

Sam Schwartz Engineering
Report On The
State of Safety Culture
At The Los Angeles County
Metropolitan
Transportation Authority
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State of Safety Culture

Los Angeles County Metropolitan Transportation Authority

Introduction

In response to a MTA Board motion calling for a full review of MTA's safety culture and recommendations on how to improve that culture, Sam Schwartz Engineering (SSE) has prepared this report.

In order to put SSE's findings and recommendations into context, it is necessary first to describe how Metro is currently organized to deal with safety and safety culture.

Metro Organization for Safety and Safety Culture

Metro Chain of Command

The chain of command, which runs from the CEO through the Operations Department managers and supervisors to the hourly workers, has primary responsibility for all matters pertaining to safety and safety culture.

Office of Corporate Safety

The Office of Corporate Safety acts as the eyes and ears of and provides direct staff support to the CEO and Deputy CEO in the discharge of their duties related to safety. Major Corporate Safety functions include developing and overseeing System Safety plans, injury and illness prevention programs (IIPP), construction safety programs, fire/life safety and safety certification programs, participating in the Local Safety Committee process, and conducting System Safety and IIPP audits and reviews. Corporate Safety prepares accident trend analysis reports, accident investigation reports, corrective action plan reports, audit reports, and a monthly Board Committee report on safety issues and key performance indicators.

Local Safety Committees (LSC's)

LSC's provide the primary means of coordinating safety activities at the local level at Metro. LSC's are responsible for:

- Reducing the number of injuries and incidents within the Division or Department.
- Verifying via measurements, the degree of compliance with established safety policies and guidelines and implementing appropriate corrective action.
- Reducing the number of lost workdays due to injuries.

The Chairperson of the LSC rotates every six months between the Transportation and Maintenance Division Managers. Other LSC members include the Transportation and Maintenance Assistant Managers, a Senior Safety Specialist from Corporate Safety, Division Safety Coordinators, UTU, ATU, and AFSME representatives, the Sub-Committee Chairpersons, the Return to Work Coordinator, a Sheriff's Representative, and other local staff as needed. Non-Division Departments, such as Rail Wayside Systems, have an equivalent membership structure.

LSC's normally meet once per month to review the status of local safety performance and safety programs and activities at a regularly scheduled date, time, and place. Meeting minutes are e-mailed to LSC members and posted on Division bulletin boards to inform employees of LSC activities.

LSC's use data analysis to:

- Review accident and occupational injury data and implement strategies and programs to reduce workplace incidents.
- Ensure that the sub-committees are analyzing all appropriate data/metrics and key performance indicators.
- Review Sub-Committees programs and recommendations for improvements.

The three standing Sub-Committees are *the Injury/Accident Reduction Sub-Committee, the Hazard Identification & Correction Sub-Committee, and the Program Activities & Recognition Sub-Committee*. Sub-Committee Chairpersons are normally Assistant Managers.

Specific Sub-Committee responsibilities are:

Injury/Accident Reduction Sub-Committee

1. Review accident reports to ensure that they are accurate and complete
2. Ensure that corrective actions are taken and completed for each incident
3. Complete follow-up evaluations with each reporting supervisor
4. Identify accident trends and make appropriate recommendations for remedial action
5. Improve existing accident investigation policies and procedures
6. Reduce injuries

Hazard Identification & Correction Sub-Committee – Ensures corrective action has been taken regarding:

1. Monthly Shop Inspections
2. Quarterly Safety Assessments
3. Safety Observations/Feedback
4. Employee Forum Issues
5. Minor Injury Reports

Program Activities & Recognition Sub-Committee - Plans, implements, and tracks:

1. Weekly Safety Meetings by Supervisors
2. Safety Bulletin Publication and Distribution
3. New Employee Orientation/Safety Training
4. Transitional Duty Program
5. Special Training Program
6. Employee Incentive Programs (Safe Shop Award)
7. Activities for the Safety Month
8. Safety Initiatives (e.g., Safety 1st Web Page on Intranet Site, improved signage, safety scoreboard, etc.)

Emergency Preparedness Sub-Committee - Plans and implements:

1. Division Evacuation Procedures
2. Emergency Drills
3. Emergency Preparedness Training

4. First Aid, CPR, Fire Extinguisher, and other training

SAFE-7 Report of Unsafe Condition or Hazard and Near Miss Form

(See Attachment A) This form is one of the primary means by which employees can report hazards and near misses. It can be submitted anonymously. Departments and Divisions are required to maintain records of these reports of hazards or near misses, track the status of corrective actions taken or planned, and ensure that appropriate corrective action has been taken within established time limits. SAFE-7 tracking is accomplished using a SAFE-15 Form.

Upon receiving a completed SAFE-7 Form, Department or Division management is required to analyze the reported hazard or near miss, identify all of the factors involved, and develop recommendations for timely elimination or mitigation of the hazard or near miss. These recommendations may include modifications of equipment or facilities design, maintenance schedules or practices, operating rules and procedures, employee training, bus stop locations, rail station layout, traffic control devices, road design, traffic signs, and markings, etc. Management must inform all other involved employees of the existence of and circumstances surrounding the hazard or near miss.

Hazardous or near miss situations involving more than one department, which cannot be resolved by the department working by itself, will be reported to Corporate Safety, and Corporate Safety will resolve the situation by working with all involved departments.

Safety Culture Theory

The Board motion required evaluations of each of the five elements that compose safety culture as defined by Dr. James Reason. Dr. Reason's five elements are:

- An **informed culture**, which is one in which the organization collects and analyzes relevant data and effectively disseminates safety information throughout the organization.
- A **reporting culture**, which encourages employees to report safety issues and concerns without fear of punishment and with full confidence that management will act to improve the situation. Anonymous reports are accepted and treated seriously.
- A **learning culture**, which allows an organization to learn from mistakes and react continually to feedback and new information. Such a culture encourages the use of safety information to draw conclusions about necessary changes and exhibits a willingness to implement major reform as required.
- A **flexible culture**, which allows an organization to adapt in an effective manner to changing demands on the system.
- A **just culture**, which differentiates disciplinary consequences resulting from unintentional versus intentional unsafe acts. Deliberate, reckless, indefensible, and unjustifiable acts that place the organization and individuals at risk are subject to appropriate disciplinary action. In a just culture, employees are confident of just treatment.

W. R. Uttal is cited by Reason as defining safety culture as "shared values (what is important) and beliefs (how things work) that interact with an organization's structures and control systems to produce behavioral norms (the way we do things around here)."

SSE Approach

In accordance with Uttal's definition, SSE's evaluation of the state of safety culture at Metro must determine whether shared values, beliefs, and shared norms exist and how widespread and effective those values, beliefs, and behavioral norms are. SSE has conducted its analysis by interviewing management employees, reviewing pertinent documents, discussing issues with groups of employees, and distributing a safety culture survey to over 6,000 operations hourly employees.

Interviews

SSE conducted individual interviews with key managers.

Document Review

SSE reviewed documents including SAFE-7 policies and procedures, Local Safety Committee (LSC) policies and procedures, and LSC meeting minutes.

Group Discussions

SSE met with small groups of employees at four bus divisions, two rail divisions, three wayside departments, and two facility maintenance groups. At the divisions, SSE met with operators and maintenance personnel separately. No managers, supervisors, or administrative personnel were included in these meetings. All major hourly titles involved in the provision of bus and rail service or direct support of that provision were represented.

Survey

The purpose of the survey was to obtain information about the attitudes, ideas, beliefs, and experiences of Metro workers concerning safety and safety culture. Participation was totally voluntary, and individual responses were kept completely confidential. Metro provided employees in the targeted titles with the survey and an envelope addressed to a central collection location. Employees were asked to complete the survey, place it inside the sealed envelope, and put it into inter-office mail. The sealed envelopes were then forwarded to and opened by SSE representatives. No one from Metro knew whether an employee had participated or how the employee had responded. (For Survey Materials and Statistics, see Attachment B)

Of the three approaches to gaining insight into the minds of Metro's employees, where safety culture resides, the survey has provided the most comprehensive results, which have been augmented by interviews, employee group discussions, and document review.

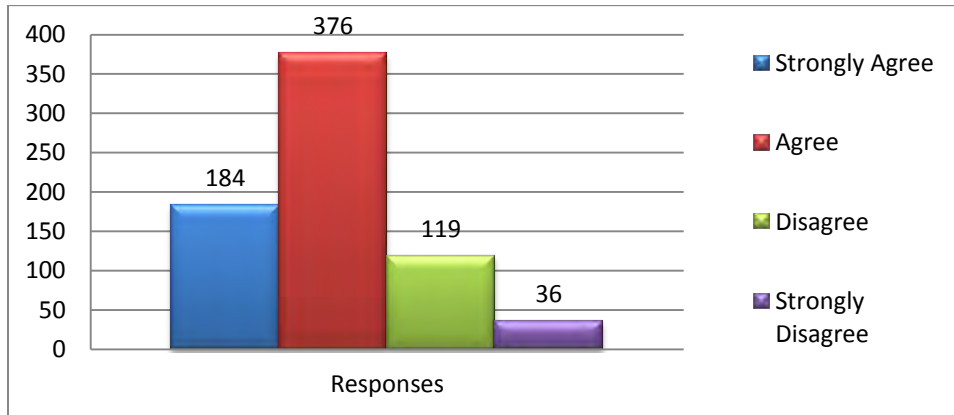
Results

Informed Culture: How well does Metro collect and analyze relevant data and disseminate safety information throughout the organization?

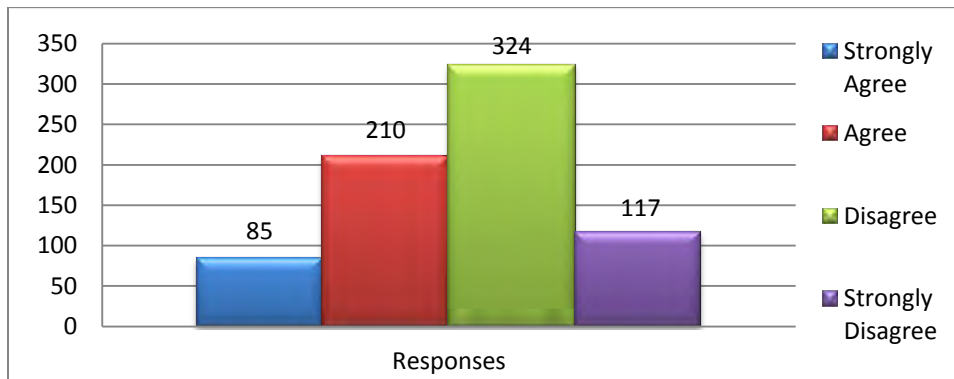
The survey results generally indicate that Metro does qualify as having an **Informed Culture**.

78% of survey respondents agreed or strongly agreed that "When accidents or incidents occur in my workplace, Metro procedures require management and supervision to conduct a thorough investigation, address all relevant issues, engage all employee levels in the analysis, and insure that everyone in the

workplace understands any new rule, process, or procedure that results from the investigation.” And the median response for all employee groups was the same for this question.

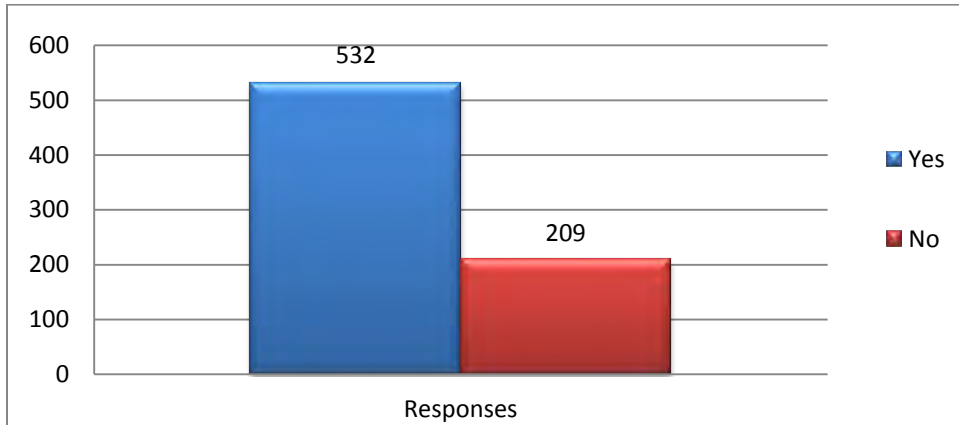


And, when invited to criticize Metro’s dissemination of important safety information by agreeing with the statement that “My manager or supervisor does not always inform me of everything I need to know about safety problems that might affect me”, the median response of respondents as a whole was “Disagree” (60% disagreed or strongly disagreed). The only exception was that of the wayside employees whose median response was “Agree” (Wayside result consistent with Group Discussions).

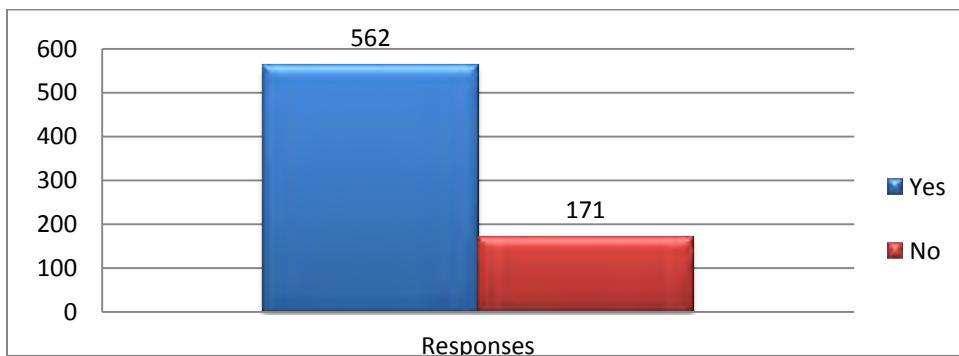


With respect to the effectiveness of Metro’s processes for disseminating safety information,

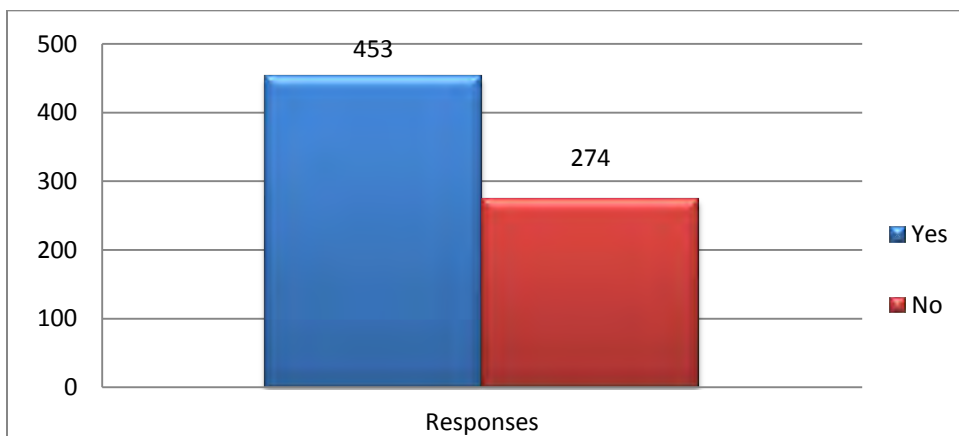
71% of all respondents said “Yes” to “Would you say Metro insures that you understand the risks you face and the rationale behind the safety rules that apply to your workplace?”



76% of all respondents said “Yes” to “Would you say the methods Metro uses to communicate safety procedures and rules initially to new employees are effective?”



62% of all respondents said “Yes” to “Would you say the methods Metro uses to communicate changes to safety procedures and rules to all employees are effective?”



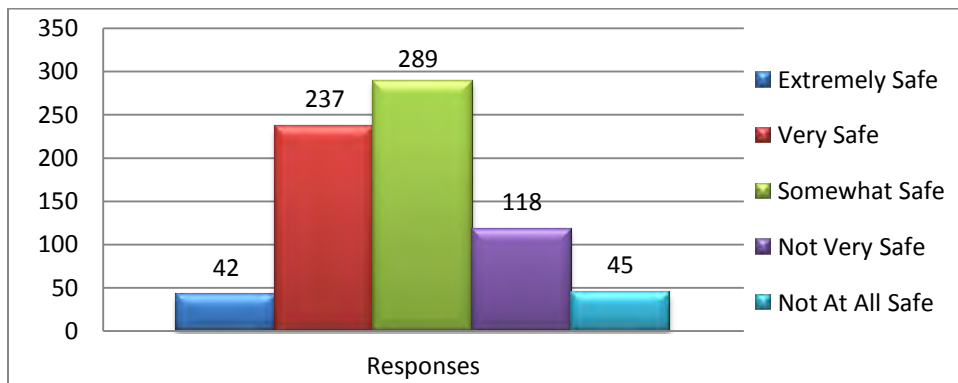
The concern that the wayside worker respondents expressed about being informed about “everything that I need to know about safety problems that might affect me” reflects their feelings expressed in the group meetings that the Rail Operations Center does not keep them adequately informed with respect to the location of trains, etc. These feelings were expressed despite numerous previous meetings with Rail Operations Center managers on this subject and institution of an excellent Wayside Worker Protection Plan.

In the group discussions, reservations were also expressed about how much information was distributed to employees about accidents and incidents.

- One employee in one group said “There is no communication within the department; managers do not talk about accidents or incidents; everything is kept hidden; discussions turn into arguments as to whether there is really a problem; and employee ideas and suggestions are automatically shot down.”
- Another employee in another group said “Little information is passed onto operators about accidents or incidents.”
- And another employee in yet another group said “No information is provided at safety meetings on what happened when someone is hurt and what is being done to prevent recurrence. Someone had a crushed recently. Nothing was said; he was just not there.”

Overall Job Safety

In response to the question: “How safe is your job?” the median response of respondents as a whole was “Somewhat safe”.

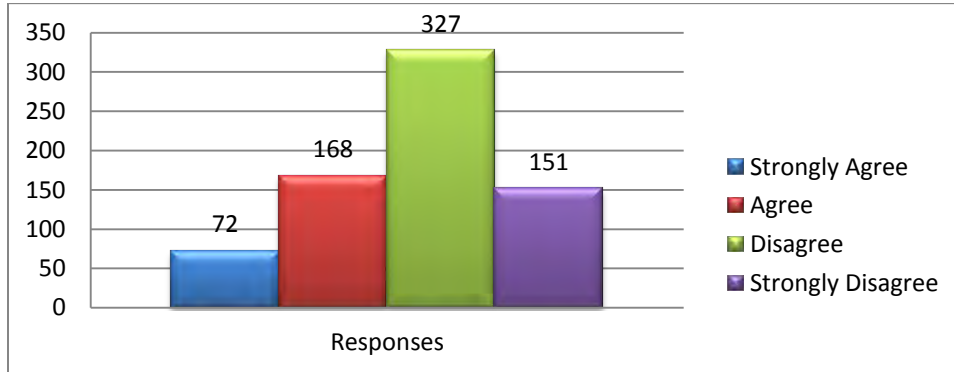


The recognition by many Metro employees that there is a definite degree of danger associated with their jobs contributes to an understanding that a comprehensive system of safety policies, procedures, and rules is necessary. The question is to what extent are employees sufficiently informed and supportive of that system and to what extent do they adhere to it?

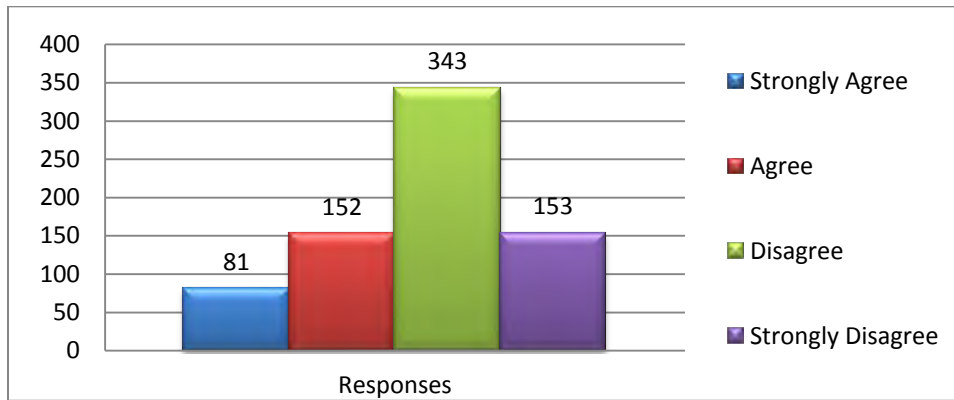
Adherence to Safety Policies, Procedures, and Rules

There was considerable support for the importance and appropriateness of Metro’s safety rules to the work being accomplished with the median response of respondents as a whole being “Disagree” to the following statements:

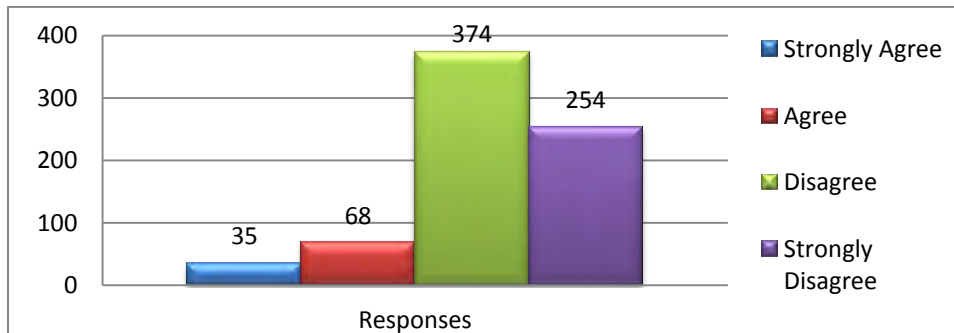
“Many of Metro’s workplace safety rules have very little to do with really keeping workers safe.”



“The work really would not get done if we followed every safety rule and procedure in the book.”

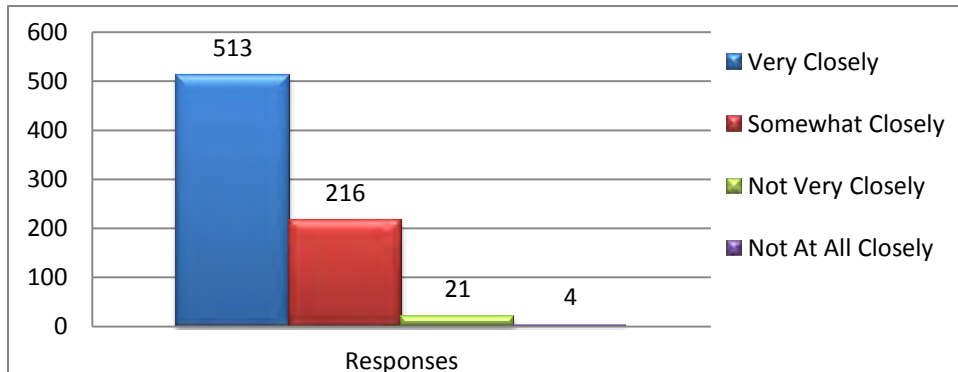


“When people ignore safety rules and procedures in my workplace, it is none of my business.” The wayside employee median response was “Strongly Disagree”. (Wayside result consistent with Group Discussions with Wayside employees)

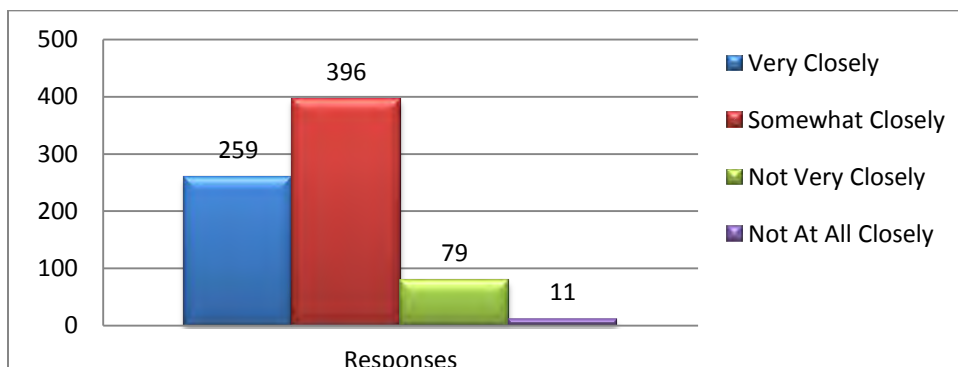


When asked “What factor in your opinion is most likely to affect whether all of the safety rules are observed all of the time?” the top three responses were: 1. Rushing to complete the job or get service out, 2. Effective supervision and 3. Excellent safety training.

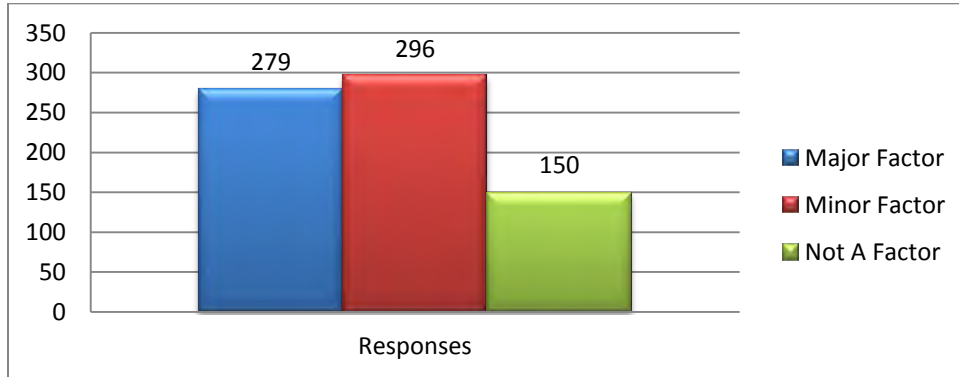
In response to the question: “Do you personally closely follow workplace safety rules and procedures?” the median response was “Very Closely”.



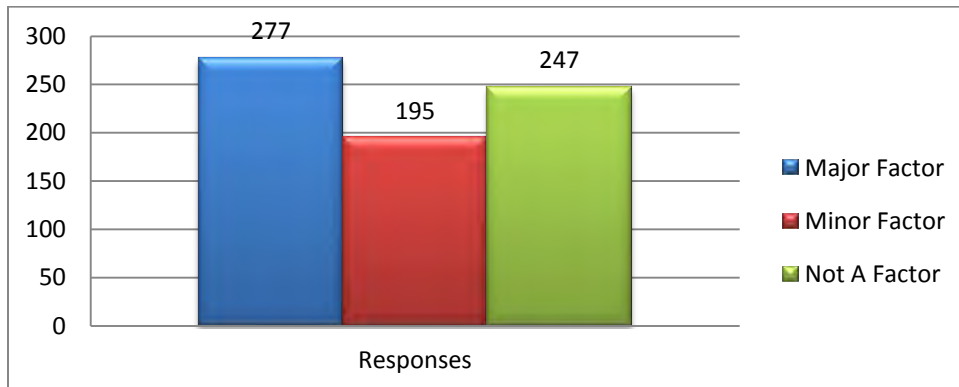
This response contrasts somewhat with the answer to the companion question, which was “Do your co-workers closely follow workplace safety rules and procedures?” The median response was “Somewhat Closely”. (The median response for train operators was “Very Closely”) (Train Operator result consistent with Group Discussions)



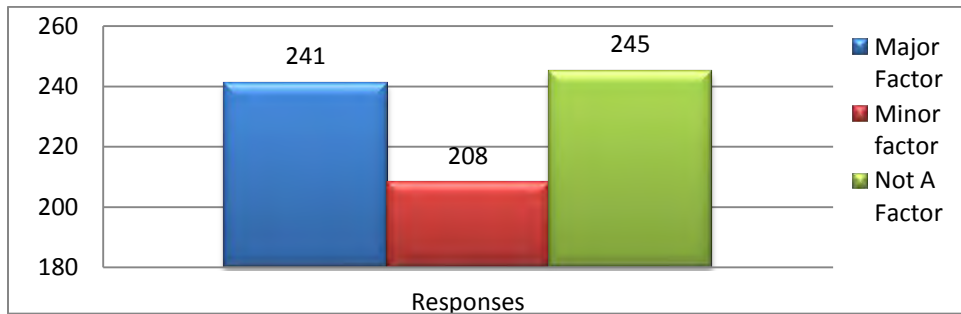
In response to “How much of a factor is ‘Too few workers to get the work done’ in potentially affecting whether all of the safety rules are observed all of the time?” the median response was “Minor” for respondents as a whole. (The median response for wayside workers was “Major”) (Wayside result consistent with Group Discussions)



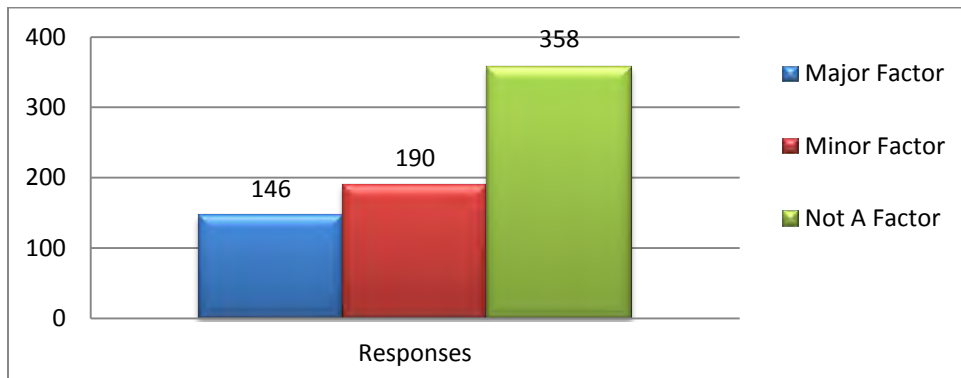
In response to “How much of a factor is ‘Pressure from above to ignore some safety rules and procedures to get the work done’ in potentially affecting whether all of the safety rules are observed all of the time?” the median response was “Minor” for respondents as a whole. (The median response for wayside workers was “Major”) (Wayside result consistent with Group Discussions)



In response to “How much of a factor is ‘Some safety rules and procedures do not need to be followed to get the job done safely’ in potentially affecting whether all of the safety rules are observed all of the time?” the median response was “Minor” for respondents as a whole.



In response to “How much of a factor is ‘Co-workers give you a hard time if you take the time to do everything by the safety rules and procedures’ in potentially affecting whether all of the safety rules are observed all of the time?”, the median response was “Not a factor” for respondents as a whole.

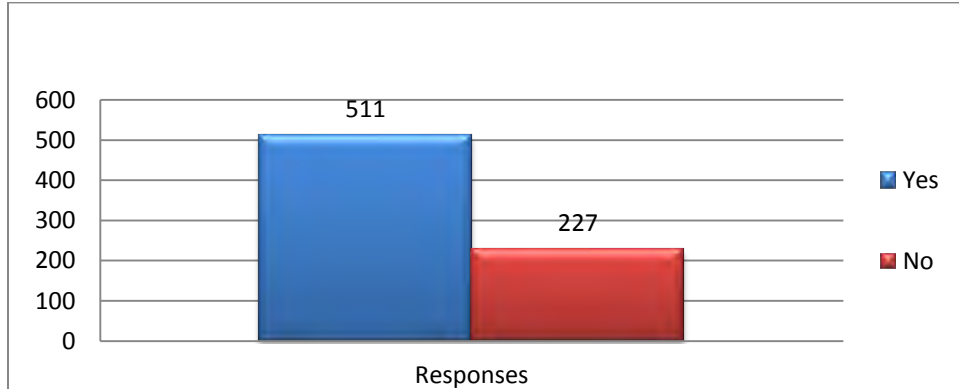


In summary, the survey results indicate a high degree of acceptance of and support for Metro’s safety policies, procedures, and rules by its employees. Clearly Metro does not suffer archaic, inappropriate, or unrealistic rules. However, there is a perception among wayside worker respondents conveyed by the survey and the group discussions that their staffing is insufficient for their workload and that there is pressure on them to ignore safety rules and procedures to get the work done.

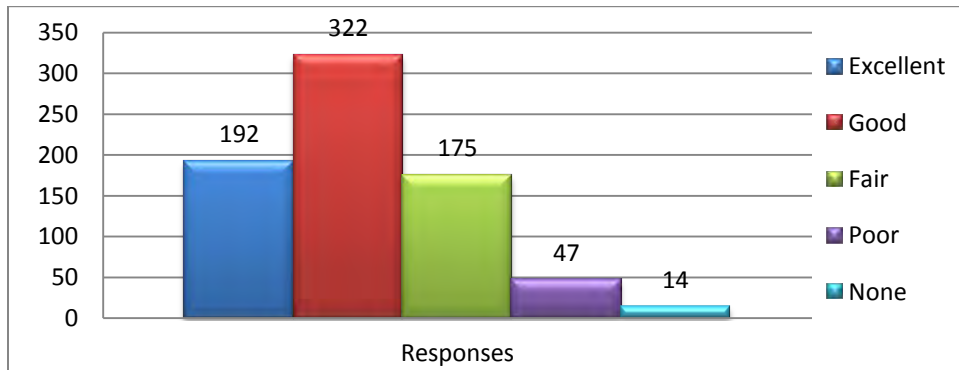
Safety Training

Most of what Metro has learned and continues to learn is disseminated through safety training.

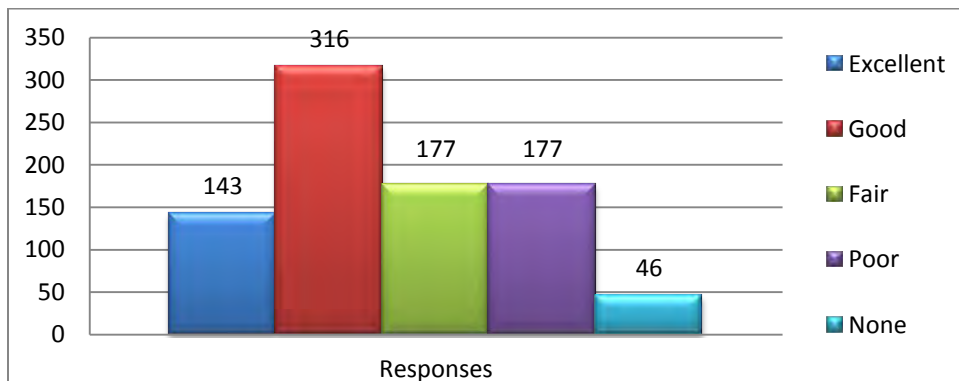
69% answered “Yes” to “Have you received any refresher safety training in the last three years?”



The median response by respondents as a whole to “How would you rate the overall quality of the initial safety training you received in your first few months on the job?” was “Good”. However, the median response by wayside worker respondents was “Fair”. (Wayside result consistent with Group Discussions)



The median response by respondents as a whole to “Other than new employee training, how would you rate the overall quality of any safety training you received in the last year?” was “Good”. However, the median response by wayside workers was “Fair”. (Wayside result consistent with Group Discussions)



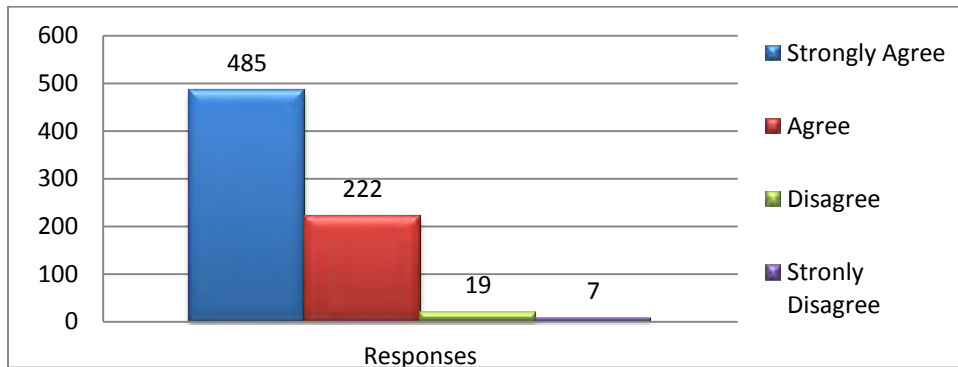
A train operator in one of the employee groups suggested that re-certification training could be improved by updating operators on recent incidents and analyzing different emergency scenarios.

Safety training at Metro therefore does get generally good marks both in terms of quality and frequency. Wayside worker respondents, however, were less positive about the quality of safety training at Metro.

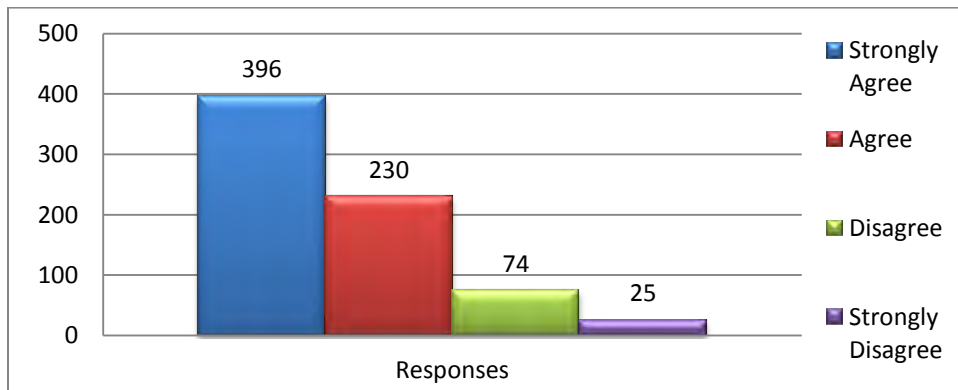
Shared Values

With respect to shared values concerning the importance of safety, the median response of respondents as a whole was “Strongly Agree” to the following statements.

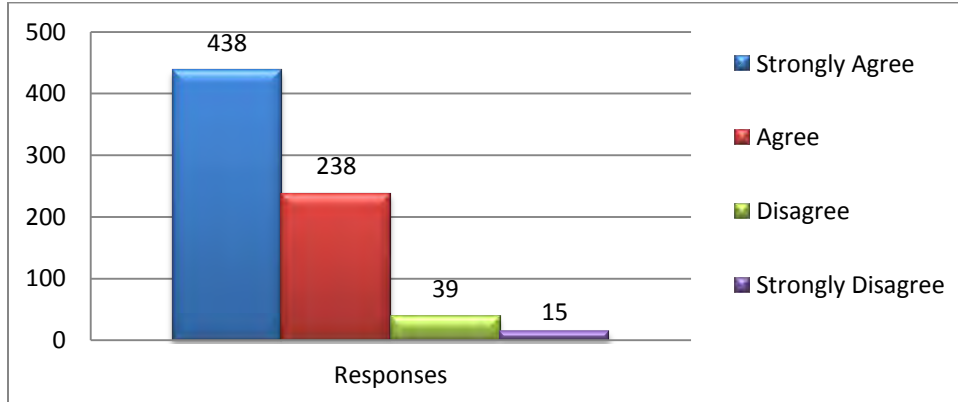
“It is important to me that there is a continuing emphasis on safety.” (96% agree or strongly agree)



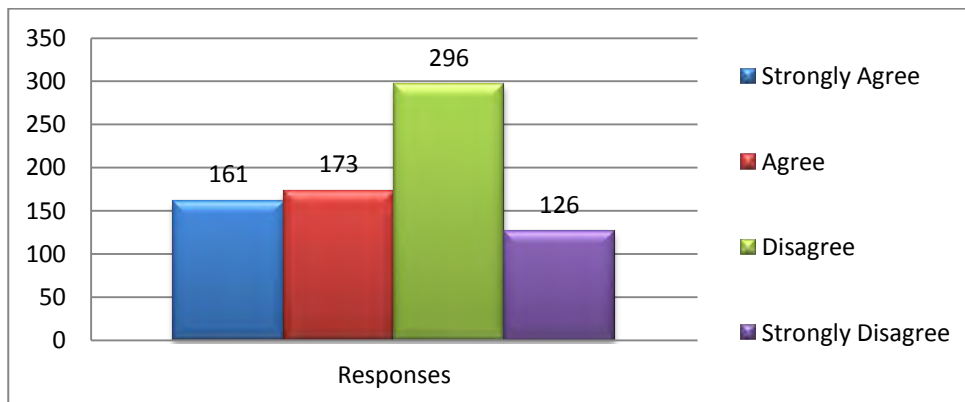
“It is my supervisor’s and/or my manager’s responsibility to make sure my work environment is safe.” The median response by custodian respondents was “Agree”. (86% agree or strongly agree)



“It is my responsibility to make sure my work environment is safe.” (93% agree or strongly agree)



In response to the statement that “Management is only concerned about safety after a serious accident or incident.”, the median response was “Disagree”. (The median response for train operator, wayside worker, and rail maintenance specialist respondents, however, was “Agree”. This result is consistent with the group discussions with employees holding these titles.)



Informed Culture Recommendations

- Provide a comprehensive report to employees on the circumstances surrounding all employee accidents and incidents involving fatalities or serious injuries.
- Review the methods used to communicate changes to safety procedures and rules to employees with particular emphasis on such communications with bus operators and wayside workers.
- Continue to work on improving the relationship and communications between the Rail Operations Center and wayside workers.

Safety Training

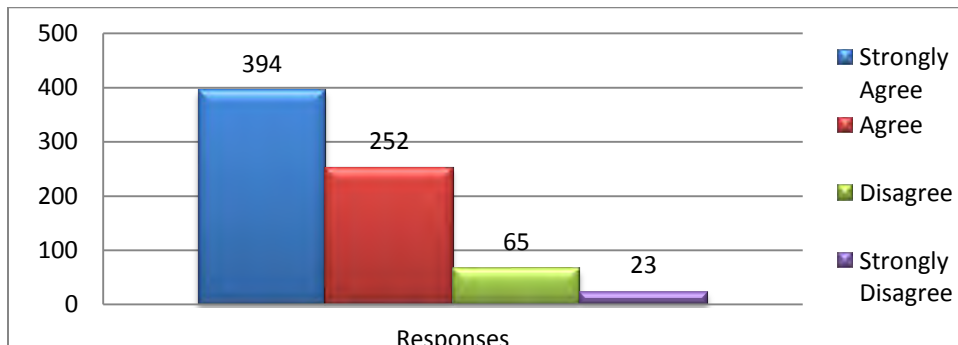
- Review the quality of safety training provided to wayside workers.

Reporting Culture: Does Metro encourage employees to report safety issues and concerns without fear of punishment and with confidence that management will act on the situation?

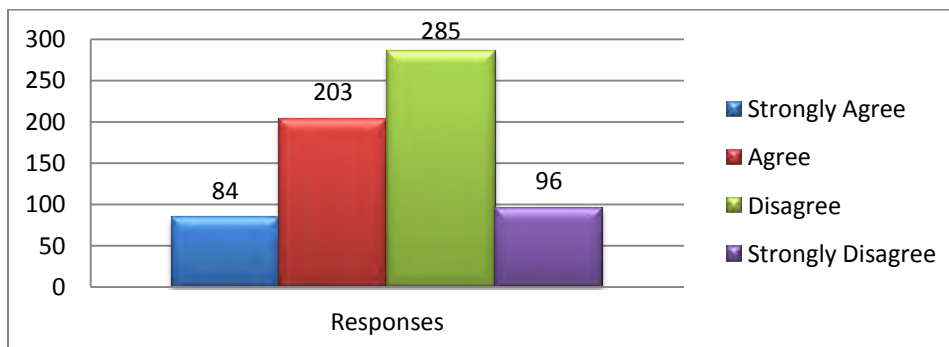
Of the five cultures cited by Dr. Reason, one of the most critical to public transportation is the **Reporting Culture**. Its primacy stems from the great importance of having “near misses” or “close calls” formally reported to the organization. A “near miss” or “close call” is an incident in which the organization could have suffered serious injuries and/or fatalities and did not only by chance. What such an incident can reveal to an organization is a vulnerability that has not been adequately addressed. It is often a “free pass” to prevent a future catastrophic event. “Near misses” or “close calls” are frequently not reported in organizations that do not have a strong reporting culture.

The status of the **Reporting Culture** at Metro is indicated by the following responses.

The median response by respondents as a whole to the statement that “I am strongly encouraged to report unsafe conditions.” was “Strongly Agree”. The median response by train operators and wayside employees was “Agree” (This result is consistent with the group discussions with employees holding these titles.)

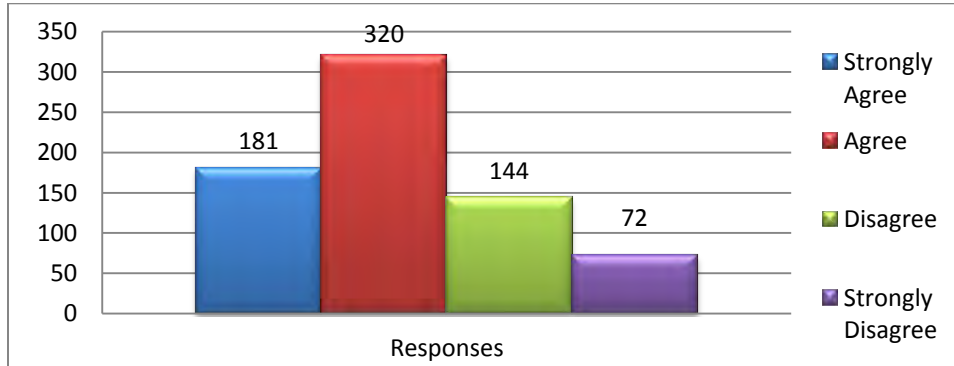


However, the median response by respondents as a whole to the statement that “Management takes a no blame approach if workers report ‘near misses’.” is “Disagree”. The median response by wayside employee and rail maintenance specialist respondents was “Agree”. (This result is consistent with the group discussions with employees holding these titles.)

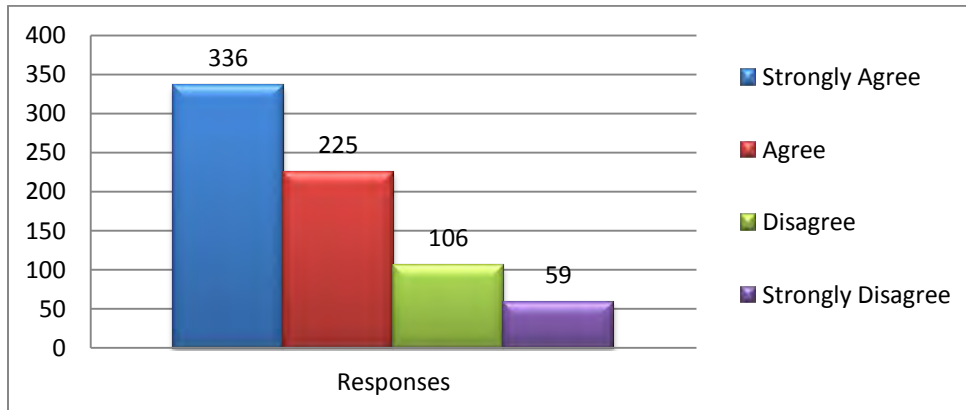


An additional positive indicator with respect to Metro’s Reporting Culture is that the median response of respondents as a whole to both of the following statements was “Agree”.

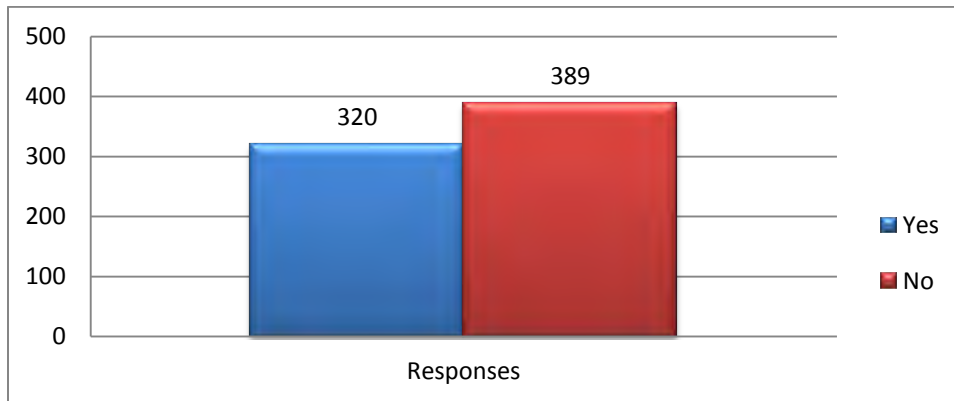
“In my workplace, management and supervision have an “open door” policy on safety issues and act quickly to correct safety problems when identified.”



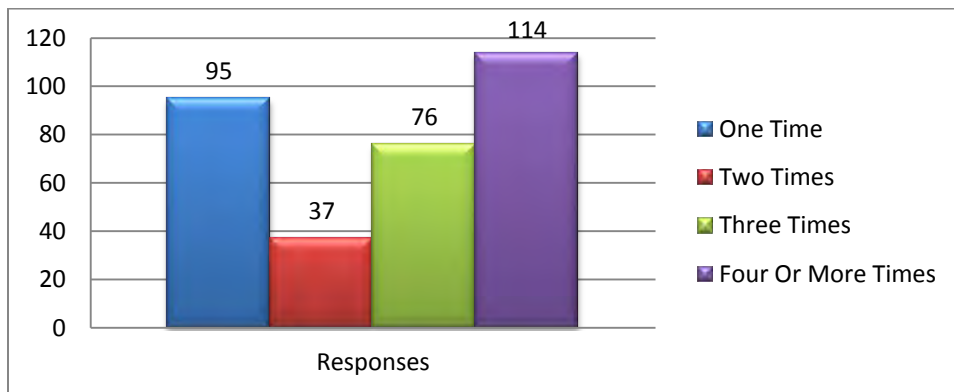
“Metro workers have full authority to stop service or work at any time if they observe a hazardous condition.” (The median response for bus mechanic, wayside, service attendant, and facility maintenance respondents was “Strongly Agree”. This result is consistent with the group discussions with employees holding these titles.)



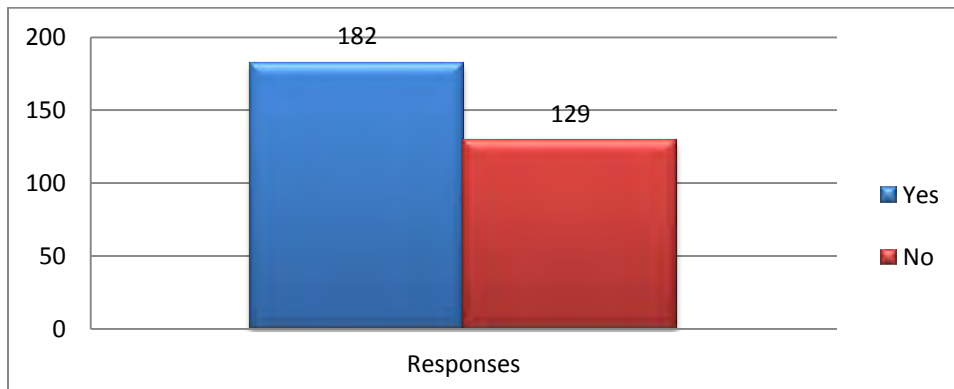
With respect to specific questions on “near misses” and “close calls”, 45% of respondents responded “Yes” to “Have you or one of your co-workers ever had a close call or near miss on the job during which someone came close to being seriously injured or killed?”



Those who answered “Yes” were asked how many times “close calls” occurred. Their responses were as follows:



58% responded “Yes” to “Was the most recent incident formally reported?” 42% responded “No”.



To the question: “If not formally reported, why not?” the top three reasons given were: 1. Fear of discipline, 2. “No harm; no foul” and 3. No confidence that management will react effectively.

Metro's Injury and Illness Prevention Program (IIPP), Revision 3, dated March 2010 does state "Management will not take any reprisal action against any employee for expressing a concern, comment, suggestion or complaint about a safety issue." And one of the stated purposes of Metro's Hazard Identification and Resolution System (HIRS) is to "establish a system for Metro employees to identify hazardous conditions at work and report them to their management without fear of reprisal". These statements, however, do not go far enough to preclude discipline being assessed against an employee who has voluntarily reported a near miss.

Employees in many of the discussion groups confirmed the survey results with respect to reporting near misses or close calls. Various employees said:

"If an operator reports a near miss, the operator has to write a report and then is frequently suspended for two days."

- "Operators do not report 'near misses' because they fear discipline.
- "Operators do not report near misses because they are blamed and judged guilty until proven innocent in accidents. Even if the light is in operator's favor, a passenger sticks his arm thru a closed door on an articulated bus, etc., it does not matter. The operator is blamed."
- "Reporting of near misses does not happen because of fear of discipline. Would like to see a letter from CEO saying there will be no discipline associated with near misses."

Also employees in different groups indicated that submission of SAFE-7 forms in some departments was actively discouraged. Employees said:

- "Workers have access to a 'Safe 7 Form' on which individuals can raise safety issues. Management is not supportive. One manager showed an hourly worker a stack of Safe 7 forms from a single employee and said 'we are just waiting for him to make a mistake'. People are afraid to fill out the forms; and sometimes they get answers and sometimes not.
- "People who report things verbally or use a Safe 7 form are considered trouble makers."
- "When workers submit Safe 7's or complain, there are threats of retaliation."
- "The standard response to anything reported is 'we will look into it'; but no further response is ever provided.

Metro's IIPP further provides that "Employees are encouraged to bring to management's attention any potential health or safety hazard that may exist in the work area. Employees shall use the SAFE-7 Report of Unsafe Condition or Hazard and Near Miss Form and send it to management or report it to Local Safety Committee through their union representatives." and "A mechanism for anonymous employee input, such as a suggestion box for safety suggestions, hazard identification, complaints, etc., which is accessible to all employees will be implemented. Utilization of any anonymous report or SAFE-7 Form without the employee's name can be used for this purpose and dropped in the local suggestion box. These forms should be sent to management for analysis and follow-up."

Corporate Safety does do quarterly and annual audits of the SAFE-7 program. However, Corporate Safety currently has no assurance that it is examining all the SAFE-7 reports that employees have actually submitted. This is a loophole that can be closed by modifying the SAFE-7 procedure and the form itself to

indicate that an employee should forward a duplicate copy of the SAFE-7 report to Corporate Safety if a response has not been received within 30 days.

The results of the survey and the group discussions indicate that Metro has the basis for a strong **Reporting Culture**, but that there are two issues that must be resolved for a stronger **Reporting Culture** to be achieved.

The first is that Metro must consider making a policy decision to prohibit the use of discipline in the case of any “near miss” or “close call” that is **solely and voluntarily reported** by an employee. “Solely and voluntarily” means that the “near miss” or “close call” would not otherwise have come to Metro’s attention. Again a “near miss” or “close call” is an incident in which the organization could have suffered serious injuries and/or fatalities and did not only by chance. This disciplinary prohibition must apply not only to the individual reporting the incident, but also to any other Metro employees that are involved. According to the survey results, 42% of the near misses or close calls currently occurring at Metro are not being reported. Again what such incidents can reveal to an organization is a vulnerability that has not been adequately addressed. A “near miss” or a “close call” is often a “free pass” to prevent a future catastrophic event. 42% represents the waste of a significant opportunity to improve Metro safety.

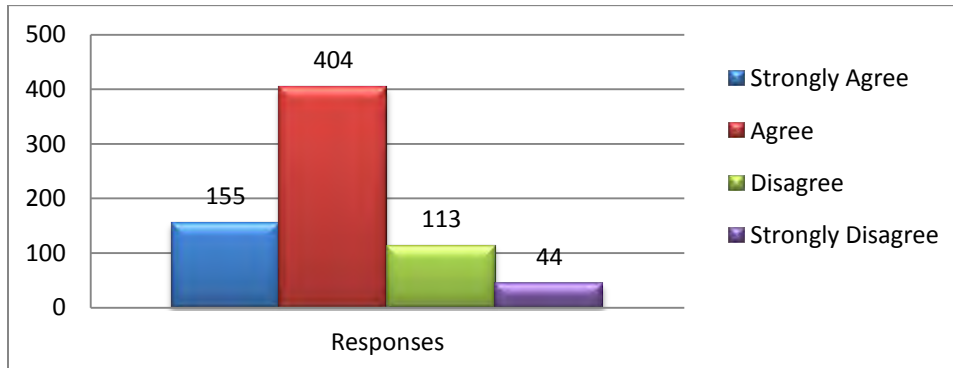
The second is that Metro must insure the integrity of the SAFE 7 Procedure. Metro must be positive that all SAFE 7’s are received, processed, and answered in timely fashion. The allegations that managers and/or supervisors do not welcome the submission of these forms and are even retaliating against employees who submit them need to be investigated.

Reporting Culture Recommendations

- Consider making a policy decision to prohibit the use of discipline in the case of any “near miss” or “close call” that is **solely and voluntarily reported**. “**Solely and voluntarily**” means that the “near miss” or “close call” would not otherwise have come to Metro’s attention except for the employee report. The disciplinary prohibition should apply not only to the individual reporting the incident, but also to any other Metro employees that are involved.
- Ensure the integrity of the SAFE 7 program by modifying the SAFE-7 procedure and the form itself to indicate that an employee should forward a duplicate copy of the SAFE-7 report to Corporate Safety if a response has not been received within 30 days.
- Investigate allegations that employees in some departments are being discouraged from submitting SAFE 7 forms.

Learning Culture: Does Metro learn from its mistakes and continually react to feedback and new information?

The median response by respondents as a whole to the statement that “Metro learns from accidents and incidents and uses what has been learned to prevent recurrences” is “Agree”.



During the group sessions, however, several examples were raised in which the perception was that Metro had not learned from previous mistakes and had not reacted effectively to feedback and new information. Employees made the following observations:

- “CNG is a major problem. Division 15 had the worst CNG accident Metro has ever had. An on-board cylinder exploded during re-fueling; shrapnel went everywhere. Luckily no one was hurt; but little corrective action has been taken; there are no records kept of CNG training or re-training; the class is pretty good, but everyone working with CNG is not required to take it, and there is no remedial training for those who need it.”
- “Artics skid and slide when driven over one of the pits when it is raining; the high idling RPM is a contributing factor; one artic has actually slid into a pit, and many others have come close. Metro needs to install a non-skid surface around pits. Hazard is long standing with no resolution.”
- “Lifts are not in good shape in bus divisions; many locking mechanisms do not work; and there are not enough jack stands to support buses on all of the lifts simultaneously. Need monthly lift inspections, sufficient jack stands, and clarification as to when use of jack stands is mandatory. This is a long term situation.”

The comment with respect to CNG training records is incorrect as is also the comment that there is no remedial training. CNG training records are kept centrally by the Department of Organizational Development and Training; and remedial training is available on request by an employee’s manager. What is not clear from examining the training records and the procedures by which training is scheduled, however, is whether all employees who work with CNG have in fact been appropriately trained. This needs to be checked.

The problem with artics skidding over pits when it is raining, which was raised at several bus divisions, is one that needs to be investigated.

And the state of maintenance of bus lifts, with particular emphasis on locking mechanisms, needs to be reviewed and Metro should insure that there are sufficient jack stands to support all buses if all lifts are in use simultaneously.

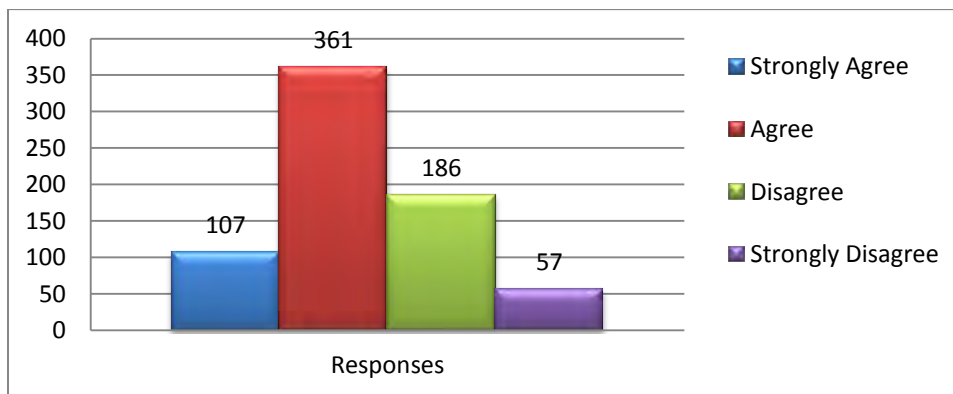
The survey results indicate that Metro has a strong **Learning Culture**. What the group discussions contributed, however, were examples of isolated but longstanding problems to which Metro has yet to react effectively. Managers need to keep an active inventory of and periodically address longstanding problems for which a solution has not yet been found.

Learning Culture Recommendations

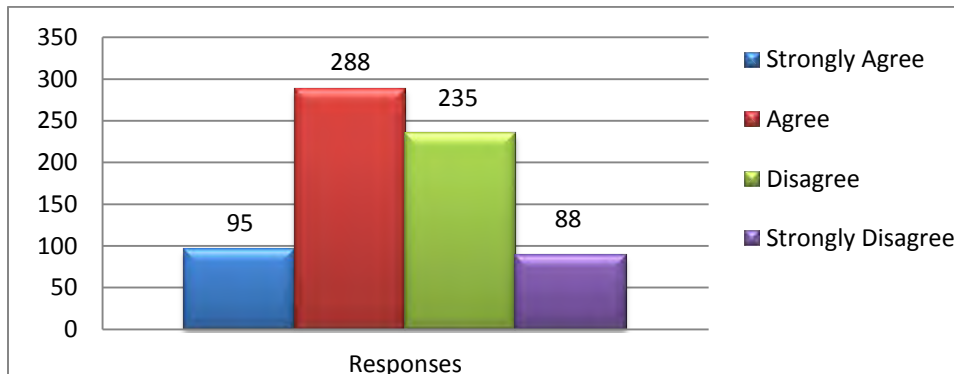
- Insure that all employees who work with CNG have been appropriately trained by comparing current employee assignments against the training records.
- Investigate the problem with artics skidding over pits when it is raining.
- Review the maintenance status of bus lifts with particular emphasis on locking mechanisms and insure that there are sufficient jack stands to support all buses if all lifts are in use simultaneously.
- Request all managers to submit a list of outstanding safety issues to Corporate Safety for review and disposition.

Flexible Culture: Does Metro adapt in an effective manner to changing demands on the system?

The median response by respondents as a whole to the statement that “Metro adapts easily to changing conditions and demands on the system where safety is concerned” is “Agree”.



“Agree” was also the median response to “In my workplace, a worker can get safety rules and procedures changed by making a good case for the change.” (The median response by train operator respondents was “Disagree”. This result is consistent with the group discussions with train operators.)



The employee discussion groups, however, cited a number of areas affecting safety in which employees expressed a belief that Metro has failed to adapt effectively to changing demands and conditions. These included:

- “Metro frequently brings in new, sophisticated equipment; but there is no training provided; your Class A license supposedly covers everything.”
- “Reverse running of rail vehicles is a huge concern; however, there is no procedure in effect to notify everyone on track at any time when trains are reverse running.”
- “Schedule cuts have significantly increased bus loads; this has slowed buses at the same time that running time has been cut; this forces operators to drive faster than they should whenever they can in order to avoid being written up for being late. Some routes are “racetrack routes”; you must drive as fast as you can around the whole route, and you usually will be late anyway. Carrying wheelchair passengers and waiting for senior citizens to be seated further slows buses as well. We do not understand why Schedules does not have access to accurate running times between time points and accurate information on bus loading. A Schedules Department representative came out in November to investigate schedules, but we have heard nothing from him since.”
- “The Sheriff’s Department police coverage on the buses is worthless; they ride a few blocks in uniform; and collect badge numbers at the end of the route.” and at another location “The Sheriff’s Department is a major problem. They are seldom seen on buses; they only ride two blocks when they are seen, usually at the end of the route. We are more and more threatened by fare evaders and crazies, but they are never around; and nothing ever changes despite our complaints.”

With respect to these examples of what these employees regard as Metro not easily and effectively adapting to changing system demands, some appear to be valid.

For example, it makes sense to provide training when new, sophisticated equipment is introduced. And Metro’s procurement guidelines generally require such training to be provided by the vendor on a “train the trainer” basis. Somehow, however, such training apparently is not being carried down to the hourly level for all employees required to use the equipment.

It also makes sense to notify all train operators and wayside workers at any time when a train is reverse running. Current policies and procedures require such notifications (referred to as a “Code 1”) in some instances but not in every case.

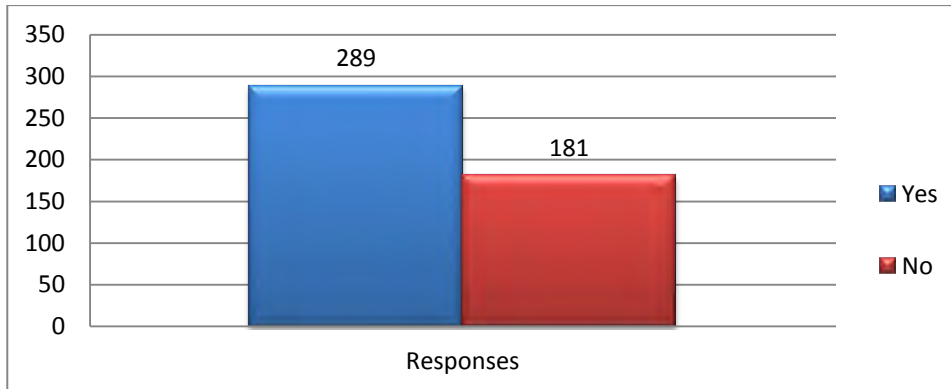
Sometimes, however, problems raised by employees may be largely due to insufficient communication. The Schedules Department in fact does have very accurate information available on running time, passenger loading, and on-time performance. And the Schedules Department, based on a recent operations assessment, does do an excellent job of using that information to produce schedules. Plus the Schedules Department and bus operators both want sufficient service provided to carry the passenger loads on a given route and sufficient running and recovery time provided for the service not to be chronically late. The fact that the Schedules Department has the necessary information and is working toward what should be common objectives needs to be better explained to operators.

Flexible Culture Recommendations

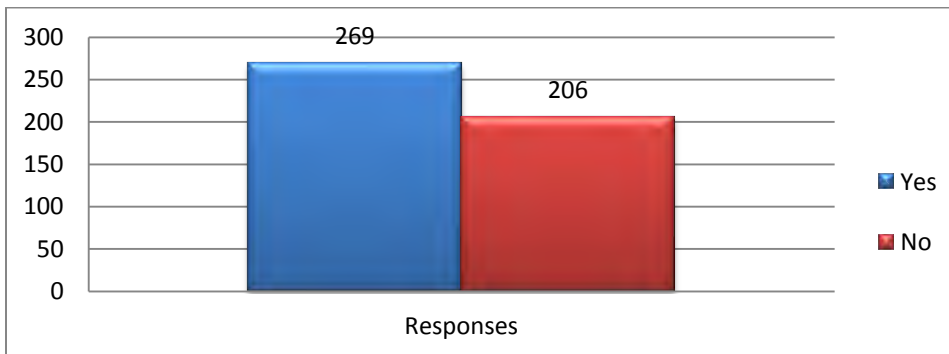
- Ensure that the required training on any new equipment purchased in fact takes place as required in all purchase contracts with particular emphasis on Wayside employees. For Wayside, determine specifically whether employees have been trained on all significant new equipment acquired in the last five years.
- Revise the policies, procedures, and rules pertaining to reverse running to require notification of all employees at any time a train is reverse running.
- Improve communications between bus operators at the divisions and the Schedules Department, starting with joint discussions of the routes that bus operators perceive as the “worst” at each division.
- Open a dialogue between bus operators and representatives of the Sheriff’s Department as to how the perceptions of bus operators with respect to their personal security might be improved.

Just Culture: Does Metro allow for maximum avoidance of major errors by differentiating disciplinary consequences resulting from unintentional unsafe acts from deliberate, reckless, unjustifiable, and indefensible acts that place Metro and its employees at risk?

72% of respondents answered “Yes” to “Has anyone in your workplace ever been disciplined for his or her role in an accident or incident?”

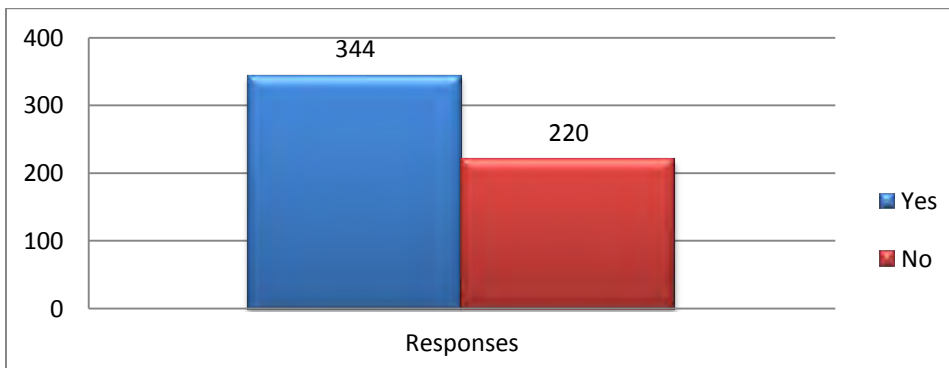


And 56% responded “Yes” to “Did you personally think the discipline was fair?”



If the response to the previous question was that the discipline was not fair, the respondent was asked “why not”? The top three reasons given were 1. the individual blamed was not at fault, 2. the discipline was inconsistent and 3. the punishment did not fit the crime.

60% of all respondents answered “Yes” to “Is Metro’s primary focus in dealing with accidents or incidents disciplining individuals instead of preventing recurrences?”



The employee discussion groups supplemented these results with the following comments:

- “The new CEO has been making changes; managers and supervisors have therefore been put under high tension; many have reacted by going into attack mode with operators.”
- “There was a much better relationship between operators and RTD. School kids get treated better. Morale is very low.”
- “One employee was involved in an accident in Red Line Shop; the cause of the accident was that an employee in another department energized a breaker while the first employee was working on the circuit; management blamed the first employee and used everything he said against him.”
- “Whatever the circumstances, operators end up being blamed. For example, take Signal 150 in Red Line Yard: the controllers frequently tell operators to bypass the red aspect, but if the controller does not correctly align the switch and the operator splits the switch, the operator takes all the blame.”

The survey results in fact do indicate what might be considered by many to be a surprising result; 56% of the total respondents considered the discipline administered to their fellow workers in response to an accident or incident to be fair. There is, however, a fairly strong feeling, particularly among bus and train operators and wayside workers, that Metro primarily focuses on finding some way to blame the employee. This shows up in that 60% of all survey respondents answered “Yes” to “Is Metro’s primary focus in dealing with accidents or incidents disciplining individuals instead of preventing recurrences?” It also was a theme in the employee group meetings, particularly with bus and train operators and wayside workers. This is another area in which improved communications would help.

Just Culture Recommendations

- Improve communications with employees on the rationale for disciplinary actions within their divisions or departments.
- Open dialogues with bus and train operators and wayside workers on their perception that Metro concentrates on reasons to blame them for an accident or incident as opposed to preventing a recurrence.

Local Safety Committees

Metro’s local safety committees are extremely well designed to serve as clearing houses for safety issues and to provide focus to Metro’s efforts to deal with safety problems. The LSC’s are an effective structure. There are three areas in the current design, however, that SSE believes could be improved. These are more direct involvement in LSC meetings and sub-committee meetings by hourly employees (e.g. one per shift for each operating title), better communication of LSC activities and accomplishments to all covered hourly employees (only posting meeting minutes is insufficient), and clarifying chain of command responsibility for the LSC’s now that there are no longer Division General Managers.

With respect to the operation of the LSC’s at different divisions and departments, a review of monthly minutes indicates that there needs to be a rededication and reinvigoration of the LSC effort. Not all of the required monthly meetings take place, attendance is sometimes a fraction of that prescribed, and the

meeting minutes do not always reflect the type and intensity of involvement intended by the LSC Charter. Also it appears that the weekly supervisory safety meetings are no longer taking place in some locations.

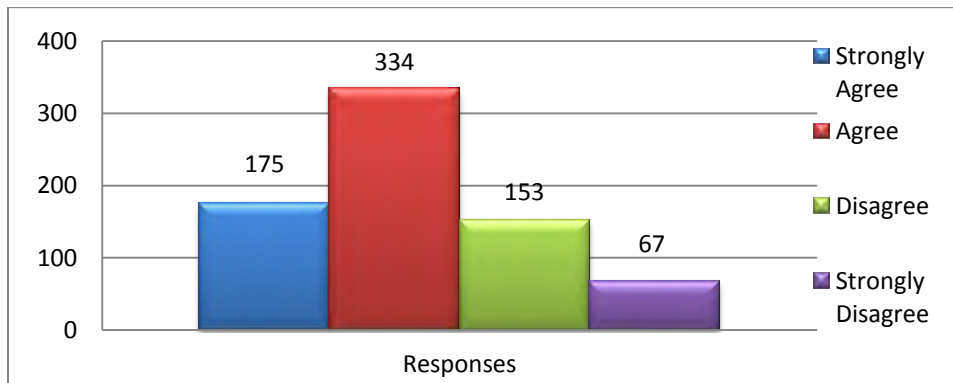
Local Safety Committee Recommendations

- Include more hourly employees as LSC and LSC sub-committee members.
- Improve the process of communicating LSC activities and achievements to all local employees. Posting minutes on the bulletin board is not sufficient.
- Clarify the chain of command responsibility for the LSC's above the division level and below the Chief Operations Officer.
- Initiate a campaign to rededicate and reinvigorate the LSC effort by ensuring all required meetings take place, attendance is as prescribed, and the minutes accurately reflect the type and intensity of involvement contemplated by the LSC Charter.
- Ensure that weekly supervisory safety meetings are taking place at all locations.

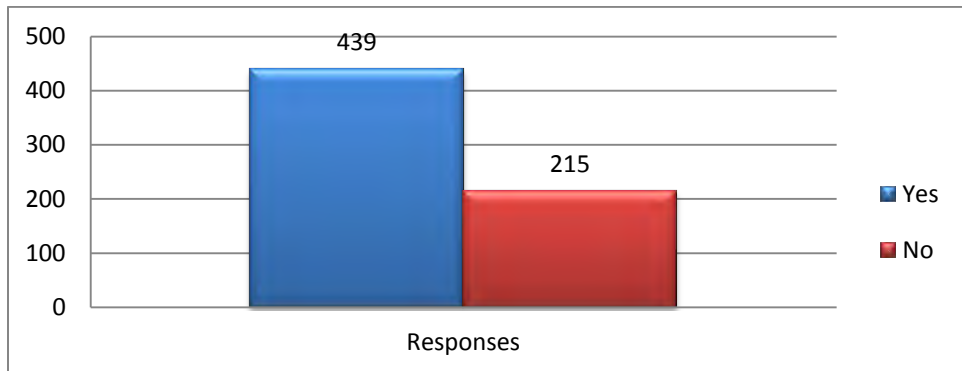
Conclusion

The survey results indicate that a significant majority of Metro employee respondents believe Metro meets the following two definitions or expressions of safety culture.

The first was the statement that “In my workplace, management, supervision, and workers know what we are doing; we trust each other; we work together; we know how to work safely; and we do it.” The median response to this by respondents as a whole was “Agree”. And 70% of all respondents either agreed or strongly agreed with this statement.



The second was the question: “In your experience, do Metro and its employees have a shared set of values, attitudes, and behaviors that combine to make Metro a safer place to work than it otherwise would be?” 67% of all respondents said “Yes”.



There is clearly a positive safety culture at Metro. This is a statement that may only apply to a handful of transit agencies. Safety culture at Metro appears strongest among bus mechanics, custodians, rail maintenance specialists, service attendants, and facility maintenance workers; it is not as strong among bus and train operators and wayside workers.

Final Recommendations

- Open dialogues with bus and train operators and wayside workers on ways of improving their perceptions of the state of safety culture in their organizations.
- Establish a separate Board committee to deal exclusively with safety and safety culture issues at Metro.

Report of Unsafe Condition or Hazard/Near Miss (SAFE-7)

INSTRUCTIONS: SUBMIT THIS FORM TO YOUR SUPERVISOR/MANAGER. PRINT ALL INFORMATION. EMPLOYEE CAN ALSO SUBMIT THIS FORM ANONYMOUSLY IN THE SUGGESTION BOX WITHOUT THE NAME AND BADGE.

Name	Job Title	Badge No.
Department	Phone	Fax
Division/Work Location	Vehicle No.	Line & Run
		Mail Stop
		Direction

Location believed to have an Unsafe Condition or Hazardous Work Practice/Near Miss:

Description of the Unsafe Condition or Hazardous Work Practice/Near Miss:

Name or Signature of Employee:

Date:

MANAGEMENT INVESTIGATION AND RESPONSE

Name and Title of Person Investigating this Report:

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Result of Investigation: (When was investigation conducted? What was found? Was the condition/practice Unsafe? If yes, what was the cause?)

Description of the Corrective Action:

If corrected, give the actual date:

--

If not corrected, give target date of Corrective Action. Provide department, person & name responsible for taking Corrective Action:

Was Management's Response provided to the employee reporting this condition?

Yes

No

If the report was submitted anonymously, provide date the Response was posted on the bulletin board.

Date:

Signature/Title of Person Investigating this Report:

Date:

Note: The employee's Manager or Designated Person is responsible for investigating the unsafe condition/work practice. Management is also responsible for ensuring that this form is documented and tracked to resolution. A copy of this completed form will be provided to the employee who submits it with employee's name. For anonymous submission, a copy of this completed form will be posted on the bulletin board for 30 days after management signs off.

Attachment B: Survey Material and Statistics

Position	Completed <u>Surveys</u>	Percentage <u>Representation</u>	Degree of Precision <u>(Plus or Minus)</u>
All	745	12%	5.0%
Bus Operator	338	9%	6.0%
Bus Mechanic et al	158	17%	7.5%
Service Attendant et al	61	17%	12.0%
Train Operator	42	20%	14.0%
Wayside (Track, Signal, Traction Power) et al	32	22%	15.0%
Custodians et al	49	22%	15.0%
Rail Maintenance Specialist et al	47	21%	15.0%
Facilities Maintenance et al	18	13%	25.0%

Higher response rates would have been desirable. Participation in the survey, however, was entirely voluntary, and the anonymity of the respondent was protected. There were sufficient responses, however, to make the data for the survey as a whole statistically significant. The degree of precision for survey respondents as a whole is plus or minus 5%, which is sufficiently precise to draw inferences from the survey data with some degree of confidence. However, the smaller the number of employees in a given title or group of titles, the higher the number of employees required to yield a given degree of precision, and sufficient numbers of employee responses were not received to obtain single digit precision except for bus operators and bus mechanics.

The remainder of Attachment B contains:

The Survey Cover Letter

The Survey Instrument

An Analysis of Responses to Each Individual Question

Cover Letter

The following cover letter was attached to the survey packet that was distributed to employees. It laid out the goals of the survey while making it clear that participation was voluntary and promising that the anonymity of the employees participating would not be breached.



Metro

Interoffice Memo

Date: January 27, 2011

To: Metro Operations Employees

From: Arthur E. Leahy, PhD
Chief Executive Officer

Subject: Safety Survey

The Metro Board recently passed a motion by Director Antonovich requesting a full review of our safety culture. As part of our ongoing commitment to provide safe service to the public and a safe working environment for you, we are requesting your feedback and opinions on safety at this organization through the attached survey.

The purpose of this survey is to obtain information about your ideas, beliefs and experiences concerning safety and the safety culture. Your participation is totally voluntary, and your individual responses will be kept completely confidential. No one from Metro will even know whether or not you participated. There is absolutely no penalty to you if you decide not to participate. However, it is extremely important that you do participate. The information provided by you and your fellow employees will be used to evaluate safety and the safety culture at Metro. By participating and giving Metro the benefit of your valuable knowledge and experience, you can help improve safety not only for you, but also your fellow employees. Therefore, we would sincerely appreciate it if you please take the time to answer the survey questions and place your questionnaire in the box provided at your location. The surveys will be opened and the results gathered by an outside consultant.

Please indicate your support for safety and provide us your assistance in our ongoing efforts to keep safety and the safety culture at Metro our main goal by taking the few minutes - given the importance of safety to us all - required to complete the attached survey.

Survey

The survey below is exactly what was distributed to Metro employees. It contains 44 questions. All of Question 1 and more than half of the remaining questions needed to be answered for the survey to be counted.

1. Workplace Information

- a. What is your position or job title? _____
- b. How many years have you worked for Metro? _____
- c. In what division, department, group, or office do you work? _____

2. How safe is your job? (Circle one) Would you say it is 1) extremely safe, 2) very safe, 3) somewhat safe, 4) not very safe, or 5) not at all safe? Please list specific reasons why you chose your response.

(Write in here) _____

3. How would you rate the overall quality of the initial safety training you received in your first few months on the job? (Circle one) 1) Excellent, 2) Good, 3) Fair, 4) Poor, 5) None

4. Other than new employee training, how would you rate the overall quality of any safety training you received in the last year? (Circle one) 1) Excellent, 2) Good, 3) Fair, 4) Poor, 5) None

5. Have you received any refresher safety training in the last three years? (Circle one) 1) Yes, 2) No

6. Would you say the methods Metro uses to communicate safety procedures and rules initially to new employees are effective? (Circle one) 1) Yes, 2) No

7. Would you say Metro insures that you understand the risks you face and the rationale behind the safety rules that apply to your workplace? (Circle one) 1) Yes, 2) No

8. Would you say the methods Metro uses to communicate changes to safety procedures and rules to all employees are effective? (Circle one) 1) Yes, 2) No

9. Do you personally closely follow workplace safety rules and procedures?
(Circle one) Would you say 1) very closely, 2) somewhat closely, 3) not very closely, or 4) not at all closely?

10. Do your co-workers closely follow workplace safety rules and procedures?
(Circle one) Would you say 1) very closely, 2) somewhat closely, 3) not very closely, or 4) not at all closely?

11. How much of a factor is each of the following in potentially affecting whether all of the safety rules are observed all of the time?

a. Too few workers to get the work done?
(Circle one) Would you say it is a 1) major factor, 2) minor factor, or 3) not a factor?

b. Pressure from above to ignore some safety rules and procedures to get the work done?
(Circle one) Would you say it is a 1) major factor, 2) minor factor, or 3) not a factor?

c. Some safety rules and procedures do not need to be followed to get the job done safely?
(Circle one) Would you say it is a 1) major factor, 2) minor factor, or 3) not a factor?

d. Co-workers give you a hard time if you take the time to do everything by the safety rules and procedures?
(Circle one) Would you say it is a 1) major factor, 2) minor factor, or 3) not a factor?

e. What factor in your opinion is most likely to affect whether all of the safety rules are observed all of the time?
(Write in here) _____

c. Some safety rules and procedures do not need to be followed to get the job done safely?
(Circle one) Would you say it is a 1) major factor, 2) minor factor, or 3) not a factor?

d. Co-workers give you a hard time if you take the time to do everything by the safety rules and procedures?
(Circle one) Would you say it is a 1) major factor, 2) minor factor, or 3) not a factor?

e. What factor in your opinion is most likely to affect whether all of the safety rules are observed all of the time?
(Write in here) _____

12. Do you agree or disagree with the following statements?

a. It is my responsibility to make sure my work environment is safe.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

b. It is important to me that there is a continuing emphasis on safety.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

c. It is my supervisor's and/or my manager's responsibility to make sure my work environment is safe.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

d. I am strongly encouraged to report unsafe conditions.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

e. Management is only concerned about safety after a serious accident or incident.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

f. Metro workers have full authority to stop service or work at any time if they observe a hazardous condition.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

g. Many of Metro's workplace safety rules have very little to do with really keeping workers safe.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

h. In my workplace, management, supervision, and workers know what we are doing; we trust each other; we work together; we know how to work safely; and we do it.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

i. The work really would not get done if we followed every safety rule and procedure in the book.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

j. Management takes a no blame approach if workers report "near misses".
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

k. In my workplace, management and supervision have an "open door" policy on safety issues and act quickly to correct safety problems when identified.
(Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

l. My manager or supervisor does not always inform me of everything I need to know about safety problems that might affect me. (Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

m. When accidents or incidents occur in my workplace, Metro procedures require management and supervision to conduct a thorough investigation, address all relevant issues, engage all employee levels in the analysis, and insure that everyone in the workplace understands any new rule, process, or procedure that results from the investigation. (Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

n. When people ignore safety rules and procedures in my workplace, it is none of my business. (Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

o. In my workplace, a worker can get safety rules and procedures changed by making a good case for the change. (Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

p. Metro learns from accidents and incidents and uses what has been learned to prevent recurrences. (Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

q. Metro adapts easily to changing conditions and demands on the system where safety is concerned. (Circle one) 1) Strongly agree, 2) Agree, 3) Disagree, 4) Strongly Disagree

13. Have you or one of your co-workers ever had a close call or near miss on the job where during which someone came close to being seriously injured or killed? (Circle one) 1) Yes, 2) No

a. If yes, has this happened (Circle one) 1) Once, 2) Twice, 3) Three times, 4) Four or more times

b. If yes, was the most recent incident formally reported? (Circle one) 1) Yes, 2) No

c. If not formally reported, why not? (Write in here) _____

d. What would you say would be the most common reason that near misses might not always be reported? (Write in here) _____

14. Has anyone in your workplace ever been disciplined for his or her role in an accident or incident? (Circle one) 1) Yes, 2) No

a. If yes, did you personally think the discipline was fair? (Circle one) 1) Yes, 2) No

b. If no, why not? (Write in here) _____

c. Is Metro's primary focus in dealing with accidents or incidents disciplining individuals instead of preventing recurrences? (Circle one) 1) Yes, 2) No

15. In your experience, do Metro and its employees have a shared set of values, attitudes, and behaviors that combine to make Metro a safer place to work than it otherwise would be? (Circle one) 1) Yes, 2) No

Analysis

Position: All

Question	Mean	Responders	% Response	St Error	St Dev	Median	% Yes	% No
2	3.16	721	94.74%	0.03593	0.964663	3	NA	NA
3	3.84	739	97.11%	0.03445	0.936395	4	NA	NA
4	3.57	746	98.03%	0.03993	1.090527	4	NA	NA
5	1.69	728	95.66%	0.01712	0.461856	2	0.69	0.31
6	1.76	722	94.88%	0.0157	0.421957	2	0.76	0.24
7	1.72	730	95.93%	0.01659	0.448361	2	0.72	0.28
8	1.62	716	94.09%	0.01806	0.483172	2	0.62	0.38
9	3.68	744	97.77%	0.02301	0.627727	4	NA	NA
10	3.24	734	96.45%	0.02683	0.72694	3	NA	NA
11A	2.18	715	93.96%	0.02791	0.74635	2	NA	NA
11B	2.03	708	93.04%	0.03208	0.853636	2	NA	NA
11C	1.98	683	89.75%	0.032	0.836205	2	NA	NA
11D	1.69	683	89.75%	0.03039	0.794283	1	NA	NA
12A	3.5	719	94.48%	0.02573	0.689901	4	NA	NA
12B	3.61	722	94.88%	0.02197	0.590243	4	NA	NA
12C	3.36	714	93.82%	0.03018	0.80635	4	NA	NA
12D	3.39	723	95.01%	0.02839	0.763299	4	NA	NA
12E	2.49	719	94.48%	0.0378	1.013648	2	NA	NA
12F	3.15	715	93.96%	0.0356	0.951982	3	NA	NA
12G	2.21	707	92.90%	0.03329	0.885291	2	NA	NA
12H	2.85	718	94.35%	0.03305	0.885613	3	NA	NA
12I	2.21	718	94.35%	0.03347	0.896817	2	NA	NA
12J	2.4	658	86.47%	0.03421	0.87766	2	NA	NA
12K	2.85	706	92.77%	0.03422	0.909118	3	NA	NA
12L	2.35	725	95.27%	0.03266	0.879397	2	NA	NA
12M	2.99	704	92.51%	0.02944	0.781178	3	NA	NA
12N	1.84	720	94.61%	0.0289	0.775582	2	NA	NA
12O	2.55	695	91.33%	0.03307	0.871834	3	NA	NA
12P	2.94	705	92.64%	0.02926	0.776833	3	NA	NA
12Q	2.73	700	91.98%	0.0305	0.806842	3	NA	NA
13	1.44	698	91.72%	0.01883	0.497539	1	0.44	0.56
13A	2.34	314	41.26%	0.0698	1.236885	2	NA	NA
13B	1.58	303	39.82%	0.02839	0.494235	2	0.58	0.42
14	1.72	660	86.73%	0.01732	0.444923	2	0.72	0.28
14A	1.57	467	61.37%	0.02292	0.495358	2	0.57	0.43
14C	1.6	554	72.80%	0.02076	0.488571	2	0.6	0.4
15	1.67	646	84.89%	0.01847	0.469342	2	0.67	0.33