

WMATA Close Call Program Report



2013–2018



U.S. Department of Transportation
Office of the Secretary of Transportation
Bureau of Transportation Statistics



WMATA CLOSE CALL

PROGRAM REPORT

2013–2018

ACKNOWLEDGEMENTS

Bureau of Transportation Statistics

Patricia Hu

Director

Rolf Schmitt

Deputy Director

Produced under the direction of:

Demetra Collia

Director, Office of Safety Data and Analysis

Recommended Citation:

Bureau of Transportation Statistics. *WMATA Close Call Program Report 2013–2018*. Washington, D.C.: United States Department of Transportation, 2019. <https://doi.org/10.21949/1504250>

QUALITY ASSURANCE STATEMENT

The Bureau of Transportation Statistics (BTS) provides high-quality information to serve government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. BTS reviews quality issues on a regular basis and improves its programs and processes to ensure continuous quality improvement.

Notice

This document is disseminated under an Interagency Agreement between the Washington Metropolitan Area Transit Authority (WMATA) and the Bureau of Transportation Statistics (BTS) of the U.S. Department of Transportation (DOT). The U.S. Government assumes no liability for the report's content or use. The Interagency Agreement adheres to the Economy Act of 1932 as amended (31 USC 1535) and to the Federal Acquisition Regulations 6.002. To the best of DOT's knowledge, the work performed under the agreement does not place BTS in direct competition with the private sector.

TABLE OF CONTENTS

- Executive Summary viii
- Introduction 1
 - WMATA Close Call Program 1
 - Close Call Program Administration..... 2
 - Role of Bureau of Transportation Statistics (BTS)..... 2
 - Close Call Program Components 3
 - Close Call Reporting Process 4
- What Was Reported 7
 - Numbers at a Glance 7
 - Who Reported (Observational vs. Experiential)..... 8
 - What Types of Close Calls Were Reported..... 9
 - Where Did Close Calls Happen..... 12
- What We Have Learned..... 17
 - Underlying Characteristics of Reported Close Calls..... 17
 - Contributing Factors of Reported Close Calls 20
 - Root Causes of Reported Close Calls 22
 - Organizational Elements of Reported Close Calls..... 24
- What Has Been Done (Implementation of Recommendations) 35
- Program Outreach and Engagement 41
- Next Steps..... 45
 - Employee Participation 45
 - WMATA Management and Labor Leadership Support..... 45
 - Joint Ongoing Outreach 46
- Appendix A: Memorandum of Understanding..... 47
- Appendix B: General Manager’s Message 49
- Appendix C: Implemented Metrorail Preventive Safety Actions..... 51
- Appendix D: Implemented Metrobus Preventive Safety Actions..... 55
- Appendix E: Close Call Newsletters..... 57
- Appendix F: Glossary of Terms..... 61
- Appendix G: Acronyms..... 65

PAGE INTENTIONALLY LEFT BLANK

LIST OF FIGURES

Figure 1: Close Call Report Process.....	5
Figure 2: Percentage of Close Call Reports by Year.....	8
Figure 3: Metrorail Close Call Incident Categories.....	9
Figure 4: Metrobus Close Call Incident Categories.....	11
Figure 5: Location of Metrorail Close Calls.....	12
Figure 6: Location of Metrobus Close Calls.....	15
Figure 7: Close Call Analytical Lenses.....	17
Figure 8: Characteristics of Metrorail Close Calls.....	19
Figure 9: Contributing Factors in WMATA Close Call.....	22
Figure 10: Root Causes of Metrorail Close Calls.....	23
Figure 11: Was the Front-line Supervisor Aware of the Issue that Led to a Close Call?.....	27
Figure 12: Do You Think the Working Environment Contributes to Bending the Rules?.....	28
Figure 13: Could Management Have Prevented the Close Calls?.....	29
Figure 14: Is Your Immediate Supervisor Helpful and Supportive?.....	30
Figure 15: Is Management Effective at Addressing Safety Concerns?.....	31
Figure 16: How Effective is Communication about Resolutions to Expressed Safety Concerns?.....	32
Figure 17: How Supportive or Adversarial is the Interaction between Employees and Management at the Work Location?.....	33
Figure 18: Status of Metrorail Close Call Preventive Safety Actions (PrSA).....	36
Figure 19: Number of Implemented Metrorail Preventive Safety Actions by Category.....	37
Figure 20: Status of Metrobus Preventive Safety Actions.....	38
Figure 21: Number of Implemented Metrobus Preventive Safety Actions by Category.....	39

LIST OF TABLES

Table 1: Number of Close Call Reports Received.....	7
Table 2: Yearly Breakdown of Close Calls Reported on the Mainline.....	13

PAGE INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

The *WMATA Close Call Program Report* describes the results of the WMATA Close Call Program and its role in improving safety in WMATA operations. This first report is based on data collected from 2013 to 2018.

The Bureau of Transportation Statistics (BTS) entered into a cooperative agreement with the Washington Metropolitan Area Transit Authority (WMATA) in 2013 to plan and develop a multi-year Confidential Close Call Transit Safety Reporting System with the primary objective of improving safety in transit operations by collecting and analyzing *close call* safety data. BTS developed, maintains and keeps confidentiality of the close call reporting data system. It receives voluntary confidential close call reports submitted by WMATA employees, conducts confidential interviews, performs root cause analysis (RCA), and disseminates results of RCA to the Peer Review Team (PRT). As the owner of the data, BTS protects the confidentiality of the data collected through its own confidentiality statute (49 U.S.C. 111(k)) and through the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) of 2002 (Public Law 107-347, title V, subtitle A).

During the period covered in this report, the program received 151 reports from WMATA employees. The number of reports received touched a wide range of contributing factors and resulted in the development of 118 preventive safety actions (PrSAs) of which 99 have been implemented to date.

The WMATA Close Call Program has steadily grown over the last six years, despite significant disruptions to WMATA operations that included the following: 1) transfer of safety oversight to the Federal Transit Administration (FTA) beginning on October 9, 2015; 2) SafeTrack, a track renewal plan to address the FTA and National Transportation Safety Board (NTSB) safety recommendations; and 3) WMATA's concurrent leadership and management turnover.

Listed below are key program findings:

- Top three primary reporting areas for Metrorail
 - Unsafe Work Practice
 - Roadway Worker Protection
 - Defective Equipment/Infrastructure

- Top three primary reporting areas for Metrobus
 - Bus Route Concern
 - Bus Design Issue
 - Unsafe Work Practice
- Sixty-two percent of employees who reported data to the Close Call Program believe their front-line supervisors are helpful and supportive of their safety concerns.

The following areas have contributed the most towards creating a more robust safety focus and highlight Close Call Program achievements:

- 1) **Training:** efforts were undertaken to standardize training programs and update standard operating procedures (SOPs);
- 2) **Supervisor Support:** reports of improved labor/management relations have been attributed to front-line supervisors being receptive to employees' safety concerns; and
- 3) **Employee Empowerment:** authority was given to WMATA employees on the Peer Review Team (PRT) to approve/implement selected preventive safety actions (PrSA).

Sustained Outreach to potential reporters is an important component of the program, ensuring participation and the widest identification of potential safety concerns. It takes significant time and effort to overcome underlying barriers to cultural change (e.g., resistance to change, lack of trust, and leadership turnover) and it requires that all operational components function as complementary pieces. Furthermore, *leadership support* at all levels of WMATA has been instrumental to program success and expanding that support should continue to be a central program objective.

INTRODUCTION

WMATA Close Call Program

The Confidential Close Call Transit Safety Reporting System (Close Call Program) is a collaborative effort among the Bureau of Transportation Statistics (BTS), Washington Metropolitan Area Transit Authority (WMATA), Amalgamated Transit Union Local 689 (L-689), and International Brotherhood of Teamsters Local 922 (L-922). The program was developed based on a recommendation from the National Transportation Safety Board (NTSB) in a railroad accident report that followed the collision of two trains near Fort Totten Station on June 22, 2009. The Close Call Program is designed to remove fears and barriers that have discouraged employees from disclosing safety risks or unsafe conditions. An unsafe condition or *close call* is a situation or circumstance that has the potential for safety consequences but has not yet resulted in an adverse safety event. To encourage employee participation, the WMATA Close Call Program is entirely voluntary, non-punitive and confidential.

The goals of the WMATA Close Call Program are to:

- Improve the safety culture by encouraging and increasing voluntary employee reporting of safety concerns;
- Mitigate the impact of known safety risks;
- Learn about unknown safety risks;
- Increase awareness of safety risks and emerging trends; and
- Address potential safety risks through the development of Preventive Safety Actions (PrSA).

The Close Call Program complements other WMATA reporting mechanisms, such as the Safety Hotline, Office of the Inspector General's Hotline, Safety Committees and/or reporting directly to a supervisor. These diverse reporting systems allow employees to choose a method that best fits their needs, while ensuring the organization becomes aware of potential safety concerns. While all programs are confidential, meaning the identity of the respondent is protected, the Close Call Program protects WMATA employees under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA). The act ensures willful disclosure is punishable as a class E felony. All the reporting mechanisms share the same goal of identifying potential safety risks and instituting corrective measures.

Close Call Program Administration

All partners in this collaborative effort have pledged to support the program by signing a Memorandum of Understanding (MOU). The MOU outlines the framework, conditions for participation, and roles and responsibilities of each partner. WMATA management intends to expand this program to all represented and non-represented employees, except security guards. Each of the signees of the MOU plays a role in administering the Close Call Program:

- The labor unions (L-689 and L-922), whose members are eligible to participate, are committed to informing and explaining the program to their members;
- WMATA provides funding, resources, program oversight for all aspects of the program and implementation of PrSAs; and
- BTS develops and manages the reporting system for data collection, storage, and analysis.

All stakeholders have equal representation on the Peer Review Teams (PRT) and are responsible for providing subject matter expertise in close call analyses. The signees of the MOU collaborate closely with employee outreach to promote the program and employee engagement. For additional information about the roles of each signee, see [Appendix A](#).

Role of Bureau of Transportation Statistics (BTS)

As a designated principle federal statistical agency, BTS has the authority to protect confidentiality of reporters with CIPSEA. BTS deploys their authority for this Close Call Program under a reimbursable agreement with WMATA.

As the third-party data collector and custodian of the WMATA Close Call Program, BTS has the following nine primary responsibilities:

1. Accept reports of close calls – safety events that do not rise to the WMATA criteria of an accident;
2. Conduct interviews of reporting employees to collect contextual information if needed;
3. Perform data quality analysis on reported close call events or unsafe conditions;
4. Conduct Multiple Cause Incident Analysis (MCIA) for reported close call events with inputs from subject matter experts on the PRT;
5. Track WMATA's reports on preventive safety actions;
6. Analyze reported close call events;
7. Produce and disseminate reports on trends and other characteristics of close calls to improve WMATA safety;
8. Continue to identify ways to improve the effectiveness of the reporting system; and

9. As the owner of the data collected, protects the confidentiality of the data through its own governance and the Confidential Information Protection and Statistical Efficiency Act (CIPSEA).

Close Call Program Components

The Close Call Program fosters a voluntary, cooperative, and non-punitive environment to communicate safety concerns. Programs of this type only work when employees can trust that they will not suffer adverse consequences for reporting unsafe conditions. The commitment of management to place safety first must be felt throughout the organization. To this end, the program has been structured around key components or principles of a close call reporting program: non-punitive, confidential, and 3rd party collection of reports.

NON-PUNITIVE

Since the main purpose of this program is for WMATA, Local 922 and Local 689 to learn directly from employees about the safety concerns, an essential element is to provide a non-punitive environment.

Confidential close call reporting programs use the information for learning about safety concerns and addressing employees' rule noncompliance through coaching instead of disciplining. The non-punitive nature encourages employees to report unsafe conditions and suggest actions in a supportive environment where the organization wants to learn causal factors and focus on improvement.

Using specific events or trends highlighted by this program to identify, target, or discipline employees is outside the spirit of this program and is a direct violation of the law invoked by BTS to conduct data collection.

CONFIDENTIAL

All data collected by BTS from WMATA employees falls under the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA) (44 USC 3501 note). WMATA is therefore, prohibited from using any information contained in a close call report filed with BTS to pursue any disciplinary or enforcement action, including information from the retrospective discovery of events involving violations of operating practices. BTS staff and PRT members have signed a confidentiality agreement under CIPSEA. Unauthorized release of CIPSEA data is a class E felony, punishable by up to \$250,000 in fines and up to 5 years' imprisonment.

BTS has very strict protocols in place for collecting and protecting confidential data. CIPSEA protections include, but are not limited to the following:

- Protection from subpoenas and Freedom of Information Act (FOIA);
- Protection from release of individual reports to the public or any other government agency; and
- Protection from uses other than statistical purposes.

THIRD PARTY REPORTING

BTS is a federal statistical agency within the U.S. Department of Transportation and serves as an independent third-party data collector and custodian of the WMATA Close Call Program. BTS collects, processes, analyzes, and protects the confidentiality of close call data collected from WMATA employees.

Having a third party collect reports gives those employees, who might not otherwise report close calls or unsafe conditions due to fear of retaliation, an alternative option for reporting such concerns.

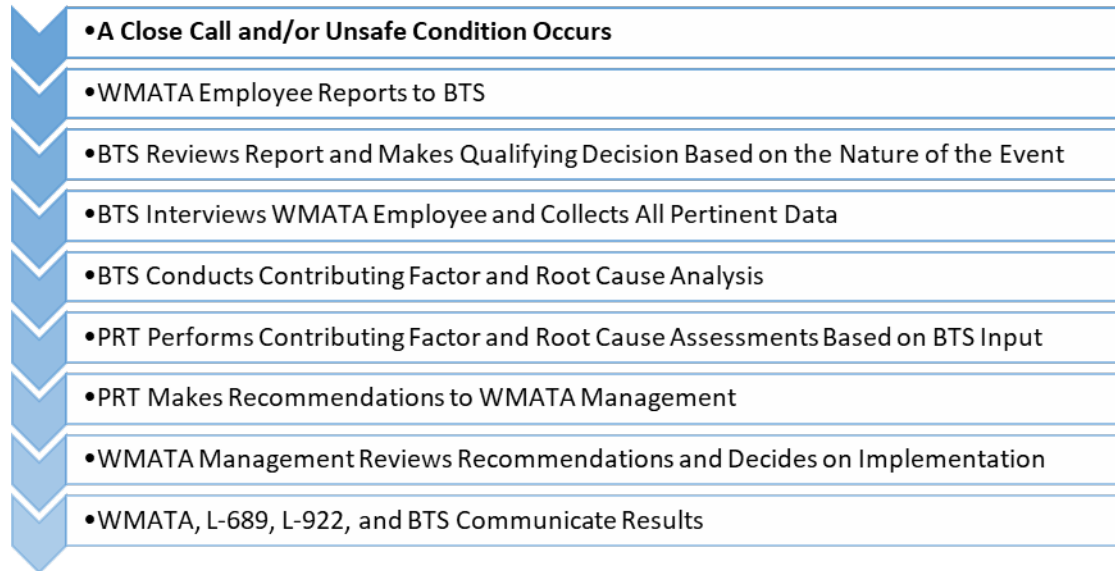
Close Call Reporting Process

Per the MOU, eligible WMATA employees can report to BTS any safety concern, including a condition or event that is perceived as potentially endangering employees, the public, equipment, or the environment. Close call reports can be submitted by eligible WMATA employees, regardless of whether they experienced, observed, or have knowledge of a close call.

The close call reporting process starts when an employee submits a close call report after observing or experiencing an unsafe condition. Once a Close Call report is received, BTS reviews the information for accuracy, relevance, and completeness and interviews the reporting employee for additional contextual information, as needed. BTS identifies potential contributing factors for each close call/unsafe condition, based on the employee's report and interview, cross-referenced with WMATA rules and regulations. BTS conducts Multiple Cause Incident Analysis (MCIA) to identify root cause(s) of the reported close call/unsafe condition with input from subject matter experts on the Peer Review Team (PRT). The MCIA results on root cause(s) of the reported close call/unsafe condition is used by the PRT member from WMATA, Local 689 and Local 922 to formulate Preventative Safety Actions (PrSAs). The PRT is also empowered, in accordance with the MOU, to make decisions about whether to implement the PrSAs directly or forward them to WMATA management for approval and implementation.

Figure I outlines the reporting process from observation of a safety event by a WMATA employee through the implementation of a Preventive Safety Action (PrSA) to address a specific concern. For additional details about the reporting process, see [Appendix A](#).

Figure I: Close Call Report Process



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

PAGE INTENTIONALLY LEFT BLANK

WHAT WAS REPORTED

Numbers at a Glance

The WMATA Close Call Program has two components; Metrorail and Metrobus. The Metrorail program started in 2013 and has received 111 reports. The Metrobus program started in 2016 and has received 40 reports. Overall, employee reporting activity is low for the WMATA program, as compared with other close call programs with comparable workforce size.¹ However, that alone isn't an appropriate indicator of program success. A single report can identify systemic safety concerns affecting multiple locations, employees, and customers.

Table 1: Number of Close Call Reports Received

	Year					
	2013	2014	2015	2016	2017	2018
Metrorail	14*	13	19	11	30	26
Metrobus				9*	14	17

NOTE: *Partial year reporting due to program deployment.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Table 1 shows the number of reports received by year since 2013 for Metrorail and since 2016 for Metrobus. The observed increase in reporting by Metrorail employees in 2017/2018 could be, at least in part, attributed to a couple of factors: 1) increased outreach efforts have resulted in growing employee engagement; and 2) the new General Manager Paul Wiedefeld's message of *Safety Trumps Service* communicated to all WMATA employees in 2016. See [Appendix B](#).

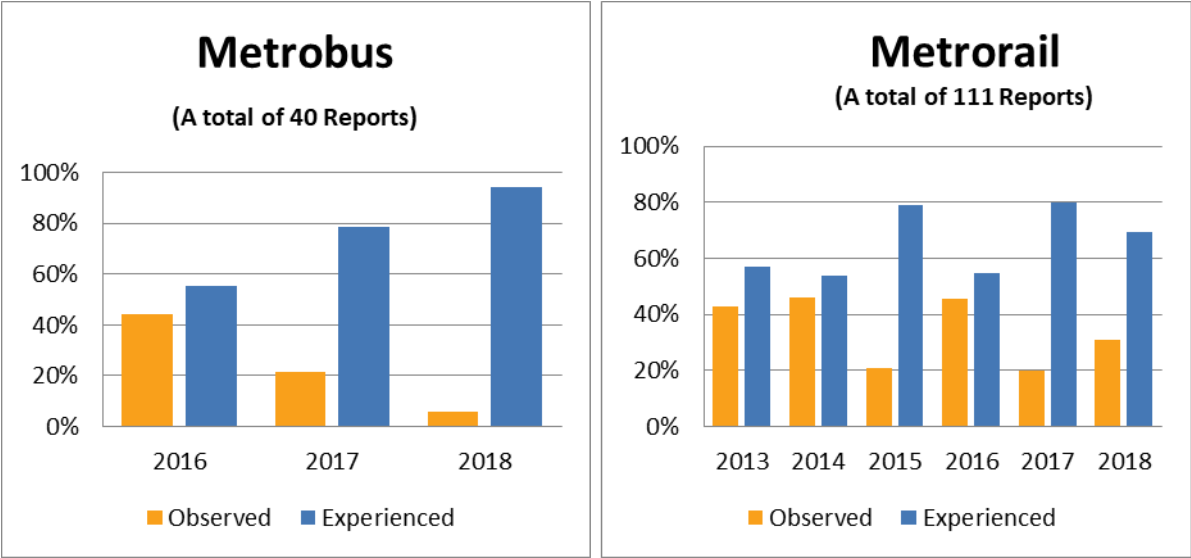
¹ New Jersey Transit Close Call Program ran from 2011 to 2016 with more than 300 reports received.

Who Reported (Observational vs. Experiential)

The program is designed to accept reports from employees who experienced a close call as well as those who might have observed, or become aware of one, through another party. During the reporting period covered in this report, employees eligible to participate in the program were those represented by the partner labor unions, L-689 and L-922. Usually, when a program of this type is new and trust hasn't been established, individuals who experience a close call may be reticent. Consequently, in the early stages of the program, one sees a higher percentage of observational reporting - *something the reporter saw or became aware of* - as compared to reporting something the reporter experienced. Eventually, as trust in the program grows, *experiential reporting* outnumbers *observational reporting*.

However, at WMATA experiential reporting outnumbered observational reporting from the start of the program, for both Metrorail and Metrobus, pointing to a preexisting high level of trust. For Metrobus, the rise in experiential reporting is inversely proportional to the decline in observational reporting across the three reporting years. For Metrorail, the trend is less obvious. However, on average, over the six reporting years it still holds true that experiential reporting grew as observational reporting declined. Figure 2 shows the yearly breakdown of reporters who observed or experienced a close call for both Metrorail and Metrobus.

Figure 2: Percentage of Close Call Reports by Year



NOTE: Metrobus program launch in 2016.
SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

The percentage breakdown in favor of experiential reporting is higher for Metrobus than Metrorail, suggesting that trust in the Metrobus program happened within a shorter period. This could be due to

several factors: a) Metrobus deployment followed Metrorail deployment, so Metrobus employees were already familiar with the program and its success; and b) the effectiveness of continued outreach efforts.

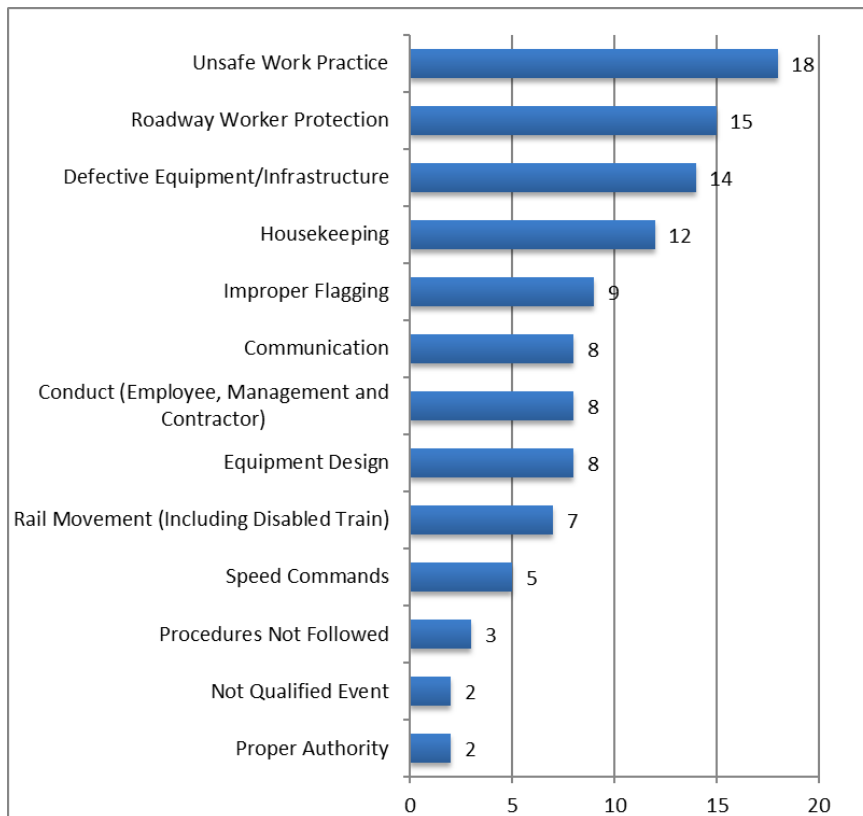
What Types of Close Calls Were Reported

Reports of close call events or unsafe conditions are classified into categories to facilitate analysis of contributing factors, root causes, and safety trends. Reports submitted by Metrorail and Metrobus employees were categorized into areas of concern as listed in Figure 3 and Figure 4. Although each close call is categorized in a single area of safety concern, it often has multiple underlying contributing factors associated with it.

METRO RAIL

The Metrorail Close Call Program includes WMATA’s six metro lines, 91 stations and 118 miles of mainline track. Figure 3 shows the types of safety concerns reported divided into 13 categories.

Figure 3: Metrorail Close Call Incident Categories



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

The top three primary *safety concerns* for Metrorail were:

1. Unsafe Work Practice;
2. Roadway Worker Protection; and
3. Defective Equipment/Infrastructure.

Reports related to *Unsafe Work Practices* were received throughout the six-year reporting period, but the highest number of reports in this category were submitted in 2017. This could be attributed to increased outreach, WMATA General Manager's focus on safety, and employees' buy-in over time. Seventy-five percent of the reports in this area involve not having/using personal protection equipment (PPE) and/or not following the proper rules/procedures.

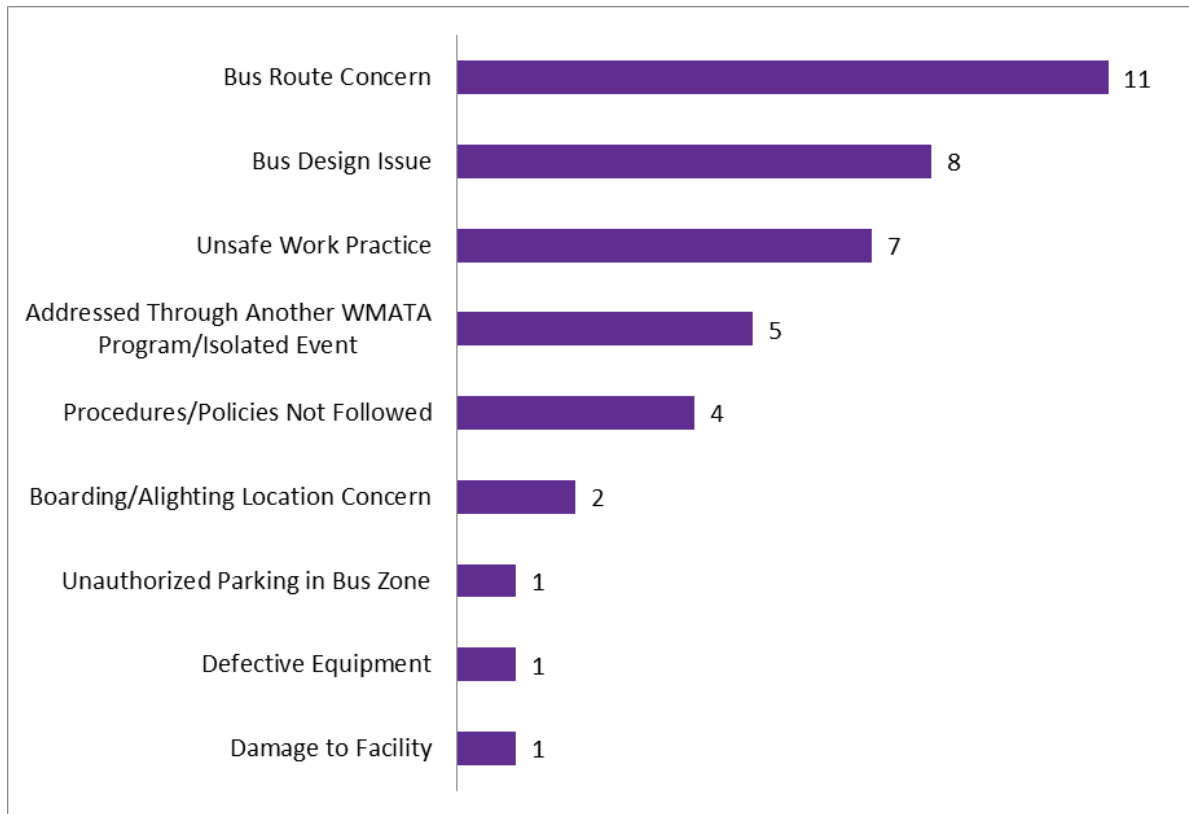
Reports related to *Roadway Worker Protection* were ubiquitous throughout the system and not limited to a particular line due to the mobile nature of the work being performed. Roadway Worker Protection is the second largest safety concern reported. All reports in this area were related to rules/procedures not followed by Rail Operations Control Center (ROCC), Roadway Worker in Charge (RWIC) or Supervisors. Over eighty-seven percent of reports in this area are related to communication failures between ROCC and wayside worker crews. Another common theme in Roadway Worker Protection reports were inadequate job safety briefings and rules/procedures not followed in the working area. This accounted for sixty-five percent of all Roadway Worker Protection reports.

Reports related to *Defective Equipment/Infrastructure* were received mostly during 2017 and 2018 and involved general and preventive maintenance related concerns. For example, there were reports about replacing lighting along tunnel walls and installing new third rail cover boards on yard tracks. In contrast, close call reports received in 2015 were associated with rail infrastructure and track components such as insulators, switches, and rail ties.

METROBUS

The Metrobus Close Call Program includes WMATA's nine bus divisions, which have nearly 1,600 buses in the fleet (just over 1,200 buses deployed in peak service) and 159 lines of service in the District of Columbia, Maryland, and Virginia network. While in 2016 and 2017 the program was still in its infancy, program deployment activities were ongoing and reporting was infrequent, the program experienced significant growth in 2018. Figure 4 shows the types of safety concerns reported divided into 9 categories.

Figure 4: Metrobus Close Call Incident Categories



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

The top three primary *safety concerns* for Metrobus were:

1. Bus Route Concern
2. Bus Design Issue
3. Unsafe Work Practice

Reports related to *Bus Route Concern* focused on traffic congestion or traffic patterns that created unsafe bus navigation while in-route. Other factors that compounded the concern included double parked cars, street size (number of lanes and their width), jaywalkers, and other road hazards.

Reports related to *Bus Design Issues* were present throughout the reporting period for the Metrobus program. The primary concerns reported involved placement of mirrors, bus shield glare, placement of fare boxes and seatbelt adequacy. Specifically, the placement of mirrors was causing poor visibility during turns.

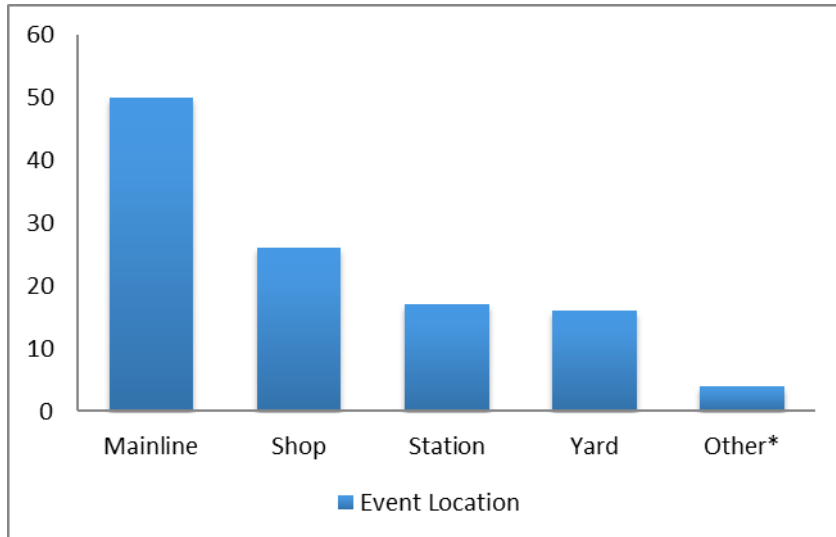
Reports related to *Unsafe Work Practice* were also received throughout the reporting period for the Metrobus program. Examples of unsafe work practice reports included shop work being performed outside designated areas for that type of work, creating avoidable hazards.

Where Did Close Calls Happen

METRORAIL

Reports of close calls and unsafe conditions can occur anywhere on or off WMATA property so long as they are related to WMATA operations. For Metrorail this includes 91 stations, 118 miles of track, 8 yards, as well as maintenance/storage and administrative facilities. This section outlines safety reports in different operating locations - mainline, shop, station, and yard (Figure 5). Most reported close calls occurred on the mainline.

Figure 5: Location of Metrorail Close Calls



NOTE: The Shops are located within the Yards, but not all Yards have a Shop.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Mainline

Mainline tracks are those on the operating *railroad* outside of the yards. Close calls occurring on the mainline have the potential to lead to serious accidents due to trains carrying passengers. Table 2 provides the number of close calls reported on the mainlines by year since the start of the program.

Table 2: Yearly Breakdown of Close Calls Reported on the Mainline

	Year					
	2013	2014	2015	2016	2017	2018
Mainline	3	3	12	6	10	16

NOTE: SafeTrack from June 4, 2016 thru June 25, 2017.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

The number of reported close calls increased in the third year of the program and then decreased in the fourth year, coinciding with the development of the SafeTrack program. The SafeTrack program started on June 4, 2016 and was the most aggressive track renewal program in WMATA's history. It was a comprehensive maintenance effort that accelerated three years' worth of work into one year. The SafeTrack program along with WMATA's increased safety focus while the program was underway could have contributed to the observed decrease in mainline event reporting.

The number of mainline related reports increased again in 2017 and 2018, surpassing the 2015 high. Strong management commitment to the program could explain the resurgence seen in reporting as WMATA management expanded outreach efforts in 2017 and 2018. Once WMATA's normal operations resumed, there was an increase in reporting of mainline close calls.

Listed below are the types of events reported by year:

- In 2013 and 2014, reports centered around events that happened during general track maintenance;
- In 2015, reports were about on-board train equipment failures; water intrusion causing infrastructure damage; and radio issues leading to communication failures. There were also isolated reports of a damaged signal, excessive brake dust in the station, and employee fitness for duty;
- In 2016, reports were about arching insulators and other track bed/rail vulnerabilities;
- In 2017, reports were about upkeep activities, such as fixing tunnel water damage, replacing 3rd rail cables, track inspections, and general track maintenance; and
- In 2018, reports were about covered communication failures, infrastructure, train equipment and unclear procedures.

Mainline close call reports did not indicate higher safety concerns for a specific line segment. They, instead, highlighted system-wide concerns that led to preventive safety actions being taken at all relevant locations for a systemic resolution.

Listed below are some examples of reported safety concerns:

- Misidentification of specific breakers to take down third rail power for track work to be completed resulting in a part of the third rail remaining energized;
- A loss of radio communication between a flag person and a prime mover operator during vehicle movement; and
- The RWIC coming to a work location without the proper work zone set-up equipment including the Warning Strobe and Alarm Devices (WSAD), mats and red lanterns to warn oncoming trains of their presence.

Shop

The shop is the area within the yard (not every yard has a shop) where repairs are made. The primary concerns reported in the shops involved either an error made by the employee or an equipment failure, such as:

- Employees removing equipment incorrectly causing it to almost come in contact with a shop's power source;
- Supervisors not enforcing flagging procedures;
- Improper equipment/tool fabrication certification; and
- Improper flagging procedures for vehicle movement entering/exiting the shop.

Station

The station is a platform location where revenue trains discharge and pick up passengers; it is also the location of the station manager's kiosk and other station maintenance rooms. The primary concerns reported in the stations involved maintenance work or station upkeep, such as:

- Escalator and elevator maintenance concerns;
- Air quality in station kiosks;
- Dumping of waste water on the station track bed; and
- Train door misalignment with the station platform creating a tripping hazard to customers and employees entering and exiting trains.

Yard

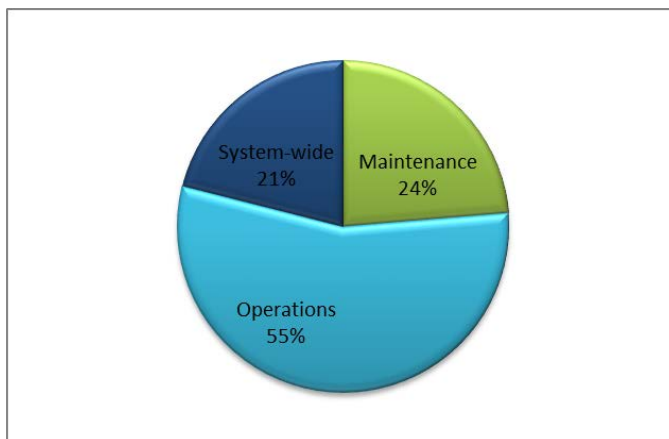
The yard is a system of tracks used for connecting and storing trains. Vehicle movements in the yards are under the authority of the tower operator. In 2018, the close call reports occurring in yard locations increased and notable concerns included the following:

- Miscommunications between a train operator and a yard interlocking operator causing the train operator to depart the yard with a switch being improperly set for the route;
- Missing third rail cover boards;
- Damage to yard maintenance facility causing water leakage; and
- Overgrown grass in between the cross ties of the yard tracks covering rail components.

METROBUS

Most close call reports received about Metrobus were related to operations, as shown in Figure 6. Metrobus *operations* made up 55 percent of the close calls reported, *maintenance* 24 percent, and *system-wide* 21 percent.

Figure 6: Location of Metrobus Close Calls



NOTE: Metrobus program launch in 2016.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

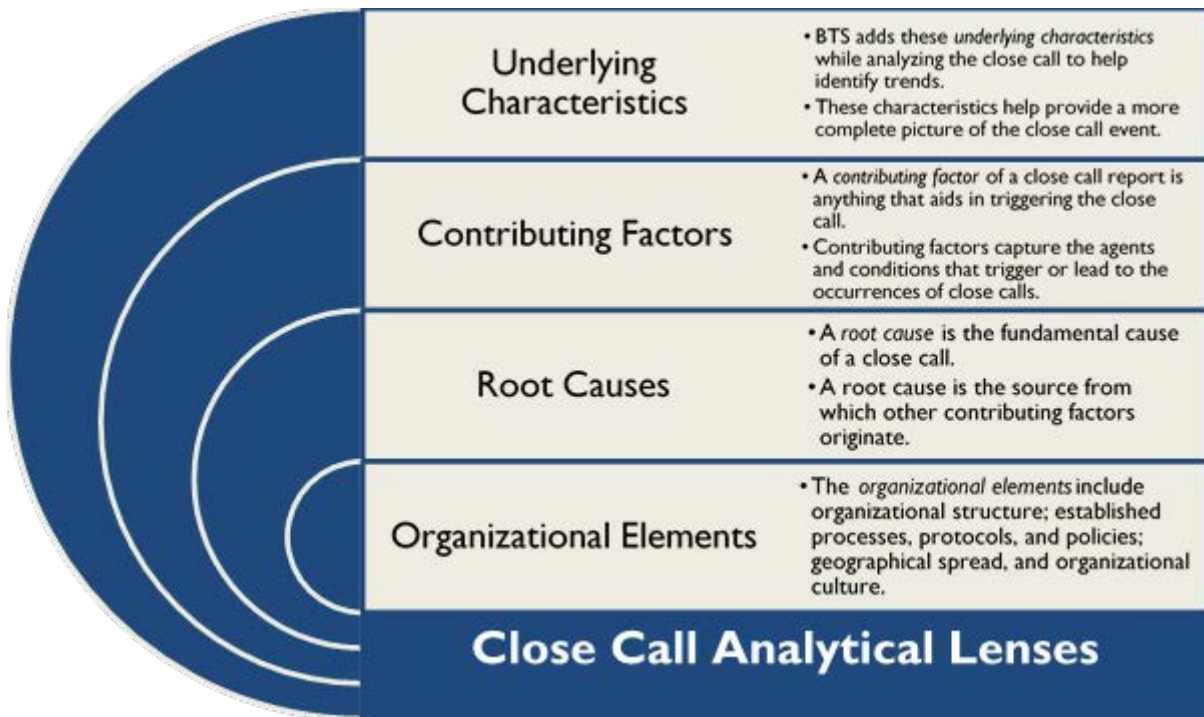
Operations concerns are those that occurred on, around or involving a bus and/or bus operator while the bus was in service, including the pre- and post-trip inspections. *Maintenance* concerns are those that happened while in a maintenance facility or before/during/after maintenance was performed on a bus. *System-wide* concerns are those that were not isolated to a specific location and instead could affect the entire system. The distribution of these close calls among Metrobus *operations* and *maintenance* roughly aligns with the size of each component; Metrobus operations is about three quarters of all Metrobus employees and Metrobus maintenance represents about one quarter.

PAGE INTENTIONALLY LEFT BLANK

WHAT WE HAVE LEARNED

BTS analyzed the close call reports received through the following analytical lenses: *underlying characteristics*, *contributing factors*, *root causes*, and *organizational elements* (Figure 7). Each of these lenses helped to create a more complete understanding of the underlying conditions that led to the close call.

Figure 7: Close Call Analytical Lenses



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Underlying Characteristics of Reported Close Calls

While analyzing a received close call, BTS adds a subset of characteristics to each close call report. These characteristics help provide a more complete picture of the event. The characteristics may lead to the identification of emerging trends and potential recommendations. Figure 8 provides a comprehensive list of these qualitative characteristics.

Among all close call reports received, the most mentioned characteristic was *safety*, followed by *communication*. *Safety* means the overall safety of the situation, employee(s), or individuals in the area. *Communication* concerns included issues such as clarity, frequency, consistency, and timeliness.

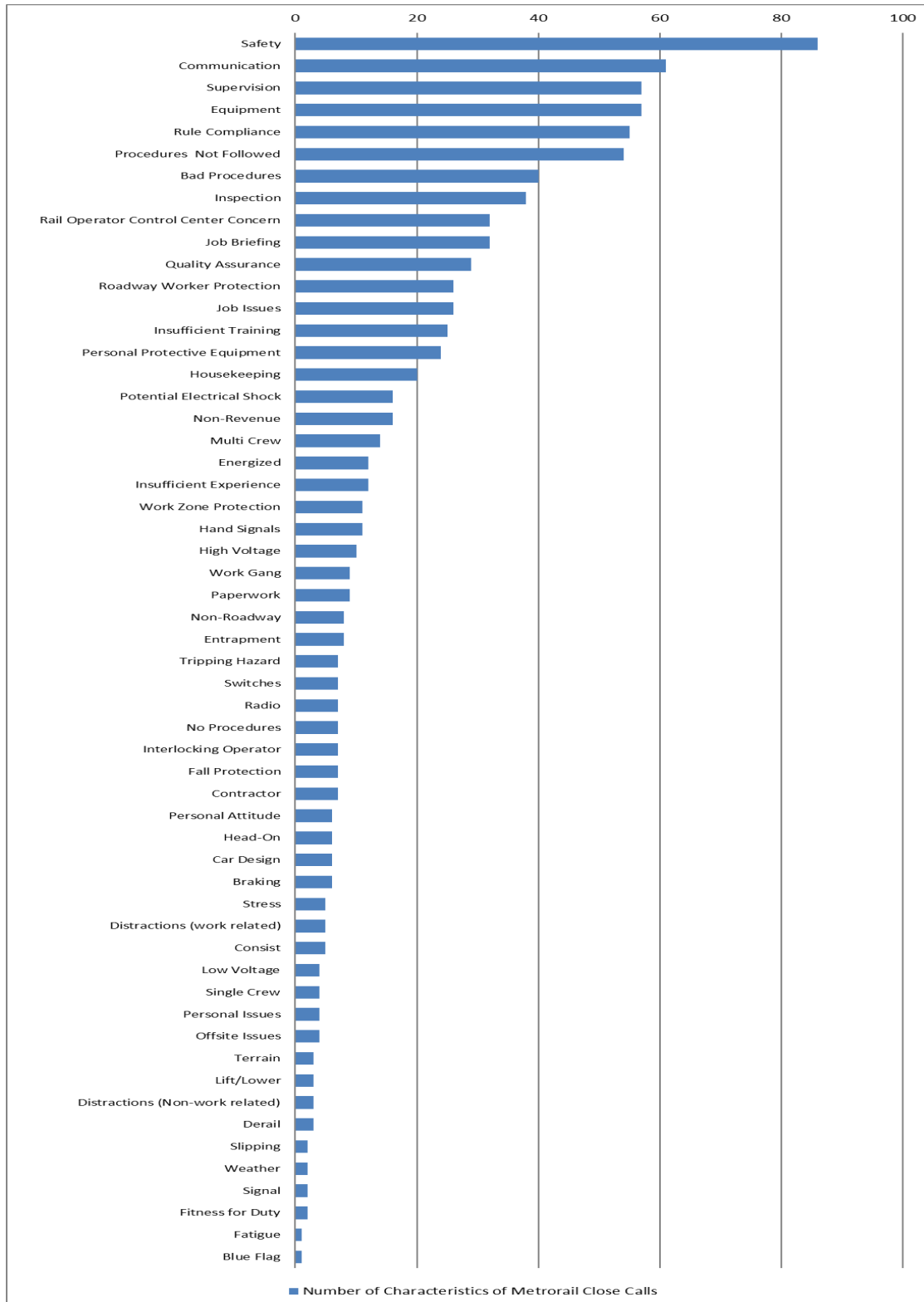
There are cases where a close call may be assigned multiple characteristics. For example, a close call about ‘*radio communication outage in the yard between the tower and yard operator*’ would be assigned these characteristics: *Safety, Communication, Radio, Inspection and Quality Assurance*.

Figure 8 shows the characteristics that BTS most often assigns to close call reports. The top five characteristics were the following:

1. Safety
2. Communication
3. Supervision
4. Equipment
5. Rule Compliance

The *underlying characteristics* are not to be confused with the contributing factors of the event. An underlying characteristic captures the nature of a close call, rather than what triggered the close call.

Figure 8: Characteristics of Metrorail Close Calls



NOTE: A single close call report received will have multiple characteristics assigned.
SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Contributing Factors of Reported Close Calls

A *contributing factor* of a close call report is anything that aids in triggering the close call. Though they may be closely related and often get confused with each other, *contributing factors* are different from *characteristics of close calls*. Characteristics describe the nature of close calls while contributing factors capture the agents and conditions that trigger or lead to one.

There is a long list of possibilities for what could cause or contribute to a close call. Unsafe conditions and unsafe events are often at the root of why events occur. In this report, we outline six contributing factors and their influences on close call reports at WMATA: 1) *Organization/WMATA*; 2) *Equipment/Tools*; 3) *Operator/Individual*; 4) *Supervision*; 5) *Work Space/Environment*; and 6) *Other*.

ORGANIZATION/WMATA

This factor covers the organizational characteristics of WMATA as an operating entity that may aid in causing close calls. These characteristics include organizational goals and priorities; management structure, reporting relationships and communication channels; rules and regulations; procedures and safety assurance policies/methods; and audits, etc.

EQUIPMENT/TOOLS

This factor focuses on the physical characteristics of the equipment and tools employed in WMATA operations that may aid in causing close calls, including the size, shape, weight; speed of equipment or tools; condition and readiness for use; and accessibility and ergonomics, etc.

OPERATOR/INDIVIDUAL

This factor covers all aspects pertaining to workers and individuals who are directly involved in close calls. The aspects include crew knowledge, skill and ability to do the job; crew familiarity and experience with work site; equipment, tools and materials required for the job; crew functional mix; planning and preparation for the job; crew relationships with one another; clarity of communication channel and protocol to crew; and crew physical and mental readiness for the job (fatigue, stress, and distraction), etc.

SUPERVISION

This factor covers aspects pertaining to supervision at all levels. The aspects include supervisor knowledge, skill and ability to do the job; supervisor familiarity and experience with work site; equipment, tools and materials required for the job; supervisor functional mix; planning and preparation for the job; supervisor relationships with one another; supervisor relationships with crew; clarity of communication channel and protocol for supervisor/crew; and supervisor physical and mental readiness

for the job (fatigue, stress, and distraction), etc. In this factor, the focus is on how the states of the covered aspects of supervisors or other authority-holding individuals affect the clarity, accuracy, and effectiveness of the guidance and instructions provided to the crew.

WORK SPACE/ENVIRONMENT

This factor covers the physical aspects of the work space and environment that may cause close calls, such as worksite condition and cleanliness; accessibility and ergonomics; visibility and lighting; and the organizational aspects that affect the physical aspects of the work space and environment, such as housekeeping standards and inspection frequency, hazardous materials inspection, and protection audits.

OTHER

This factor covers all other aspects of the WMATA operations that may aid in triggering close calls but are not covered by the above five factors.

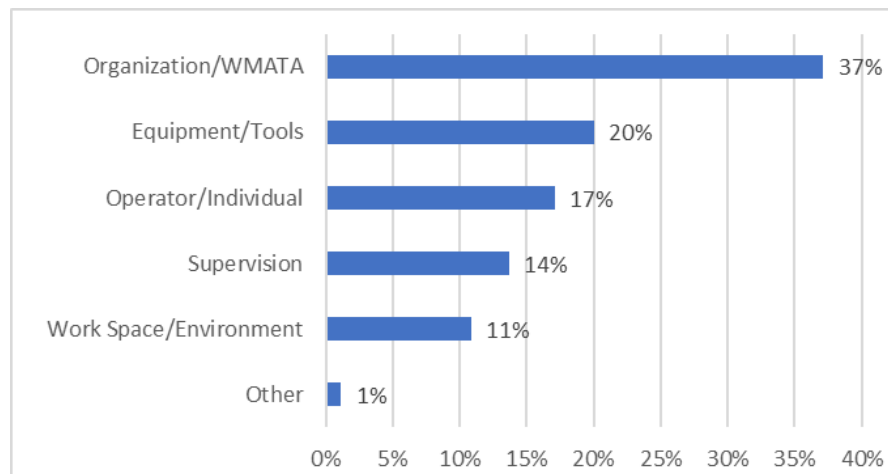
MULTI-FACTORS

The grouping of these six contributing factors is based on established research on human factors. These six contributing factors have been proven to be essential in identifying root causes in safety events and enabling the discovery of structures and patterns. In addition, the number of contributing factors involved in triggering close call events can also indicate the complexity of WMATA close calls. The more contributing factors involved in a close call, the more complex it is.

Analysis of the close calls reported by WMATA employees revealed that about 38 percent involved two or more contributing factors and about 17 percent of them involved three or more contributing factors. There was one close call that involved all six contributing factors and another that involved five contributing factors.

As seen in Figure 9, *Organization/WMATA* was the leading contributing factor, accounting for 37 percent of the *Total Involvement* and responsible for causing 65 close calls. Within this factor, sub-factor *Rules/Regulations/Procedures* dominated and accounted for 88 percent of the total impact of the *Organization/WMATA* factor.

Figure 9: Contributing Factors in WMATA Close Call



NOTE: A single close call report received may have multiple contributing factors assigned.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

The second most significant contributing factor was *Equipment/Tools*, accounting for 20 percent of the *Total Involvement* and triggering 35 close calls. Within this factor, sub-factor *Error in Equipment/Tools Operation* accounted for 54 percent of the total impact of *Equipment/Tools* factor.

Operator/Individual and *Supervision* were the two human factors among the six contributing factors. They respectively accounted for 17 percent and 14 percent of the *Total Involvement*. The distribution of impact among the sub-factors was similar within these two factors, with sub-factors *Crew Familiarity, Relationship,* and *Communication* together accounting for more than two thirds of their total impact.

The *Work Space /Environment* contributing factor accounted for 11 percent of the *Total Involvement*. Its major sub-factors were *Housekeeping, Workspace Design,* and *Off-site Work Environment*. Their respective contributions to the factor's total impact were 52, 26, and 21 percent respectively.

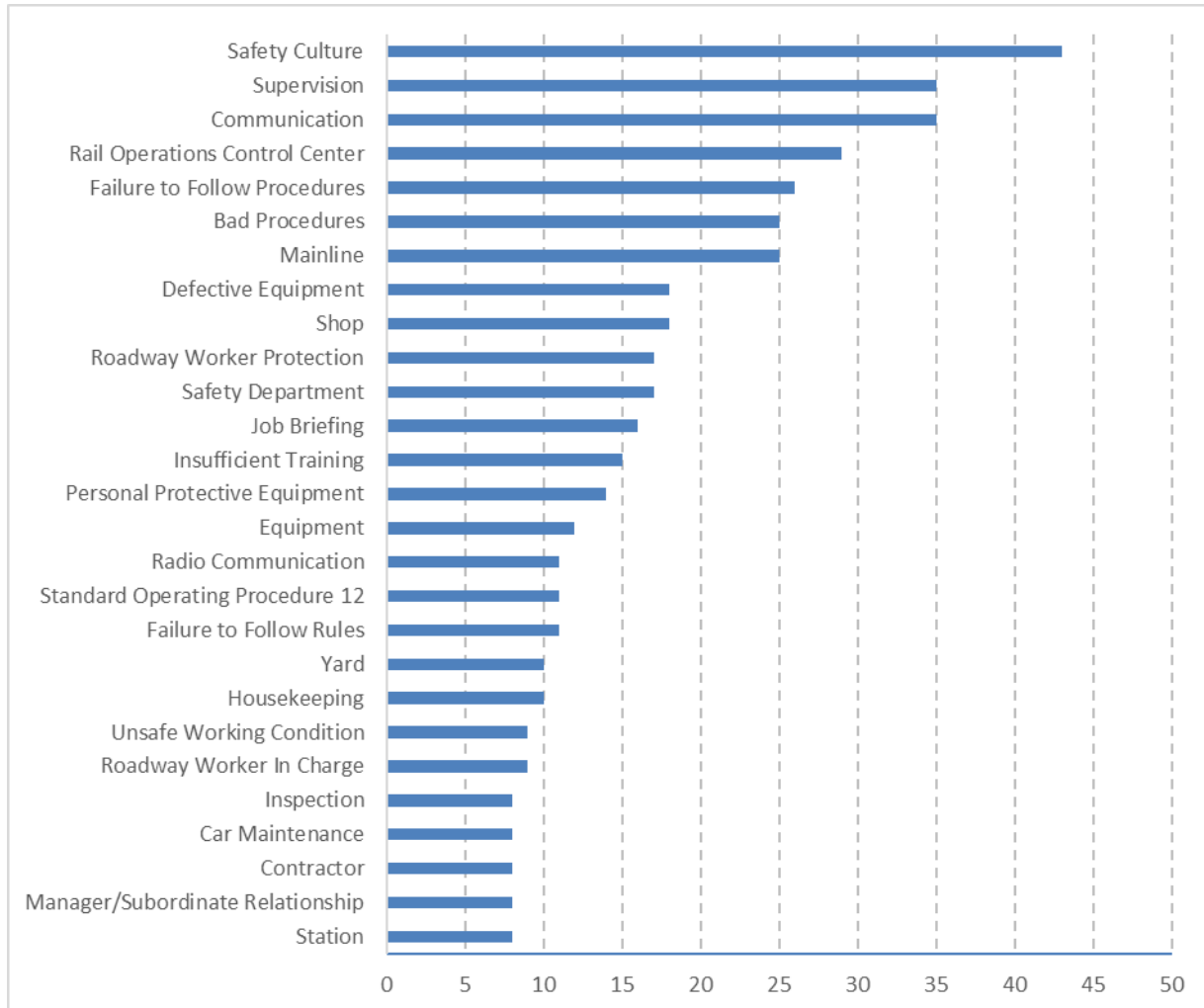
Root Causes of Reported Close Calls

A *root cause* is the fundamental cause of a close call. The difference between *root cause* and *contributing factor* is that a contributing factor may be one or more related things that worked together to cause a close call; a root cause is the source from which other contributing factors originate. It is important to note that one root cause can be responsible for multiple close calls and one close call can have multiple root causes. The root cause analysis is performed by BTS with input from subject matter experts on the PRT.

Identifying root causes is the essential task of the *Multiple Cause Incident Analysis (MCIA)*. During the MCIA, the PRT goes through a rigorous process to identify the root cause(s) for every close call. Figure

I0 presents the root causes identified by the PRT for the reported Metrorail close calls, along with the number of close calls associated with each.

Figure I0: Root Causes of Metrorail Close Calls



NOTE: One root cause can be responsible for multiple close calls and one close can have multiple root causes.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Organizational Elements of Reported Close Calls

The *organizational elements* of close calls include organizational structures; established processes, protocols, and policies; geographical spread; and organizational culture. Organizational elements influence the effectiveness and efficiency of the organization's operations. The following three elements stood out for WMATA:

1. Rail Operations Control Center (ROCC);
2. Standard Operating Procedure 12 (SOP 12); and
3. Management/Labor Relationship.

RAIL OPERATIONS CONTROL CENTER (ROCC)

A frequent concern is ineffective communications between the ROCC, train operators, and roadway workers. This concern centers around notifying the train/equipment operator of the presence of a work crew on the track. Approximately 23 percent of the reported events involved the ROCC in some capacity. Because of the critical role the ROCC plays in WMATA operations, safety concerns that involve the ROCC can have a systemic and potentially severe impact.

The following are two examples of ROCC close calls:

- The ROCC failed to indicate the presence of a roadway worker crew to an approaching train operator; and
- The ROCC instructed a train operator to pass a red signal without following the proper read-back script prior to the movement.

WMATA management has already identified the ROCC as an area of concern and has taken the following steps to enhance its effectiveness:

- I. Restructure the ROCC
 - Decrease Territory
 - Train control consoles are being modified to reflect decreased territory, e.g., just one line (Silver) instead of multiple lines per console.
 - Increase Management
 - The ROCC management has expanded to include supervision on all three shifts; additionally, three superintendents and assistant superintendent positions have been added.

2. Reduce Distractions
 - Lower Noise Levels
 - *Situation Management* areas were designated away from controllers to allow team huddles during emergencies and service disruptions; and
 - Plans are being developed to move power operation control to an enclosed room to reduce distractions to train operating personnel.
 - Improve Work Shift Management to Even Workloads
3. Introduce New Trainings, Processes, and Procedures
 - Enhance Training, Practice with Exercises, Perform Drills; and
 - Streamline Processes and Procedures.
4. Address Turnover and Retention
 - Recruit New Staff; and
 - Develop Employee Compensation Package.
5. Ongoing ROCC Performance Review and Assessment
 - Quality Assurance Audits

In addition to the improvements to the ROCC, WMATA management has assigned half of all track inspections to be performed during the night shift when traffic is low to reduce risk to roadway workers.

STANDARD OPERATING PROCEDURE 12 (SOP 12)

SOP 12: Movement of Rail Vehicle(s) Within, Into, On the Lead, and Out of a Maintenance Facility is the procedural document for movement of rail vehicles. At the beginning of the program, a few reports were received regarding employees not following, understanding, or being trained on SOP 12. The PRT reviewed the cases and recommended a multi-departmental overhaul to all policies, procedures and work practices associated with rail vehicle movement within, into, on the lead, and out of a maintenance facility. This included revising SOP 12, developing training to promote adherence to the revised standard and including discussions about SOP 12 as a common safety tip in job briefings. Signage was placed on the shop doors to remind train operators of the proper procedures and encourage supervisory reinforcement. In addition, quality assurance audits for SOP 12 compliance were implemented. The comprehensive nature of the recommendations and the multi-departmental impact of the corrections have garnered the program positive results.

After the successful completion of these efforts, no SOP 12 related events were received until late 2018. After reviewing the 2018 close calls, the PRT determined that rule compliance was less than ideal. This

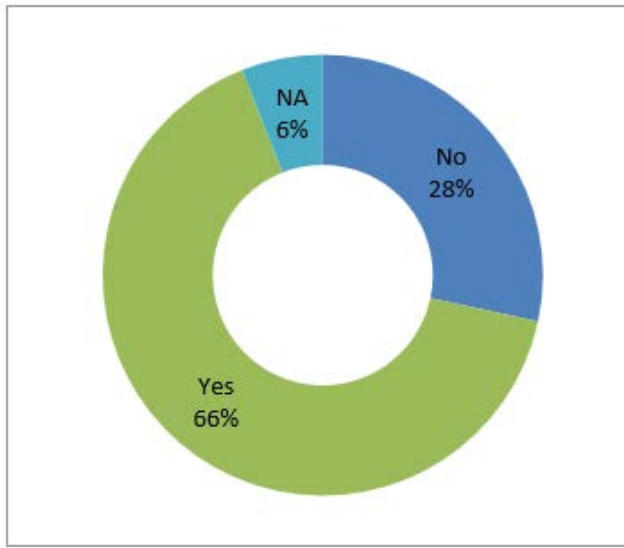
resulted in a renewed effort to increase employee understanding and compliance by discussing SOP 12 in job briefings and conducting QA audits in shop facilities.

MANAGEMENT AND LABOR INTERACTIONS

As part of the employee interview that follows BTS's receipt of a close call report, the employee's perspective of labor/management interactions and the overall safety culture in WMATA is captured. Every employee reporting a close call is asked the same questions and instructed to give their honest opinion. The series of questions are designed to understand how an employee feels about their direct supervisor, middle management, upper management, communication, and workplace safety practices.

Below is a summary review and analysis of employees' comments collected through interviews. The reporting employees' direct comments are protected under CIPSEA. The following figures are representative of the close call reporters who took part in the interview, not representative of the entire population of employees at WMATA.

Figure 11: Was the Front-line Supervisor Aware of the Issue that Led to a Close Call?



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

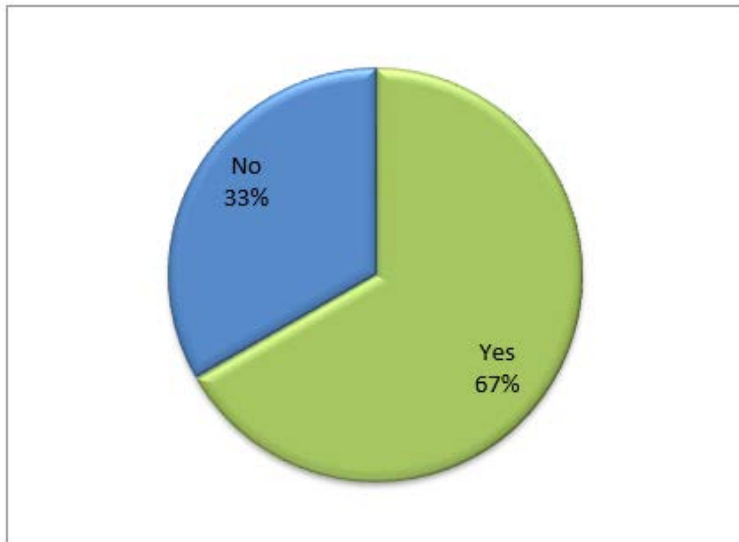
Most employees interviewed (66 percent) noted that their front-line supervisors were aware of the unsafe event reported (Figure 11). The distribution of responses among the three categories – Yes (aware), No (not aware), and NA (not applicable), remained stable throughout the evaluation period. Often employees were encouraged to submit a report by front-line supervisors who agreed with employees' concerns.

Reporting employees commented that “front-line supervisor’s hands were tied and they were unable to do anything to address the issue.”

Employees who had not informed their supervisor of the unsafe event fall into two distinct groups:

- Those who thought it unnecessary to communicate with their supervisor because they believed “nothing would be done about it” and the supervisor would “get an attitude”; and
- Those who did not inform their front-line supervisor of the unsafe event because they did not want to “cause trouble for their supervisor with upper management.”

Figure 12: Do You Think the Working Environment Contributes to Bending the Rules?

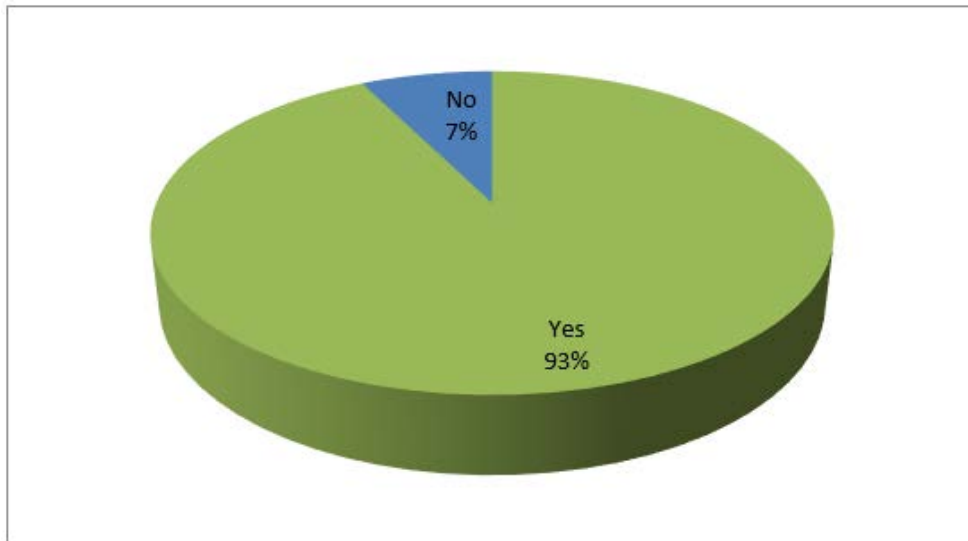


SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

When asked if there are factors that contribute to “bending the rules”, most employees interviewed acknowledged contributing factors (Figure 12). “Yes” means the employee agrees that the work environment contributes to bending the rules and “no” means the employee does not agree. It is important to note, over the last year, a small shift has been seen towards “not bending the rules” with reporting employees. The most prevalent statement identified was “on-time performance over safety.” Employees often stated the overall message received from management was not to delay revenue service. Other contributing factors included the following:

- Rushing to finish work led to cutting corners;
- Pressure by management to complete the work within time allotted;
- Management changing/loosening the rules to get the work completed;
- Fear of retaliation if not complying with management’s directives; and
- Complacency when performing identical tasks for an extended period.

Figure 13: Could Management Have Prevented the Close Calls?



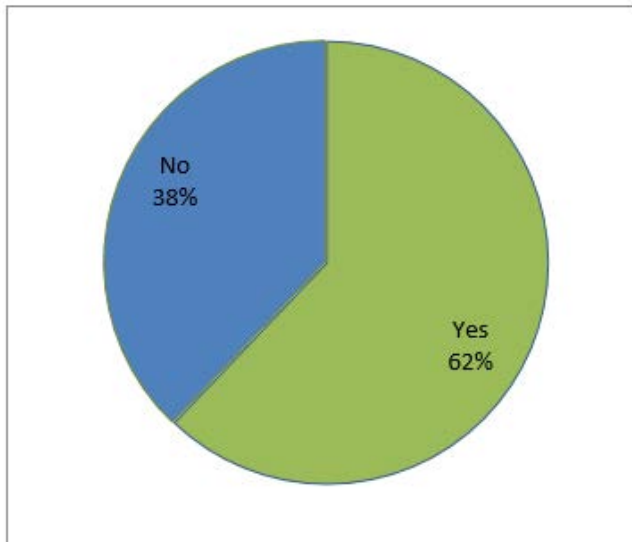
SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

When asked if there was anything management/WMATA should or could have done to prevent this close call, ninety-three (93) percent of the interviewed employees answered “Yes” (Figure 13).

Reporting employees commonly identified the following as potential improvements:

- Improve communication between front-line employees and leadership;
- Clarify and enforce Standard Operating Procedures (SOPs) for all WMATA personnel;
- Provide standardized training that reflects SOPs and work practices;
- Ensure that WMATA escorts require contractors to follow SOPs and work safely;
- Improve communications with the ROCC – specifically with train movement and RWP;
- Enhance radio communication (frequencies and calibration);
- Enhance compliance monitoring throughout the system;
- Improve procurement process to ensure proper equipment is being purchased;
- Use Signage - laminate and post policies by equipment, when necessary; and
- Provide more effective training to ensure full understanding of SOP 12 (flagging in/out of shop).

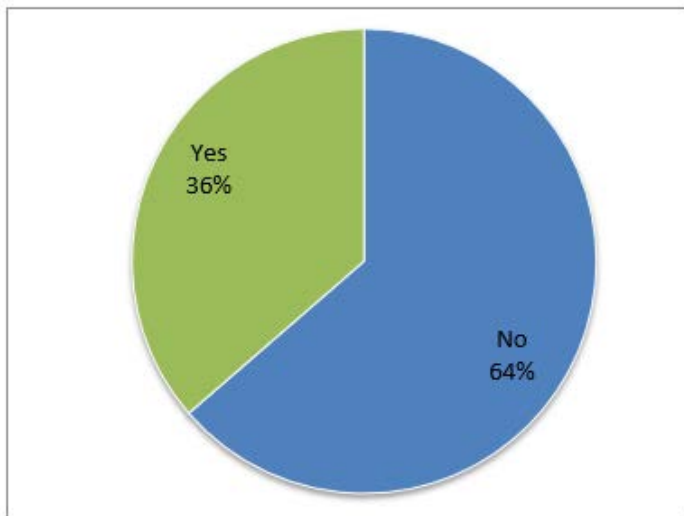
Figure 14: Is Your Immediate Supervisor Helpful and Supportive?



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Most employees believed their front-line supervisors were helpful and supportive of their safety concerns (Figure 14). Employees reported seeing the issue being addressed if the front-line supervisor could correct the safety concern. However, if the correction needed to go beyond the front-line supervisor, reporting employees believed nothing would be done. Employees reported a more positive outlook about front-line supervisor's assistance and support in the last 3 years than in the first 3 years. This may be the result of the increased outreach and engagement efforts which highlighted what has been done in response to reported close calls.

Figure 15: Is Management Effective at Addressing Safety Concerns?



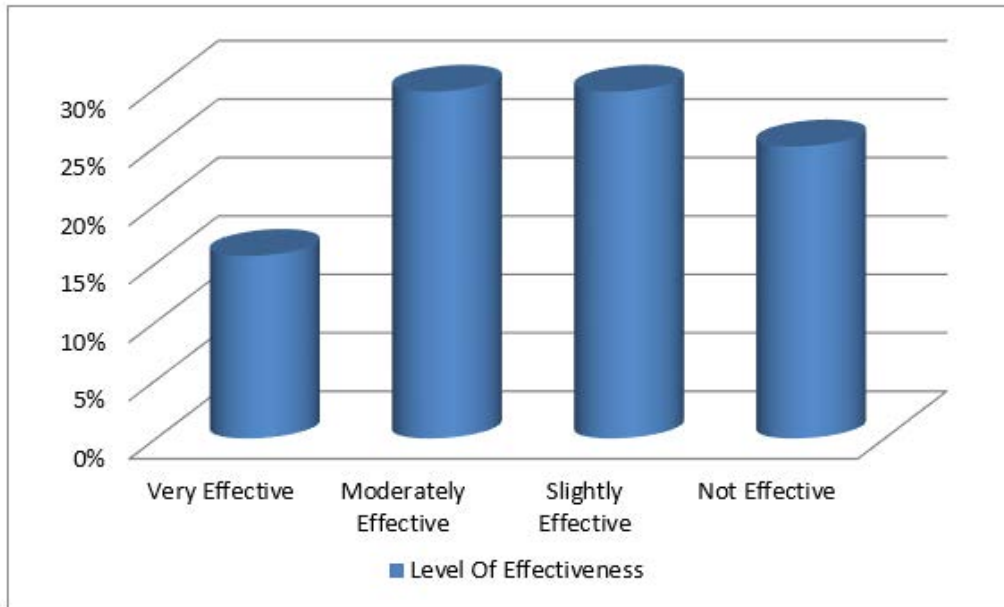
SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Overall, when asked about management’s responsiveness and effectiveness in addressing safety concerns, most employees (64 percent) believed their concerns were not being addressed (Figure 15).

Common reasons noted for lack of management effectiveness are listed below:

- Corrective actions are beyond front-line supervisors’ control;
- Ineffective / out of date / out of compliance SOPs;
- No results come from reporting repeatedly to supervisor;
- Minimal action is taken to address the concern (i.e., window-dressing as opposed to resolving the issue); and
- Management’s reluctance to act for various reasons, including budgetary constraints, complacency, resistance to change, etc.

Figure 16: How Effective is Communication about Resolutions to Expressed Safety Concerns?



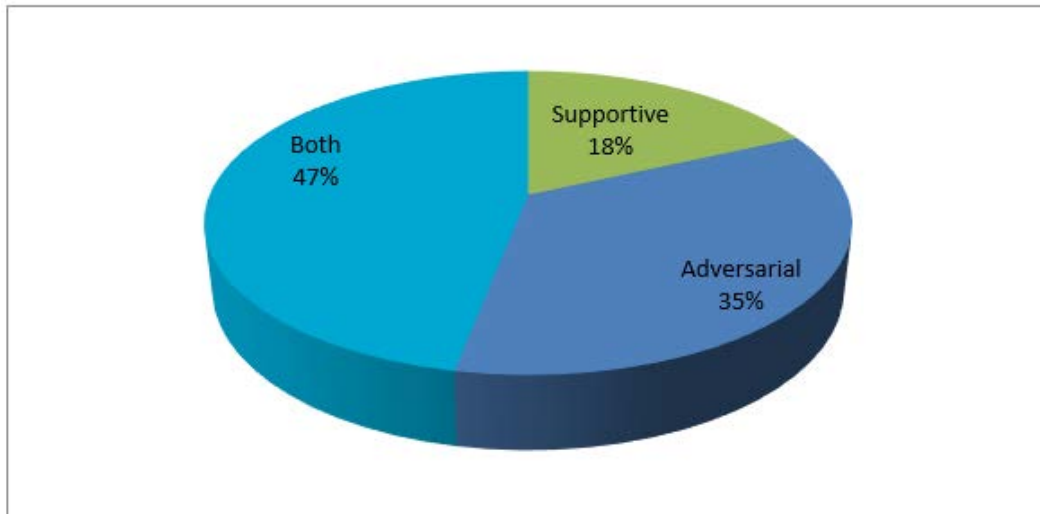
SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Figure 16 shows the distribution of interviewed employees and their perceived effectiveness of communication about resolutions to expressed safety concerns. Employees who believed that communication efforts were “very effective” or “moderately effective” noted that their front-line supervisors were proactive, responsive, and emphasized safety.

Communication about resolutions to safety concerns to all employees isn’t just the responsibility of management; it is a joint effort between WMATA management and union leadership.

Employees who believed that communication efforts were “slightly effective” or “not effective” held upper management responsible for not sharing safety resolution information with front-line employees after a concern was brought to management’s attention.

Figure 17: How Supportive or Adversarial is the Interaction between Employees and Management at the Work Location?



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Employees provided mixed feedback when asked about the interaction between management and labor. Responses varied by location and supervisor (Figure 17). Some employees said they have a great working interaction with their front-line supervisor and work well with other employees on site. While other employees conveyed that there is a top down management approach, i.e. “you are told what to do and expected to do it.”

Most employee responses indicated both adversarial and supportive management/labor relationships (i.e., most front-line supervisors are supportive, while interactions with upper management are adversarial). This is not a unique situation to WMATA, other organizations in transition have experienced similar issues. The more distant employees are from the decision makers, the less inclined they are to trust them and their decisions. Favoritism was also identified as a contributor to an adversarial management and labor interaction.

PAGE INTENTIONALLY LEFT BLANK

WHAT HAS BEEN DONE (IMPLEMENTATION OF RECOMMENDATIONS)

In the previous section, we discussed the *underlying characteristics, contributing factors, root causes* and *organizational elements* that played a role in close calls at WMATA. In this section, BTS presents the actions taken by WMATA to improve safety in its operations based on the data collected by BTS and the recommendations provided to executive-level management by the Peer Review Team (PRT).

As part of WMATA's implementation process, every Preventive Safety Action (PrSA) is assigned to a WMATA manager/supervisor who oversees its successful completion. A PrSA could involve a wide range of actions, including:

- Revising, clarifying, or expanding an SOP;
- Issuing a bulletin or memorandum to employees;
- Performing a quality assurance audit;
- Installing new signage;
- Distributing placards;
- Providing/expanding training;
- Identifying additional safety topics for the “safety tip of the day” at the job briefings (tool box meetings); and/or
- Revising/improving equipment.

A full list of PrSAs can be found in [Appendix C](#) for Metrorail and [Appendix D](#) for Metrobus.

Metrorail

The WMATA Metrorail PRT reviewed and analyzed each of the 111 reported close calls to understand what happened, what the contributing factors were, and what could be learned and implemented. For the majority of the reported close calls - where sufficient information was collected from the reports and interviews - the PRT performed a Multiple Cause Incident

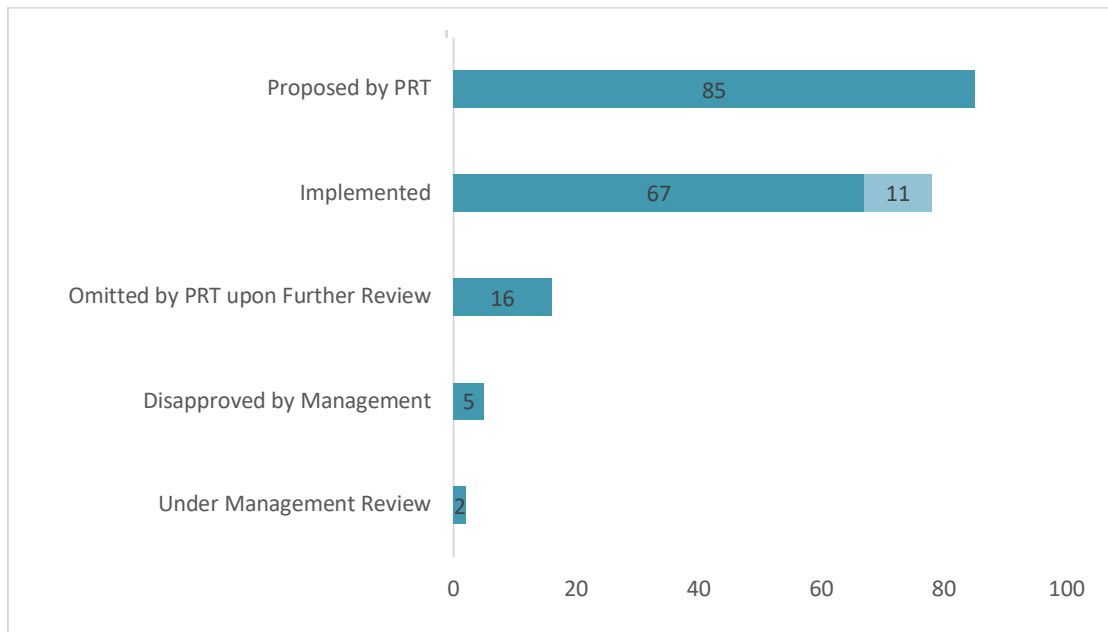
Analysis (MCIA) to identify the root causes of the reported close calls. Based on the results of the MCIA, the PRT developed and submitted 85 Preventive Safety Actions (PrSAs) for the approval of WMATA management for implementation. Seventy-eight (78) of the 85 submitted have been approved and implemented (92 percent) during the reporting period.

Achievements:

PrSAs Recommended:	85
PrSAs Implemented:	78

Figure 18 shows the implementation status of the PrSAs developed by the Metrorail PRT. The 78 PrSAs implemented include 11 PrSAs that were addressed through other WMATA safety programs because those programs had identified similar safety concerns. Management decided five (5) PrSAs were not ready for implementation and two (2) were pending approval. The remaining 67 PrSAs were approved by WMATA management to implement.

Figure 18: Status of Metrorail Close Call Preventive Safety Actions (PrSA)

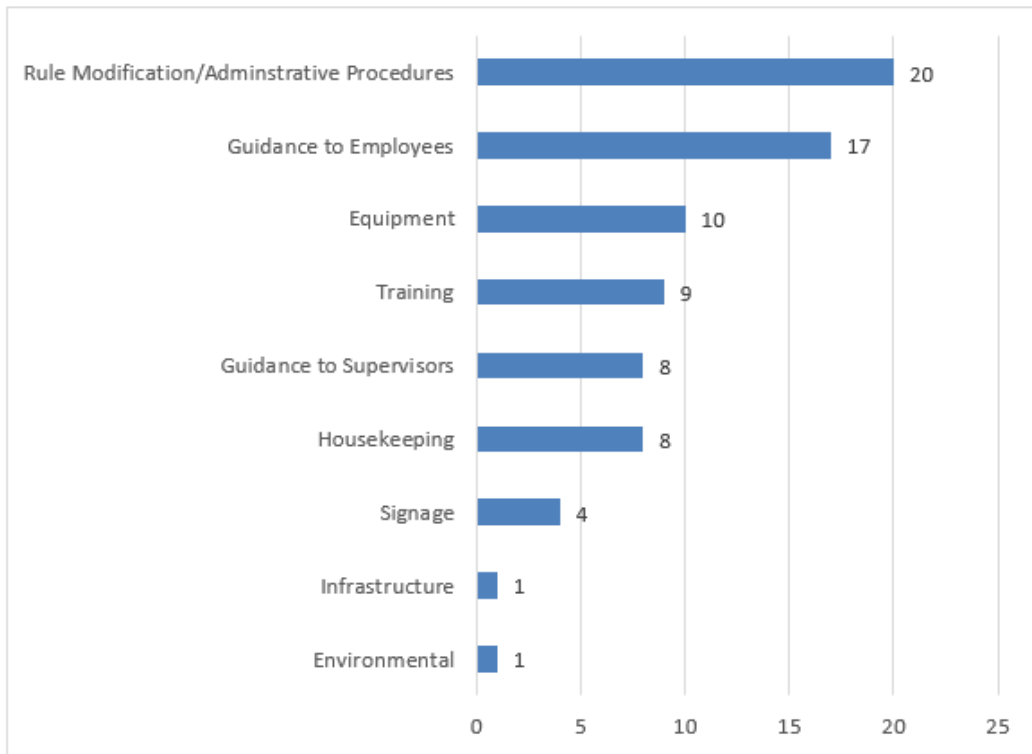


NOTE: The implementations of the 11 PrSAs marked in light blue were done through other WMATA programs.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Among the 78 PrSAs implemented, the top five categories were Rule Modification, Guidance to Employees, Equipment, Training, and Guidance to Supervisors (Figure 19). The PrSA implementation rate (92 percent) of the WMATA Metrorail program is significantly higher than the 40 percent implementation rate experienced by a similar pilot program deployed by BTS, as well as other federal programs focused on freight rail². This higher rate of the WMATA Metrorail program suggest that the program is advancing the WMATA goal of continuous improvement to safety culture and operational safety.

Figure 19: Number of Implemented Metrorail Preventive Safety Actions by Category



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

² The similar pilot program deployed by BTS was for New Jersey Transit and the freight rail programs were for Union Pacific and Canadian Pacific freight rail.

Metrobus

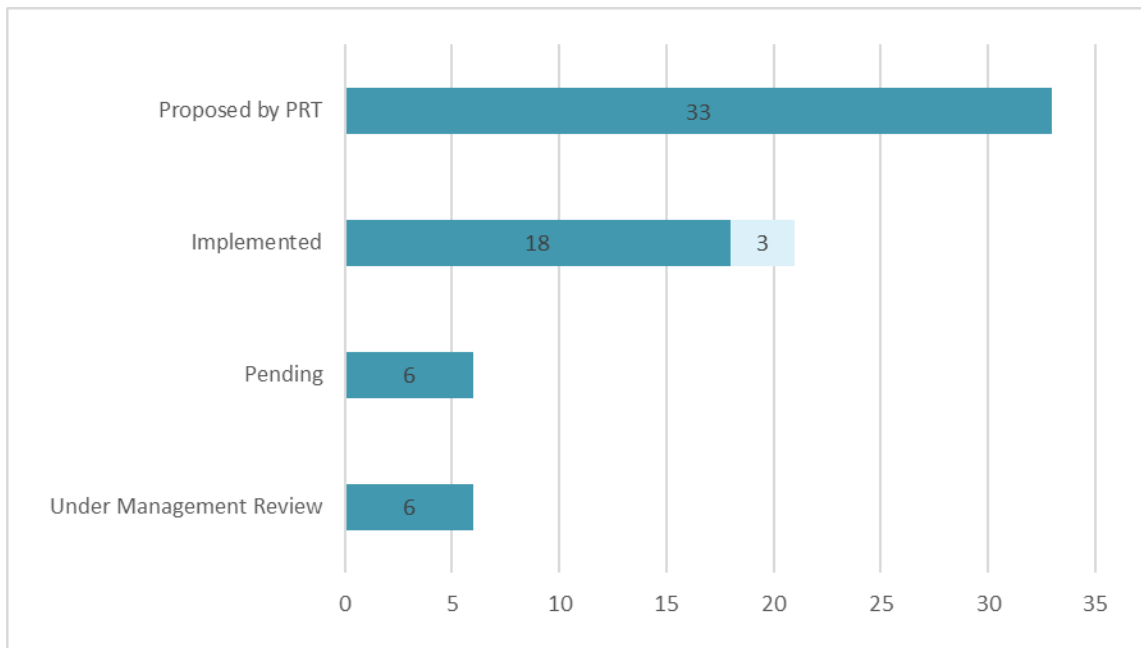
The WMATA Metrobus PRT reviewed and analyzed each of the 40 reported close calls to identify the contributing factors and develop recommendations. For the majority of reported close calls - where sufficient information was available from the reports and interviews - the PRT performed a Multiple Cause Incident Analysis (MCIA). Based on the results of the MCIA, the PRT developed and submitted 33 Preventive Safety Actions (PrSAs) for the approval of WMATA management for implementation. Twenty-one of the 33 submitted PrSAs have been approved and implemented (64 percent) under the WMATA Metrobus Program.

Achievements:

PrSAs Recommended:	33
PrSAs Implemented:	21

Figure 20 shows the implementation status of the 33 recommended PrSAs. The 21 PrSAs implemented include 3 PrSAs that were addressed through other WMATA safety programs because those programs identified similar safety concerns. The remaining 18 PrSAs were also implemented by WMATA management. Currently, the Metrobus PRT is evaluating 6 reported close calls for PrSA development and another 6 PrSAs have been recommended and are under review by WMATA management for approval and implementation.

Figure 20: Status of Metrobus Preventive Safety Actions

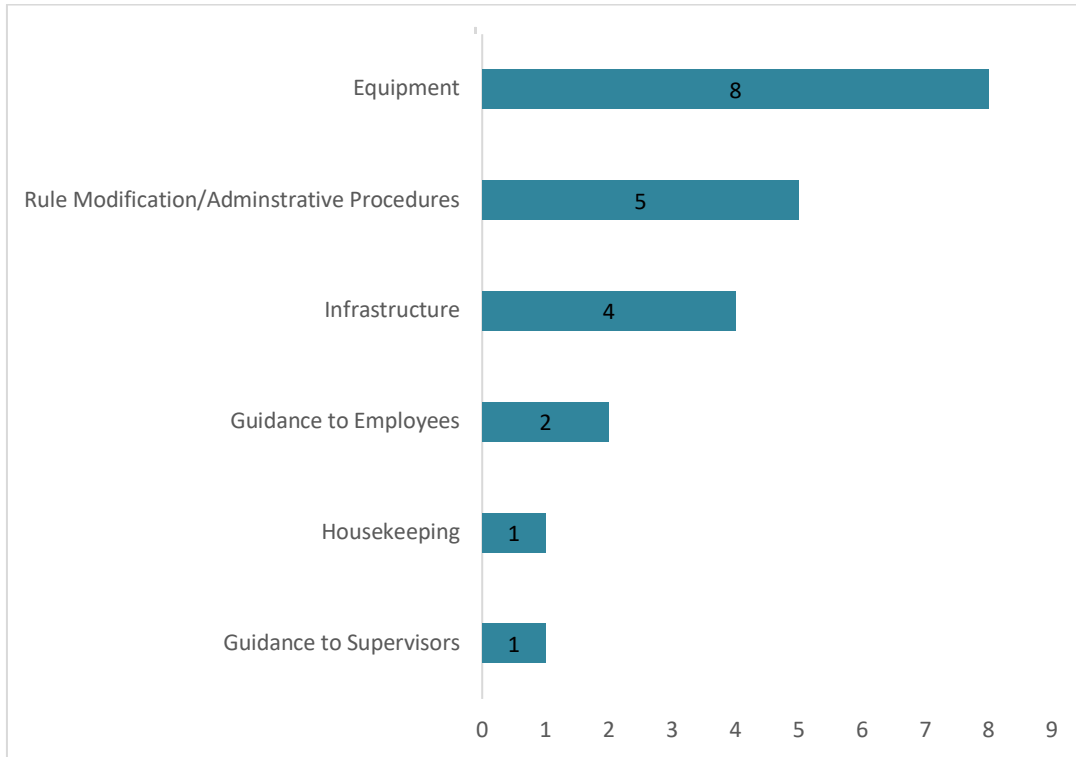


NOTE: The implementations of the three (3) PrSAs marked in light blue were done through other WMATA programs.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

Among the 21 PrSAs implemented, the six categories were Equipment, Rule Modification, Infrastructure, Guidance to Employees, Housekeeping, and Guidance to Supervisors (Figure 21).

Figure 21: Number of Implemented Metrobus Preventive Safety Actions by Category



SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, WMATA Program.

PAGE INTENTIONALLY LEFT BLANK

PROGRAM OUTREACH AND ENGAGEMENT

Outreach and engagement are integral components to the success of the WMATA Close Call Program. All signees to the program MOU – labor unions (L-689 & L-922), WMATA and BTS – collaborate in extensive outreach to promote employee participation and engagement. Outreach began before the program was launched and continues to be a vital component of the program operations. The goals of program outreach and engagement efforts are as follows:

1. Educate WMATA’s employees about the program by explaining its goals, benefits and processes.
2. Increase employee participation by providing a forum for employees to freely raise their safety concerns without fear of retaliation and thereby influence the safety culture at WMATA.
3. Publicize program successes and highlight WMATA’s improvements to safety culture and practices by disseminating information on actions taken by WMATA to mitigate safety risks identified through close call reporting.

Outreach efforts include presentations and Q&A sessions about the program; training for PRT employees about their roles and responsibilities; distributing program-related materials to employees eligible to report close calls; introducing the program in various employee trainings; and discussing the program at Executive Safety Committee Meetings attended by WMATA and senior level union management. The WMATA Close Call Program outreach and engagement had two phases: 1) prior to program deployment, and 2) on-going outreach.

Prior to Program Deployment

Prior to the deployment of the WMATA Metrorail Close Call Program, WMATA management, L-689, and BTS engaged in extensive outreach and employee training. Initial efforts focused on promoting the program and reaching all and encouraging employees eligible to participate. These efforts included:

- Creating a Close Calls Ambassador role and training employees wishing to be advocates for the program;
- Attending and distributing program-related materials at L-689 town hall meetings to increase employee awareness; and
- Creating posters and banners for display at each Metrorail and Metrobus division facility.

PRT members were provided a full week of training on their roles and responsibilities. Subject matter experts (SMEs) were trained to support the PRT in developing substantive and implementable PrSAs. Additionally, the program was introduced during WMATA new hire orientation and bus operator job refresher training to educate employees about the program.

Activities prior to deployment included:

- BTS conducted a train-the-trainer session for all WMATA rail and rail maintenance superintendents and managers;
- WMATA management provided training to all eligible employees;
- BTS, WMATA and Union partners conducted program outreach at shop locations;
- Metrorail PRT members conducted a safety briefing at a scheduled track shutdown to inform track workers about the program, explain how to make a close call report, and distribute informational flyers; and
- BTS conducted program outreach during a safety stand-down for personnel in the Track and Structures System Maintenance (TSSM) department.

Similar outreach efforts were carried out for the Metrobus component of the program for both unions, L-689 and L-922. Outreach efforts included:

- Educational material about close call reporting was distributed to all eligible employees;
- Small group discussions about the program were held at various locations; and
- The weekly *Bus Operator Refresher* and the *New Bus Operator* classes incorporated a 20-minute module about the program.

On-going Outreach

Outreach is necessary to sustain and expand employee awareness, understanding, and participation. During the outreach sessions, members of the PRT are present and engage with employees. PRT member participation is beneficial because they have a thorough understanding of the program and can relate to the employees and their concerns. WMATA management is a strong proponent of employee outreach.

For example, WMATA management has supported the following efforts:

- Produces educational videos for employees which air over the internal networks and have become a standard component in the training curriculum;
- Develops and distributes newsletters spotlighting implemented Preventive Safety Actions (PrSAs) and program results. Examples of the Close Call Newsletters are in Appendix E: Close Call Newsletters;
- Provides and updates information about the program on WMATA websites; and
- Assigns staff to administer and promote the program.

Beginning the latter part of 2016, a concerted effort was made by WMATA management, union leadership and BTS to reinstitute site visits for both Metrobus and Metrorail to reengage employees about the program. In 2016, 21 outreach sessions were conducted and in 2017 the number went up to 36. BTS participated in outreach sessions for 650 eligible employees from the Automatic Train Control (ATC) department, Communication (COMM) department, Fare Collections department, Supply department and Metrobus divisions. In addition, WMATA management and union leadership reached eligible employees on a daily, weekly, and quarterly basis through face-to-face and email communication. Metrobus division sessions were held in conjunction with their local safety meetings to achieve maximum exposure. Bi-annual sessions were held at each of the 9 Metrobus divisions in both 2017 and 2018.

As the program evolved, lessons learned have led to changes in outreach and program operations, as listed below:

- Small group outreach was deemed more effective than large groups for encouraging dialogue and
- The WMATA program manager began recording program training and making it available in their learning management system during the latter half of 2017.

During outreach site visits, BTS engages employees in a dialogue regarding the program. The discussion typically includes answering questions, receiving feedback about the program, and talking about the overall safety culture at WMATA. Common concerns expressed during these discussions were lack of resolution to employees' expressed concerns, fear of retaliation, and apprehension about confidentiality.

The site visits also provided opportunities for superintendents to demonstrate their support for the program to their employees and strengthen the collaboration between mid-level management and BTS. For example, when the outreach team arrived at a Metrorail facility for a training session, the Superintendent and Assistant Superintendent had made adequate preparations by notifying employees of the scheduled presentation, as well as, walking around the division to gather employees into the breakroom for the discussion. During a local safety meeting, a Training Manager for newly hired Metrorail operators overheard BTS representatives talking about the program and requested a presentation for those employees. These opportunities to engage employees in dialogue about their safety concerns remain an essential component of outreach efforts.

Lessons Learned from Outreach Activities

- *Union Participation* – The participation of union representatives in outreach sessions reinforced the collaborative nature of the program;
- *Management Support* – Management’s strong support of the program resulted in greater employee interest as demonstrated by the number of relevant questions and interactive dialogue;
- *Employee Buy-In* – Employees identified the need to see results from the Close Call Program as critical to employees’ buy-in and engagement; and
- *Session Size* – Employees shared more information and asked more questions during the small outreach sessions. During the larger sessions, employees chose to approach presenters after the session.

NEXT STEPS

A significant number of substantive safety improvements have been implemented as a result of the Close Call Program. The program has successfully assisted WMATA, L-689 and L-922 management/leadership in heightening awareness of safety risks and identifying new risks. WMATA continues to be the first and only public transit organization with a program of this type. While solid progress towards accomplishing program objectives has been made, there are obstacles to overcome and areas to improve.

The persistence of underlying barriers to reporting - distrust and fear - indicates further improvements are warranted and have to be achieved through ongoing program activities. For that reason, efforts to increase employee awareness and participation must be regular and recurring so that reporting a safety concern becomes second nature. Jointly, WMATA management, L-689, L-922 leadership and the BTS representative should continue to meet with employees to invigorate the program, address concerns/questions, and present program successes to date.

Employee Participation

Increasing employee awareness of the program and participation rates should remain a central objective. Though the MOU recommends that every employee who experiences or knows of a close call should submit their own report, in practice this is not the case. In fact, the opposite is true. BTS has observed multiple instances where a single reporting employee is voicing commonly shared concerns. Therefore, the actual number of employees experiencing concerns is underrepresented. In 2019, WMATA will open the program to the other union represented and office staff who are not currently eligible to participate, leading to the program being available to most WMATA employees. Though the number of reports submitted to BTS alone, is not an adequate measure of program performance, increasing employee participation is key to reaching the program objectives.

WMATA Management and Labor Leadership Support

The efficacy of WMATA's safety culture is dependent on all components functioning as complementary pieces. The Close Call Program is one component of the safety structure focused on enhancement of safe workplace practices. The importance of demonstrated labor leadership and management support at all levels of WMATA cannot be underestimated.

LABOR

Labor leadership support is essential to program success as they have direct interactions with employees and exert significant influence. A clear way labor leadership can support the program is through shop steward training and engagement. The shop stewards' participation in a half day training session enables them to become ambassadors for the program. Through training, shop stewards become the best representatives for the program and can then mentor other employees.

MANAGEMENT

Managers at all levels of WMATA are critical in advancing the safety mission of the Close Call Program. *Mid-level managers* have the authority, resources, and direct influence to enable changes that will enhance the safety culture and environment. To promote a safety culture at WMATA, senior management must ensure that managers have received appropriate training; understand specific safety activities for which they are responsible; and are empowered to act and affect necessary change.

Executive leadership's public support of the program and tracking and broadcasting of progress towards program objectives sends a clear message that workplace safety is a priority. This was exemplified when WMATA's Chief Operating Officer and the Chief Safety Officer were featured in a video aired to WMATA employees explaining executive support of the program and reiterating its confidential nature. Executive leadership also tracks every approved preventive safety action and reports their status during the monthly Executive Safety Committee (ESC) meeting. This type of public support for safety programs from all leadership levels is essential in creating a strong safety culture where employees feel free to raise safety concerns.

Joint Ongoing Outreach

The importance of outreach conducted jointly by WMATA management, labor unions and BTS cannot be overstated. BTS representatives should continue meeting WMATA employees, including front-line supervisors, on a regular basis to disseminate information about the program; address the employee concerns and questions; and work with WMATA to report implemented PrSAs. Similarly, executive level directives to include the program as part of required training for eligible employees and a push to disseminate information on union websites supports this outreach effort. Future success will be largely determined by continuous union and management support aimed at increasing employee buy-in and participation.

APPENDIX A: MEMORANDUM OF UNDERSTANDING

Memorandum of Understanding

The document can be found [here](#):

PAGE INTENTIONALLY LEFT BLANK

APPENDIX B: GENERAL MANAGER'S MESSAGE

General Manager's Message

Safety Trumps Service

Metro General Manager/Chief Executive Officer Paul J. Wiedefeld has three top priorities: improving safety, providing more reliable service, and getting Metro's financial house in order. For Metro customers and employees, one priority rises above the others: safety.

Nothing comes before safety. Every decision a Metro employee makes should put safety ahead of operational concerns; including on-time performance, schedule adherence, convenience, and cost efficiency.

Managers are accountable. Every single manager is responsible for his or her own safe actions, the safety of his or her team, and passenger safety. That means managers must hold themselves and their staff accountable for making safe decisions every day.

When it comes to safety, there is no excuse. "They didn't tell me" and "We've always done it that way" are excuses that don't fly any longer at Metro. Every employee is expected to use common sense and good judgment. No work rule, collective bargaining agreement, or agency past practice takes precedence over safety.

Have questions about safety?

Contact your safety officer or call 202-962-2341.

Want to anonymously report safety concerns for Bus or Rail?

Call Metro's Safety Hotline at 202-249-SAFE (7233). Or report it using Close Call at www.closecall.bts.gov. Call 1-888-568-2377 for more information about Close Call.



PAGE INTENTIONALLY LEFT BLANK

APPENDIX C: IMPLEMENTED METRORAIL PREVENTIVE SAFETY ACTIONS

Rule Modification/Administrative Procedures

- Create a Standard Operating Procedure (SOP) safety bulletin reminding all supervisors and employees that switching orders must be in their possession before finishing the job safety briefing and starting work racking power breakers. (October 2013)
- Performed audit for employee compliance of the Roadway Worker Protection (RWP) procedures in the track maintenance department. (February 2014)
- Clarified operating procedures for leaving an unstaffed terminal. (May 2014)
- Created a uniform procedure for reporting on-the-job injuries. (October 2014)
- Created a standard RWP tool box briefing (job safety briefing). (January 2015)
- Evaluated the RWP Manual/Roadway Access Guide for discrepancies. (April 2015)
- Reviewed SOPs related to proper handling of defective track conditions reported to the Rail Operations Control Center (ROCC). (November 2015)
- Improved RWP training procedures. (February 2016)
- Implemented procedures for employees to acknowledge proper use and storage of flashlights, to minimize likelihood of overheating. (June 2016)
- Improved radio communication SOPs. (September 2016)
- Initiated an audit to identify and correct intermittent radio communication outages. (November 2016)
- Developed a standardized Lock-Out/Tag-Out (LOTO) procedure to include the proper personal equipment (PPE) required, radio communication, personal responsibilities, and other applicable rules. (September 2017)
- Conducted a compliance audit of SOP #12 which revealed the evening and night shifts were lacking in SOP #12 compliance. A detailed plan was developed to discuss SOP #12 in the shops and retraining all employees on the SOP. (September 2018)

Training

- Improved training and monitoring of the SOPs for flagging trains into and out of the shops. (October 2014)
- Provided additional training regarding the use of PPE for fall protection when using an aerial lift. (April 2015)
- Improved RWP training procedures. (February 2016)
- Improved radio communication training. (September 2016)
- Trained flagmen personnel to pair headsets to the prime mover onboard equipment to establish proper communication while operating. (January 2017)
- Developed and instituted a 14-week training program with an emphasis in Electrical Safety for the Traction Power Maintenance (TRPM) department. (August 2017)
- Developed a training course on SOP#41 for all escorts to familiarize personnel with the escorting procedures for non-roadway environments. (October 2017)
- Trained all TRPM employees regarding the new Lock-Out/Tag-Out (LOTO) procedure. (November 2017)
- Conducted a mandatory High Voltage National Fire Protection Agency (NFPA) refresher to focus on working around energized equipment to all affected personnel. (June 2017)

Guidance to Employees and/or Supervision

- Issued a safety bulletin reemphasizing the importance of compliance with Occupational Safety and Health Administration (OSHA) regulations for fall arrest systems and WMATA rules for use of protective equipment. (April 2015)
- Ensured a definitive understanding of the authority and responsibilities of the Roadway Worker in Charge (RWIC) to provide escort services, work zone protection, and to protect against unauthorized personnel on the track. (January 2015)
- Issued a reminder to all certification instructors and train operators regarding the proper procedures during recertification. (November 2017)

- Issued a safety bulletin articulating the proper RWP procedures that should be followed when work is fouling the track. (October 2017)
- Ensured maintenance and ROCC controllers are aware of the special condition surrounding the Greenbelt Test Track. (February 2017)
- Issued a statement in the weekly General Manager's message regarding smoking in unauthorized areas. (October 2017)

Equipment

- Equipped all company vehicles with a log book including a vehicle inspection sheet and maintenance history. (February 2014)
- Installed new bulkhead door seals on the 2000/3000 series rail cars to improve accessibility during inclement weather. (May 2014)
- Conducted a job hazard analysis of lift-related job tasks. (April 2015)
- Established a Preventive Maintenance Inspection (PMI) schedule for the track equipment headsets to ensure functionality. (January 2017)
- Replaced batteries in older headsets on Class 2 vehicles and procured additional batteries and spare headsets. (January 2017)
- Conducted a decibel level test on the newly purchased stinger alarm system installed in the shops. After the evaluation, the sirens were adjusted at all yards. (July 2017)
- Repaired a rusted under platform exhaust (UPE) duct for an interim fix while the entire system is being replaced. (November 2017)
- Identified and corrected water damage caused by a leaking copper pipe in a maintenance building at a WMATA facility. (December 2017)
- Replaced 450 feet of missing third rail cover boards at a Metrorail yard location. (January 2018)
- Replaced approximately 50 lights and re-lamped tunnel lighting between Prince George's Plaza and West Hyattsville Metrorail Stations. (August 2018)

Housekeeping

- Completed clean-up, trash removal, and repair of manholes for the yard tracks at Shady Grove Rail Yard. (May 2018)
- Performed exterminator services on a weekly basis at DuPont Circle Metrorail Station to reduce rat infestation. (October 2018)
- Placed raccoon traps at Fort Totten Metrorail Station and continual monitoring will occur until all raccoons are removed. (July 2018)

Signage

- Placed laminated placards in every railcar cab to instruct train operators on the proper procedure for passing a red signal, if instructed by ROCC/Yard Tower Interlocking Operator. (September 2013)
- Installed signage outside of shop apron doors specifying the proper communication procedures prior to entering a shop with train equipment. (October 2013)

Environmental

- Conducted an air quality audit by independent third party, to ensure kiosk, platform, and end gate locations are compliant with OSHA regulations for airborne dust and metals. The evaluation was conducted in nine stations at AM and PM rush hour times. (November 2017)

APPENDIX D: IMPLEMENTED METROBUS PREVENTIVE SAFETY ACTIONS

Bus Equipment and Routes

- Exchanged the Transportation Association of Greater Springfield (TAGS) Ford Econoline buses with six (6) Orion VII transit buses painted in the TAGS colors to eliminate the visibility hazard caused by the fare box location in the Ford Econoline. (December 2016)
- Conducted a special study on the Bus Shield – Glare, Reflection, Mirage concern and presented findings. WMATA, L-689, and L-922 have met and agreed on a new bus shield. (November 2016)
- Retrofitted all New Flyer LFA buses are being retrofit with the mirror in the lower location to avoid bus operator visibility obstruction. During the time, midlife overhaul completed the equipment relocation. (Started June 2017; Completed June 2018)
- Created an alternate bus route for WMATA route 52 to reduce the congestion around the L'Enfant Plaza Metrorail Station and help bus operators safely service this area. (June 2018)
- Evaluated several bus routes for potential safety concerns. Correction for unsafe situations have varied to include: by contacting local jurisdictions to correct traffic patterns, Metro Transit Police present along routes, and switching bus types to better service a specific route. Concrete was trimmed off the median to help with turning radius and no parking signs have been installed. (May 2018)
- Retrofitted all 2100 series buses with a three-point seat belt. (June 2018)

Maintenance Equipment and Facilities

- Identified a defective solenoid valve was identified on the DEF dispensing system at Sheppard Parkway causing leakage. The issue was evaluated by SAFE and Bus Maintenance resulting in a contractor repairing the defective solenoid valve. (October 2017)
- Fenced and installed restricted access gates around the Landover Employee Parking Lot to add a safety measure against theft and vandalism. (December 2018)

Rules/Procedure Modification

- Developed an updated Hot Work Policy to include the custody process for Hot Work and signage on oxi/acetylene tanks at all affected locations. Employees who infrequently perform

welding and cutting will receive refresher certification. (Started January 2017; September 2018)

Guidance to Employees and/or Supervision

- Issued a bulletin to notify bus operators of the left high mounted mirror obstruction with the high-mounted mirror placement on the New Flyer LFA buses and to operate with caution. (June 2017)
- Issued a statement in the weekly General Manager's message, which is sent to all WMATA personnel, to remind them of the 25-foot distance smoking policy while on all WMATA property. (October 2017)
- Issued a bulletin reminding supervisors that non-bus vehicles are not to park in a bus loading/unloading zone, unless in an emergency, so the buses are able to make a safe stop. (April 2017)

APPENDIX E: CLOSE CALL NEWSLETTERS

Close Call Newsletters

All newsletters can be viewed [here](#):

Close Call Reporting. It works.

Report for the Quarter of July to September 2013

Metro takes close calls seriously and has already approved safety actions to address concerns raised by employees who made confidential reports since July.

Employee Concern: Improve safety in and around shop areas

Audible safety announcements

To promote a safe working environment where important announcements can be easily heard, Metro needs to make sure all PA systems in our shops are in proper working order. Actions:

- Test all shop PA system components
- Repair or replace defective components within a tracked corrective maintenance plan
- Enhance the PA system by adding external speakers to alert employees outside shops

Responsible party is SMNT, Al Nabb. Completion Date: 10/29/13

Vehicle movement warning system

Currently an audio/visual warning system alerts employees to vehicles exiting the shops. It needs to be enhanced to include vehicles *entering* the shops. Actions:

- Place and activate portable visible warning devices at designated shop doors during vehicle movements
- Pilot the devices at Branch Avenue

Responsible party is CMNT, Damon Cannon. Completion Date: 4/15/14

Clarify duties, procedures at beginning of every shift

Daily safety briefings should be used to make sure employees are aware of daily job procedures and responsibilities, with a special focus on flagging. Actions:

- Conduct daily safety briefings at the beginning of every shift and include procedures of entering/exiting shops, known risks of the shop environment
- Designate qualified shop flagmen during daily distribution of job duties

Be a Hero

www.closecall.bts.gov

1-888-568-2377



Close Call Reporting. It works.

- Provide training course on SOP 12 to all shop personnel; have experienced personnel demonstrate proper flagging procedures
- Supervision will monitor all flagging equipment to ensure it is operational and personnel to ensure adherence to SOP 12 during flagging procedures
- Initiate system-wide audit to assure compliance of flagging procedures in shop areas

Responsible parties are TIES, Rodrigo Bitar, CMNT, Damon Cannon and QAAW, Mike DiNatale. Completion Date: 11/29/13

Employee Concern: Improve communications with roadway workers during switch movements

When switch movements are made during Exclusive Track Occupancy, it is currently optional for ROCC controllers to communicate this with the Roadway Worker in Charge (SOP 28.5.4.4). This rule needs to be improved to clarify which communications are optional and which are required. The communication needs to include confirmation from the RWIC that roadway workers are clear of all switches. Actions:

- Revise SOP 28.5.4.4
- Provide training to ROCC controllers and all level 4 qualified employees on rule change

Responsible party is TRST, Clay Bunting. Completion Date: 11/1/13

Employee Concern: Ensure operators understand procedures for passing red signals

Passing red signals is occasionally required by train and interlocking operators, and this safety movement must be executed with 100% accuracy. Actions:

- Clarify the procedures and retrain all operators on the repeat back script
- Provide new employees with classroom training on the script and make them demonstrate understanding through testing and mock communications
- Place laminated cards with the repeat back script in the train cab

Responsible party is RTRA, Charles Dzdulich. Completion Date: 7/2014

Be a Hero

www.closecall.bts.gov

1-888-568-2377



Close Call Reporting. It works.

Report for the Quarter of October to December 2013

Metro takes close calls seriously and has already approved safety actions to address concerns raised by employees who made confidential reports since July.

Employee Concern: Increase train operators' awareness of procedures for entering the shop

Shop door signage

Provides additional safety measures for train operators while entering the shop. Action: Add signage adjacent to the shop doors stating:

1. **STOP At Shop Door Apron**
2. **Establish Radio Communication With CMNT Employee**
3. **Wait for Proceed Signal from Vehicle Flag Person Before Entering Shop**
4. **Sound Yard Horn**
5. **Wait 5 Seconds Before Proceeding**

Responsible party is PLNT, C. Williams. Completion Date: 3/15/14

Employee Concern: Improve safety of roadway workers during switch movements

Memorandum to Power Staff

Generate a bulletin/memorandum to refresh all supervisors and employees on SOP28 making the following points:

- There should be at least two power switching personnel to perform switch movements.
- Personnel must have a copy of the switching order in their possession.
- There must be adequate staffing in each work area so that the RWIC only perform their primary job duty.

Responsible parties SMNT, D. Harris & D. Newman Completion Date: 12/18/13

Be a Hero

www.closecall.bts.gov

1-888-568-2377



PAGE INTENTIONALLY LEFT BLANK

APPENDIX F: GLOSSARY OF TERMS

Glossary of Terms

Amalgamated Transit Union, Local 689 (ATU L-689): Labor organization that represents employees in the CFO, COO and IT directorates who are eligible to participate in the Close Call Program. Member of the Close Call Steering Committee and the Peer Review Team.

Bureau of Transportation Statistics (BTS): BTS is a federal statistical agency within the U.S. Department of Transportation that serves as an independent third party that collects, analyzes, and maintains the confidential close call data collected for WMATA. BTS also identifies safety trends and emerging risks and writes and distributes publications to share this information with WMATA participants and the transit industry.

Chief Operating Officer (COO): Directs the daily operation of the Bus Services, Rail, Access Services, Support Services, Metro Transit Police, Budget, Performance and Planning and Strategic Initiatives. ATU and IBT-represented and front-line supervisory employees of COO's organization are participants in the Close Call Program. Via participation on the CCSC, directs program implementation and provides budget for the program. Reviews and approves, if necessary, PRT's preventive safety actions and provide oversight for and direct implementation of approved preventive safety actions. In partnership with SAFE, tracks preventive safety actions taken in response to close call events.

Close Call: A situation or circumstance that had the potential for safety consequences, but did not result in an adverse safety event. It can be any safety concern that could lead to an unsafe event or condition, or any event that is perceived as potentially endangering one's own safety or someone else's safety at work, including employees, contractors, or the public. It can also relate to equipment or the environment. Knowledge about a close call presents an opportunity to improve safety practices and culture.

Close Call Steering Committee (CCSC): Developed and oversees implementation of the Close Call Program. Includes representatives from program stakeholders (WMATA, L-689, L-922, and BTS) and oversees the Close Call Program. Developed the program's Memorandum of Understanding. Coordinates with BTS and PRT to ensure consistency in the work products and other project documents.

Confidential Information Protection and Statistical Efficiency Act (CIPSEA): The most relevant statute which governs Bureau of Transportation Statistics (BTS) confidentiality is the Confidential Information Protection and Statistical Efficiency Act (CIPSEA). This statute prohibits disclosure or release, for non-statistical purposes, of information collected under a pledge of confidentiality. Under CIPSEA, data may not be released to unauthorized persons. Willful and knowing disclosure of protected data to unauthorized persons is a felony punishable by up to five years' imprisonment and up to a \$250,000 fine.

BTS shall act as the owner of the data reported to it by transit agency employees under the Close Call Program and protect the confidentiality of this information through its own statutory authority (e.g. Confidential Information Protection and Statistical Efficiency Act (CIPSEA)). After BTS has determined that all relevant data from a close call event has been collected, the close call report shall be de-identified so that the employee's identity or anyone mentioned in the report can no longer be determined.

BTS shall protect the following information from disclosure when provided in a close call report:

- I. The employee's report and its content;
- II. The name of the reporting employee;
- III. Names of any other employees mentioned, regardless of program participation;
- IV. Any other information that would make it obvious that only a few, easily identifiable people could have made the report; and
- V. Evidence and other information gathered during a PRT evaluation of a close call report.

International Brotherhood of Teamsters, Local 922 (IBT L-922): Labor organization that represents employees in the BUS directorate who are eligible to participate in the Close Call Program. Member of the Close Call Steering Committee and the Peer Review Team.

Mainline: All tracks on the operating transit system, except yards and terminals.

Peer Review Team (PRT): The PRT consists of representatives from WMATA bus and rail transit operations management, WMATA bus and rail maintenance management, L-689 and L-922 union representatives, WMATA Safety, and BTS. The PRT meets monthly to review the prior month's close call reports. They promote the Close Call Program, identify why close calls occur, approves preventive safety actions, and evaluate the effectiveness of any such action that was implemented.

Personal Protective Equipment (PPE): Equipment or gear designed for protective use in environments contaminated by weapon of mass destruction (WMD). Ordinary industrial protective equipment, in most cases, will NOT protect its user from personal contamination by WMD agents.

Safety and Environmental Management Department (SAFE): Ensures that WMATA's rail, bus and paratransit systems and other facilities are operationally safe and environmentally sound for all WMATA employees, customers and surrounding communities. Manages and/or complies with policies and procedures in the areas of system safety, occupational safety and health, accident and incident investigation, the continuous hazard management process, internal safety audit process, oversight of construction safety, safety and security certification, environmental management, safety data and analysis, industrial hygiene, safety training, corporate safety programs, and corporate quality assurance. In partnership with COO, tracks preventive safety actions taken in response to close call events.

Shop: The maintenance building in the yard where repairs are made by Car Maintenance.

Stakeholders: The primary organizations involved in the project are: WMATA, L-922, L-689, and BTS.

Station: The platform location where revenue trains discharge and picked up passengers.

Washington Metropolitan Area Transit Authority (WMATA): Transit agency participating in the Close Call Program. WMATA works with the other stakeholders to implement the Close Call Program and take Preventive Safety Actions in response to close call events.

Yard: A system of tracks used from connecting and storing trains. Vehicle movements in the yard are under the authority of the tower operator.

PAGE INTENTIONALLY LEFT BLANK

APPENDIX G: ACRONYMS

Acronyms

ATC – Automatic Train Control

ATU L-689 – Amalgamated Transit Union, Local 689

BTS – Bureau of Transportation Statistics

CIPSEA – Confidential Information Protection and Statistical Efficiency Act

CCSC – Close Call Steering Committee

COMM – Communications

COO – Chief Operating Officer

ESC – Executive Safety Committee

FOIA – Freedom of Information Act

FTA – Federal Transit Administration

FRA – Federal Rail Administration

GM – General Manager

IBU L-922 – International Brotherhood of Teamsters, Local 922

LOTO – Lock Out/Tag Out Procedure

MCIA – Multiple Cause Incident Analysis

MOU – Memorandum of Understanding

NFPA – National Fire Protection Agency

NTSB – National Transportation Safety Board

OSHA – Occupational Safety and Health Administration

PMI – Preventive Maintenance Inspection

PPE – Personal Protection Equipment

PrSA – Preventive Safety Action

PRT – Peer Review Team

RCA – Root Cause Analysis

ROCC – Rai Operations Control Center

RWIC – Roadway Worker In-Charge

RWP – Roadway Worker Protection

SAFE – Safety and Environmental Management Department

SME – Subject Matter Expert

SOP – Standard Operating Procedure

TAGS – Transportation Association of Greater Springfield

TRPM – Traction Power Maintenance

TSSM – Track and Structure System Maintenance

UPE – Under Platform Exhaust

WMATA – Washington Metropolitan Area Transit Authority

WSAD – Warning Strobe and Alarm Device

PAGE INTENTIONALLY LEFT BLANK