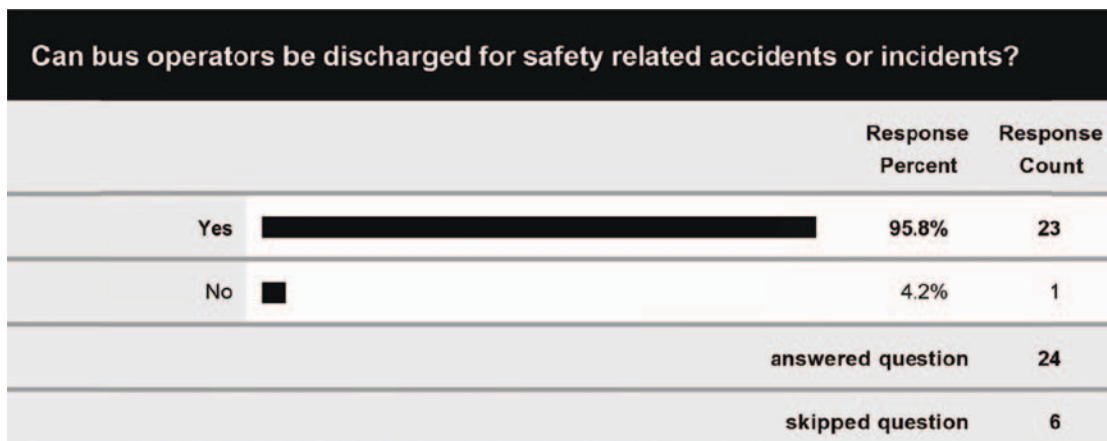


FIGURE 10 Bus operator discharge policy for safety incidents.

- The operator goes through the regular grievance process; discipline is progressive based on the discipline code.
- Dismissal follows gross carelessness or a combination of violations.
- Bus operators can be discharged for safety-related accidents or incidents, which are governed under different types of progressive disciplinary action procedures.
- If an operator is charged with having four accidents in a 12-month period, or is involved in a pedestrian accident, whether fatal or not fatal, he or she could be terminated.
- We follow the negotiated labor agreement, which lists the punishable infractions and the appropriate disciplinary procedures.
- The safety unit is not involved in the discipline process.
- Drivers can be removed from service immediately for safety-related accidents or incidents as per the contract.
- Operators can have up to three avoidable accidents per rolling calendar year—with the fourth avoidable accident being cause for dismissal. If the operator does not report the accident or rear-ends another vehicle, it counts as two accidents. For a safety violation, operators may be terminated upon the fifth safety violation in a rolling calendar year.
- An operator may be dismissed if it is determined that gross negligence was a factor and or if the operator has been involved in multiple preventable accidents.
- Termination depends on length of time between accidents, past safety record, the severity of the accident, and other conditions, such as a violation of the cell phone ban, traffic violation, or substance issue, or any other major unsafe act violation.

Respondents were also asked if their maintenance departments had similar disciplinary programs or processes. As shown in Figure 11, 87% of respondents indicated that their

maintenance department or other departments have the same or a similar disciplinary program or process.

Consolidated Open Ended Responses:

- Our maintenance is contracted out, but the contractor has a disciplinary procedure with more discretion to terminate if justified.
- Maintenance employees are disciplined for preventable and nonpreventable accidents; repeated occurrences can lead to termination.
- Safety is not an issue in the discipline process.
- Maintenance is contracted out.
- Maintenance does not have a shared pool discipline component for individual accidents.

Effectiveness of Safety Disciplinary Programs

Survey respondents were asked if their organization possessed any data that would indicate the effectiveness of their disciplinary process on the agency’s safety performance. As shown in Figure 12, only 36.4% of respondents indicated that their agency had data to document the effectiveness of their agency’s disciplinary systems as it relates to safety.

King County Metro (Seattle) reported that 30 years of historical accident data are stored electronically and can be queried in a database environment. It stated the one parameter that it tracks carefully is accidents per million miles, which have dropped significantly as a result of the qualitative safety process, positive progressive discipline, and various safety awareness programs employed over a 30-year period.

Minnesota Valley Transit Authority (Minneapolis–St. Paul) responded that it has extensive data including incident details, corrective actions, penalties/incentives, accident claim costs, safety committee recommendations and results, number of

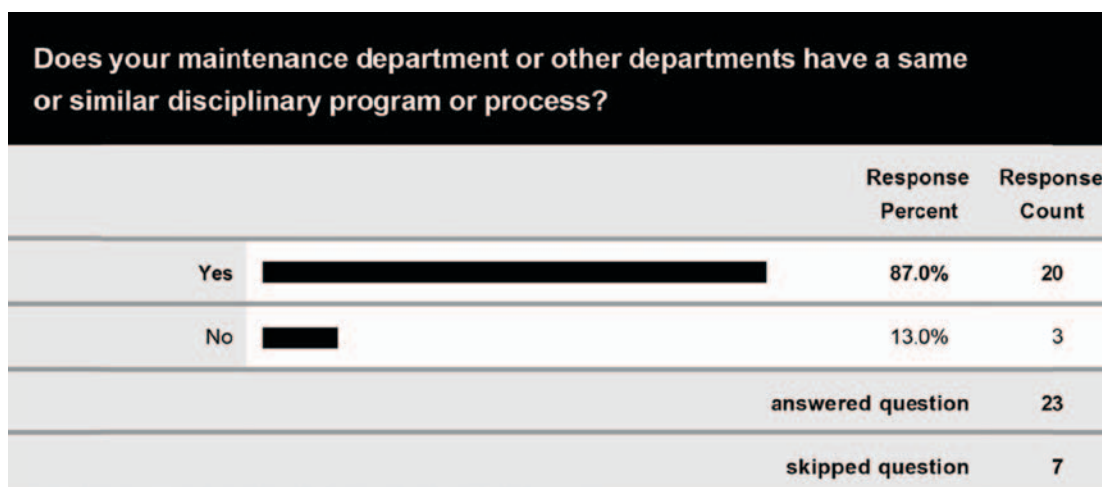


FIGURE 11 Similar maintenance disciplinary policies.

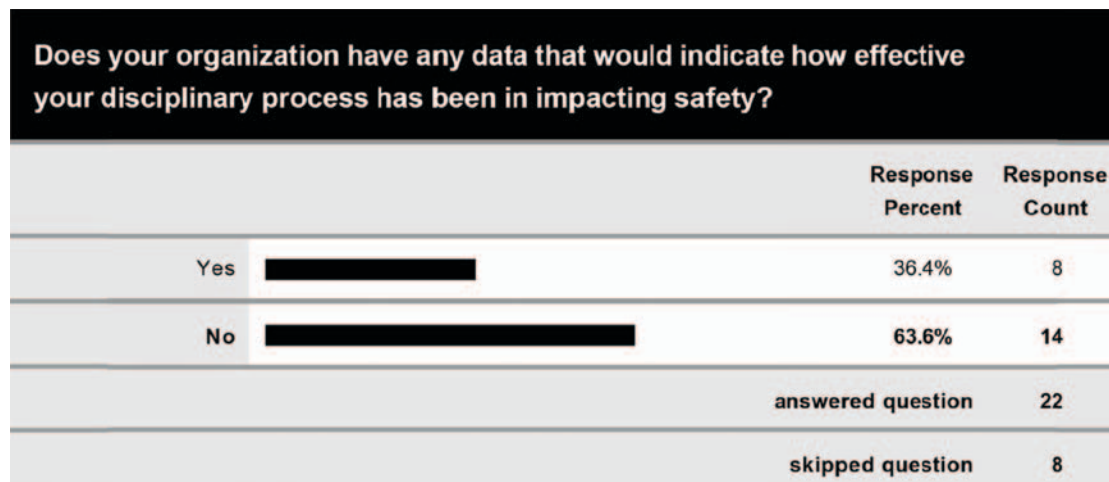


FIGURE 12 Availability of data to measure disciplinary process effectiveness.

incidents by trips per miles, and the Minnesota DOT inspection reports and maintenance records.

Utah Transit Authority (Salt Lake City) reported that its key data reflected performance indicators that addressed the company's goal of a minimum number of accidents annually. The number of actual accidents that occurred was less than the limits set in the agency's annual goals.

Most of the respondents indicated that their safety program was not involved in the discipline process, making it difficult to track the causal relationship between discipline and safety improvements.

Customer Safety Complaints

Agencies generally handled customers' safety complaints using the system's standard customer complaint system. Although no respondent indicated that safety complaints were given a higher priority, most indicated an initial assessment and priority process were used with safety-related issues. Many respondents indicated that complaints were addressed within 24 hours. The following bulleted list summarizes how transit agencies reported they typically handle customer safety complaints.

- Log Complaints
 - Complaint cards
 - Customer information tracking systems
 - Website input
- Investigation of Complaints
 - On-board cameras
 - Interviews (passenger, others, operator)
- Resolution of Complaints
 - Follow-up with customer
 - Counseling
 - Suspension

- Training
- Performance evaluation
- Observational follow-up

Potential Changes to Policies and Practices

One of the survey questions asked respondents to answer the question: "How can organizational policies and practices toward discipline for safety performance be improved?"

Many of the responses reiterated the undertones of existing research outlined in our literature review. The literature review uncovered a stronger correlation between employee safety performance (i.e., policies/practices) that include reward programs than between performance and progressive discipline alone.

Most significant were suggestions that agencies may want to focus on recognizing and rewarding positive safety behavior, impose agency-wide consistency with regard to disciplinary procedures, and increase employee training. Other summary responses suggested:

- Creating more progressive disciplinary steps
- Creating more penalties and incentives
- Emphasizing training and awareness
- Providing consistent disciplinary actions throughout each department
- Creating a committee comprised of unions, SAFE, labor relations, general counsel, and the executive leadership team to specific progressive disciplinary actions for safety infractions, to be placed in a policy instruction
- Recognition
- Continually reviewing policies and practices for improvement.

SAFETY INCENTIVES AND REWARDS

A safety incentive program can enhance and foster improvements to established safety programs. They serve as a mechanism to help build cooperation and commitment among employees, management, and organized labor. However, the main goal of any employee safety incentive program is to increase employee awareness of safety issues and encourage additional attention to safe behaviors, rather than focus on the incentives or rewards.

Organization Reward Practices for Safety

Survey respondents were asked if their agencies offered individual or group incentives and rewards programs designed to improve safety performance. As shown in Figure 13, more than 85% of the agencies indicated that they employed individual or group incentive and rewards programs.

Consolidated Open Ended Responses:

- System safety keeps track of employee’s performance, including absenteeism, miss-outs, and accidents. Once it is determined that an employee is eligible for an award, system safety usually issues a certificate or a special award ranging from \$100 to \$1,500.
- Board periodically has safety and customer service competitions between six major corridor reporting locations. The reporting location with the fewest collisions wins, as does the location with fewest customer complaints.
- We offer safe driving pins for years of safe driving. The agency used to give savings bonds, but budget cuts eliminated them.
- The agency names a driver of the month and year. Also, safety pins are awarded based on safe miles driven.
- We have implemented a number of incentive programs to promote safety at our contractors. Our Customer Ser-

- vice Recognition Program promotes customer safety and satisfaction with yearly awards. Our Safe Driving Awards Program gives yearly pins to drivers who have not been in a preventable accident.
- We provide safety pins for years of service without preventable accidents.
- We have an annual Safety Pin Program that recognizes drivers who are accident-free. We also hold a bus rodeo each year for all drivers who have not been involved in a preventable accident.
- Safe driver awards are presented to those operators who perform accident-free for a year; safe worker awards go to those maintenance employees who are accident-free for a year.
- Operators need to work a certain number of hours and be accident-free.
- Each supervisor has the ability to recognize any employee for any reason—including safety-related incidents. There is also a Peer-to-Peer program through which employees may recognize each other for performance or safety areas. There is also a program called Rising Stars which recognizes improved work performance. We have several specific recognition programs based on performance and/or safety goals that are awarded on a quarterly or annual basis. These programs can be tailored to fit the changing goals and needs of the business unit.
- We apply the National Safety Council program: transit operators receive a recognition award for each successful year of safe driving supplemented by our agency’s “incentive” awards, which feature special recognition.
- We award yearly safety certificates and safety pins. We also designate one day (usually in May) to recognize our safe operators with coffee and doughnuts in the morning and pizza, subs, and beverages in the afternoon. We also hang up a poster with the names of the operators and the number of their safe driving years.
- Operators are recognized each year with a safe driving lapel pin.

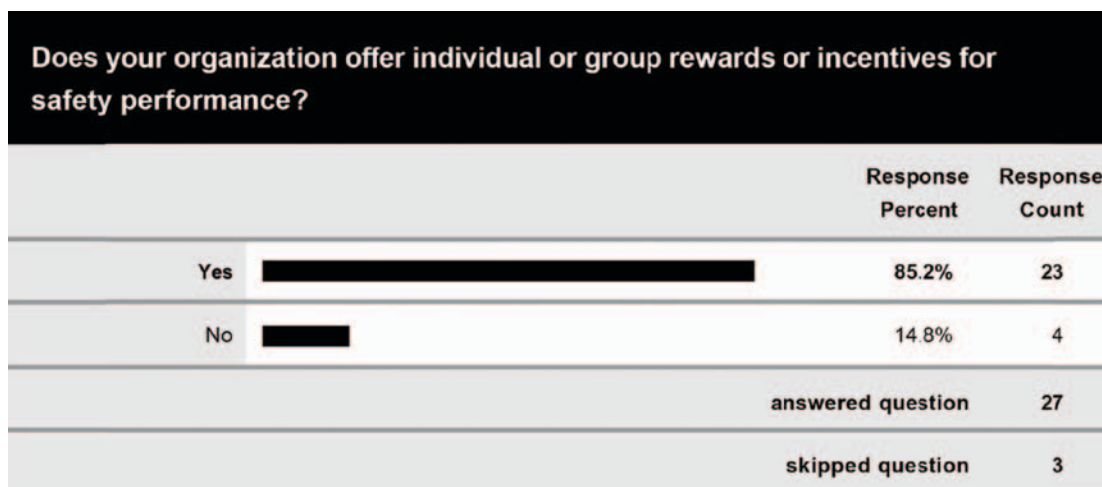


FIGURE 13 Use of incentive reward programs.

- In the Lost Time Program, the department qualifies (100 days, 200 days, 300 days, or 365 days per fiscal year) by not having any on-duty injuries resulting in days off on workman’s compensation. Operators qualify for the Safe Driver Award with no preventable accidents and 90% attendance for the year. This award is cumulative.
- There is an annual safety banquet. Operators and maintenance workers are rewarded for each year that they have had no accidents.
- Certificates and patches are awarded.
- Employees are rewarded for safety performance.
- We review incidents on a monthly basis in three categories: driver complaints including safety-related incidents, missed trips, and fleet maintenance. Based on the number of substantiated incidents, performance falls in either the “superior,” “acceptable,” or “unacceptable” range. Incentives are given for “acceptable” and “superior” service (more for superior), and penalties are imposed for “unacceptable” service.
- For each year of service without a preventable accident, operators receive a safety award which includes a gift certificate. Employees can also receive major awards, such as jewelry, for 5, 10, 15, 20, or 30 years of continuous safe operation.
- Operators receive a pin and a certificate for consecutive years of safe driving.
- Quarterly bonuses are paid to employees scoring several behavioral items. Lunch is provided at safety meetings when milestones are reached. Certificates for safe operation and recognition at meetings including a shared group monetary incentive for accident-free operation.
- Employees with perfect safety records are eligible for clothing and cash awards.

When asked about the duration of the programs, respondents reported that close to 61% of the programs are ongoing, 9% described them as time-limited, and 30% of the agen-

cies indicated they employed both ongoing and time-limited incentive and reward programs (see Figure 14). There is a common belief among some in the transit industry that ongoing “incentive” programs become “status quo” and lose their effectiveness as motivators.

Consolidated Open Ended Responses:

- Awards are presented at each board meeting (six per year) for safety and customer service; individual safe driving awards are given to collision-free drivers on an annual basis.
- Board presents annual and cumulative awards.
- Time limits vary at contractor locations.
- Rising Stars is a monthly program. Peer-to-Peer is ongoing, as is the Road Call Lunches program. We had a complaint reduction program that was planned for a year.
- Major awards are presented to operators after consecutive years without a preventable accident. Regular safety awards are ongoing.
- As a result of budget cuts, this program has been suspended.
- A bonus is paid quarterly but goes on a per year basis for funding levels. A meal is provided at a meeting anytime the safety record stands at more than 45 days. There is a shared bonus pool for all drivers who had no safety violations, which is paid annually.

The following were some of types of incentives and rewards reported by respondents:

- Quarterly bonuses
- Use of National Safety Council recognition program
- Breakfasts or luncheons
- Jackets
- Inclusion in the annual safety banquet

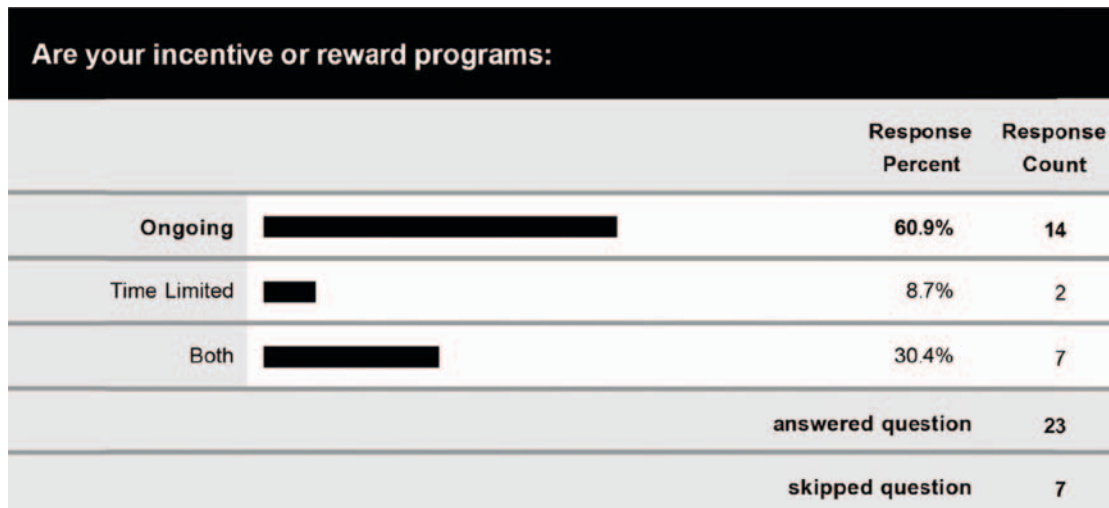


FIGURE 14 Duration of incentive programs.

Were bus operators involved in the program development?			
		Response Percent	Response Count
Yes		63.6%	14
No		36.4%	8
answered question			22
skipped question			8

FIGURE 15 Bus operator involvement in program development.

- Names on posters in the operating facilities
- Printed recognition certificates
- Pins, badges, and belt buckles
- Gift certificates
- On-the-spot recognition program.

Participation of Employees in Policy Development

As detailed previously, the existence of employee programs (i.e., safety, discipline, or incentive/reward) does not ensure effective self-implementation and regulation. The key to any safety program is employee and/or union “buy-in” (i.e., acceptance of and commitment to such a program).

With the concept of buy-in in mind, respondents were asked several questions about union and employee involvement and education regarding the incentive and rewards programs.

Figure 15 reveals that close to 64% of survey respondents involved bus operators in their incentive and rewards pro-

gram development. The involvement of organized labor in these programs, as detailed in Figure 16, is not as high, at 43% of responding agencies.

As detailed in Appendix B, 4 of the 25 responding transit agencies are not unionized. Of the unionized systems, the number involving their unions in the application of their safety program is 12 (57%).

Involvement of Nonoperator Work Units

While 64% of the respondents had incentive and rewards programs for their bus operators, only 42% had similar programs for their maintenance and other agency departments (Figure 17).

Consolidated Open Ended Responses:

- Safety and training department currently only provides programs for the operators at our contractors. Any other programs are at the option of the contractor.
- Other, nonoperator departments do not have one.

Was organized labor involved in the program development?			
		Response Percent	Response Count
Yes		42.9%	9
No		57.1%	12
answered question			21
skipped question			9

FIGURE 16 Organized labor involvement in program development.



Does your maintenance department or other departments have a same or similar incentive or reward programs?			
		Response Percent	Response Count
Yes		42.3%	11
No		57.7%	15
answered question			26
skipped question			4

FIGURE 17 Maintenance incentive programs.

- They have an Automotive Service Excellence bonus for keeping up their certifications.

Effectiveness of Safety Incentive and Rewards Programs

Survey respondents were asked if their organization possessed any data that would indicate the effectiveness of their incentive and reward programs or their impacts on agency safety performance. As shown in Figure 18, only 37.5% of respondents indicated that their agency had data to document the effectiveness of their agency’s safety-related incentive and reward programs. This is similar to the 36.4% positive response in Figure 12 to the question of whether the agency was able to monitor the effectiveness of employee discipline programs,

Consolidated Open Ended Responses:

- Agency collates accident data and low worker’s compensation claims.

- Collision information is tracked on a monthly basis as is accident and incident information from the Joint Health and Safety Committees.
- As most of these programs started up in the past year, we have minimal data to go on. However, we have seen an approximately 4% decrease in agency accidents and a 41% decrease in contractor accidents. These statistics do not include our mobility services. We have also changed one contractor during the implementation of our programs and have not included its statistics in our results as we believe they will not accurately identify the impact of these programs.
- Each year we have a greater number of employees earning safe driver awards.
- Rewards are not safety-specific, but are performance-related.
- In the Lost Time Program, the data are tracked by the type and decline in workmen’s compensation claims. A new program called Return to Work has impacted the number of days an employee is on workman’s comp.



Does your organization have any data that would indicate how effective your incentive and rewards program has been in impacting safety?			
		Response Percent	Response Count
Yes		37.5%	9
No		62.5%	15
answered question			24
skipped question			6

FIGURE 18 Available data to measure incentive program effectiveness.

Cumulative accident and attendance records are tracked to qualify for the Safe Driver Award (presented yearly).

- As incentive amounts continue to increase, unsafe acts continue to decrease.
- We have earned an APTA bus Safety Gold Award for the last two years, but it’s difficult to tie programs to results in any situation where the goal is to create motivation and culture. The goal is zero accidents and we are just about as close to zero as anyone seems to get.

Potential Changes to Policies and Practices

One of the survey questions asked: “How can organizational policies and practices toward employee incentive and reward programs be improved to enhance the agency safety?”

The following provides a sampling of the types of program improvements suggested by the respondents. Agencies could:

- Increase focus on positive behavior
- Provide agency-wide consistency in dealing with both discipline and recognition programs
- Improve management buy-in
- Provide financial incentives for positive behavior
- Work to change agency culture
- Adapt to cultural and social requirements of the workforce.

CHALLENGES AND OPPORTUNITIES

The final questions of the survey asked respondents to address three potential factors that could impact the agency’s safety programs. The questions were:

- Does your organization experience a high turnover of your bus operators?

- Does your organization experience communication and training problems related to the diversity of your workforce (i.e., age differences, cultural differences, etc.)?
- Does your organization have an employee wellness program that addresses such items as sleep patterns, the use of over-the-counter medications, and other issues that could impact bus operator performance?

Figure 19 indicates that 40% of the respondents believed they had high turnover rates among bus operators. When asked to provide details on the contributing factors, respondents cited:

- Retirements of long-time bus operators
- Changes to retirement plans that result in early retirements
- Low compensation and competition with other driving jobs in the community
- Hours of work, especially weekends, early mornings, and late evenings
- Part-time entry-level positions with no hourly guarantees.

Consolidated Open Ended Responses:

- New employees are offered only part-time hours; there are no benefits provided during part-time status.
- New hires are low-paid and come in as part-time, with no guarantee of hours and very limited benefits. These hires are also required to have Commercial Drivers License (CDL) class B license with passenger endorsement.
- Although we do not hire or dismiss the operators, the contractors who provide our service have reported that much of the turnover is a result of better opportunities at different transit agencies. As there are four contractors who provide our drivers, some of the turnover could be from operators moving within these four contractors.
- The two main points of contention for our employees are compensation compared with other city departments and other businesses, and policy violations leading to terminations.

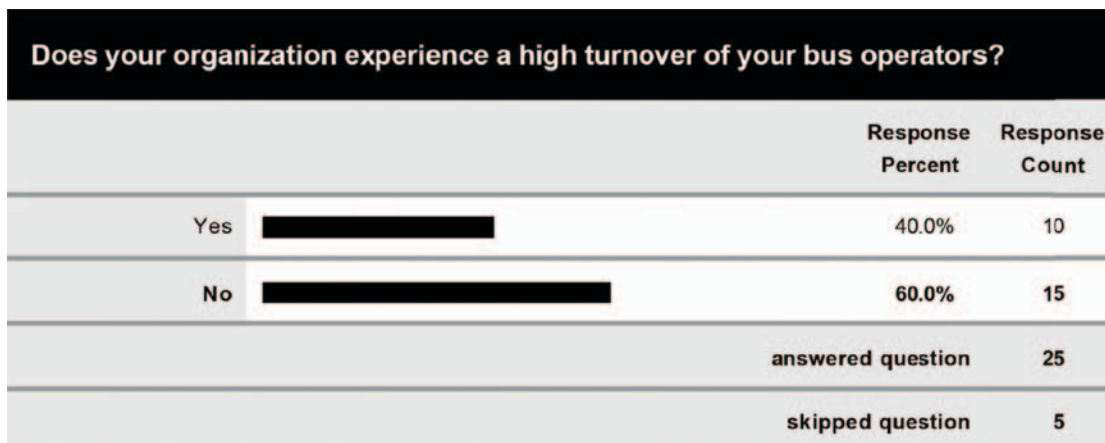


FIGURE 19 Bus operator turnover rate.

- Drivers dislike primarily the hours of service. They do not like working weekends or split shifts. Once they find something else that is 9 to 5 with weekends off, even for less money, they depart.
- Drivers are not well paid.
- The majority of our workforce leaves at retirement.
- The high turnover rate in part is the result of the station manager and train operator positions.
- Drivers leave through retirements, terminations, or transfers.
- Because of pending changes to the state retirement plan, there have recently been a lot of regular retirements as well as a few disability retirements. There are also some operators who are terminated after progressive discipline for performance issues, such as attendance or safety. There are also some operators who resign their positions for various reasons.

Figure 20 indicates that only 20% of the respondents believed their agencies experienced communication and training problems related to workplace diversity. When asked to describe the problems encountered and some of the strategies to overcome them, the following items were cited:

- Cultural differences affecting understanding and acceptance
- Poor communication on a one-to-one basis
- Language barriers
- Literacy competency
- A lack of consistent training and discipline in programs with positive reinforcement of recognition and rewards.

Consolidated Open Ended Responses:

- Cultural differences can be a problem. People from different areas of the world react differently to authority levels. There is also a language barrier at times, not just because of accents, but also because of dialects and

comprehension. We are also experiencing an issue with the younger generation’s questioning of authority and an interesting development of a rebellious culture.

- Some employees face language and literacy issues.
- There are always going to be communication and generational gaps when you have such a broad work force. However, consistent training and discipline programs combined with the positive reinforcement of recognition and rewards helps to close these gaps.
- Sometimes the message has to be carried to the one-on-one stage—learning is not complete until the trainee can restate the lesson in their own words. The challenge is to simplify information without “dumbing it down” or showing a lack of respect to the employee.

Figure 21 indicates that 76% of the respondents stated their agencies had employee wellness programs that addressed issues affecting bus operator performance. When asked to provide detail on their agency’s wellness programs, they listed:

- Monthly or quarterly wellness newsletters, meetings, and fairs
- Wellness committees
- Employee assistance programs
- Provision of safe medicines (e.g., cold and sinus relief, headaches, and upset stomachs)
- On-site exercise facilities and/or subsidized membership to gyms
- Sleep awareness programs
- Provision of health benefits that include annual physicals and similar proactive employee health measures.

Consolidated Open Ended Responses:

- The company wellness program provides support and a 24-hour nurse line.
- Information is covered in initial new driver training but is not reinforced at any other time.

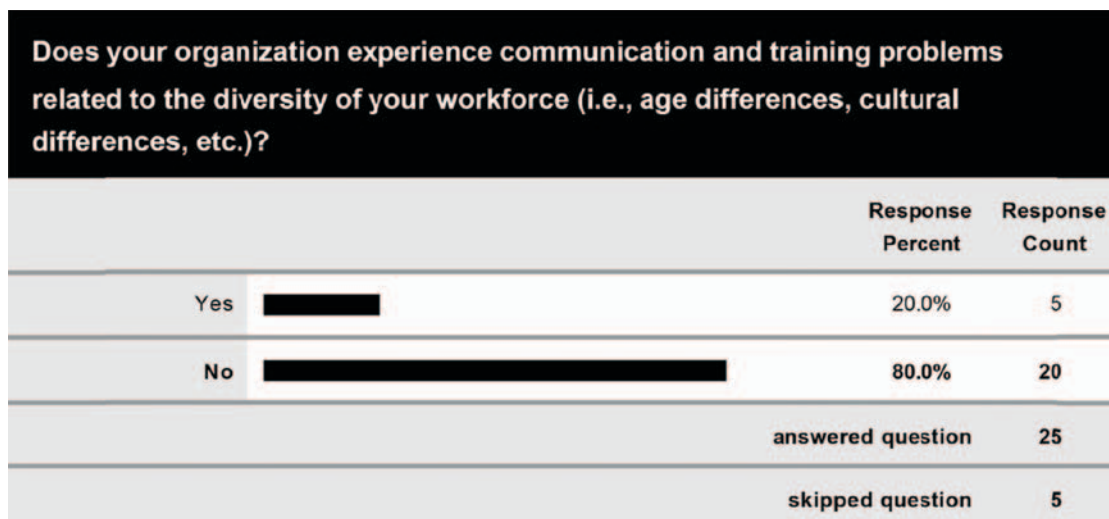


FIGURE 20 Organization diversity related communication problems.

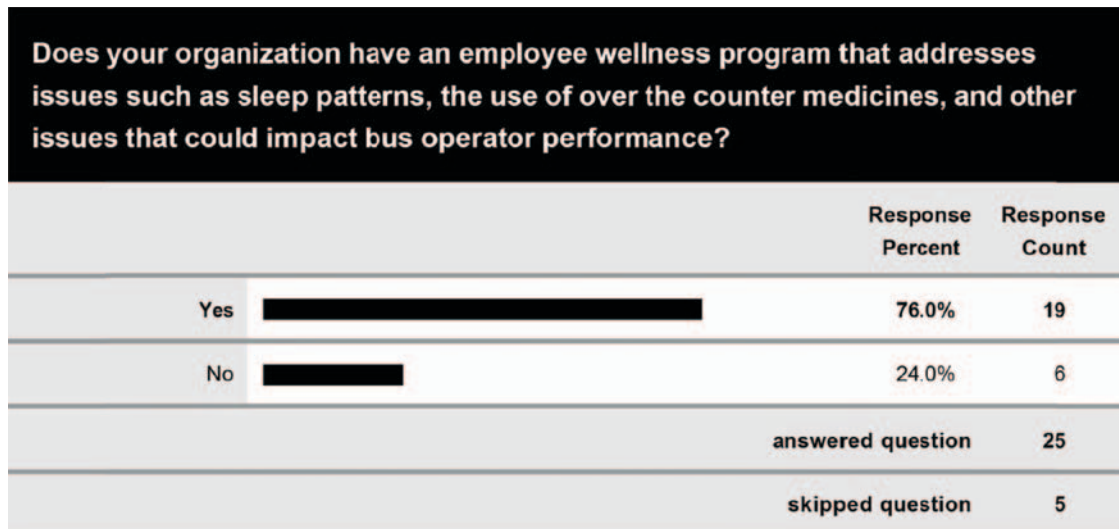


FIGURE 21 Employee wellness programs.

- We sponsor two health fairs a year through a county-run program.
- We have an excellent health benefits group that constantly provides trainings, meetings, etc.
- A wellness program is provided for our employees; however, as the operators are employees of our contractors, we do not include them in these programs. The contractors do individually provide employee assistance programs.
- We provide health clinics and invite organizations to our facilities to provide information. We also have a web page that provides information.
- Internal monthly safety meetings address employee health issues and substance abuse/Employee Assistance Program training, as well. Additionally, the city human resources department publishes weekly/monthly “Wellness Newsletters.”
- The human resources department puts together quarterly wellness fairs that address these topics using some of our contracted health care providers.
- Our wellness program covers physical, nutritional, mental, and personal wellness. Each business unit is equipped with a fully functional exercise and fitness room available to all employees 24 hours a day. We have wellness consultants at every business unit. We have weight loss support groups, and an Employee Assistance Program for help with personal, financial, or emotional issues. We provide transit-safe over-the-counter medications to our employees.
- We have an Employee Assistance Program.
- We have an on-site exercise room and Employee Assistance Program.
- The Employee Wellness Program is expanding to other issues. All operators are CDL-qualified with a passenger and air brake endorsement, as well as certified medically. Operators are reminded to report or seek counseling from our medical department if they have problems sleeping

- and before taking any medications, including over-the-counter drugs.
- We do not have a specific employee wellness program, but we do have policy and procedures to address issues such as sleep patterns, use of over-the-counter-medicines and other issues.
- The organization is in the process of developing a program to promote healthier habits. It currently offers a weekly yoga/meditation class.
- The Joint Healthcare Committee includes members of human resources as well as union representatives who put out a monthly newsletter with wellness tips and information. The committee also informs employees about their health benefits.
- We require substantial fitness for duty training and assure all the operators that calling in when unfit is always preferable to coming in and “giving it the old college try.”

SUMMARY

The following is a summary of some of the survey responses by topical area.

Organization and Safety

- While all the survey respondents indicated they had mission statements, less than 59% of the mission statements included a reference to safety.
- The dissemination of the agency mission statement within the agency varied widely.
- All survey respondents indicated their systems had system safety plans.
- Lead responsibility for implementing and monitoring the safety plans varied by agency, with the large transit systems assigning the lead safety function to their

safety, security, risk, and/or training departments. In smaller transit agencies, the operations manager was typically responsible for the agency safety program.

- The majority of respondents indicated that their agencies incorporated safety into all elements of new and existing bus operator training programs and meetings.
- Unionized employment in the agency safety programs varied; with 60% of the respondents indicating those unions are included.
- Almost all survey respondents stated they have hazard identification programs.
- Agencies have systematic approaches to managing customer-related safety complaints.

Organizational Policies Related to Safety Discipline

- All the agency respondents reported that their agency has some form of formal organizational policies related to safety discipline.
- Progressive discipline is widely used in the transit industry and offers employees and management a process in which an employer utilizes a series of consequences, increasing in severity over time, for an employee to modify any negative behavior, including misconduct, poor performance, violations of company policy, absenteeism, and tardiness.
- Survey respondents indicated that traditionally progressive discipline has been used to address safety-related performance deficiencies and to correct behaviors that have led to unsafe acts.
- Most respondents indicated that an employee could be terminated in situations where an accident was severe and/or resulted in a death owing to gross negligence.
- Only one-third of the respondents stated they had data to measure the effectiveness of the disciplinary processes.
- The respondents offered the following suggestions for possible changes in discipline policies and practices. Organizations should:
 - Administer the policies in a consistent manner
 - Utilize committees
 - Recognize positive safety behaviors
 - Provide continuous training and safety awareness.

Safety Incentives and Awards

- More than 85% of the survey respondents described some type of operator safety reward and incentive program.
- The most common bus operator safety program rewarded safe driving with certificates, pins, and patches.
- Some respondents provided a variety of incentives, such as meals, annual safety banquets, and cash rewards.

- Respondents indicated that funding safety incentive and reward programs was an ongoing challenge because of budget cutbacks.
- Two-thirds of the respondents indicated that bus operators were involved in the development of the agency safety incentive and reward programs.
- Only approximately one-third of the respondents stated they had data to measure the effectiveness of their disciplinary processes.
- Despite the lack of quantitative data, agencies that use safety incentive and award programs believe they are effective.
- The respondents offered the following suggestions for possible changes in safety incentive and award programs. Organizations could:
 - Increase focus on positive behavior
 - Increase management buy-in and support of the programs
 - Provide adequate financial support for the programs.

Challenges and Opportunities

- Forty percent of the respondents believed that their agencies were experiencing a high turnover rate among bus operators.
- Contributing factors cited for the high turnover rate included:
 - Retirements
 - Low pay
 - Inadequate number of work hours
 - Hours of work, especially during evenings and weekends.
- Only 20% of the respondents reported that they experienced communication and training programs related to the diversity of their workforce.
- Contributing factors cited for the high turnover rate included:
 - Cultural differences
 - Language barriers
 - Literacy competency.
- Seventy-six percent of the respondents stated their agencies had an employee wellness program.
- The following were examples of wellness programs provided:
 - Monthly or quarterly newsletters, meetings, and fairs
 - Wellness committees
 - Employee Assistance Programs
 - Provision of safe medicines (e.g., cold and sinus relief, headaches, and upset stomach)
 - On-site exercise facilities and/or subsidized membership to gyms
 - Sleep awareness programs
 - Provision of health benefits that includes annual physicals and similar proactive employee health focuses.

CHAPTER FOUR

CASE EXAMPLES

The literature review and survey results provided a wealth of detailed information on the core issues related to bus operator safety programs. Following the review and analysis of this information, transit agencies were selected as case example sites. The case examples are intended to provide additional detail and insight on active and innovative practices and related issues on the use of reward and discipline to promote transit safety.

The nine case example agencies included (see Figure 22):

- Dallas Area Rapid Transit (DART), Dallas, Texas
- Fayetteville Area System of Transit (FAST), Fayetteville, North Carolina
- GO Transit, Ontario, Canada
- King County Metro (KC Metro), Seattle, Washington
- Minnesota Valley Transit Authority (MVTA), Twin Cities Area, Minnesota
- River Cities Public Transit, Pierre, South Dakota
- SouthWest Transit, Eden Prairie, Minnesota
- Utah Transit Authority (UTA), Salt Lake City, Utah
- Wind River Transportation Authority (WRTA), Riverton, Wyoming



DALLAS AREA RAPID TRANSIT, DALLAS, TEXAS

Agency Description

Founded in 1983, DART transit agency serves the city of Dallas, Texas, and extends into 12 nearby suburbs. The services provided by DART include bus, light rail, commuter rail, and paratransit services. Daily ridership nears 250,000 passenger trips. The bus system is comprised of an active fleet of 674 vehicles operating 113 routes out of three geographically dispersed divisions. DART employs more than 1,100 bus operators.

Organizational Approach to Safety

DART's mission statement includes the phrase, ". . . to build, establish, and operate a safe, efficient, and effective transportation system . . ." The statement is displayed throughout the organization.

A comprehensive SSPP covers the components of safety and assigns accountability and responsibilities. A bus safety committee comprised of labor and management representatives meets monthly to plan responses to current safety issues.

Recently, DART implemented a series of initiatives to engage front-line employees in the goals of the organization through three primary methods:

- The safety and training department, through safety meetings, attempts to enhance the communication with and between operators and supervisors.
- DART has implemented performance incentive programs (with both team and individual reward components).
- Management has designed a better process for hazard identification and resolution through interactive communication with employees.

Until recently, DART held paid bi-monthly, mandatory, one-hour safety meetings with operators. Attendance was exceptional, ranging from 92% to 96%. The meetings were held three different times during the day at all three divisions in order to accommodate drivers' schedules. Funding cuts have caused the frequency of those meeting to be reduced from bi-monthly to quarterly.

Agency Disciplinary Practices

DART employees participate in a progressive discipline program that is administered by management. Discipline steps include verbal warnings, written warnings, suspension and termination. The procedures are "endorsed" by the local Amalgamated Transit Union during a process called "meet and confer" where both labor and management come to the table with their proposals for changes and attempt to work toward agreement. This process is different than collective bargaining, as Texas is a right-to-work state.

Agency Incentive/Rewards Program

Through DART's Employee Performance Incentive Program, operating divisions compete to achieve goals for on-time performance, late pull-outs, unscheduled absences, complaints, ridership, cost-per-mile an hour, and accidents per 100,000 miles. The winning division receives recognition each quarter, including a catered lunch. Additionally, individuals can qualify for bonuses if they do not have any safety infractions,



FIGURE 22 Location of case examples.

preventable accidents, or corrective/disciplinary actions during the quarter. Within each division, problem-solving teams comprised of front-line hourly employees, salaried supervisors, and management staff members develop strategies to improve divisional performance.

Summary

Front-line employee communication and engagement has been identified as critical elements of the DART quality improvement effort, including efforts directed to improve bus safety. As detailed previously, DART has implemented a series of interrelated programs and initiatives that target these elements.

As a result of these initiatives, DART reports a reduction in vehicle collisions of nearly 10%, an almost 16% reduction in passenger accidents, and a significant improvement in passenger perception of safety.



**FAYETTEVILLE AREA SYSTEM
OF TRANSIT, FAYETTEVILLE,
NORTH CAROLINA**

Agency Description

FAST operates in Fayetteville, North Carolina, and provides services within the Fayetteville city limits. The system is characterized as urban with one million annual riders and provides both fixed-route and ADA-complimentary paratransit services. FAST is a non-unionized shop (see Table 4).

Organizational Approach to Safety

FAST's priority is safety. Since 2008, it has had a dedicated safety and training coordinator who is involved in all areas of the organization's safety program. Its mission statement includes specific language addressing the organization's culture towards safety and security, and this mission statement serves as the organization's backbone.

Although FAST has a recently developed new-hire training program that directly addresses safety in all elements of training, the monthly safety training meetings are central to the organization's commitment to safety.

Each month, the safety and training coordinator and the superintendent of operations hold mandatory safety training meetings. These meetings, attended by all of FAST's operators, offer employees the opportunity to learn more about the organization's safety status and policies, and to receive training. The agency offers the meetings three times on the designated day to allow employees to plan attendance around their work schedules. By allowing operators multiple meeting times, the agency helps its employees avoid safety-related fatigue issues.

Issues discussed in the monthly safety meetings include elevated safety concerns, a review of near misses, possible bus route redesigns, customer complaint reviews, compliance items, and review of any new policies. The agency has observed that their operators want to know more about how and why the company adopts policies and procedures. They

TABLE 4
FAYETTEVILLE TRANSIT STATISTICS

	2006	2007	2008	2009	2010
Miles Driven	1,142,948	1,076,749	1,201,983	1,137,493	1,151,919
Passengers	1,336,156	954,977	985,341	1,060,756	1,287,047
No. of Passenger/Driver Injuries Requiring Immediate Medical Attention	No data	No data	3/0	13/0	13/0
No. of Chargeable Accidents with over \$2,500 Damage	No data	8	3	1	1
Accidents per 100,000 Miles	1.89	1.68	1.39	0.76	0.83
Cost of Chargeable Accidents	No data	\$35,350.00	\$30,178.00	\$10,445.00	\$9,050.00
Vehicle Breakdowns/Miles Between Events	No data	No data	No data	40/24,083	41/24,505
Number of Work-Related Injuries Reported (lost time)	1	1	2	0	2

also benefit from general information-sharing: learning more about the agency's safety data, updates internal to the agency, and general information about the industry. This open forum helps satisfy the needs of the operators to feel connected to the organization and to feel as though information is being funneled to them in a timely manner.

One of the more important aspects of the meetings is that operators are provided the opportunity to sound off about issues, problems, and concerns. The agency firmly believes that by keeping an open line of communication with their employees about the issues and concerns they confront on the road, and addressing those issues and concerns immediately, they effectively acknowledge and validate their employees. The agency's ability to use the employees' input has resulted in many changes in the organization, such as route modifications that help improve and maintain safety.

It is important to note that lunch or dinner were regularly provided at FAST's monthly safety meeting; however, because of city budget cuts, this practice has ceased.

Agency Disciplinary Practices

FAST practices a very traditional approach to progressive discipline as it relates to accidents. Within a three-year period, an operator's first offense results in a one-day suspension; the second offense results in a three-day suspension; and, a third offense is grounds for termination. However, if an operator is guilty of gross negligence or violates an organizational policy (such as using a cell phone while driving), the driver may be dismissed.

Agency Incentive/Rewards Program

FAST currently does not have any individual or group rewards or incentives related to safety performance. The reasons cited were the limited budget and the possibility of initiating a department-oriented incentive program that would be inconsistent with other city departments.

Summary

FAST is clearly vested in its employees. The employees play active roles in understanding and instituting safety throughout the organization. The agency actively seeks input from its employees and responds to input (suggestions and concerns) immediately. In addition, employees are publicly recognized at the agency's monthly safety meetings for reporting safety concerns or suggestions and for "outstanding customer service."

Although the agency's policy on discipline is progressive, its vision is to one day have enough funding and support to proactively change employees' safety behaviors through progressive rewards. From its perspective, motivating employees to follow policies rather than just expecting them to and punishing them for not doing so, will dramatically affect the culture of the organization and thus improve safety.

FAST has researched other industries (such as freight delivery) that have employed this philosophy and have determined that reward-based and behavior-based proactive safety programs yield even higher safety program effectiveness.



**GO TRANSIT, SOUTHERN
ONTARIO, CANADA**

Agency Description

GO Transit is a regional public transit system in southern Ontario, Canada. It primarily serves the greater Toronto and Hamilton areas, providing more than 57 million passengers trips a year by means of 70 locomotives, 495 commuter rail cars, and 359 buses. GO Transit runs 180 train trips and 2,075 bus trips daily, carrying 217,000 passengers on a typical weekday (180,000 on the trains and 37,000 by bus). A unionized organization, GO Transit exists as a division of the provincial crown agency Metrolinx. Metrolinx is governed by a board of appointees of the province.

Organizational Approach to Safety

GO Transit has both internal mission statements that extend to “charters” with passengers, as well as focused mission statements that apply to individual business units within the organization. Both are posted throughout the organization. Safety is an essential component of all of the statements. A comprehensive SSPP targets safety issues, defines roles, and assigns responsibilities for safety. Input to the SSPP is gathered from all organizational work partners, and adherence is monitored through individual work units. Labor and management both manage the safety program process through committee.

Safety is a primary topic of new operator training, a systematic three-year recurring training program and remedial training, and special training can be assigned after observed safety breaches.

Recent changes in the organizational approach to safety appear to have contributed to a nearly 12% decrease in the number of all types of collisions per million kilometers travelled. With a stated goal of changing behaviors, GO Transit shared responsibility with supervisors, as administrators of discipline, to a system whereby the safety and training department was involved. This change is believed to have resulted in a level of continuity that did not exist before, primarily in the conveyance of expectations to operators.

Agency Disciplinary Practices

Both the maintenance and transportation departments participate in a progressive discipline program jointly administered by labor and management. Roles are spelled out in the collective bargaining agreement. Progressive discipline steps include verbal warnings, written warnings, suspension, and termination.

Agency Incentive/Rewards Program

Also recently implemented were incentive-type safety program elements that incorporated competition between divi-

sions and increased discussion and awareness of safety issues. Rewards are administered five times per year in conjunction with regular operational “markup” or “picks.” This newly revised reward program replaced a program that had previously been in effect and unchanged since 1992.

Summary

Contributing factors to improved safety at GO Transit have been identified as good labor/management relations; continuity in the administration of discipline, including the active involvement of the safety and training departments; supportive managers; superior interdepartmental communications; a comfortable organizational culture; good equipment; and the quality of passenger behavior, most of whom are regular commuters.



**KING COUNTY METRO,
SEATTLE, WASHINGTON**

Agency Description

KC Metro Transit is located in Seattle, Washington, which borders the northern edge of Seattle. KC Metro serves greater King County and downtown Seattle. The system is characterized as urban, suburban, and rural, providing fixed-route, paratransit, light rail/streetcar, and bus rapid transit to its 112,000,000 annual passengers. KC Metro is county-operated and has a unionized shop, with the exception of executive administrators and “executive at will personnel” (see Table 5).

Organizational Approach to Safety

KC Metro’s safety program describes the policies, procedures, and requirements to be followed by management, maintenance, and operating personnel to provide a safe environment for agency employees (and volunteers) and the general public. All personnel are expected and required to adhere to the policies, procedures, and requirements and to properly and diligently perform safety-related functions as a condition of employment.

The agency has a sincere concern for the welfare and safety of its employees (and volunteers) as well as the public it serves. The goal of its safety program is to eliminate the suffering and costs of avoidable personal injury and vehicle accidents. All agency employees and volunteers are expected to promote accident prevention by actively supporting the safety program.

As a provider of various public transportation services, Metro’s foremost concern is that safe operations precede all other performance criteria. All vehicles, machines, and activities are operated or performed in a manner that reflects the highest regard for safety to the public, the employees, and the property of their citizens and organization. In the operation of fleet vehicles, every courtesy and consideration is given to other motorists, cyclists, and pedestrians with whom they share the streets and highways.

TABLE 5
KC METRO TRANSIT STATISTICS

	2006	2007	2008	2009	2010
Miles Driven	46,347,313	47,683,415	48,017,143	48,755,920	48,398,159
Passengers	102,893,053	110,185,406	118,042,666	111,067,940	108,850,926
No. of Chargeable Accidents with over \$2,500 Damage	15	17	23	25	24
Accidents per 100,000 Miles	4.62	4.31	3.65	3.25	3.04
Vehicle Breakdowns/Miles Between Events	4,576	5,220	5,568	5,631	5,391
Number of Work-Related Injuries Reported (lost time)	447	386	415	431	381

KC Metro's philosophy emphasizes the "three S's"—safety, service, and security, with each department responsible for administering and monitoring one or two of the three S's. However, every department coordinates with the safety department regardless of its primary function or purpose. KC Metro's dedicated base safety officers are assigned to one of seven operating bases as well as LINK Light Rail (1.5 safety officers for light rail). Base supervisors work with base chiefs to manage operators with general ratios of 100 to 125 operators per chief.

Base safety officers meet regularly to discuss safety-related issues and updates. They also address Washington Industry Safety and Health Administration reviews of occupational injuries at each base, review green (incident) cards, and hold round-table discussions to address general issues.

Base safety officers also work cooperatively with neighboring transit systems (Sound Transit, Snohomish County and Pierce County) to form the Transit Integration Group. The purpose of this group is to collectively explore how each separate entity can potentially improve operations-related safety.

KC Metro also incorporates the use of a Safety Awareness Team, an appointed group of transit operators who use a toolbox of field trips, posters, and/or activities to promote safety awareness with their peer group. Current budget issues have limited the scope of KC Metro's team, but historically it had one planning meeting and one general meeting each quarter, depending on budget and safety-related issues.

Agency Disciplinary Practices

All personnel driving KC Metro vehicles (revenue or non-revenue) are subject to an accident review, and all prevent-

able events are evaluated using a point system. Preventable accidents are assessed as minor, major, or severe, with points of 5, 7, and 25 assigned accordingly. Discipline is based on a matrix of points aggregated over a rolling four-year calendar with 25 points in one year as the threshold for dismissal.

All preventable accidents are eligible to be reviewed at the request of the operator (within five days of counseling) for a "reread." If the original verdict stands, the employee can file an appeal with the Accident Review Board. The board is the final step in the appeal process, unless there is a tie vote; tie votes are submitted to the National Safety Council. KC Metro's discipline process for preventable accidents is designed to be a positive/progressive one that assumes skill levels need to be addressed and enhanced. In the event an operator experiences a second retraining (following a fourth minor accident in one year), he/she will receive a three-day suspension. Operators who drive 12 months without incident after their last preventable accident will earn three points to reduce their accident point accumulation; this continues each successive year until they achieve zero points.

Other performance issues that are safety-related are treated as two-, three-, and five-point infractions. Operators on probation have their performance and preventable accident record on a single ledger, with a cap of 15 points for purposes of determining continued status. Once a new hire has completed probation, these two elements are separated and are assessed independently.

Agency Incentive/Rewards Program

KC Metro has been utilizing the National Safety Council's reward/incentive program for more than 40 years. Transit operators receive a recognition award for each successful year of

safe driving, supplemented by the agency's incentive reward, which features special recognition levels.

- Three years—belt buckle
- Five years—plaque
- Ten years—watch
- Fifteen years—jacket or plaque
- Twenty years—ring
- Twenty-five years—jacket or plaque
- Thirty years—mantel clock
- Thirty-five years—brass-etched book plaque with the driver's image and recognition statement
- Forty to forty-five years—VCR, camcorder, etc.

KC Metro recognizes its operators quarterly, and a list of awardees is displayed at the agency's main base. The agency's general manager personally presents safety rewards to those operators who receive 40-plus-year rewards.

Summary

KC Metro's safety goal is the elimination of all accidents and injuries. KC Metro expects all of its employees to conduct themselves appropriately and be guided by the criteria and standards set forth in their policy statement. Employees are encouraged to work in harmony and actively support the safety policy with the goal of making KC Metro the safest public transportation organization in the country.

KC Metro has been very satisfied with the incorporation of the National Safety Council's reward program and plans to use it for many years. The reward program, in tandem with active safety awareness teams, regular base safety officer's meetings, and a dedicated safety program help KC Metro meet its organization's mission to eliminate the suffering and cost of avoidable personal injury and vehicle accidents, and to provide safe working conditions for all employees and volunteers.



**MINNESOTA VALLEY
TRANSIT AUTHORITY,
TWIN CITIES AREA,
MINNESOTA**

Agency Description

MVTA was founded in 1990 as a Joint Powers Authority of the cities of Apple Valley, Burnsville, Eagan, Rosemount, and Savage, Minnesota (the southern suburban Twin Cities area). Providing more than 2 million passenger trips a year, MVTA utilizes 118 buses that operate from two garages. An eight-member board of directors from five cities and two counties oversees an executive director who is supported by 11 staff members. These staff members oversee a private contractor that provides both fixed-route and ADA paratransit service. The contract with the service provider contains detailed performance expectations that were developed and continually modified before each contract rebid.

Organizational Approach to Safety

MVTA's operations motto is "safety is number one." The organization has focused on building camaraderie among operators to promote an improved safety culture. A mission statement incorporates the promotion of a safe and secure environment for public transit riders, workers, and the public at large.

MVTA has a designated safety officer that oversees the safety program and a safety committee consisting of the safety officer, lead trainer, transit supervisors, and managers that addresses all safety-related incidents.

The safety committee handles discipline and follow-up; the contractor is subject to fines on a monthly basis for unsafe acts, and receives incentives when performance exceeds standards. Those standards have recently been expanded to include fleet maintenance in addition to late and missed trips. Current safety standings for contractors with regard to target standards are posted on bulletin boards at the garages and discussed at driver meetings.

Recent advances in safety performance began with an analysis of accidents that revealed that the majority of safety-related incidents occurred within three months following new operator training. The agency established a goal of a 20% reduction in those accidents within two years.

Among the safety improvement strategies implemented at MVTA was an extension of the training period from 62 to 70 hours, depending on prior experience, to 96 hours regardless of prior experience. Other strategies included an enhanced behind-the-wheel period, the inclusion of a five-day "cadet-ting" period, final certification by the lead trainer, appointment of a safety officer to oversee the safety program, and the creation of a safety committee to review incidents and take corrective action. The new-hire criteria for operators were also made more stringent with regard to prior moving violations and accidents. Operators who have more than one preventable accident or moving violation in a 12-month period are removed from service.

In addition to contract penalties and incentives that are applied collectively to operators, individual awards and recognitions are presented to operators who consistently display safe behavior.

Even though miles driven and number of trips increased from 2007 to 2009, these enhancements, particularly the penalty/incentive component for performance, have helped reduce safety-related incidents by 30% since implementation.

Agency Disciplinary Practices

MVTA's progressive discipline program is handled by a safety committee. Progressive discipline steps include verbal warnings, written warnings, suspension, and termination.

Agency Incentive/Rewards Program

MVTA reviews incidents in three categories on a monthly basis—driver complaints (including safety-related incidents), missed trips, and fleet maintenance. Based on the number of substantial incidents, performance is rated “superior,” “acceptable,” or “non-acceptable.” Incentives are given for “acceptable” and “superior” and penalties are imposed for “non-acceptable” service. This program was developed in 2003 with operator input.

Additionally, safety awards are presented to operators who consistently display safe behavior. Two operators from this pool are selected as “Operators of the Year” and are honored at an awards ceremony and banquet.

Summary

MVTA has developed a safety-focused culture through a comprehensive safety program that requires employees to put safety first.



**RIVER CITIES PUBLIC TRANSIT,
PIERRE, SOUTH DAKOTA**

Agency Description

River Cities Public Transit is a private, nonprofit agency providing transportation services to individuals with disabilities, senior citizens, low-income residents, and the general public in 11 counties in central South Dakota. Service is provided 24 hours per day, 7 days per week to the service area of 30,000 residents. River Cities Public Transit currently provides 320,000 annual one-way trips.

River Cities Public Transit coordinates transportation for numerous community agencies and businesses, is a Medicaid-licensed transportation provider, serves two Native American reservations, and provides a variety of other services.

Organizational Approach to Safety

River Cities Public Transit puts a priority on safety. It is addressed in the organization’s mission statement and is one of the system’s seven core values: “Practice safety in all work activities.”

All new bus operators are trained with the CTAA Passenger Service and Safety module. Additional training focuses on defensive driving identifying potential abuse and neglect of passengers. All new hires ride for two weeks with senior lead drivers and are observed during their first week of driving on their own.

River Cities Public Transit also uses the Dakota Transit Association (i.e., North and South Dakota) for training and professional development opportunities.

For the past two years, the agency has employed consultant services two days per month whose sole concern is the safety program.

Agency Disciplinary Practices

River Cities Public Transit uses an accident review committee to review all accidents and incidents and to make a determination as to whether the event was preventable. Bus operators are represented on the committee.

In the past year, River Cities Public Transit has implemented a cash penalty for any bus operator charged with a preventable accident. The fine is \$250 if the bus operator promptly reports the event to management, and \$500 if not.

Agency Incentive/Rewards Program

Working with the safety consultant, the agency has created a committee for the purpose of recommending employee recognition programs.

Currently, River Cities Public Transit does not have any employee recognition programs with the exception of a Driver of the Year award.

Summary

As shown by the inclusion of safety in its mission statement and core values, River Cities Public Transit places a priority on safety. The agency is working progressively to develop a strong safety program, including a process to address both rewards and corrective actions.



**SOUTHWEST TRANSIT, EDEN
PRAIRIE, MINNESOTA**

Agency Description

SouthWest Transit is located in Eden Prairie, Minnesota. The system is suburban and provides fixed-route service to communities southwest of Minneapolis. Its annual ridership is approximately one million. SouthWest Transit is operated under a joint powers agreement (public agency) with privately contracted transit operators (drivers) and street operations management staff (First Transit). SouthWest Transit’s transit drivers are unionized (see Table 6).

Organizational Approach to Safety

SouthWest Transit’s commitment to safety, security, and agency performance emphasizes as the overriding objective in the agency’s strategic plan, to “Provide reliable, safe, comfortable, and customer friendly service.”

TABLE 6
SOUTHWEST TRANSIT STATISTICS

	2005	2006	2007	2008	2009	2010
Miles Driven	1,387,257	1,475,052	1,621,059	1,770,791	1,508,736	1,548,774
Passengers	800,020	900,227	953,573	1,146,829	1,011,974	1,002,382
No. of Passenger/Driver Injuries Requiring Immediate Medical Attention	0	0	0	0	0	0
No. of Chargeable Accidents With over \$2,500 Damage	15	13	9	5	3	2
Accidents per 100,000 Miles	1.08	0.88	0.56	0.28	0.20	0.13
Cost of Chargeable Accidents	\$34,414	\$23,231	\$18,125	\$12,500	\$15,197	\$14,332
Vehicle Breakdowns/Miles Between Events	17,560	24,000	31,780	26,314	28,467	36,122
Number of Work-Related Injuries Reported (lost time)	1	1	2	1	4	1

Within this objective are key metrics that are reviewed and discussed at each monthly management meeting. These metrics include:

- Achieving a chargeable accident rate at less than 0.75 per 100,000 miles driven,
- Having no more than one employee injury resulting in lost time for the year,
- Maintaining an on-time performance record of 99% or better,
- Maintaining the vehicle in service breakdown rate at or better than 1 per 25,000 miles operated, and
- Maintaining a customer service satisfaction rating of 97% or better annually.

Driver safety meetings are also held monthly to review safety and security concerns including: MSDS, blood-borne pathogens, evacuation procedures for facilities and buses, incident communication radio codes, self-protection for drivers, suspicious object recognition and procedures, disruptive passenger training, disabled passenger lifting procedures, preventing passenger trips and falls, visitor and security awareness, safe driving tips, and the safe use of bus shoulders. A lunch is provided when the number of days without an accident exceeds 45.

A multi-disciplinary Safety Solutions Team (SST) has monthly meetings and group presentations to review accidents, incidents, safety tips, and suggestions. Team meetings are attended monthly by two levels of management and provide an opportunity for staff to present driver safety suggestions. The SST team leads the effort in planning monthly safety campaigns and contests.

Monthly safety campaign topics include the use of mirrors and reference points, quizzes and rewards, and required

accident and incident retraining. A daily safety message board, seen as the drivers leave the yard, includes the number of days without an accident or incident, and a safety reminder as recommended by the SST.

All new drivers are evaluated based on driving and background checks, and are put through a minimum of 72 hours of initial training consisting of classroom, behind-the-wheel training, cadet training, customer service training, and emergency preparedness training.

Driver credentials are checked every four months to ensure no new violations have occurred off the job, and criminal records are checked annually. The reference check frequency was increased by 50% after 2008, owing to concerns over economic conditions that produced a general increase in stress. A tracking system provides early alerts on any driver's license or DOT health card expirations, and logs ride-along and audit frequency.

A very important driver incentive program rewards each operator with up to \$2,000 in extra pay for reaching the safety and customer service goals. The agency's budget for this program is \$162,000, and the average annual payout is 78%. Drivers who achieve top performance for four calendar quarters are issued leather jackets with the SW logo, and gold driver nameplates instead of the standard black background so the customers can recognize them. With longer service and clean safety performance records, operators receive a custom jeweled gold pin, and then a leather tote to go along with the leather jacket.

Operations managers are required to perform a minimum number of ride-along and ride-behind evaluations of routes, with every driver being evaluated at least once per year. Each operations supervisor is required to perform 61 hours of road and ride-along observations per month.

Drivers and managers carry a small booklet titled “Injury Protection Program,” which provides tear-out notes for commendations or safety concerns. Managers are required to record good or bad safety habits and behaviors.

Agency Disciplinary Practices

SouthWest Transit has a standard approach to progressive discipline which includes a series of verbal and written counseling steps. Its discipline program, specified in the employee handbook, outlines a series of three categories of disciplinary infractions.

- Class 1 infractions are dischargeable offenses and include, but are not limited to, felony convictions. Class 1 infractions also include such safety-related issues as rear-end collisions, failure to properly secure a mobility device, and roadway violations.
- Class 2 infractions are serious violations of the organization’s performance code. They include, but are not limited to, excessive absenteeism, tardiness, reporting to work unfit, and violating operating regulations. Class 2 infractions subject employees to suspension and final warning for the first offense in a rolling 12-month period. Two safety-related violations in 12 months or three in 36 months will result in discharge.
- Class 3 infractions are considered secondary violations of the organization’s performance code and include such issues as failure to report safety hazards or accidents. An employee’s first offense results in a written warning, the second evokes a final warning, and a third offense within a 36-month period leads to discharge.
- Class 4 infractions are considered lesser violations of the organization’s performance code that result in disciplinary action depending on the circumstances or repeated violations. Class 4 infractions include dress code violations, improper personal appearance, and poor work habits.

Agency Incentive Rewards Program

SouthWest Transit has two safety and performance incentive programs that operate in tandem. The Best Employees Succeed Together (BEST) program focuses on the concept that employees will help meet the agency’s mission of safety by succeeding together. The BEST program offers employees a financial bonus from fixed or variable pools.

SouthWest Transit’s 2010 driver incentive plan had a fixed budget of \$100,000, which was split into two components; one fixed amount earnable per operator and a variable pool that was available to be shared by all eligible operators.

Eligibility for the program is extended to all operators who have completed at least 30 days of revenue service and have worked a full scoring calendar quarter without committing

a “team failure event.” Recipients are required to be active employees of record when the payment is made. Part-time employees and those on leave have their awards pro-rated for the time they worked as a percent of total full-time hours.

“Team failure events” disqualify the individuals from earning any award in the quarter in which they occur, and disqualify them from sharing in the annual variable award pool. These events are actions that have a negative effect on the organization as a whole and include, but are not limited to:

- A chargeable, preventable accident or incident of any value
- A missed route
- Any proven act of violence, harassment, theft, or documented misrepresentation.

Fixed Pool

The fixed incentive pool consists of \$1,300 per operator, which is paid in equal quarterly installments (\$325.00) based on scoring for each individual (or is pro-rated on a quarterly basis as described previously). A mixed task force of managers and operators scores key performance factors subject to SouthWest Transit’s approval. Factors include such aspects of the organization’s mission including, but not limited to: customer care, safe operation, following rules and policies, and attendance.

If an award is not granted for a specific quarter, operators are eligible the following quarter. Team failure events may make an operator ineligible for the end of year variable pool award.

Variable Pool

At the beginning of the year, the variable pool award budget is \$25,000. Any savings from the fixed pool is added to it; however, any chargeable accident costs will be deducted from the variable pool. Once the task force has evaluated the final quarter, the remaining amount in the pool will be shared by all eligible participants. The shares are progressive in nature, so those on the lower end of the pay scale are awarded a higher amount than those on the top. This is based on the relationship of the pay to the average of all drivers. As an example, if the pool was \$40,000 at the end of the year, shared by 57 drivers, the top hourly wage drivers earning 116% of the average would be awarded \$587.58 on top of their quarterly \$325.00, and the drivers who earn 79.3% of average pay would be awarded \$847.20 on top of their quarterly award. Part-time employees are not pro-rated for this variable pool, as they are for the fixed pool.

The BEST program was updated in 2011 to include provisions for consistent yearly recognition. Operators who consistently meet the requirements of the driver incentive plan receive a “Gold Driver” designation that allows them to display a special name plate on the bus that includes the operator’s name, the organization’s strategic plan, and the title

“Gold Driver.” All of the awards are presented in public at the Hennepin County Commission meetings.

Summary

SouthWest Transit definitely believes that its Driver Incentive Plan is helping it meet its safety goals outlined in the agency’s strategic plan. Based on the data reported, a pattern appears to have emerged that validates the agency’s belief that reward programs are effective tools to improve safety.

In addition to having a proactive and unique safety reward program, SouthWest transit also has implemented a few additional policies which contribute to the organization’s safety and service programs. It is SouthWest Transit’s policy and mission that all customer complaints be investigated within 24 hours of receipt.

Although SouthWest Transit has up to nine surveillance cameras in each bus, the video footage is not reviewed unless a customer or employee complaint is filed or an incident occurs. SouthWest Transit’s management does not notify the employee that camera footage is being retrieved unless the investigation identifies that corrective action is necessary. This distinctive measure avoids unnecessary inquiries of operators on company time and also avoids upsetting operators for unfounded claims.



Agency Description

UTA is located in Salt Lake City, with business units in Salt Lake City, Provo, and Ogden. The system is characterized as urban, suburban, regional, and rural, providing fixed-route, paratransit, light rail/streetcar, bus rapid transit, and commuter rail to four million passengers annually. UTA is a government special service district overseen by a board of trustees. It serves the residents of Salt Lake, Weber, and Davis counties and select cities within Utah, Box Elder, and Tooele counties. UTA’s nonadministrative personnel are unionized (see Table 7).

Organizational Approach to Safety

UTA’s mission statement summarizes the organization’s approach to safety and its commitment to employees and customers: “UTA strengthens and connects communities, enabling individuals to pursue fuller lives with greater ease and convenience by leading in partnering, planning, and wise investment of physical, economic and human resources.”

UTA’s operational structure includes five (regional) business units, four that operate bus and rail service and the fifth providing paratransit service. UTA’s organic approach to organizational safety and service requires each business unit to be responsible for maintaining safety and reporting standards. Each business unit has a dedicated regional general manager, operations manager, and maintenance manager. Safety committee meetings are held bi-monthly and issues followed up immediately. A member of UTA’s union participates in safety meetings.

Table 7 provides data on UTA’s miles driven, number of passengers, chargeable accidents, and vehicle breakdowns over the past three years.

Agency Disciplinary Practices

The purpose of UTA’s accident policy is to emphasize the importance of safe operations, defensive driving skills, and re-training. It classifies accidents based on their severity and the corresponding consequences. Through consistent implementation, UTA’s policies support its goal of transitioning employees involved in vehicular accidents or incidents back to a productive, safe work status while not diminishing the excellent safe driving record established over many years by UTA employees.

UTA’s accident classification schedule categorizes the severity of an accident from 1 to 4 based on total damages and personal injury costs, as well as number of occurrences. Discipline is imposed in a progressive manner. The only exception is if a preventable accident’s total damages and personal injury costs exceed \$10,000, in which case, employees may be subject to immediate termination.

TABLE 7
UTA TRANSIT STATISTICS

	2008	2009	2010
Miles Driven	4,063,039	4,890,041	3,798,187
Passengers	3,453,594	3,334,062	3,381,634
Accidents per 100,000 Miles	0.95	1.05	0.96
Vehicle Breakdowns/Miles Between Events	12,387	10,230	9,764

Agency Incentive/Rewards Program

The Ogden Business Unit at UTA has seven incentive reward programs: Rising Star, Perfect Attendance, On the Spot, Peer to Peer (P2P), Golden Snitch Award, Road Call Achievement Recognition and Reward, and the Complaint Reduction Program. UTA reported that the initial start-up cost for its incentive rewards programs was \$10,000 (in 2009), but that since then the program's budget has been approximately \$3,000. The reward program budget is included in the agency's operating budget.

Rising Star was developed as a way to recognize both short-term and long-term improvement in employee performance. Recipients are chosen at the supervisor's discretion based on job performance. To be considered for this award, an employee is required to demonstrate significant improvement in a specific area such as business unit goals and objectives, reliability, attendance, attitude, accident prevention, complaint prevention, policy adherence, and driving habits.

Each supervisor is responsible for selecting a Rising Star candidate by the seventh day of each month. If no team members meet the criteria, the supervisor is not required to submit a candidate for consideration. The recognition and rewards team leader is responsible for obtaining gift cards and posting recipient names on the Rising Star bulletin board in the operator lounge.

Perfect Attendance rewards employees who have had no short notice events or sick days and no miss-outs or late reports in a calendar year. Employees who earn Perfect Attendance rewards receive \$5 gift cards in addition to a certificate and pin.

On the Spot rewards immediately reinforce positive behaviors within the business unit and develop a culture where employees are recognized, valued, and rewarded. Any positive behavior, action, or attitude can qualify for this recognition. "You've been spotted" stickers as well as "On the Spot" comment slips are assigned for basic recognition. Tangible rewards ranging from candy or gum up through three tiers of progressively valued rewards are available to recognize higher levels of achievement.

Peer to Peer (P2P) rewards promote mutual support between coworkers by recognizing positive behaviors, actions, and attitudes.

An employee who notices a coworker's positive performance can fill out a P2P slip (available throughout the business unit) and personally deliver the slip to the employee or leave it in his/her mailbox. A third (and least preferred) option is to deposit the slip in the drawing box.

Recipients of a P2P slip have the option of placing the slip in a designated box located in the maintenance office coordinator's office or on the operator counter in the operations train room. At the end of each month, a drawing is held from the

deposited slips. Both the employee who wrote the slip and the one being recognized receive an award if their slip is drawn.

There are no limitations on what actions can be recognized or how many times an employee can be recognized in the month.

The Golden Snitch Award allows any maintenance department employee to recognize the outstanding accomplishments of other employees, whether in the maintenance department or elsewhere in UTA.

The Road Call Achievement Recognition and Reward promotes teamwork and unity among maintenance employees by rewarding improvements in increasing the number of miles between road calls.

Managers and supervisors in the maintenance department determine, on a semi-annual basis, goals for the average number of miles between road calls. (UTA's current goal is 10,000 miles between calls). When the monthly road call goal is met or surpassed, rewards are provided to the maintenance workers ranging from a snack/refreshment to a full lunch.

If the goal is met or surpassed for three months in a row, a steak lunch will be provided. If this level continues for another three months (a total of six months) a prime rib lunch will be provided. If the road call level drops below the miles between road call goal, the cycle starts over. Rewards and levels of achievement are reviewed on a semi-annual basis.

Complaint Reduction is an incentive program to reduce the number of customer complaints received in each business unit. Rewards for the reduction of complaints are based on the unit's goal. The current goal is four complaints per operator per year. Eligible operators may not have received more than one complaint per quarter.

Supervisors are monitored on a monthly basis to ensure participation in UTA's employee recognition programs. Recognition and rewards metrics are submitted to the business unit's leadership teams for monthly review.

In addition to UTA's reward and incentive programs, the organization maintains an extensive health and wellness program that is free to employees. The contracted health and wellness program, called Participation Activity Commitment Evaluation, offers the employees regular health and risk management services customized for each employee. Full fitness testing (cardio, height, weight, and blood pressure) and counseling is offered annually, and each business unit has a fully equipped exercise gym that is available to UTA employees 24 hours a day, 7 days a week. Wellness consultants and over-the-counter medications are available to employees on site. Employees who participate in quarterly health challenges receive deposits in their health reimbursement saving accounts.

Employees can also earn up to \$250 per year for their health reimbursement accounts by participating in health risk appraisals, annual fitness appraisal, disease management programs and healthy behavior programs.

Summary

UTA's goal in implementing its reward and incentive program was to "change the organization's culture." It is UTA's belief that a paradigm shift was necessary to improve morale and safety. By recognizing good performance, and providing tools for healthy living, UTA encourages employees to benefit the organization, themselves, and the community. UTA believes that healthy, happy employees are absent less frequently and have better work attitudes.

UTA's philosophy toward employee motivation has reportedly succeeded. The agency reports very low turnover rates and indicates that the majority of their employees only leave the organization when they retire.



**WIND RIVER TRANSPORTATION
AUTHORITY, RIVERTON,
WYOMING**

Agency Description

WRTA, Fremont County's public transit system, offers a variety of services in and around Fremont County and central Wyoming. This includes fixed bus routes, paratransit services, airport shuttles, and special group excursions. WRTA's fixed routes offer morning and afternoon bus service for commuting to jobs, schools, and Central Wyoming College.

WRTA operates 14 transit vehicles and provides an average of 9,000 passenger trips per month. The system provides service coverage to approximately 70% of the 9,157-square-mile Fremont County. WRTA is a county government agency.

Organizational Approach to Safety

WRTA emphasizes bus operator training and safety. As a small transit agency, WRTA relies on Wyoming Public Transit Authority (referred to as WYTRANS) resources to assist these programs.

WYTRANS is a private, nonprofit organization consisting of more than 50 public transit and social service agencies from every county in Wyoming that provide public transportation services. WYTRANS provides manager and driver training for transit agencies, using funds provided by the Wyoming DOT. WYTRANS offers top-notch, national training programs and certifications in Transportation Safety Institute's Paratransit Operator Trainer Training Program, at very nominal costs to WYTRANS members. WYTRANS also provides training materials and information on drug and alcohol testing services and FTA requirements. WYTRANS employs a "train

the trainer" philosophy, which supplies a group of qualified trainers from the agencies to assist with the local training sessions.

WRTA requires new bus operators to have some prior experience in public transportation and what it considers a good attitude before being hired. All new bus operators are given 16 hours of classroom training; all drivers periodically attend WYTRANS bus operator classes.

Agency Disciplinary Practices

WRTA utilizes a progressive discipline process. All accidents are examined by a peer review committee. For accidents determined to be avoidable, the first accident results in a disciplinary reprimand, the second in a one-year suspension, and a third accident within a 12-month period results in discharge.

Following each avoidable accident, WRTA assigns a supervisor to ride with the culpable bus operator upon his/her return to provide advice and retraining.

Agency Incentive/Rewards Program

WRTA recognizes bus operators with good safety records in a variety of relatively low-cost programs. For drivers reaching special "plateaus," such as five years accident-free driving, WRTA provides sandwiches.

WRTA also recognizes other employee achievements not directly related to safety. An example would be the annual "Clean Bus Award" that earns the winning driver a dinner certificate at a local restaurant.

Summary

WRTA puts a strong focus on safety, employee training, excellent service, and being an asset to the community. WRTA sets high employee standards and provides its employees with the needed resources.

As a small transit agency, WRTA is an active member in WYTRANS and uses the state transit association to provide professional and up-to-date training and professional development classes and sessions.

SUMMARY

The following provides some of the highlights from the case examples by subject area.

Organization and Safety

- Recently, DART implemented a series of initiatives to engage front-line employees that:

- Sought to improve communication with and between operators and their supervisors with safety meetings
- Implemented performance incentive programs at both individual and team levels
- Focused on an improved hazard identification process.
- DART conducts regular mandatory one-hour safety meetings with operators.
- FAST designated a dedicated safety and training coordinator in 2008 to improve focus on safety, including monthly safety training meetings.
- FAST encourages all employees to provide their input on safety issues, problems, and concerns.
- GO Transit uses internal mission statements that specify “charters with passengers,” including safety.
- GO Transit’s safety plan was developed with input from all levels of employees.
- GO Transit has a systematic three-year reoccurring bus operator training program.
- GO Transit focuses on changing behaviors and developing a level of continuity.
- KC Metro focuses on three S’s—safety, service, and security.
- KC Metro has dedicated base safety officers at all of its operating bases.
- KC Metro established a safety awareness team consisting of an appointed group of bus operators.
- MVTA has focused on building an improved safety culture around its operations motto of “safety is number one.”
- MVTA has a designated safety officer who oversees the safety program and manages the safety committee.
- MVTA focuses on new bus operators in their first three months of employment and has recently expanded the length of its bus operator training program.
- River Cities Public Transit, a small rural transit agency, places a priority on safety, with a strong bus operator training program.
- River Cities Public Transit uses a consultant to identify safety issues and develop a safety program.
- SouthWest Transit has a strong commitment toward safe and reliable service, with monthly measures and the review of five metrics:
 - Chargeable accident rates
 - Employee injuries
 - On-time performance
 - Vehicle break-downs
 - Customer satisfaction.
- SouthWest Transit holds monthly driver safety meetings and monthly safety solution team meetings.
- UTA assigns organization and safety requirements to its five operating units. Each conducts bi-monthly safety committee meetings.
- WRTA, a small rural transit agency, places a strong emphasis on safety and employee training and relies on the state transit association to assist in their safety and training program.

Organizational Policies Related to Safety Discipline

- All of the case example agencies used some form of progressive discipline to address safety-related performance deficiencies and to correct behaviors that have led to unsafe acts.
- As detailed previously in the report, progressive discipline specifies a series of consequences, increasing in severity over time, which encourages an employee to modify any negative behavior, including misconduct, poor performance, violations of company policy, absenteeism, and tardiness.
- In addition to imposing disciplinary consequences after accidents, most transit agencies also require the involved driver to receive some form of re-training.
- KC Metro uses a point system that assigns values to the severity of the accident and then sets a threshold of points that can be accumulated over a 48-month rolling period. Bus operators who thereafter have no accidents receive a credit of three points for each year of accident-free driving.
- River Cities Public Transit implemented a cash penalty for any bus operator charged with a preventable accident. The penalties are \$250 per preventable accident if the bus operator promptly reports the event and \$500 if the event is not promptly reported to management.

Safety Incentives and Awards

- Through DART’s Employee Performance Incentive Program, operating divisions compete to achieve goals for on-time performance; fewer late pull-outs, unscheduled absences, and complaints; increased ridership; better cost-per-mile an hour rates; and fewer accidents per 100,000 miles. The winning division receives recognition, including a catered lunch, each quarter.
- Additionally, DART recognizes individual drivers who can qualify for bonuses if they do not have any safety infractions, preventable accidents, or corrective/disciplinary actions during the quarter.
- GO Transit recently implemented incentive type safety program elements including competition between divisions and increased discussion and awareness of safety issues. Rewards are administered five times per year in conjunction with regular operational “markup” or “picks.”
- KC Metro has been using the National Safety Council’s reward/incentive program for more than 40 years. Transit operators receive a recognition award for each successful year of safe driving, supplemented by the agency’s incentive reward, which features special recognition levels. Operators are recognized quarterly and a list of awardees is displayed at the agency’s main base.
- MVTA reviews incidents in three categories on a monthly basis: driver complaints (including safety-related incidents), missed trips, and fleet maintenance.

Incentives are given for “acceptable” and “superior” ratings and penalties are imposed for “unacceptable” service. This program was developed in 2003 with operator input.

- MVTA presents safety awards to operators who consistently display safe behavior. Two operators from this pool are selected as “Operators of the Year” and are honored at an awards ceremony and banquet.
- SouthWest Transit has two safety/performance incentive programs that operate in tandem. The BEST program focuses on the concept that employees will help meet the agency’s mission of safety by succeeding together. The BEST program offers employees a financial bonus from fixed and variable pools.
- BEST was updated in 2011 to include provisions for consistent yearly recognition. Operators who consistently meet the requirements of the driver incentive plan receive a “Gold Driver” designation. The Gold Driver designation allows them the opportunity to display a special name plate on the bus.
- The Ogden business unit at UTA has seven incentive reward programs: Rising Star, Perfect Attendance, On the Spot, Peer to Peer (P2P), Golden Snitch Award, Road Call Achievement Recognition and Reward and the Complaint Reduction Program.
- UTA maintains an extensive health and wellness program called Participation Activity Commitment Evaluation that is free to employees.
- WRTA provides recognition for bus operators with good safety records through a variety of relatively low-cost programs. It provides sandwiches for bus operators reaching special “plateaus,” such as five years of accident-free driving.
- Although data and documentation on the effectiveness of incentive and reward plans are limited, three of the case examples provided these positive results:
 - As a result of its initiatives, DART reported a reduction in vehicle collisions of nearly 10%, in passenger accidents of nearly 16%, and a significant improvement in passenger perception of safety.
 - Recent changes to GO Transit’s organizational approach to safety appear to have contributed to a nearly 12% decrease in the number of all types of collisions per million kilometers travelled.
 - SouthWest Transit reported that even though miles driven and number of trips increased from 2007 to 2009, safe behavior policy, particularly the penalty/incentive contingent for performance, has helped reduce safety-related incidents by 30% since implementation.

CHAPTER FIVE

CONCLUSIONS

This chapter summarizes findings and presents conclusions from this synthesis project, and offers suggestions for future study. A literature review, surveys, and case studies provide an assessment of factors contributing to successful transit operator safety programs, with specific emphasis on discipline and reward programs.

CONCLUSIONS

Every transit agency in the study emphasized the importance of safety in its mission and in its operations; however, differences between agency approaches to safety were obvious in the various methods and level of agency commitment for accomplishing safety goals.

One constant was the presence of a disciplinary code for safety-related matters. All were progressive in nature with exceptions only for the most serious of safety-related offenses. However, evaluating the effectiveness of discipline as a method for improving safety was difficult for a number of reasons, the most notable being the absence of a control group (i.e., an agency that does not have a disciplinary code). Because disciplinary policies are rarely changed, a pre-/post-evaluation of the effectiveness of the change is difficult.

Based on the information in the literature review, the survey, and the case examples, it appears that regardless of the industry, safety incentive programs can be successful when used in conjunction with an existing safety program. An effective incentive program encourages employees to exceed the requirements of the safety management program. These programs raise awareness of the organization's commitment to safety by engaging and educate employees, encouraging positive behavior change, and rewarding and recognizing employees for contributing to a safe work environment.

Transit agencies have used a variety of employee safety reward programs in conjunction with corrective action to recognize, motivate, and reinforce organizational safety culture. Based on the findings, it is evident that agencies that incorporate safety reward programs find the programs to be effective tools to improve employee morale, encourage employees to work safely, and improve the employee–employer relationship. These affirmative approaches to safety management, along with consistent discipline programs, have been reported by respondents to be model programs.

Unfortunately, because of decreasing budgets and increasing operating costs, many transit systems are unable to implement or maintain operator reward programs.

As only a few of the agencies who participated in this study have active employee health and wellness programs, additional research could be conducted on the need for workplace wellness programs, as well as the benefits of such programs. Although there is no empirical data related to the transit industry, the agencies that have comprehensive employee health and wellness programs reported increased morale, reduced turnover, and lowered absenteeism.

A number of agencies reported success, some measured, with reward or incentive programs. A variety of program elements were mentioned, including group awards, individual awards, goal-setting, competition, public display of performance, short- and long-term awards, recognition, and sponsored social functions. Also included in the survey findings was the successful use of incentives when an agency used a contracted service provider. In these cases, actual performance was measured against performance standards and was used to trigger penalties or incentive payments through the contractor.

The study does not draw conclusions on the effectiveness of disciplinary programs on improving transit safety. It does provide some evidence that those participating agencies that recently implemented some form of safety award or incentive program have met with some degree of success. No conclusion can be drawn between any measure of success and individual reward program elements. However, it is important to note that a common theme among the successful award programs is that they were “recent” interventions. This could indicate that a shift in routine focus through the introduction of a new program might in itself result in participants paying more attention to program goals.

SUGGESTIONS FOR FUTURE RESEARCH

This report suggests that additional research might be undertaken to measure the effectiveness and benefits of employee incentive programs and to identify the best industry-specific disciplinary practices. Potential areas for research include:

- A scientifically controlled study to evaluate the effectiveness of rewards/incentives in reducing accidents.

Although research collected during this project suggests that such programs, developed and incorporated with the buy-in of the employer, employee, and union can work effectively, additional research might be conducted on a larger sample size to provide quantifiable safety data.

- Research directed toward the development of a standardized, participatory process for implementing program or policy changes to improve safety. Such a study might focus on what employee input and participation are necessary to develop successful and effective reward/incentive programs.
- Research on the opportunities for public transit agencies contracting with service providers to use rewards and penalties within the contract structure to improve safety and overall performance.
- Additional research to evaluate the impact of a workplace wellness program on organizational safety and how it relates to employee absenteeism, health care costs, work-related injuries, employee morale, and retention.
- Research conducted to identify successful practices of developing and enhancing the safety culture of transit agencies, expanding the focus to all aspects of the organization and not just bus operators.

ABBREVIATIONS AND ACRONYMS

CDL	Commercial Drivers License
CTAA	Community Transportation Association of America
DART	Dallas Area Rapid Transit
FAST	Fayetteville Area System of Transit
GO Transit	Greater Toronto and Hamilton Area Transit
KC Metro	King County Department of Transportation, Metro Transit Division
MSDS	Material Safety Data Sheets
MVTA	Minnesota Valley Transit Authority
SSPP	System Safety Program Plan
SST	Safety Solutions Team
UTA	Utah Transit Authority
WRTA	Wind River Transportation Authority
WyTRANS	Wyoming Public Transit Authority

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APPENDIX A

Survey Questionnaire

Improving Transit Safety through Rewards and Discipline

1. Purpose of this Survey

Safety is a paramount concern for all aspects of transit operations. Transit agencies have used a combination of rewards and corrective action to recognize, motivate, and reinforce its safety culture.

Traditionally, progressive discipline has been used to address safety related performance deficiencies and to correct behaviors that have led to unsafe acts. A growing number of transit systems have begun to offer incentive programs rewarding employees or groups of employees who have achieved safety and performance milestones. Importantly, new and innovative safety programs are emerging to motivate and engage a diverse and changing workforce.

This information gathering survey is part of Transit Cooperative Research Program (TCRP) Synthesis Project SF-16 "Improving Transit Safety through Rewards and Discipline."

This non-traditional survey focuses on gathering/collecting information from transit systems on their organizations' commitment to safety, reward and discipline programs, and agency safety standards and practices. Specifically, this study effort will be focused on bus operations.

Once the survey results are reviewed, some key agencies that are employing combination employee incentive and discipline programs to enhance their operational safety will be selected for telephone interviews to gather more in-depth information. The final results of the survey will be synthesized into a report that will be published by the Transportation Research Board (TRB).

If at anytime you would rather forward the researchers your agency's information instead of including it in the survey, please email the attachment to jaygoodwill@cutr.usf.edu

Thank you for taking the time to complete this survey!

2. Contact Information

1. Please complete the following information. We will only contact you if we have a question about your survey responses.

Name:

Company:

Address:

Address 2:

City/Town:

State:

ZIP:

Email Address:

Phone Number:

3. Transit System Characteristics

Improving Transit Safety through Rewards and Discipline

1. Which modes does your agency either directly operate or operate using a contractor? (check all that apply)

- Fixed-route bus
- Paratransit
- Heavy rail/subway
- Light rail/streetcar
- Bus rapid transit
- Commuter rail
- Ferry

Other (please specify)

2. How many total passengers does your system carry on an annual basis?

3. What type of areas does your transit system serve? (check all that apply)

- Urban
- Suburban
- Regional
- Rural

4. The Organization and Safety (Mission)

1. Does your organization have a formal mission statement?

- Yes
- No

2. If yes, is safety mentioned in the mission statement?

- Yes
- No

3. Please provide the text of the mission statement (copy/paste):

Improving Transit Safety through Rewards and Discipline

4. Is the mission statement posted throughout the organization?

Yes

No

5. Please describe where the mission statement is posted or included in organization documents:

5. The Organization and Safety (Safety Program)

1. Does your organization have a written Safety Program, System Safety Program Plan or similar document?

Yes

No

2. Please provide the title or titles of the documents:

3. Describe how your organization's safety program or process is managed:

4. Is organized labor involved in the application of the safety program or process?

Yes

No

5. If yes, please describe organized labor's involvement in the safety program or process:

6. Is safety addressed in new bus operator orientation?

Yes

No

Improving Transit Safety through Rewards and Discipline

7. If yes, please describe how safety is included in the new bus operator orientation:

8. Is safety a part of recurring bus operator training or regular safety meetings?

Yes

No

9. If yes, please describe how and which bus operators participate:

10. Does your organization have a “hazard identification” process?

Yes

No

11. If yes, how does it work?

6. Organizational Policies Related to Safety Discipline

1. Please describe in detail how your organization handles discipline and related follow-up for bus operators involved in accidents and other safety infractions or incidents, including the appeal process:

2. Can bus operators be discharged for safety related accidents or incidents?

Yes

No

3. If yes, how?

Improving Transit Safety through Rewards and Discipline

4. Does your maintenance department or other departments have a same or similar disciplinary program or process?

Yes

No

5. If different, please describe:

6. Does your organization have any data that would indicate how effective your disciplinary process has been in impacting safety?

Yes

No

7. If yes, please describe:

8. How does your organization handle safety complaints from passengers and others?

9. How can organizational policies and practices toward discipline for safety performance be improved?

7. Safety Incentives and Rewards

1. Does your organization offer individual or group rewards or incentives for safety performance?

Yes

No

2. If yes, please describe what they are and how your process works:

Improving Transit Safety through Rewards and Discipline

3. If yes, describe how your incentive or reward program was developed and implemented:

4. Were bus operators involved in the program development?

Yes
 No

5. Was organized labor involved in the program development?

Yes
 No

6. How long has your incentive or reward program been in effect?

7. Are your incentive or reward programs:

Ongoing
 Time Limited
 Both

8. If both, please provide additional detail:

9. Does your maintenance department or other departments have a same or similar incentive or reward programs?

Yes
 No

10. If different, please describe:

Improving Transit Safety through Rewards and Discipline	
<p>11. Does your organization have any data that would indicate how effective your incentive and rewards program has been in impacting safety?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	
<p>12. If yes, please describe:</p> <p><input type="text"/></p> <p><input type="text"/></p>	
<p>13. How can organizational policies and practices toward rewards and incentive programs for safety performance be improved?</p> <p><input type="text"/></p> <p><input type="text"/></p>	
8. Challenges and Opportunities	
<p>1. Does your organization experience a high turnover of your bus operators?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	
<p>2. If yes, please provide the contributing causes:</p> <p><input type="text"/></p> <p><input type="text"/></p>	
<p>3. Does your organization experience communication and training problems related to the diversity of your workforce (i.e., age differences, cultural differences, etc.)?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	
<p>4. If yes, please describe:</p> <p><input type="text"/></p> <p><input type="text"/></p>	
<p>5. Does your organization have an employee wellness program that addresses issues such as sleep patterns, the use of over the counter medicines, and other issues that could impact bus operator performance?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	

Improving Transit Safety through Rewards and Discipline

6. If yes, please describe:

7. Do you have any advice or thoughts to share on improving transit safety through rewards and discipline programs?

APPENDIX B

List of Respondents

Transit Agency	Location		Union ??
Broome County Transit	Vestal	NY	Yes
Fayetteville Area System of Transit	Fayetteville	NC	No
Foothill Transit	West Covina	CA	Yes
Greater Toronto and Hamilton Area Transit (GO Transit)	Toronto	ON	Yes
Go West Transit (Western Illinois Univ.)	Macomb	IL	Yes
Greater Bridgeport Transit	Bridgeport	CT	Yes
Hillsborough Area Regional Transit (HART)	Tampa	FL	Yes
Indianapolis Public Transit Corporation (IndyGo)	Indianapolis	IN	Yes
King County METRO	Seattle	WA	Yes
Lee County Transit (Lee Tran)	Fort Myers	FL	No
Central Florida Transit Authority (LYNX)	Orlando	FL	Yes
Manatee County Area Transit	Bradenton	FL	No
Houston METRO	Houston	TX	Yes
Miami-Dade Transit	Miami	FL	Yes
Minnesota Valley Transit Authority	Minneapolis/St. Paul Suburbs	MN	Yes
Pinellas Suncoast Transit Authority (PSTA)	Saint Petersburg	FL	Yes
Rural Community Transportation, Inc.	Saint Johnsbury	VT	No
Sacramento Regional Transit District	Sacramento	CA	Yes
SouthWest Metro Transit	Eden Prairie	MN	Yes
Southwest Ohio Regional Transit Auth. (SORTA)	Cincinnati	OH	Yes
Space Coast Area Transit (SCAT)	Cocoa	FL	Yes
Transit Authority of River City	Louisville	KY	Yes
Utah Transit Authority (UTA)	Ogden	UT	Yes
Washington Metropolitan Area Transit Authority (WMATA)	Washington	DC	Yes
York Region Transit (YRT)	Richmond Hill	ON	Yes

Abbreviations used without definitions in TRB publications:

AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI-NA	Airports Council International-North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	Air Transport Association
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HMCRP	Hazardous Materials Cooperative Research Program
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
PHMSA	Pipeline and Hazardous Materials Safety Administration
RITA	Research and Innovative Technology Administration
SAE	Society of Automotive Engineers
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S.DOT	United States Department of Transportation