Los Angeles County
Metropolitan Transportation Authority
Office of the Inspector General

Metro Policing and Security Workload and Staffing Analysis

Report No. 16-AUD-03

January 4, 2016

Metro

Los Angeles County
Metropolitan Transportation Authority

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Metro

January 4, 2016

Metro Board Members

Re: Report on Metro Policing and Security Workload and Staffing Analysis (16-AUD-03)

Dear Metro Board Members:

The Metro Board directed the Inspector General to hire an expert consultant to conduct an in-depth study concerning Transit Security at Metro. The Study includes workload, a risk assessment, risk mitigation strategies, staffing and deployment needs, and an approach to implement these strategies to arrive at the optimum number and mix of law enforcement and security personnel. We prepared a comprehensive RFP scope of work and hired BCA Watson Rice to perform the Study. The team included recognized policing experts including the former Chief of Police for the Massachusetts Bay Transportation Authority.

The attached report contains the results of the consultant's analysis of the law enforcement and security workload and identifies key risks for the Metro System, risk mitigation strategies, and staffing needs and options. The report also contains 15 recommendations such as:

- Use the data compiled by the consultant on the number of calls or hours required to address the priority risks, to deploy the appropriate type of personnel required to perform that type of service, and supplement this with the options outlined, to achieve a deployment consistent with the goals, priorities, and strategies developed by the Working Group that was established by the Board.
- Better define the role and utilize Metro Security staff by specifying and assigning them to the types of duties that are best performed by Metro Security personnel to further the Working Group priorities, as defined in the report.
- Increase efforts to work and collaborate with local law enforcement agencies to better utilize them for no cost basic services.
- Implement a software application for use on smartphones currently carried by Metro safety and security personnel to better locate and dispatch personnel to emergency calls.
- Use the information and options outlined in the report to develop a Request for Proposal for law enforcement and security services, and to refine rail, bus, and critical infrastructure safety and security plans.
- Use the information obtained through the security employee surveys to address issues identified.
- Complete the implementation of recommendations in the 2014 audit of the LASD contract and the APTA peer review.

Sincerely,

Karen Gorman
Inspector General

cc: Philip Washington

Metro Office of the Inspector General

Metro Policing and Security Workload and Staffing Analysis

December 2015

Submitted by

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in association with
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and
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TABLE OF CONTENTS

1. Executive Summary

The Los Angeles County Metropolitan Transportation Authority (Metro) contracts with the Los Angeles County Sheriff's Department (LASD) to provide Metro with transit policing services. The current annualized cost of the transit policing contract is $108.5 million.[1] Metro will soon be developing a Request for Proposal (RFP) for a new contract, and needs an in-depth analysis to identify staffing and deployment requirements for the RFP.

The primary objective of this analysis was to perform an analysis of the law enforcement and security workload, identify key risks for the Metro System, identify risk mitigation strategies, and identify staffing needs and staffing options.

For Metro's safety and security services to be effective and cost efficient, there must be an appropriate match between the safety and security mission and the various resources used to provide safety and security services. The key services required as part of the Metro safety and security mission are:

- ***Addressing Crime and Responding to Calls for Service or Incidents*** requires sworn law enforcement officers who have full powers to detain and arrest and to use force as required to provide this mission element.
- ***Providing a Visible Security Presence*** on the Metro System as a deterrent to crime and disorder, as well as other critical incidents like terrorist attacks. This service could be provided by law enforcement personnel, but may also be provided by well-trained and well-managed security personnel.
- ***Enforcing Fare Compliance*** on the Metro System, as well as enforcing Metro's customer code of conduct. Providing this service does not require law enforcement sworn personnel or security personnel.
- ***Protecting Metro Critical Infrastructure*** (Union Station and the Gateway Metro Headquarters Building) Union Station protection strategies include routine patrol, K9 explosives detection, and random passenger and baggage screenings currently conducted by law enforcement personnel. The Gateway Building security is currently provided through armed security officers at the security desk on the plaza level and third floor, loading dock, roving security officers in both the interior and exterior of the building, the Transit Court, and the Security Control Room. Providing critical infrastructure protection of the Gateway Metro Headquarters Building is a security function, and does not require law enforcement personnel.
- ***Providing Security for Metro Facilities and Operations*** through security units that patrol the various Metro facilities and provide a visible security presence for those facilities. In addition, Metro revenue operations security and protection provided through security

[1] The annualized cost includes full-year costs for the 2016 expansion of the Metro Expo and Gold lines.

escorts of Metro revenue collection personnel, and security presence in the Metro cash counting facility. Security personnel also provide a visible security presence and deterrent to assaults or other actions against Metro pressure washer personnel that clean various Metro stations and facilities during the overnight hours. Providing security for Metro facilities and operations is a security function, and does not require law enforcement personnel.

The resources available to Metro to provide the elements of Metro's safety and security mission described above include:

- ***LASD Transit Policing Division (TPD)*** has established a strong partnership with Metro and currently provides sworn law enforcement personnel to fulfill the safety and security mission of the Metro rail and bus system. These law enforcement personnel are fully trained and equipped and have powers to detain and arrest and use force as needed. They are currently responsible for responding to incidents and calls for service, addressing crime and related issues, and providing a visible security presence throughout the Metro Rail and Bus System. These law enforcement personnel are also responsible for enforcing fare compliance and the Metro customer code of conduct throughout the System.

  The TPD also provides uniformed Security Assistants (SA's) to Metro under contract. These SA's are not sworn personnel, nor are they qualified or certified as security personnel. The SA's are not armed and have no authority to detain or arrest. The role of the SA's is limited to checking fare compliance and issuing administrative citations.

  The LASD also employs Sheriff Security Officers (SSO's) that are uniformed and armed or unarmed security personnel. These personnel do not have the powers to detain and arrest nor use force except in a defensive mode. The TPD and the current Metro contract do not currently include any such SSO's, who are a potential resource option to provide the security element of Metro's safety and security mission.

- ***Local Law Enforcement Agencies*** throughout the Metro service area respond to and handle incidents and calls for service within their jurisdiction, and have a responsibility to do so. This is part of their basic service as law enforcement agencies. Similarly, these agencies have a responsibility to provide these same basic services to Metro buses and trains within their jurisdictions consistent with the service provided to all others within their jurisdictions. Metro should not have to contract with these agencies for these basic services, but may choose to contract for dedicated or supplemental resources from local law enforcement agencies.

- ***Metro Security*** includes uniformed and armed or unarmed security personnel primarily responsible for providing security for the Gateway Metro Headquarters Building, and for Metro facilities and operations. Metro Security officers are neither sworn nor certified law enforcement officers and do not have the authority to detain or arrest nor use force except in a defensive mode. Metro Security personnel could potentially play a substantial role on the Metro rail and bus systems by providing the security element of

the Metro safety and security mission. However, several key issues must be resolved prior to assuming such a role. The primary need is to resolve ongoing questions regarding the authority these security personnel have, and the entity or agency responsible for granting and overseeing that authority. Metro also contracts for private security personnel.

The following exhibit shows the estimated annual hours required to provide each key safety and security service by category (e.g. rail system, bus system, etc.). It also shows the average hourly cost of the different options of personnel types or resources available that could provide the service required. These costs, and the estimated hours required, were used to calculate the annual costs of providing these services using each of the alternative resources. A mix of these personnel could also be used to provide the services.

Exhibit 1
Summary Overview of Metro Safety and Security Services,
Estimated Hours Required, and Options for Providing Services

		LASD Transit Policing Division			Local LE Agencies		Metro Security	
	Estimated Hours Required	Law Enforcement	Security Officers	Security Assistants	Basic Service	Dedicated Service	Armed Security Officers	Unarmed Security Officers
Average Hourly Cost		$129.86	$84.47	$33.34	$0.00	TBD	$64.04	$49.23
Rail System Protection	**Hours**	**Estimated Annual Costs in Millions**						
Crime / Calls for Service	108,404	$14.0	NA	NA	$0.0	TBD	NA	NA
Visible Security Presence	327,040	$42.5	$27.6	NA	NA	TBD	$20.9	NA
Fare Enforcement	186,880	NA	$15.8	$6.2	NA	TBD	NA	$9.2
Bus System Protection								
Crime / Calls for Service	169,360	$22.0	NA	NA	$0.0	TBD	NA	NA
Visible Security Presence	153,058	$19.9	$12.9	NA	NA	TBD	$9.8	NA
Investigations and Special Operations *								
Investigations	32,202	$4.2	NA	NA	$0.0	TBD	NA	NA
Special Operations	41,505	$5.4	NA	NA	NA	TBD	NA	NA
Mental Evaluation Team	7,156	$0.9	NA	NA	NA	TBD	NA	NA
Critical Infrastructure Protection								
High Visibility Patrol	25,680	$3.3	NA	NA	NA	TBD	NA	NA
K9 Explosives Detection	8,760	$1.1	NA	NA	NA	TBD	NA	NA
Passenger Screening	16,320	$2.1	$1.4	NA	NA	TBD	$1.0	NA
Gateway Bldg. Security	63,808	NA	$5.4	NA	NA	TBD	$4.1	NA
Metro Facilities and Operations Security								
Mobile Security Units	46,720	NA	$3.9	NA	NA	NA	$3.0	NA
Revenue Operations	75,920	NA	$6.4	NA	NA	NA	$4.9	NA
Pressure Washer Escort	17,520	NA	$1.5	NA	NA	NA	$1.1	NA

NA – Not applicable, this service cannot be provided by the resource in that column.
TBD – To Be Determined, the cost for dedicated service by local law enforcement agencies will be determined through the Request for Proposal process.
* Hours for investigations and special operations are based on the current number of FTE deputies assigned.

The estimated staffing needs detailed above were developed based on our review and analysis of the following:

- ***Descriptive and Operational Information*** including the number of stations, one-way miles, train and bus start and end times, average daily ridership, peak trains and buses in service, train and bus revenue hours, and train and bus revenue miles.
- ***Rail and Bus System Risks*** including violent crime, property crime, and other crime on the system by rail line or bus line and area. It also includes the public's perception of safety on the system. The level of fare compliance or evasion was also considered.
- ***Rail and Bus System Safety and Security Workload and Performance*** including responding to and handling incidents that occur on the system, or calls for service. Responding to these calls and effectively handling the incidents that generate these calls is a high priority for ensuring system safety and security. We analyzed the number of calls for service by rail line and bus line and area; and by priority, calls by day of week and time of day, the average amount of time required to dispatch calls for service, as well as the average amount of time required to respond to these calls.
- ***Current Rail and Bus System Protection Approach*** including the number of personnel currently deployed to provide safety and security on each rail line and bus line and area, and the total cost of these personnel.
- ***Current Critical Infrastructure and Metro Facilities and Operations Protection Approach*** including the number of personnel currently deployed to provide security on each within Union Station, the Gateway Building, throughout Metro's facilities and operations, and the total cost of these personnel.

Detailed information on each of these factors by rail line and bus line and area is presented in the body of this report.

The following table shows the recommendations made throughout the body of this report. This report was provided to management of the Systems Safety and Law Enforcement Division who reviewed the draft report and did not have any modifications. Management stated that the report recommendations are under review, and they are in the process of drafting a formal response.

Exhibit 2
Summary of Recommendations and Metro's Response

No.	Recommendation	Metro's Response	Comments
1.	The Metro System Safety and Law Enforcement Division should assist the Transit Policing Working Group established by the Metro Board, to use the information on risks, workload, staffing estimates and options outlined in this report to move forward with implementing staffing and deployment consistent with the goals, key priorities, and key strategies established.	Under Review	
2.	The Metro System Safety and Law Enforcement Division should continue to monitor and track the various safety and security risks facing the Metro System, deploy personnel consistent with the information provided in this report, and make revisions in plans and operations as needed including deployment of personnel to mitigate these risks on an ongoing basis.	Under Review	
3.	The Metro System Safety and Law Enforcement Division should continue to collect information on risk mitigation strategies implemented by other transit safety and security operations and implement them for Metro as appropriate.	Under Review	
4.	The Metro System Safety and Law Enforcement Division should continue to maintain and build the strong partnership Metro has with the contract law enforcement service through increased planning and collaboration. Also, consider alternate mixes of contract law enforcement, security, and Metro Security personnel to optimally mitigate safety and security risks.	Under Review	
5.	The Metro System Safety and Law Enforcement Division should consider the types of duties described in this report that might be performed by the Metro Security personnel to better define their roles, and work to resolve ongoing questions regarding the authority of	Under Review	

No.	Recommendation	Metro's Response	Comments
	Metro Security personnel within their confines, and the entity or agency responsible for granting and overseeing that authority.		
6.	The Metro System Safety and Law Enforcement Division should continue to work with local law enforcement agencies to identify the potential for no cost basic services. Also consider if paid dedicated service from these agencies is beneficial and manageable, and leverage these services as appropriate. Efforts should also be made to increase regular communication and education to promote collaboration and coordination.	Under Review	
7.	The Metro System Safety and Law Enforcement Division should work with Metro Operations to identify the potential use of other Metro employees on the System, define their roles, create a plan of coordination and communication for seamless service, and evaluate the impact of these employees on System safety and security.	Under Review	
8.	The Metro System Safety and Law Enforcement Division should consider developing or acquiring and implementing a resource oversight and monitoring application for use on the smartphones currently used by Metro safety and security personnel. Metro should also consider identifying specific reporting requirements as input into the development of the new Computer Aided Dispatch (CAD) system by the LASD.	Under Review	
9.	The Metro System Safety and Law Enforcement Division should review and discuss the rail system risks, current safety and security workload, estimated staffing needs, and options for providing rail protection services outlined in this report to develop the Request for Proposals for law enforcement and security services and to develop a Rail Safety and Security Plan.	Under Review	
10.	The Metro System Safety and Law Enforcement Division should consider these elements and review and discuss the bus system risks, current safety and security workload, estimated staffing needs, and options for	Under Review	

No.	Recommendation	Metro's Response	Comments
	providing bus protection services outlined in this report to develop the Request for Proposals for law enforcement and security services and to develop a Bus Safety and Security Plan.		
11.	The Metro System Safety and Law Enforcement Division should use the information obtained through the Request for Proposal for law enforcement and security services, and identify the level of and approach to investigative and special operations services as part of the Rail and Bus Safety and Security Plans.	Under Review	
12.	The Metro System Safety and Law Enforcement Division should use the information and options outlined in this report to develop a Request for Proposal for law enforcement and security services, and to develop a Critical Infrastructure Protection Plan.	Under Review	
13.	The Metro System Safety and Law Enforcement Division should use the information and options outlined in this report to develop a Metro and Operations Security Plan.	Under Review	
14.	The Metro System Safety and Law Enforcement Division should use the information obtained through the Transit Policing Division and Metro Security employee surveys to identify and address key issues.	Under Review	
15.	The Metro System Safety and Law Enforcement Division should continue to monitor progress made implementing the LASD Contract Audit and APTA Peer Review recommendations and continue to report progress to Metro management and the Board. Where appropriate, recommendations should be considered in developing the Request for Proposals for law enforcement and security services.	Under Review	

2. Background

The Los Angeles County Metropolitan Transportation Authority (Metro) contracts with the Los Angeles County Sheriff's Department (LASD) to provide Metro with transit community policing services. Metro will soon be developing a Request for Proposal (RFP) for a new law enforcement contract, and needs an in-depth workload and staffing analysis to identify staffing and deployment requirements for the RFP.

Current staffing and deployment of services provided by LASD have evolved over time and are not based on an in-depth analysis of workload (crime, calls for service, coverage, etc.) or risks and risk mitigation strategies needed to address those risks. This report analyzes the current workload, assesses risks, identifies risk mitigation strategies and develops an approach for staffing and deployment needs to implement these strategies.

In addition to the security services provided under the LASD contract, Metro employs non-sworn transit security officers (TSO) who perform various security roles, and contracts for security guard services as well. The role of these TSO's has been to provide a visible deterrence, as well as to observe and report any unlawful activity to law enforcement and provide for revenue and building security. It is important to clearly define the role of these TSO's, and the extent to which they can provide services that improve the safety and security of the Metro transit system.

Local Law Enforcement Agencies have a responsibility to provide basic response services to Metro buses and trains within their jurisdictions consistent with the service provided to all others within their jurisdictions. Metro should not have to contract with these agencies for these basic services, but may choose to contract for dedicated or supplemental resources from local agencies. It is important to clearly define the level of service that can be expected from local law enforcement agencies prior to determining the level of service that must be contracted for. Any contracts with local law enforcement agencies for dedicated service should clearly identify all basic services that are provided at no cost separate from dedicated services that are paid for by Metro.

Management and oversight of law enforcement services contracted for is key to the safety and security of the Metro system regardless of the structure. Establishing short and long-term priorities for law enforcement services is a critical role for Metro management. The Metro Board recently established a "Transit Policing Working Group" to develop these short and long-term priorities, and to establish a "Concept of Operations" for transit safety and security services.

3. Objectives, Scope and Methodology

The primary objective of this analysis was to perform an in-depth analysis of law enforcement workload, a risk assessment, identify risk mitigation strategies, and identify staffing needs and options. Specific objectives included:

A. Review relevant portions or previous reports and documents
B. Conduct an in-depth analysis of current law enforcement workload
C. Perform a risk and needs assessment
D. Facilitate the Metro Transit Policing Working Group (TPWG)
E. Identify potential risk mitigation strategies
F. Determine the current roles of Metro security personnel
G. Determine the level of basic services local law enforcement agencies can provide to Metro
H. Determine staffing options including types and levels and mix of law enforcement and security personnel
I. Evaluate the progress of implementing the recommendations made in the prior LASD Contract audit
J. Conduct employee surveys for the Transit Policing Division and Metro Security employees

To complete this analysis we:

- ✓ Reviewed relevant sections of previous reports and documents.
- ✓ Provided information and analysis to the TPWG on:
  - Current law enforcement workload
  - Risks associated with the Metro System
  - Effectiveness of current risk mitigation strategies
  - Alternate mitigation strategies used by other transit agencies
  - Current and potential roles for Metro Security personnel
  - Roles of local law enforcement agencies
  - Staffing for law enforcement and security functions
- ✓ Reviewed and discussed each of the above with the TPWG, and facilitated the TPWG's consensus decision making on goals, priorities and strategies.
- ✓ Obtained and reviewed previous risk and threat assessments conducted by the Department of Homeland Security, Transportation Security Agency, Sheriff's Department, Metro, and others to determine the number and level of Critical Infrastructure Risks associated with the Metro System.
- ✓ Interviewed Sheriff's Department personnel responsible for conducting threat assessments to determine the level and trends in credible threats facing the System.
- ✓ Interviewed Operations personnel relative to risks and possible mitigation strategies.
- ✓ Obtained and reviewed information on crime occurring and reported within the System to identify the level and trends of crime within the System.

- ✓ Obtained and reviewed information on calls for service and response to identify types and severity of incidents that are occurring within the System.
- ✓ Obtained and reviewed information on the current access and security control systems, including video surveillance, alarms, security guard postings, and other approaches to providing security and access control.
- ✓ Obtained and reviewed information on number, severity, and impact of security and access control breaches, as well as trends in these occurrences.
- ✓ Obtained and reviewed information on current fare evasion / enforcement efforts, as well as efforts to determine or estimate the current levels of fare compliance.
- ✓ Obtained and reviewed passenger and or employee surveys or information relative to perception of safety and security.
- ✓ Coordinated the analysis of risks with the analysis of risk mitigation strategies to determine the extent to which current risks are being mitigated through effective strategies.
- ✓ Developed a description of each risk identified, along with information on the effectiveness of risk mitigation strategies.
- ✓ Reviewed and discussed risks and risk mitigation strategies with the Transit Policing Working Group.
- ✓ Identified the current risk mitigation strategies in place for each of the key risks identified.
- ✓ Contacted eight other transit operators in major metropolitan environments to identify alternate risk mitigation strategies, and to obtain information on the approach, level of effort, and results of these strategies.
- ✓ Obtained and reviewed existing position descriptions, policies and procedures, rules and regulations related to Metro security personnel and defining their roles and responsibilities.
- ✓ Identified legal or other parameters that define the current and potential authority and roles for Metro Security personnel.
- ✓ Identified how current Metro Security personnel are assigned and deployed, and what roles and responsibilities they currently have.
- ✓ Interviewed Metro Security management and personnel to ensure a complete understanding of their assignments, roles, functions, and challenges.
- ✓ Reviewed and discussed current and potential roles for Metro Security personnel with the Transit Policing Working Group.
- ✓ Conducted interviews with the leadership of the largest local law enforcement agencies within the Metro service area to identify and discuss their current and potential policy and approach to responding to or assisting with calls for service involving the Metro System.
- ✓ Used the staffing level for basic services and the matrix of workload and service to identify hours of staff time needed by job type to deliver basic services.
- ✓ Developed and administered employee surveys for both the Transit Policing Division and Metro Transit Security, and developed reports of the survey results.

4. Analysis Results

A. Transit Policing Working Group

Establishing short and long-term priorities for law enforcement services is a critical role for the Metro Board and management. The Metro Board and management should provide specific guidance on how both contracted law enforcement services and Metro Security resources will be used to impact priority problems on the transit system. The Metro Board established the Transit Policing Working Group (TPWG) to establish these priorities and provide this guidance.

The TPWG was established through a motion of the Metro Board's Ad Hoc Transit Policing Committee. The intent of the Committee was to provide a forum for all stakeholders and Metro executives to review and discuss Metro law enforcement and security needs, and to establish goals, priorities, and strategies moving forward.

The following exhibit shows the structure of the TPWG. As indicated, there are four stakeholder groups including Metro Operations, the Los Angeles Sheriff's Department, Local Law Enforcement, and Metro Security. The role of these groups is to provide information and input to the Metro Executive Leadership Group. We facilitated this input as part of our role as the OIG's Consultant.

Exhibit 3
Transit Policing Working Group Structure and Roles

Note: Local law enforcement provided information only and was not involved in establishing goals, priorities or strategies. Information and input was received from the Los Angeles, Long Beach, Santa Monica and Inglewood police departments.

The role of the Executive Leadership Group of the TPWG is to review and discuss the information provided, and to make decisions on the priorities, needs, and roles for Metro law enforcement and security services moving forward. Metro Director James Butts, who also is Chair of the Metro Board's Ad Hoc Transit Policing Committee, chairs the Executive Leadership Group. Other members include the Deputy CEO, Chief Operations Officer, Executive Officer of Security and Law Enforcement, Executive Director of Finance and Budget, Executive Director of Risk Management, and Metro County Counsel.

Metro Safety and Security Goals

Through review and discussion, the TPWG adopted the following goals for Metro law enforcement and security services, consistent with the risks facing the System:

- Prevent critical infrastructure / mass casualty events such as terrorist strikes, active shooter events, and related activities.
- Control crime and disorder on the Metro system, including violent and property crime, as well as quality of life issues.
- Protect Metro from other crimes such as theft, loss, or damage (vandalism, graffiti, fare evasion).
- Maintain the confidence of the public and Metro patrons in System safety and security.

Metro Safety and Security Key Priorities

The TPWG also adopted the following key priorities for Metro law enforcement and security services moving forward:

- Minimize response time to crimes and critical incidents, especially on the bus system.
- Maximize visible presence by persons in authority on the System (stations, trains, buses, etc.).
- Increase fare compliance and revenue to support the Metro System.
- Strengthen critical infrastructure protection.
- Increase the value received for investment made in law enforcement and security services.
- Improve the level of accountability for law enforcement and security services through improved operational data availability and quality.

Metro Safety and Security Key Strategies

To implement these goals and key priorities, the TPWG adopted the following key strategies for moving forward:

- Leverage existing local law enforcement agency infrastructure and services.
- Strategically focus contracted law enforcement services on calls for service and crime.
- Resolve Metro Security authority issues and focus their operations on areas within that authority.
- Place additional Metro representatives in visible locations throughout the System.
- Expand video surveillance and other technology capabilities.

- Actively manage and oversee Metro in-house and contracted law enforcement and security operations.

The TPWG has established a strong foundation with goals, key priorities and key strategies. This report provides information and options for Metro law enforcement and security services moving forward consistent with these goals, key priorities, and key strategies. The TPWG should use this information and options to build upon the foundation established and move forward with implementing options identified consistent with the goals, key priorities and key strategies established.

Recommendation 1: The Metro System Safety and Law Enforcement Division should assist the Transit Policing Working Group established by the Metro Board, to use the information on risks, workload, staffing estimates and options outlined in this report to move forward with implementing staffing and deployment consistent with the goals, key priorities, and key strategies established.

B. Risks Facing the Metro System

The staffing and deployment of Metro safety and security services should be based on a detailed analysis of the safety and security needs of the Metro System. This includes clear identification of the various risks that face the Metro System and identification of strategies for mitigating these risks.

We identified the following four key categories of risks facing the Metro System: 1) mass casualty / critical infrastructure; 2) crime and disorder; 3) theft, loss or damage of Metro property; and 4) reputation and public / patron confidence risk. Each of these is described in the following sections.

Mass Casualty / Critical Infrastructure Risks

Risks associated with a mass casualty event or the critical infrastructure within the Metro System are the most significant. Critical infrastructure is defined as those "systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters." (Critical Infrastructure Protection Act of 2001.) While this definition applies broadly for the entire country, it is understood that the Metro System in Los Angeles is vital to the welfare of the citizens and economy of the entire country, and therefore, falls under this definition.

While no mass transit attack has occurred in the United States, many have occurred overseas. These include the March 2004 bombing of commuter trains in Madrid, which killed 191 people; the July 2005 bombing of three London subway trains and a bus, which killed 52; the July 2006 attack on commuter trains in Mumbai, which killed 207; and the 2013 attack at the Volgograd, Russia train station, which killed 18 and injured 44. In addition, several plots to attack mass transit in this country have been uncovered by law enforcement and disrupted. Clearly, from what occurred in Paris in November 2015 and most recently in San Bernardino, CA, the threat of a terrorist attack, whether on mass transit or elsewhere remains a serious concern. Regardless of the actual location of the attack, mass transit systems are affected, as was the case in Paris and in Brussels. While not specifically mentioning Los Angeles, statements have been made that an attack in the United States is a possibility.

Also of concern is the homegrown domestic threat such as an active shooter. Active shooters have targeted schools, movie theaters, health centers, and most recently a government facility that serves people with developmental disabilities. These attacks resulted in high causalities that generate an abundance of media coverage. Active shooting incidents are difficult to prevent, but uniform presence and quick initial response can limit casualties.

The primary role of the Metro's law enforcement and security efforts is to provide a deterrent to those posing a threat to critical infrastructure within the Metro System. Often those posing a threat will observe their targets, gather intelligence, and determine the level of vulnerability. They may also conduct dry runs to determine if they encounter any obstacles or are challenged.

The presence of law enforcement and security personnel, through the use of strategically managed unpredictable and random patrol modes, is an effective means of deterrence.

Additional information on Metro's mass casualty and critical infrastructure risk, as well as a description of the current approach to mitigating these risks, and options moving forward, is provided in the chapter of this report entitled "Critical Infrastructure Protection."

Crime and Disorder Risks

Crime and disorder risks within the Metro System include the incidents of crime, general disturbances of the peace, and public safety. These risks are similar to those faced by most communities, albeit in a more specific arena. Crime and disorder risks are measured primarily by the number and severity of crime that occurs within an area. Information on crime on the Metro System was collected and used to analyze and determine staffing and deployment options.

The FBI Uniform Crime Reporting system defines serious crime (Part 1) as homicides, rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft and arson. Violent crime within those categories involves homicide, rape, aggravated assault and robbery. Similar to most U.S. mass transit systems, the two major violent crimes on Metro are aggravated assaults and robberies. However, violent crime accounts for less than half of the reported Part I crimes. For Metro, larceny and motor vehicle theft account for nearly 60% of the all Part 1 crime. The entire Metro rail system had a total of 460 violent crimes reported during FY 2015, which equates to about 1.26 per day, or 4.16 per million riders. The entire Metro bus system had a total of 301 such reported violent crimes during FY 2015, which equates to about .82 per day or .9 per million riders.

Property crime on the Metro system is also an important consideration, including burglaries and thefts. The entire Metro rail system had a total of 817 such reported crimes during FY 2015, which equates to about 2.24 per day, or 7.39 per million riders. The entire Metro bus system had a total of 367 such reported crimes during FY 2015, which equates to about 1.01 per day or .95 per million riders.

Exhibit 4 on the following page compares the reported Part 1 crimes for L.A. Metro and other large metropolitan transit systems in the U.S., including the reported crimes per million riders for 2014.

Exhibit 4 U.S Rapid Transit Systems Comparison Crime Rates of Large Metro Agencies (PART 1)								
	L.A. Metro	Chicago	Wash. DC	Boston	Phil.	New Jersey	Atlanta	BART – SFO
Ridership (Millions)	464.8	545.6	424.2	401.6	363.5	266.8	134.9	118.7
Homicide	2	0	0	0	0	0	0	0
Rape	7	4	2	6	0	0	1	2
Robbery	365	310	282	144	110	64	49	155
Aggravated Assault	373	37	108	130	21	49	64	54
Burglary	19	4	4	12	8	9	0	11
Larceny	986	1,709	1,055	635	902	475	318	2,592
Motor Vehicle Theft	98	6	106	18	13	7	93	525
Arson	0	0	3	6	2	0	6	2
Part 1 Crimes Total	**1,850**	**2,070**	**1,560**	**951**	**1,056**	**604**	**531**	**3,341**
Crime Rates / Million Riders	3.98	3.79	3.68	2.37	2.91	2.26	3.94	28.15
Sources: Ridership: APTA 2014 Public Transportation Fact Book, November 2014. Crime Data: TSA Transit Policing and Security Peer Advisory Group.								

Another important indicator of public safety or law enforcement risk is measured by the number of crimes or other incidents that result in a "call for service." These are the equivalent of a 911 emergency call for police service in a city. Between July 1, 2014 and June 30, 2015 the LASD Transit Policing Division (TPD) received and dispatched an average of 87 such calls for service per day for the entire Metro rail system, and an average of 74 such calls for service per day for the entire Metro bus system. This is a low level of calls for service given the vast area served by the Metro System and the number of patrons using the System.

Given this level of crime and calls for service the public safety and law enforcement risk within the Metro System is low. Additional information on Metro's crime and disorder risk specific to the rail and bus systems, as well as a description of the current approach to mitigating these risks, and options moving forward, is provided in chapters 4E and 4F of this report entitled "Rail System Protection" and "Bus System Protection."

Theft, Loss, Damage to Metro Property

Metro has substantial assets that are at risk of theft, loss or damage. This includes the trains and buses that make up the Metro rail and bus systems, as well as the stations, division headquarters, and maintenance facilities throughout the System.

In addition to the critical infrastructure threat and criminal behavior, vandalism and graffiti pose a significant risk. Metro rail operations estimates that it costs approximately $17 million annually to repair and replace equipment damaged through vandalism and graffiti. Equipment frequently replaced includes rail car seats, windows, and other related items. In addition, Metro expends nearly $1.1 million annually in removing graffiti from its rail cars, stations, and buses.

In addition to physical loss of Metro assets, Metro revenue is at risk of loss fare evasion. Fare evasion on the Metro rail system averaged 9% on the Red Line, 20% on the Blue Line, 17% on the Green Line, and 16% on the Expo Line based on recent fare assessments. Fare evasion rates on the Metro Gold Line, Orange Line, Silver Line, and remainder of the bus system are likely similar, or higher based on discussions with Metro personnel.

Additional information on Metro's theft, loss, and damage risk, as well as a description of the current approach to mitigating these risks, and options moving forward, is provided in the chapter 4I of this report entitled "Metro Facilities and Operations Security." Additional information on Metro's fare compliance risk, as well as a description of the current approach to mitigating these risks, and options moving forward, is provided in chapters 4E and 4F of this report entitled "Rail System Protection" and "Bus System Protection."

Reputation and Public / Patron Confidence Risk

Perception of crime and disorder on the Metro System, and any mass transit system for that matter, creates a risk to the confidence in safety held by passengers and Metro employees, and poses a risk to the reputation of Metro as a safe and secure system. Passengers who perceive the system to be unsafe will not utilize the service and therefore cause economic harm to Metro. Metro must address those concerns that contribute to the perception of an unsafe transit environment. Quality of life concerns such as aggressive panhandling, loitering, public alcohol consumption, and smoking in areas where it is prohibited are some of the issues that must be addressed to ensure the confidence of the riding public and Metro employees.

Recommendation 2: The Metro System Safety and Law Enforcement Division should continue to monitor and track the various safety and security risks facing the Metro System, deploy personnel consistent with the information provided in this report, and make revisions in plans and operations as needed including deployment of personnel to mitigate these risks on an ongoing basis.

C. Current "State of the Art" Transit Policing Risk Mitigation Strategies

Metro and the LASD have developed and implemented numerous strategies to mitigate the risks facing the Metro System. Many of these strategies mitigate multiple risks, including critical infrastructure, public safety, and security risks. Metro Security has also implemented strategies to mitigate the general security risks, including unauthorized access to Metro facilities.

Other transit operators throughout the U.S. face similar risks to those faced by the Metro System, and have implemented strategies to mitigate these risks. Much can be learned from other transit operator experiences. Eight major transit agencies throughout the U.S. and the British Transport Police were contacted to identify current strategies in place to mitigate safety and security risks to their transit systems. The following outlines the key strategies implemented by transit agencies to mitigate risks on their systems.

Policing strategies vary from agency to agency; however, there are common strategies that are used consistently throughout transit policing. These strategies are not designed to be used individually as a sole strategy, but are part of an overall strategy with varying tactics that mitigate risks creating a sense of safety security for passengers and employees of the transit system.

Uniformed Patrols involves the use of uniformed patrols, usually within the high traffic stations of the system. The uniformed patrol is designed to create a felt presence of safety and security among the riding public by remaining in areas frequently used by passengers, to include areas of the fare gates, boarding areas of buses and trains, and lobby and public parking areas. This strategy is established by having uniformed officers, sometimes with high-visibility outer jackets, patrol high activity areas to create an enhanced presence during peak travel times. These officers can be joined by others in what are called surge deployments based on intelligence, or as dictated by other security considerations such as public reassurance.

Responding to Calls for Service resulting from crimes or other incidents that occur on the transit system is a common strategy for transit agencies. This involves quickly responding to high priority calls where there is an immediate threat to life or other crime (robberies, assaults, fights, etc.). Lower priority calls for service where there is no immediate threat are also responded, within longer but reasonable response periods.

Surge deployments especially onboard trains and buses, have recently become recognized as an effective crime prevention tactic, but also an important tactic to increase the public perception of security. While very few crimes actually occur on trains, there are many types of incidents of disorderly behavior by persons under the influence of drugs and/or alcohol, by fare evaders involved in disputes with other patrons, and much more that can be interdicted by surge deployments on trains or buses. Most importantly, surge deployments increase the public perception that transit systems are safe and orderly spaces. They also provide a sense of security, order, and professionalism in the transit system operation.

Focused Anti-Crime Operations is basing deployments on documented crime trends identified by tracking a wide array of relevant data. This includes not only serious crimes commonly referred to as Part 1 crimes,[2] but it also includes those quality of life issues that impact passenger perceptions of their security within the transit system environment. These include graffiti, aggressive panhandling, sexual harassment, etc. Agencies use a CompStat[3]-like process to examine this data and assign resources to address issues uncovered within it. Agencies will leverage personnel in some cases to address the issues but will also request assistance from the transit operations workforce to address pertinent environmental issues. Agencies that have been successful have committed to a combined approach with support from operations, social service agencies, and local Emergency Medical Services (EMS) and law enforcement partners.

Explosives Screening is based on the terror threat to mass transit systems. The courts[4] have allowed administrative screenings of carry-on baggage in mass transit systems for the presence of explosives. These inspections involve the brushing, with a swab, of the exterior of a carry-on or a visual inspection inside the item. The swab is then placed in explosive trace detection equipment. The entire process normally takes approximately 20-40 seconds if no positive reading occurs. Passengers are selected for screening based on a random numbering system. Notices are posted at the entrance to the station that the inspection is in progress. A passenger may choose not to be inspected but then is prohibited from riding on the transit system. The location and time of the screenings are selected based on time of day and ridership levels or may be based on general or specific threat levels.

K-9 Explosives Detection is important as it applies to protecting critical infrastructure. In addition, it provides a visible reminder of police presence to Metro patrons. While costly, and sustainment training is intensive, it is a vital tactic in the overall policing and security strategy. Just before departure, trains should be swept by having an officer and his or her canine pass through the train. These operations help to mitigate the risk of explosive devices on the system, and may have other benefits in reducing other criminal activity.

Use of Technology has expanded greatly in the past few years and has also become a key aspect of maintaining transit security. Agencies have leveraged video systems' forensic capabilities to confirm that specific incidents, in fact, occurred, as well as to determine their exact location. More importantly, they have used the technology to capture images of the alleged suspect(s) who committed the crime. Advanced video and fare card data linked to an individual's media allows the tracking of criminal suspects to learn their commuting habits.

[2] According to the FBI Uniform Crime Reporting system

[3] Compstat is a combination of management philosophy and organizational management tools for police departments named after the New York City Police Department's accountability process, and has since been implemented in many other departments. It's a dynamic approach to crime reduction. Quality of life improvement, and personnel and resource management; whereby ranking police department executives identify spikes in crimes using comparative statistics, and address those spikes through the use of targeted enforcement. Today, Compstat includes four generally recognized components: timely and accurate information or intelligence, rapid deployment of resources, effective tactics, and relentless follow-up.

[4] American-Arab Anti-Discrimination Committee v. Massachusetts Bay Transportation Authority, 2004 U.S. Dist LEXIS 14345 [D.Ma 2004] and in MacWade v. Kelly 460 F3d 260 (2d Cir. 2006

Using this technology assists in prosecuting offenders for particular incidents, but also can avert future crime by limiting offenders' use of the transit system. Development of specialized smart phone applications has also increased public reporting to law enforcement on crime and disorder issues and concerns.

Rider Engagement is educating the ridership in preventative security measures and engaging them to report suspicious and unusual circumstances. The "If You See Something, Say Something" campaign, which is widely utilized throughout the country, not only reinforces the message to passengers to be mindful of their own security, but also results in the public sharing information to the agencies for immediate response or further follow-up. These information campaigns include public announcements, printed materials, mobile phone texting capabilities and "apps"[5] Within the transit systems, these have proven effective in engaging ridership in crime prevention and establishing a safer transit environment.

Partnerships - None of these strategies can occur without transit police agencies developing partnerships with all of the local law enforcements agencies within their jurisdictions that may assist them on a daily basis, as well other public safety agencies that will respond to a critical incident such as a train accident. These partnerships are crucial to an effective risk mitigation strategy as they provide needed support to the agency due to the extensive geography of their jurisdictions. Transit policing agencies that are successful rely heavily on these partnerships as part of their overarching deployment strategies.

L.A. Metro and the TPD currently use each of these strategies to mitigate risks to the Metro System. The level and approach to each is consistent with best practices implemented by other large transit systems. Continuing to monitor and evaluate the use of these strategies, and lessons learned from other transit systems, is beneficial.

Recommendation 3: The Metro System Safety and Law Enforcement Division should continue to collect information on risk mitigation strategies implemented by other transit safety and security operations and implement them for Metro as appropriate.

[5] A self-contained software program designed to fulfill a particular purpose or application that can be downloaded and used on a mobile device.

D. Metro Safety and Security Resources

For Metro's safety and security services to be effective and cost efficient, there must be an appropriate match between the safety and security mission and the various resources used to provide safety and security services. A key element of the safety and security mission is to address crime on the System, and to respond to and handle critical incidents and calls for service. Sworn law enforcement officers that have full powers to detain and arrest and to use force as required must provide this mission element.

Another substantial element of the safety and security mission involves providing a visible presence on the System as a deterrent to crime and disorder, as well as more critical incidents like terrorist attacks. This mission element can be provided by law enforcement, but may also be provided by well-trained and well-managed security personnel.

Enforcing fare compliance on the System, as well as the Metro customer code of conduct, is another key element of Metro's safety and security mission. This mission element can also be provided by law enforcement, but may be provided by security personnel, or other Metro employees who provide customer service or other key roles.

For Metro, a key element of the safety and security is also customer service. Assisting Metro patrons to find the correct bus or train, assisting with obtaining the correct fares, and providing general information are all key functions for any Metro representatives on the System. This mission element can be provided by law enforcement personnel, but again could be provided by security personnel, or other Metro employees placed in a position of authority on the System.

The following sections describe the various resources that are available to Metro to provide the various elements of Metro's safety and security mission for the System. The chapters (4E, 4F and 4H) of this report on rail system protection, bus system protection, and critical infrastructure protection provide options for developing a mix of these resources to meet the Metro safety and security mission.

LASD Transit Policing Division (TPD) Contract Services

Under contract with Metro the TPD currently provides sworn law enforcement personnel to fulfill the safety and security mission of the Metro System. These law enforcement personnel are fully trained and equipped and have powers to detain and arrest and use force as needed. These personnel are currently responsible for responding to incidents and calls for service, addressing crime and related issues, and providing a visible security presence throughout the Metro System. These law enforcement personnel are also responsible for enforcing fare compliance, and the Metro customer code of conduct throughout the System. They are also frequently approached by Metro patrons to provide customer services, including providing directions and assisting with obtaining correct fares.

TPD's law enforcement personnel are well trained, competent, and professional. They present themselves well, and, with very few exceptions, represent the Metro system exceptionally well.

However, TPD personnel often express the sentiment that they should be focused more on policing and law enforcement, and less on the security, fare enforcement, and customer service aspects of the Metro safety and security mission. These personnel are law enforcement personnel, and like most such personnel, are trained and motivated to focus on crime, critical incidents and prompt response to calls for service. Many have expressed that the security, fare enforcement, and customer service aspects of their current assignments are not an effective use of their capabilities.

The TPD also provides uniformed Security Assistants (SA's) to Metro under contract. These SA's are not sworn personnel, nor are they qualified or certified security personnel. The SA's are not armed, and have no authority to detain or arrest. The role of the SA's is limited to enforcing fare compliance, which they do by checking Metro patron's TAP cards using a Mobile Phone Validator (MPV). These SA's are in contact with the TPD Deputies patrolling the Metro System, and can contact them via radio if they observe activity that requires a law enforcement response, or if they need assistance.

The LASD also employs Sheriff Security Officers (SSO's) that are uniformed and armed or unarmed security personnel. These personnel do not have the powers to detain and arrest nor use force except in a defensive mode. The TPD and the current Metro contract does not currently include any such SSO's, who are used throughout the County to provide general security at County facilities and buildings. SSO's are a potential resource that could be used to provide the security element of Metro's safety and security mission.

The following exhibit shows the current hourly cost for each of the three types of personnel the LASD currently or could potentially provide to Metro under contract. These hourly costs include all of the costs associated with providing these personnel. These costs are calculated to show the actual hourly cost for these personnel when on-duty and does not include leave, training, or other non-duty time. These costs also include all direct and allocated costs for these personnel, including salaries and benefits, training, vehicles and equipment, management and supervision (Captains, Lieutenants and Sergeants), and necessary support services.

Exhibit 5
Los Angeles Sheriff's Department Contract Resources and Costs

Personnel Resource	Hourly Cost
Sheriff Deputies	$129.86
Sheriff Security Officers	$84.47
Sheriff Security Assistants	$33.34

Source: Los Angeles Sheriff's Department Contract Law

The TPD has been a key resource and strong partner for Metro in ensuring the safety and security of the System. This strong partnership will continue to be required regardless of potential changes in the model or approach to providing safety and security services. Maintaining and building on this strong foundation will be important moving forward.

Recommendation 4: The Metro System Safety and Law Enforcement Division should continue to maintain and build the strong partnership Metro has with the contract law enforcement service through increased planning and collaboration. Also, consider alternate mixes of

contract law enforcement, security, and Metro Security personnel to optimally mitigate safety and security risks.

Metro Security

Metro Security includes uniformed and armed or unarmed security personnel. Metro Security has long had the role of providing security for Metro's Gateway Headquarters Building, protecting Metro's revenue collection and cash counting operations, and providing security over Metro facilities throughout the County. Metro Security officers are neither sworn nor certified law-enforcement officers and do not have the authority to detain or arrest, nor use force except in a defensive mode.

The role of Metro Security is not minimal. Metro Security provides an important adjunct to the law enforcement roles performed by a contracted law enforcement agency as well as local police in meeting Metro's security needs. It is important, however, that they not be expected, nor allowed, to routinely act as if they have the authority reserved to sworn law enforcement personnel. Doing so places them in substantial danger to themselves, as well as substantial risk of personal liability. This could also result in substantial liability for Metro. The types of duties Metro Security personnel may perform have been identified in this report. Defining their role may include these duties, but cannot include those duties restricted to only law enforcement personnel.

Metro Security personnel could potentially play a substantial role on the Metro rail and bus systems, providing the security element of the Metro safety and security mission. However, several key issues must be resolved prior to assuming such a role. The primary issue is to resolve ongoing questions regarding the authority these personnel have, and the entity or agency responsible for granting and overseeing that authority. In the survey we completed of Metro Security employees most (84%) disagree they have adequate authority to do their jobs. This must be resolved by either clearly defining their rules of engagement in their security role, or gaining additional authority for these personnel.

The following exhibit shows the current hourly cost for each of the three types of Metro Security personnel. These hourly costs include all of the costs associated with providing these personnel. These costs are calculated to show the actual hourly cost for these personnel when on-duty and does not include leave, training, or other non-duty time. These costs also include all direct and allocated costs for these personnel, including salaries and benefits, training, vehicles and equipment, management and supervision (Lieutenants and Sergeants), and necessary support services.

Exhibit 6
Metro Security
Personnel Types and Costs

Personnel Resource	Estimated Hourly Cost
Senior Security Officers	$70.24
Security Officer II's	$64.04
Security Officer (Unarmed)	$49.23
Private Security Officer	$23.20

Source: BCAWR Analysis of Metro Security staff availability time and costs.

Metro also contracts with a company to provide private security personnel at various sites throughout the Metro System. Sites include bus divisions, maintenance facilities, terminals, stations, parking lots and roving patrols. The contract provides for a total of 322,468 hours annually, which would equate to approximately 180 FTE employees. The hourly rate is $23.20, with an annual cost of $7.48 Million, or $41,500 per FTE. These hourly costs are fully burdened, and include all salaries, benefits, training, leave, and other costs associated with these personnel. The contract requires fully trained armed Security Officers. Field Supervisors are required in both the North and South Security Zones. Contract security officers are overseen and directed by Metro Security.

Recommendation 5: The Metro System Safety and Law Enforcement Division should consider the types of duties described in this report that might be performed by the Metro Security personnel to better define their roles, and work to resolve ongoing questions regarding the authority of Metro Security personnel within their confines, and the entity or agency responsible for granting and overseeing that authority.

Local Law Enforcement Agencies

Numerous local law enforcement agencies provide service within their jurisdictions throughout the L.A. County and Metro service area. This includes numerous municipal law enforcement agencies (Los Angeles Police Department, Long Beach Police Department, Santa Monica Police Department, Pasadena Police Department, etc.), as well as contract law enforcement services provided to municipalities by LASD.

These agencies typically deploy law enforcement personnel in police units or walking beats to patrol areas and to respond to incidents and calls for service, usually with a patrol unit assigned responsibility for patrolling and responding to calls for service in a specific beat or area. The size of these beats may vary based on the incident or call for service workload within the service area. However, beats are typically structured and sized in order to provide a reasonable response time to high priority incidents or calls for service within the service area.

Local law enforcement agencies respond to and handle incidents and calls for service within their jurisdiction, and have a responsibility to do so. This is part of their basic service as law enforcement agencies. Similarly, these agencies have a responsibility to provide these same basic services to Metro buses and trains within their jurisdictions consistent with the service provided to all others within their jurisdictions. Metro should not have to contract with these agencies for basic services, but may choose to contract for additional dedicated or supplemental resources from local law enforcement agencies.

Meetings were held with Police executives from Los Angeles, Long Beach, Santa Monica, and Inglewood Police Departments as part of this analysis. The leaders of each of these departments stated that they currently provide law enforcement service to the Metro System. These services are provided either in response to 911 calls they receive directly from the public, or through referral by the TPD.

Many calls for service on the Metro System are received directly by local law enforcement agencies. This is due to patrons on the Metro system dialing 911 on their mobile phones to report an incident and to request law enforcement services. These calls would, in most cases, go to the public safety call taking and dispatch center of the local law enforcement agency. Once the call is received, the incident or call would be responded to and handled by the local agency. The call would be given a priority, and would be responded to and handled as deemed appropriate by the local agency given the relative priority of other calls the agency is handling. Like other members of the community Metro does not currently have to pay for these responses.

The leadership of the law enforcement departments we met with expressed a sense of responsibility and ownership for all crime that occurs within their jurisdiction. They also stated that Metro could expect the same level of basic service provided to others in the community, including responding to incidents and calls for service, at no cost.

Local agencies also respond to and handle incidents and calls for service when requested to do so by the TPD. Current TPD dispatch policy requires that a response from a local agency be requested when TPD patrol units are not able to respond within a reasonable amount of time.

We requested information on the number of calls for service each agency responded to and handled on the Metro System. The Los Angeles Police Department (LAPD) identified calls referred by TPD involving the Metro system for the four-month period of September 1 to December 31, 2014. LAPD responded to and handled a total of 755 such calls during these four months. Assuming the call volume is similar throughout the year, LAPD responds to and handles approximately 2,200 to 2,300 calls for service annually on the Metro System at the request of TPD. LAPD was not able to identify additional Metro related calls that were responded to and handled that were received directly by LAPD through the 911 call system. There were likely a substantial number of these types of calls. LAPD's response and handling of these Metro System calls is considered part of LAPD's basic service, and therefore were performed at no cost to Metro.

Exhibit 7
Local Law Enforcement Potential Resources and Costs

Personnel Resource	Hourly Cost
Basic Service	No Cost
Dedicated Service	To be Determined

The Long Beach Police Department (LBPD) identified calls involving the Metro System for the eight-month period of January to August 2014. LBPD responded to and handled a total of 169 such calls during these eight months. Assuming the call volume is similar throughout the year, LBPD responds to and handles approximately 250 calls for service annually on the Metro System. Of the calls responded to and handled by LBPD, the majority (63%) were received directly by LBPD through the 911 call system. The remainder (37%) were referred to LBPD for response and handling by TPD. LBPD's response and handling of these Metro system calls is considered part of LBPD's basic service at no cost to Metro.

In addition, Long Beach and Inglewood police departments currently conduct proactive enforcement on Metro rail and bus lines. They conduct these as part of their own ongoing efforts to provide service to their communities, and to address crime and related issues within their jurisdictions. Both of these efforts are at the discretion of these cities and police departments. The Inglewood efforts are funded through Part B grant funds from Metro, the use of which are at the discretion of the City.

While these proactive law enforcement activities are beneficial to Metro, these services cannot be dictated to these agencies by Metro as they are performed at the discretion of the agency, nor can Metro direct when and where these services are provided. However, Metro could potentially contract with these and other law enforcement agencies to provide some level of dedicated safety and security services to the Metro System.

The current approach for providing law enforcement and security for the Metro system makes minimal use of the substantial existing local law enforcement infrastructure. The approach has been to contract for law enforcement services that are available to Metro from local law enforcement agencies. Moving forward, Metro should consider relying on the local law enforcement agencies and infrastructure to provide basic law enforcement services to the system rather than contracting for these services, as well as exploring the potential for contracting with local law enforcement agencies for dedicated services.

Recommendation 6: The Metro System Safety and Law Enforcement Division should continue to work with local law enforcement agencies to identify the potential for no cost basic services. Also consider if paid dedicated service from these agencies is beneficial and manageable, and leverage these services as appropriate. Efforts should also be made to increase regular communication and education to promote collaboration and coordination.

Other Potential Metro Employees

Several transit agencies place employees of the transit system in key locations throughout the system to provide customer service and help to oversee operations. These employees may be customer service representatives or ambassadors. These employees do not directly provide a security function, but can still substantially contribute to system safety and security.

The presence of a Metro "person of authority" can modify the behavior of Metro patrons. This can include improved fare compliance and compliance with the Metro customer code of conduct. These persons can also serve as the eyes and ears for security and law enforcement personnel, and can alert them if issues or concerns arise. While these personnel cannot replace security or law enforcement personnel, they can play an important role in system safety and security while performing their normal duties. They could also contribute to the public's confidence and satisfaction with the system and system safety.

Recommendation 7: The Metro System Safety and Law Enforcement Division should work with Metro Operations to identify the potential use of other Metro employees on the System, define their roles, create a plan of coordination and communication for seamless service, and evaluate the impact of these employees on System safety and security.

Resource Oversight and Monitoring

Metro has and will continue to have a substantial investment in resources devoted to system safety and security. Ensuring that these resources are effectively and efficiently used is very important. This is true regardless of whether those resources are contracted, or are Metro employees.

The 2014 audit completed of the current contract for law enforcement services outlined a number of areas for improvement in Metro's oversight and monitoring of these resources. One of the challenges faced in improving this oversight and monitoring is the current technology used by the LASD to collect and report information on the activities and workload of TPD law enforcement personnel.

In law enforcement, the Computer Aided Dispatch (CAD) and Records Management System (RMS) are the two primary data systems used to manage and deploy law enforcement resources. These systems provide the management information backbone for most law enforcement agencies. Such systems track the incidents or calls for service that are received by the agency, as well as the process for dispatching, responding to, and handling these incidents or calls. These systems are also critical for monitoring and analyzing the performance of resources, including response times to incidents and calls for service.

These information systems are also used to track the time law enforcement personnel spend on other activities, including directed patrol activities, self-initiated activities, and administrative time. Accurately collecting and analyzing this information provides law enforcement agencies essential information needed to effectively manage these resources. Most agencies now use this information to plan their service, and to staff and deploy law enforcement resources.

The CAD system currently in use by the LASD is outdated and lacks many of the capabilities common to such systems in use by most law enforcement agencies. We attempted to analyze the CAD information for the Transit Policing Division as part of this analysis. Through much effort, we were able to develop basic workload and performance information. The LASD is aware of this limitation, and is in the process of replacing their CAD system. However, the replacement process is likely to take at least 3 to 5 years.

Metro currently has a technology in place that may allow Metro to develop and implement an effective method of tracking and monitoring the activities of safety and security resources deployed on the Metro System. Each safety and security resource currently deployed on the System is equipped with a smartphone. The primary use of this smartphone is as a validator for TAP fare cards using a Mobile Phone Validator (MPV) application developed for the smartphone. The smartphone also has a version of the "Transit Watch LA" application that allows these personnel to track and respond to incidents or calls that are made by riders using the public version of the application.

The smartphones used by Metro safety and security personnel are GPS enabled, and can be used to track and monitor the location of each user. Metro could develop or acquire an application, either as an additional element of the Transit Watch application, or as a new

application, to log and track the activities of Metro safety and security personnel. This would provide a reliable and verifiable mechanism for Metro to ensure that contracted and directly employed resources are being used effectively and as planned.

Recommendation 8: The Metro System Safety and Law Enforcement Division should consider developing or acquiring and implementing a resource oversight and monitoring application for use on the smartphones currently used by Metro safety and security personnel. Metro should also consider identifying specific reporting requirements as input into the development of the new Computer Aided Dispatch (CAD) system by the LASD.

E. Rail System Protection

The Metro rail system currently includes 83 miles of track with a total of 85 stations. Expansion of the Expo and Gold Lines will add 17.6 miles of new track, and 13 new stations when completed and operational in the near future. Nearly 345,000 riders use the rail system each weekday, over 225,000 ride each Saturday, and over 183,000 each Sunday. During weekday peak periods, 66 trains are scheduled to operate, each with multiple cars. Revenue operations account for over 1,055 hours and over 23,000 miles each weekday. The following exhibit provides descriptive and operational information on each of the lines of the Metro rail system. This information is an important factor in determining the safety and security needs of each line.

Exhibit 8
Rail System Descriptive and Operational Information

	Blue Line	Green Line	Expo Line[1]	Red/Purple	Gold[2]	Totals
Descriptive Information						
Number of Stations	22	14	12	16	21	85
One-Way Miles	21.3	19.3	8.7	14.8	19.3	83
Schedules						
Earliest Train Start Time	3:51 AM	3:36 AM	4:54 AM	4:29 AM	3:39 AM	
Latest Train End Time	3:05 AM	3:00 AM	2:39 AM	2:41 AM	2:41 AM	
Average Daily Ridership						
Weekdays	82,396	40,027	30,671	148,218	43,588	344,900
Saturdays	54,289	23,277	22,292	96,249	29,207	225,314
Sundays	44,443	17,209	16,262	81,143	23,976	183,033
Peak Trains in Service						
Weekdays	17	11	9	10	19	66
Saturdays	11	9	6	8	15	49
Sundays	11	9	6	8	15	49
Train Revenue Hours						
Weekdays	301.8	151.6	126.6	191.8	283.8	1,055.6
Saturdays	262.3	115.2	129.9	195.9	263.2	966.5
Sundays	247.3	106.5	123.9	165.5	252.1	895.3
Train Revenue Miles						
Weekdays	6,377.4	4,222.0	1,898.8	4,592.6	5,912.0	23,002.8
Saturdays	5,048.0	3,212.0	1,847.6	4,076.8	5,392.7	19,577.1
Sundays	4,713.4	3,016.5	1,760.4	3,516.2	5,194.6	18,201.1

Notes:
[1]The Expo line will include an additional 7 stations and 6.6 miles when the current extension is completed and operational.
[2]The Gold Line will include an additional 6 stations and 11 miles when the current extension is completed and operational.

Source: Information obtained from Metro Service Planning.

Rail System Risks

The safety and security staffing to protect the Metro rail system should be largely based on the risks associated with the system, including an understanding of the relative risks of each rail line. These risks include violent crime, property crime, and other crime. It also includes the public's perception of safety on the system. The level of fare compliance or evasion on each line is also an important risk to consider. Each of these risks, and relative risk by line, are presented in the following sections.

Violent Crime

The following exhibit shows that the Metro Rail system had a total of 460 reported violent crimes[6] during FY 2015. This equates to 1.26 per day or 4.16 per million riders. The Blue and Green lines have the highest rate of violent crime per million riders. The Blue line had the highest number of crimes, accounting for about 35 percent of the total violent crime on the rail system, with .44 violent crimes each day, and 6.13 per million riders. The Green line accounted for 22 percent of the violent crime on the rail system, with .28 violent crimes per day. However, the Green line had the highest crime rate per million riders at 8.22.

Exhibit 9
Metro Rail System
Reported Part 1 Violent crime

Crime	Blue Line	Green Line	Expo Line	Red/Purple	Gold Line	Totals
Homicide	1	0	0	0	0	1
Rape	1	1	0	0	0	2
Robbery	77	85	28	43	14	247
Aggravated Assault	83	16	16	76	19	210
Totals	162	102	44	119	33	460
Percentage	35%	22%	10%	26%	7%	100%
Ridership (Millions)	26.4	12.4	9.9	47.7	14.0	110.4
Per 1 Million Riders	6.13	8.22	4.43	2.49	2.35	4.16
Per Day	0.44	0.28	0.12	0.33	0.09	1.26

Source: BCAWR analysis of crime reported by TPD Crime Analysis from July 1, 2014 to June 30, 2015

The Expo line accounted for 10 percent of the violent crime on the rail system, with .12 per day and 4.43 violent crimes per million riders. The Red/Purple and Gold lines are the safest lines on the rail system based on the violent crime rate per million riders. The Red/Purple line accounted for 26 percent of the violent crime on the system, with an average of .33 violent crimes each day. The rate of violent crime per million passengers was a relatively low 2.49. The

[6] In the FBI's Uniform Crime Reporting (UCR) Program, violent crime is composed of four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Violent crimes are defined in the UCR Program as those offenses, which involve force or threat of force.

Gold line had the lowest level of violent crime on the rail system, accounting for 7 percent of the violent crime on the system, or .09 violent crimes each day. This amounts to 2.35 violent crimes per million riders.

Property Crime

The following exhibit shows the Metro Rail system had a total of 817 reported property crimes[7] during FY 2015. This equates to 2.24 per day or 7.4 per million riders. The Blue and Green lines have the highest number and rate of property crime. The Green line had the highest number of crimes, accounting for about 28 percent of the total property crime on the rail system, with .62 property crimes each day, and 18.2 per million riders. The Blue line accounted for 26 percent of the property crime on the rail system, with .59 property crimes per day, and 8.14 per million riders.

Exhibit 10
Metro Rail System
Reported Part 1 Property Crime

Crime	Blue Line	Green Line	Expo Line	Red/Purple Line	Gold Line	Totals
Burglary	0	0	0	2	3	5
Grand Theft	108	82	70	42	12	314
Petty Theft	47	39	51	88	36	261
Grand Theft Auto	29	66	6	5	11	117
Burglary to Motor Veh'l	28	39	10	3	37	117
Arson	3	0	0	0	0	3
Totals	215	226	137	140	99	817
Percentage	26%	28%	17%	17%	12%	100%
Ridership (Millions)	26.4	12.4	9.9	47.7	14.0	110.4
Per 1 Million Riders	8.14	18.20	13.84	2.93	7.07	7.40
Per Day	0.59	0.62	0.38	0.38	0.27	2.24

Source: BCAWR analysis of crime reported by TPD Crime Analysis from July 1, 2014 to June 30, 2015

The Expo line accounted for 17 percent of the property crime on the rail system, with .38 per day and 13.84 property crimes per million riders. The Red/Purple and Gold lines are the safest lines on the rail system based on the property crime rate per million riders. The Red/Purple line accounted for 17 percent of the property crime on the system, with an average of .38 property crimes each day. The rate of property crime per million passengers was a relatively low 2.93. The Gold line had the lowest rate of property crime on the rail system, accounting for 12

[7] In the FBI's Uniform Crime Reporting (UCR) Program, property crime includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. These theft-type offenses involve the taking of money or property, without force or threat of force against the victims. The property crime category includes arson because the offense involves the destruction of property.

percent of the property crime on the system, or .27 property crimes each day. This amounts to 7.07 property crimes per million riders.

Other Significant Crime (Part 2 Crime)

The following exhibit shows the Metro Rail system had a total of 1,064 reported other crimes (Part 2[8]) during FY 2015. This equates to 2.92 per day or 9.63 per million riders. As with violent crime and property crime, the Blue and Green lines have the highest rate of other crime. The Blue line had the highest percentage of crimes, accounting for about 33 percent of the total other crime on the rail system, with .95 other crimes each day, and 13.14 per million riders. The Green line accounted for 15 percent of the other crime on the rail system, with .45 other crimes per day, and 13.14 per million riders.

Exhibit 11
Metro Rail System
Reported Part 2 Crime

Crime	Blue Line	Green Line	Expo Line	Red/Purple Line	Gold Line	Totals
Battery	79	45	16	105	26	271
Sex Offenses	17	6	0	25	7	55
Weapons	21	11	7	15	13	67
Narcotics	113	53	16	120	38	340
Trespassing	73	19	7	35	4	138
Vandalism	44	29	30	36	54	193
Totals	347	163	76	336	142	1,064
Percentage	33%	15%	7%	32%	13%	100%
Ridership (Millions)	26.4	12.4	9.9	47.7	14.0	110.5
Per 1 Million Riders	13.14	13.14	7.68	7.04	10.14	9.63
Per Day	0.95	0.45	0.21	0.92	0.39	2.92

Source: BCAWR analysis of crime reported by TPD Crime Analysis from July 1, 2014 to June 30, 2015

The Red/Purple line accounted for 32 percent of the other crime on the rail system, with .92 per day. However, the Red/Purple line had the lowest rate of other crime, with 7.04 other crimes per million riders. The Gold line accounted for 13 percent of the other crime on the system, with an average of .39 other crimes each day. The rate of other crime per million passengers was a relatively high at 10.14. The Expo line accounted for 7 percent of the other crime on the system, or .21 other crimes each day. This amounts to 7.67 other crimes per million riders.

[8]In the FBI's Uniform Crime Reporting (UCR) Program Part II, the following categories are tracked: simple assault, curfew offenses and loitering, embezzlement, forgery and counterfeiting, disorderly conduct, driving under the influence, drug offenses, fraud, gambling, liquor offenses, offenses against the family, prostitution, public drunkenness, runaways, sex offenses, stolen property, vandalism, vagrancy, and weapons offenses.

Public Perception of Safety

It is important that the Metro rail system be safe and relatively free from crime. However, it is also essential for those riding the Metro rail system, as well as the general public, to perceive the system as being safe. The public perception of system safety significantly contributes to the willingness of the public to use the system. Fortunately, most riders say they feel safe on the system. Based on the results of a recent survey (August 2015) of riders on the Metro rail system, a large majority responded they feel safe waiting for a train (84%), and a similar large majority responded they also feel safe riding a train (83%).

On the same survey, some riders surveyed said they experienced sexual harassment on the rail system. This included such actions as unwanted comments or gestures, unwanted touching, groping or fondling, and indecent exposure. The following exhibit shows the percentage of survey respondents by rail line who responded they experienced some level of sexual harassment. Metro has recently initiated a campaign to address this issue.

Exhibit 12
Metro Rail System
Survey Results - Percentage Experiencing Sexual Harassment

Type	Blue	Green	Expo	Red	Purple	Gold
Comments/Gestures	19%	14%	14%	16%	19%	16%
Unwanted touching, groping, fondling	10%	5%	6%	4%	8%	6%
Indecent Exposure	11%	8%	9%	12%	12%	5%

Source: Metro Rider Survey on Safety and Security, August 2015

Another important indicator of the public or riders' perception of the safety of the Metro rail system is the number of complaints received regarding safety and security. Metro Customer Relations tracks complaints received by category using the C-CATS complaint tracking system.

The following exhibit shows a total of 400 security related complaints were received during the 12-month period ending August 2015 from riders on the Metro rail system. This equates to 3.62 safety and security complaints per million riders on the Metro rail system.

Exhibit 13
Metro Rail System
Customer Complaints Regarding Safety / Security

Type of Complaint	Blue Line	Green Line	Expo Line	Red/Purple Line	Gold Line	Totals
Passenger Conduct / Security	102	50	38	142	68	400
Percentage	26%	13%	10%	36%	17%	100%
Ridership (Millions)	26.4	12.4	9.9	47.7	14.0	110.4
Complaints per Million Riders	3.86	4.03	3.84	2.98	4.86	3.62

Source: Metro C-CATS Customer Complaint Tracking System

Although the Red/Purple line had the highest percentage of total complaints received, with 36 percent, it had the lowest rate of complaints per million riders, with 2.98. The Gold line had the highest rate of complaints per million riders, with 4.86.

Fare Evasion

Fare evasion, or riding passengers not complying with Metro's fare requirements for the rail system, poses a substantial risk for the system in terms of lost revenue needed to support the Metro system. The Metro Transit Court staff administer fare assessments that include 100% fare checks on deboardings to determine the level of fare compliance.

The following exhibit shows fare evasion on the Metro rail system averaged 9% on the Red Line, 20% on the Blue Line, 17% on the Green Line, and 16% on the Expo Line based on recent fare assessments.

Exhibit 14
Metro Rail System
Fare Evasion Rates Based on Fare Assessments

Date	Station	Evasion Rate	Date	Station	Evasion Rate
Red Line			**Green Line**		
10/13/14	Universal City	4%	10/6/14	Crenshaw	30%
10/14/14	Vermont/Santa Monica	7%	10/7/14	Hawthorne	22%
10/15/14	Hollywood/Highland	5%	10/8/14	Aviation	14%
10/16/14	North Hollywood	2%	10/9/14	Vermont	17%
3/19/15	Pershing Square	29%	10/20/14	Avalon	35%
3/26/15	Pershing Square	10%	10/21/14	Harbor Freeway	20%
6/9/15	Westlake	9%	10/23/14	Vermont	14%
Average		9%	10/24/14	Crenshaw	16%
Blue Line			11/17/14	Avalon	24%
9/8/14	103RD	28%	11/18/14	Hawthorne	12%
9/10/14	Artesia	32%	11/19/14	Norwalk	3%
9/11/14	Del Amo	17%	11/20/14	Lakewood	7%
10/22/14	Compton	25%	3/11/15	Long Beach	10%
11/3/14	Compton	15%	6/23/15	Redondo Beach	9%
11/4/14	Firestone	15%	Average		17%
11/5/14	Florence	9%	**Expo Line**		
11/6/14	Slauson	18%	9/2/14	Expo/Western	16%
3/17/15	Downtown Long Beach	30%	9/3/14	Expo/Crenshaw	14%
6/18/15	Willow	6%	9/4/15	Culver City	14%
Average		20%	9/5/14	La Cienega/Jefferson	18%
			12/1/14	La Cienega/Jefferson	11%
			12/2/14	Culver City	13%
			3/25/15	Pico	16%
			6/15/15	Farmdale	23%
			Average		16%

Source: Fare assessments that include 100% fare checks on deboardings to determine the level of fare compliance / evasion administered by the Metro Transit Court staff.

Rail System Safety and Security Workload and Performance

Like most operations, law enforcement and security functions consists of a number of workload activities. Understanding this workload, including when and where there is a demand for this workload, is key to planning and deploying safety and security resources.

Calls for Service

A primary workload for law enforcement is responding to and handling incidents that occur on the system, or calls for service. Responding to these calls and effectively handling the incidents that generate these calls is a high priority for ensuring system safety and security. Calls for service that require a physical response are categorized and dispatched by the TPD in the following three priority categories:

- **Emergency Calls:** Are the highest priority and include situations where life or property is in imminent danger. These include crimes in progress such as robberies, rapes, assaults, or burglaries. These also include violent domestic disturbances and reports of individuals with guns or other weapons.
- **Priority Calls:** Include situations that require a fairly immediate police response, with no immediate threat to life or property. These could include disputes, disturbances of the peace, and suspicious activities.
- **Routine Calls:** Include calls where there is no substantial threat to life or property, but a response is needed. These include taking reports on crimes where a significant amount of time has elapsed since the occurrence of the crime as well as quality of life issues that need to be addressed.

The following exhibit shows the workload created by dispatched calls for service system-wide. For FY 2015, there were a total of 31,716 dispatched calls for service on the Metro rail system. This equates to an average of about 87 such calls for service each day.

Exhibit 15
Metro Rail System
Patrol Dispatched Calls for Service

Dispatched Calls for Service	Blue Line		Green Line		Expo Line		Red/Purple		Gold		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Emergency	1,484	15%	561	11%	251	10%	866	8%	322	9%	3,484	11%
Priority	4,950	50%	2,447	46%	1,196	48%	5,632	54%	1,970	54%	16,195	51%
Routine	3,504	35%	2,261	43%	1,041	42%	3,871	37%	1,360	37%	12,037	38%
Totals	9,938	100%	5,269	100%	2,488	100%	10,369	100%	3,652	100%	31,716	100%
Percentage	31%		17%		8%		33%		12%		100%	
Per Day	27.2		14.4		6.8		28.4		10.0		86.9	

Source: BCAWR Analysis of Computer Aided Dispatch system data for the period of July 1, 2014 to June 30, 2015 provided by LASD Data Systems Bureau.

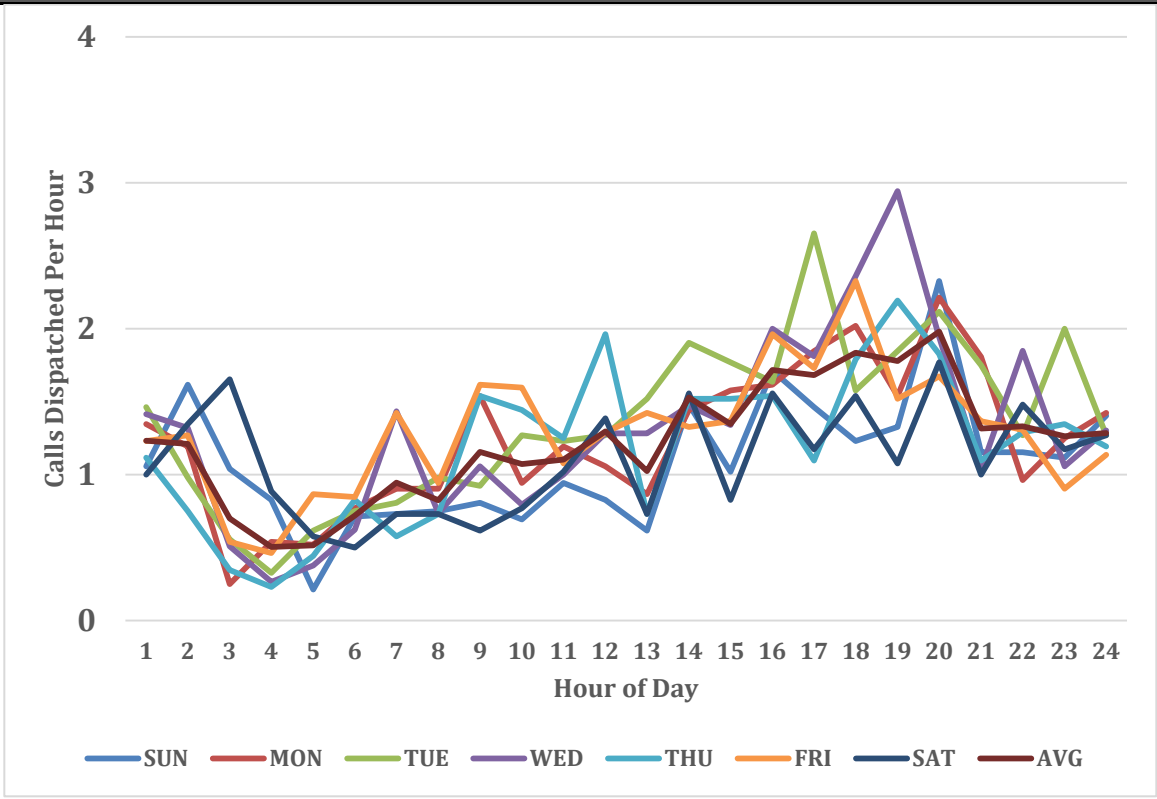
About half of the calls (51%) were considered priority calls by the TPD, and a significant number (38%) were considered low priority or routine. A relatively low number of calls for service (11%) were considered to be emergency calls requiring the most rapid response.

Sixty-four percent of the total calls for service occurred on the Red/Purple lines and Blue line. This is not surprising given the large number of daily riders on these lines. The Green line had substantially fewer calls, and the Gold and Expo lines had the least number of calls for service. It is anticipated that the number of calls for service on the Gold and Expo lines will increase proportionately when the expansion of those lines is complete and operational.

Calls for Service by Day of Week and Time of Day

Key to determining safety and security staffing needs is to understand if there are any significant variances in calls for service workload by day of week or time of day. The following exhibit shows the number of dispatched calls for service by day of week and time of day. The following exhibit shows the distribution of dispatched calls for service by day of week and time of day are fairly uniform and low. The peak workload occurs on Wednesdays between 6 and 7 pm at just under 3 per hour, which is a very low level of calls for service workload.

Exhibit 16
Metro Rail System
Patrol Dispatched Calls for Service By Time of Day and Day of Week



Source: BCAWR Analysis of Computer Aided Dispatch system data for the period of July 1, 2014 to June 30, 2015 provided by LASD Data Systems Bureau.

Calls for Service Response Performance

Information on performance in responding to dispatched calls for service can also be useful in service planning and deployment of resources. We analyzed the average amount of time required to dispatch calls for service, as well as the average amount of time required to respond to these calls.

The following exhibit shows the time (in minutes) required to dispatch and respond to incidents or calls for service by rail line. The amount of time noted as from "call entry to dispatch" is the amount of time from when the call was received by the TPD dispatch center until a patrol unit was dispatched to respond to and handle the call. The "dispatch to arrival" time is the amount of time it took for the patrol unit to travel to the scene of the incident.

Exhibit 17
Current Transit Policing Division Rail Patrol Operations
Rail Patrol Dispatched Calls for Service Response Time (In Minutes)

Emergency Calls	Blue Line	Green Line	Expo Line	Red/Purple	Gold Line	Averages
Call Entry to Dispatch	5	2	4	3	3	3.4
Dispatch to Arrival	12	9	9	7	10	9.4
Total Time	17	11	13	10	13	12.8
Priority Calls						
Call Entry to Dispatch	4	4	3	4	3	3.6
Dispatch to Arrival	15	13	12	14	15	13.8
Total Time	19	17	15	18	18	17.4
Routine Calls						
Call Entry to Dispatch	5	4	4	4	6	4.6
Dispatch to Arrival	20	20	19	17	18	18.8
Total Time	25	24	23	21	24	23.4

Source: BCAWR Analysis of Computer Aided Dispatch system data for the period of July 1, 2014 to June 30, 2015 provided by LASD Data Systems Bureau.
Note: Call entry to dispatch time is the time from when a call is received by the TPD Dispatch Center until the call is dispatched to a patrol unit for response. Dispatch to arrival time is the time from when a patrol unit is dispatched until the unit arrives at the scene of the call.

As this exhibit shows, on average it took 3.4 minutes to dispatch a patrol unit to respond to emergency calls for service. It then took an average of 9.4 minutes for the dispatched patrol unit to respond to the scene of the call for service. The total time from call entry to arrival

averaged 12.8 minutes for emergency calls. For priority calls it took an average of 3.6 minutes to dispatch a patrol unit to respond. It then took an average of 13.8 minutes for the dispatched patrol unit to respond to the scene of the call for service. The total time from call entry to arrival averaged 17.4 minutes for priority calls. For routine calls it took an average of 4.6 minutes to dispatch a patrol unit to respond. It then took an average of 18.8 minutes for the dispatched patrol unit to respond to the scene of the call for service. The total time from call entry to arrival averaged 23.4 minutes for routine calls.

Response times for calls in all categories were longer for calls on the Blue line than all other lines. This may indicate that the current resources committed to the Blue line relative to the call for service workload is lower than that committed to the other lines on the system.

Current Rail System Protection Approach

The TPD currently provides law enforcement and security services to the rail system through a mixture of deputies deployed in patrol cars, on motors (motorcycles), and on foot beats within the system. The primary role of the patrol cars and motors is to respond to incidents and calls for service on the system. The motors are also used for rail crossing enforcement. The primary role of the deputies assigned to foot beats is to patrol the stations and trains on foot and provide a visible security presence. Deputies are supervised by field sergeants deployed throughout the system. Currently, a total of 270 sergeants and deputies are assigned to the rail system. The total current cost for these resources is approximately $54 million annually.

Exhibit 18
Current Transit Policing Division Rail Patrol Operations
Full Time Equivalent (FTE) Staffing and Costs

Personnel	Blue Line	Green Line	Expo Line	Red/Purple Line	Gold Line	Totals
Sergeants	5.0	3.0	8.0	5.0	6.0	27.0
Team Leaders	1.3	1.0	1.2	1.0	1.0	5.5
Deputies (Area Cars)	13.9	7.3	4.8	7.2	6.5	39.7
Deputies (Foot beat)	40.8	14.7	52.2	30.8	47.3	185.8
Motors (Grade Crossing Enf.)	8.0		4.0			12.0
Total	69.0	26.0	70.2	44.0	60.8	270.0
Costs (In Millions)	$14.05	$5.18	$14.14	$8.75	$12.07	$54.19
Percentage	26%	10%	26%	16%	22%	100%

Note: Includes annualized staffing and costs for additional personnel for Expo and Gold Line expansions.
Source: LASD Contract Law Bureau.

The exhibit above shows the current distribution of TPD sergeants and deputies by type of patrol unit and rail line. This exhibit includes the staffing for the expanded Expo and Gold Line. This exhibit shows the largest percentage of resources are currently committed to the Blue and Expo lines. The Blue line has higher crime and call for service rates than the other lines, justifying the higher level of resources. The Expo line has lower crime and call for service rates.

The Gold line, which has a low crime and call for service rates accounts for 22 percent of the resources. The Red/Purple lines have by far the highest daily ridership, yet accounts for only 16 percent of the total resources. The Green line has comparatively high crime and calls for service rates yet accounts for only 10 percent of the total resources.

The TPD also deploys Security Assistants (SA's) throughout the rail system for fare enforcement. As discussed earlier in this report, the SA's are neither law enforcement nor security officers. The SA's role is to conduct fare checks and issue fare violation citations. They accomplish this using Mobile Phone Validators (MPV's), which are smartphones with the capability to check TAP fare cards to ensure that riders have a valid fare.

The following exhibit shows the current distribution of TPD SA's by rail line. This exhibit shows the largest percentage of SA's assigned are to the Red/Purple lines.

Exhibit 19
Current Transit Policing Division Rail Fare Enforcement Operations
Full Time Equivalent (FTE) Staffing and Costs

Personnel	Blue Line	Green Line	Expo Line	Red/Purple	Gold Line	Orange Line	Totals
Team Leaders	0.3	0.4	0.2	0.5	0.4	0.1	2.0
Security Assistants	18.0	20.0	13.0	26.0	23.0	6.0	106.0
Total	18.3	20.4	13.2	26.5	23.4	6.1	108.0
Costs (In Millions)	$1.13	$1.26	$0.82	$1.64	$1.45	$0.38	$6.68
Percentage	17%	19%	12%	25%	22%	6%	100%

Source: LASD Contract Law Bureau.

Rail System Protection Needs and Staffing Options

Protecting the Metro rail system requires three specific functions be performed. The first is responding to crimes and incidents on the system that generate calls for service on the system. This involves identifying the type of incident, determining the resources required to handle that incident, dispatching the appropriate resources to handle the incident, and the resources actually responding and handling the incident. Many of these calls for service involve crimes in progress. Given this, responding and handling these calls for service requires sworn law enforcement personnel.

The second specific function for protecting the Metro rail system is to provide a visible security presence throughout the system. Such a presence provides a deterrent to criminal activity, disorder, and customer code of conduct violations and encourages fare compliance. This presence also provides a sense of confidence in the safety and security of the system by the riding public. Either sworn law enforcement personnel or security personnel can perform this function.

The third specific function is fare enforcement. Such enforcement encourages fare compliance, and creates a sense of fairness among riders that all are expected to pay to use the system.

This function can be provided by sworn law enforcement personnel, security personnel, or other personnel.

For each of these specific functions, the estimated staffing required and options for providing that staffing are provided in the following sections.

Calls for Service (Crime and Incidents)

Several factors must be considered in determining the staffing requirements to respond to calls for service on the rail system, including the geography and area to be covered. For patrol units to respond within practical time frames they must be within a reasonable proximity of the location of the call. The current level of calls for service and crime workload within each service area must also be considered. Finally, the operational characteristics of the service area must be considered, including the passenger load, number of stations, miles of track, hours of operation, and similar information.

The exhibit below shows the staffing needs for responding to calls for service on the Metro rail system. This staffing level was developed based on consideration of each of the above factors. As this exhibit shows, calls for service would be handled by vehicle based patrol units. This is necessary to ensure a reasonably timely response to calls for service throughout the service area.

Exhibit 20
Metro Rail System
Crime and Calls for Service Car/Motor Based Patrol Units
Estimated Staffing Needs

Service Area	Annual Days	Hours of Operation	Operational Hours Per Day	Number of Line Personnel	Annual Line Personnel Hours
Days and Evenings (AM/PM)					
L.A. Downtown	365	6am to 10pm	16	2	11,680
L.A. Downtown (Motor Units)	365	6am to 10pm	16	2	11,680
Red/Purple Line (Outside Downtown, 9 Stations)	365	6am to 10pm	16	2	11,680
Blue Line (Outside Downtown, 18 Stations)	365	6am to 10pm	16	3	17,520
Expo Line (Outside Downtown, 14 Stations)	365	6am to 10pm	16	2	11,680
Gold Line (Outside Downtown 22 Stations)	365	6am to 10pm	16	2	11,680
Green Line (14 Stations)	365	6am to 10pm	16	2	11,680
Nights (EM)					
L.A. Downtown	365	10pm to 6am	8	2	5,840
Red/Purple Line (Outside Downtown, 9 Stations)	365	10pm to 6am	8	1	2,920
Blue Line (Outside Downtown, 18 Stations)	365	10pm to 6am	8	1	2,920
Expo Line (Outside Downtown, 14 Stations)	365	10pm to 6am	8	1	2,920
Gold Line (Outside Downtown 22 Stations)	365	10pm to 6am	8	1	2,920
Green Line (14 Stations)	365	10pm to 6am	8	1	2,920
Total Line Personnel Hours - Car/Motor Patrol Units					**108,040**

A total of six service areas have been defined. The first is the downtown Los Angeles area. Patrol units deployed in this area would respond to and handle incidents on each of the rail lines and stations in the downtown Los Angeles area. This service area would have both car and

motor patrol units. The motor units are necessary in downtown Los Angeles during the day to provide a timely response to calls for service due to the traffic density in the downtown area.

Five additional service areas have been defined, one for sections of each rail lines outside of downtown Los Angeles. The staffing during the day, evening, and night for each of these service areas is also defined. An estimated total of 108,040 hours of line personnel time is needed to provide this service.

Three options were identified for providing the calls for service function on the Metro rail system as outlined in Exhibit 21 on the following page. A mix of these options could also be used to provide this service. As previously stated, sworn law enforcement personnel must perform this service since many of the calls for service may require law enforcement action.

- Option 1 is to continue with contracted service from the TPD and local law enforcement no cost basic service. Under this option, TPD personnel currently deployed in patrol units would continue to patrol and respond to calls for service on the rail lines, with some changes in the specific staffing and deployment by line. The estimated cost of this option is $14 million annually. It is important to note that local law enforcement agencies currently provide this service when TPD patrol units are not able to respond in a timely manner. This would continue to be a requirement. It is not feasible to use only TPD personnel for this function to adequately respond to all calls for service in a timely manner given the geographic area covered by the rail lines and the size of the related service areas.
- Option 2 would rely on the basic service provided by local law enforcement agencies to respond to and handle incidents and calls for service on the Metro rail line. As discussed previously, local law enforcement agencies currently have law enforcement patrol units deployed in the areas through which the Metro rail lines traverse. Responding to and handling incidents and calls for service in these areas is part of the basic responsibility and service provided by these local law enforcement agencies.

  Since Metro would not be paying for these services there would be no way to establish and enforce specific expectations for service levels. However, Metro could reasonably expect the same level of service provided by these agencies to others within each jurisdiction. Since these law enforcement agencies already have resources generally deployed to respond to incidents in a timely manner within their service area, it is likely that the response performance by these agencies would be better than that provided by a more dispersed dedicated service.
- Option 3 would contract with local law enforcement agencies for dedicated service to the rail lines. There is currently no information on either the willingness or cost of local law enforcement agencies providing this service. Such information could be obtained through Metro's Request for Proposal process.

Exhibit 21 Metro Rail System Crime and Calls for Service Car/Motor Based Patrol Units Options and Estimated Costs (In Millions)	
Option 1: Contracted Law Enforcement	$14
Option 2: Rely on Basic Service Provided by Local Law Enforcement Agencies	$ 0
Option 3: Dedicated Service Provided by Local Law Enforcement Agencies	TBD

Visible Security Presence

Several factors must be considered in determining the staffing requirements for providing a visible security presence on the rail system. This includes the number of stations, miles of track, number of trains, hours of operation, and the passenger load. It also includes reported crime on the system, and the number of incidents resulting in calls for service.

The exhibit below shows the estimated staffing needs for providing a visible security presence on the Metro rail system. This staffing level was developed based on a consideration of each of the above factors. Sworn law enforcement, security personnel, or a mix of these personnel could be used to perform this function.

Exhibit 22 Metro Rail System Visible Security Presence - Estimated Staffing Needs					
Service Area	**Annual Days**	**Hours of Operation**	**Operational Hours Per Day**	**Number of Line Personnel**	**Annual Line Personnel Hours**
Days and Evenings (AM/PM)					
Union Station	365	6am to 10pm	16	4	23,360
7th and Metro Station	365	6am to 10pm	16	4	23,360
Willowbrook / Rosa Parks Station	365	6am to 10pm	16	2	11,680
Red/Purple Line (14 Stations)	365	6am to 10pm	16	8	46,720
Blue Line (21 Stations)	365	6am to 10pm	16	10	58,400
Expo Line (18 Stations)	365	6am to 10pm	16	6	35,040
Gold Line (26 Stations)	365	6am to 10pm	16	6	35,040
Green Line (14 Stations)	365	6am to 10pm	16	6	35,040
Nights (EM)					
Union Station	365	10pm to 6am	8	2	5,840
7th and Metro	365	10pm to 6am	8	2	5,840
Willowbrook / Rosa Parks Station	365	10pm to 6am	8	2	5,840
Red/Purple Line (14 Stations)	365	10pm to 6am	8	4	11,680
Blue Line (21 Stations)	365	10pm to 6am	8	4	11,680
Expo Line (18 Stations)	365	10pm to 6am	8	2	5,840
Gold Line (26 Stations)	365	10pm to 6am	8	2	5,840
Green Line (14 Stations)	365	10pm to 6am	8	2	5,840
Totals - Visible Security Presence					**327,040**

The estimated visible security presence staffing includes dedicated staffing at three Metro rail stations. These would include Union Station, 7th Street and Metro Center Station, and the

Willowbrook / Rosa Parks Station. These stations are transfer points between rail lines, and have substantial numbers of riders daily.

Visible security presence personnel on each of the lines would provide a combination of station and train security. These personnel would spend approximately half their time patrolling stations and the other half of their time riding trains from station to station to provide a security presence on the trains.

The security presence personnel would be deployed in two person teams. However, these personnel would typically not patrol side by side. Rather, they would patrol within visible proximity to each other to provide a broader range of security presence while still being available for backup and assistance if needed. Each of these two person teams would be assigned responsibility for patrolling specific stations on each line and riding trains between these stations. An estimated total of 327,040 hours of line personnel time is needed to provide this service.

Four options were identified for providing the visible security presence function on the Metro rail system as outlined in the following exhibit. A mix of these options could also be used to provide this service. This function could be provided by either sworn law enforcement personnel, or by certified and trained security personnel, with appropriate backup from law enforcement.

Exhibit 23 Metro Rail System Visible Security Presence - Options and Estimated Costs (In Millions)	
Option 1: Contracted Law Enforcement Officers	$42.5
Option 2: Contracted Security Officers	$27.6
Option 3: Metro Security Transit Security Officers	$20.9
Option 4: Service Provided by Local Agencies	TBD

- Option 1 is to continue with contracted service from the TPD. Under this option, TPD personnel currently deployed in foot patrol would continue to patrol and provide a visible security presence on the rail lines, with some changes in the specific staffing and deployment by line. The estimated cost of this option is $42.5 million annually.
- Option 2 would replace current law enforcement personnel with Sheriff Security Officers under contract with the LASD to provide a visible security presence on the Metro rail line. These security personnel would be backed up by either the contracted vehicle based law enforcement patrol units, or by local law enforcement agencies. The estimated cost of this option is $27.6 million annually.
- Option 3 would replace current law enforcement personnel with Metro Security Transit Security Officers to provide a visible security presence on the Metro rail line. These security personnel would be backed up by either the contracted vehicle based law

enforcement patrol units, or by local law enforcement agencies. The estimated cost of this option is $20.9 million annually.

- Option 4 would contract with local law enforcement agencies to provide a visible security presence on the Metro rail line. There is currently no information on either the willingness or cost of local law enforcement agencies providing this service. Such information could be obtained through Metro's Request for Proposal process.

Fare Enforcement

Several factors must be considered in determining the staffing requirements for providing fare enforcement service on the rail system. This includes the number of stations, miles of track, number of trains, hours of operation, passenger load, and the level of fare compliance.

The following exhibit shows the estimated staffing needs for providing fare enforcement service on the Metro rail system. This staffing level was developed based on consideration of each of the above factors. Fare enforcement personnel would be deployed during the day and evening periods, or from 6 am to 10 pm each day.

Exhibit 24
Metro Rail System
Fare Enforcement - Estimated Staffing Needs

Service Area	Annual Days	Hours of Operation	Operational Hours Per Day	Number of Line Personnel	Annual Line Personnel Hours
Days and Evenings (AM/PM)					
Union Station	365	6am to 10pm	16	4	23,360
7th and Metro Station	365	6am to 10pm	16	4	23,360
Willowbrook / Rosa Parks Station	365	6am to 10pm	16	2	11,680
Red/Purple Line (14 Stations)	365	6am to 10pm	16	4	23,360
Blue Line (21 Stations)	365	6am to 10pm	16	6	35,040
Expo Line (18 Stations)	365	6am to 10pm	16	4	23,360
Gold Line (26 Stations)	365	6am to 10pm	16	4	23,360
Green Line (14 Stations)	365	6am to 10pm	16	4	23,360
Total - Fare Enforcement					**186,880**

The estimated fare enforcement staffing includes dedicated staffing at three Metro rail stations. These would include Union Station, 7th Street and Metro Center Station, and the Willowbrook / Rosa Parks Station. These stations are transfer points between rail lines, and have substantial numbers of riders daily.

Fare enforcement personnel on each of the lines would work in close coordination with the security presence personnel deployed throughout the system. The fare enforcement personnel would generally be deployed in two person teams. An estimated total of 186,880 hours of line personnel time is needed to provide this service.

Four options were identified for providing the fare enforcement function on the Metro rail system as outlined in the following exhibit. A mix of these options could also be used to provide this service.

Exhibit 25 Metro Rail System Fare Enforcement - Options and Estimated Costs (In Millions)	
Option 1: Contracted Security Assistants	$6.2
Option 2: Contracted Security Officers (Unarmed)	$15.8
Option 3: Metro Security Transit Security Officers (Unarmed)	$9.2
Option 4: Service Provided by Local Agencies	TBD

- Option 1 is to continue with contracted service for Security Assistants from the TPD. Under this option, TPD personnel currently deployed for fare enforcement would continue to provide this service on the rail lines, with some changes in the specific staffing and deployment by line. The estimated cost of this option is $6.2 million annually.
- Option 2 would replace current Security Assistants with unarmed Sheriff Security Officers under contract with the LASD to provide fare enforcement on the Metro rail line. The estimated cost of this option is $15.8 million annually.
- Option 3 would replace current law enforcement personnel with unarmed Metro Security Transit Security Officers to provide fare enforcement on the Metro rail line. The estimated cost of this option is $9.2 million annually.
- Option 4 would contract with local law enforcement agencies to provide fare enforcement services on the Metro rail line. There is currently no information on either the willingness or cost of local law enforcement agencies providing this service. Such information could be obtained through Metro's Request for Proposal process.

Recommendation 9: The Metro System Safety and Law Enforcement Division should review and discuss the rail system risks, current safety and security workload, estimated staffing needs, and options for providing rail protection services outlined in this report to develop the Request for Proposals for law enforcement and security services and to develop a Rail Safety and Security Plan.

F. Bus System Protection

The Metro bus system currently includes 122 bus lines operated directly by Metro throughout the Los Angeles region. The bus lines cover a total of nearly 2,200 one-way miles. Most of these bus lines share streets and highways with regular vehicle traffic. However, two lines, the Silver and Orange lines, operate mostly on dedicated transit ways. Nearly 1.1 million riders use the bus system each weekday, over 710,000 ride each Saturday, and over 530,000 each Sunday. During weekday peak periods, nearly 2,000 buses are scheduled to operate. Revenue operations account for 6.5 million hours and over 1.2 billion passenger miles annually.

Bus System Risks

The safety and security staffing to protect the Metro bus system should be largely based on the risks associated with the system, including an understanding of the relative risks of each bus line. These risks include violent crime, property crime, and other crime. It also includes the public's perception of safety on the system. The level of fare compliance or evasion is also an important risk to consider. Each of these risks, and relative risk by line or area, are discussed in the following sections. With such a vast system, covering a large area, a multi-faceted and targeted approach is required to effectively mitigate risk.

Violent Crime

The following exhibit shows the Metro Bus system had a total of 301 reported violent crimes during FY 2015. This equates to .82 per day or .90 per million riders. The Orange line had an average of .03 violent crimes each day, and the Silver line had an average of .02 violent crimes each day. Both lines had an average of 1.4 violent crimes per million riders. The remainder of the bus system had an average of .78 violent crimes each day, and .88 per million riders.

Exhibit 26
Metro Bus System
Reported Part 1 Violent Crime

Crime	Orange Line	Silver Line	Other Bus	Totals
Homicide	0	0	0	0
Rape	0	1	0	1
Robbery	6	3	118	127
Aggravated Assault	6	2	135	143
Aggravated Assault on Operator	0	0	30	30
Totals	12	6	283	301
Percentage	4%	2%	94%	100%
Ridership (Millions)	8.6	4.3	321.9	334.8
Per 1 Million Riders	1.40	1.40	0.88	0.90
Per Day	0.03	0.02	0.78	0.82

Source: BCAWR analysis of crime reported by TPD Crime Analysis from July 1, 2014 to June 30, 2015

Property Crime

The following exhibit shows the Metro Bus system had a total of 318 reported property crimes during FY 2015. This equates to an average of .87 per day or .95 per million riders. The Orange line had an average of .13 property crimes each day, and an average of 5.47 per million riders. The Silver line had an average of .02 property crimes each day, and an average of 1.4 per million riders. The remainder of the bus system had an average of .73 property crimes each day, and .82 per million riders.

Exhibit 27
Metro Bus System
Reported Part 1 Property Crime

Crime	Orange Line	Silver Line	Other Bus	Totals
Burglary	0	1	5	6
Grand Theft	10	1	132	143
Petty Theft	29	3	108	140
Grand Theft Auto	7	0	12	19
Burglary to Motor Vehicle	1	1	8	10
Arson	0	0	0	0
Totals	47	6	265	318
Percentage	15%	2%	83%	100%
Ridership (Millions)	8.6	4.3	321.9	334.8
Per 1 Million Riders	5.47	1.40	0.82	0.95
Per Day	0.13	0.02	0.73	0.87

Source: BCAWR analysis of crime reported by TPD Crime Analysis from July 1, 2014 to June 30, 2015

Other Significant Crime

Exhibit 28 on the following page shows, the Metro Bus system had a total of 529 reported other crimes during FY 2015. This equates to 1.45 per day or 1.58 per million riders. The Orange line had an average of .19 other crimes each day, and an average of 8.26 per million riders. The Silver line had an average of .04 other crimes each day, and an average of 3.26 per million riders. The remainder of the bus system had an average of 1.22 other crimes each day, and 1.38 per million riders.

Exhibit 28 Metro Bus System Reported Part 2 Crime				
Crime	**Orange Line**	**Silver Line**	**Other Bus**	**Totals**
Battery	17	3	122	142
Battery on Operator	0	1	62	63
Sex Offenses	2	2	25	29
Weapons	7	0	18	25
Narcotics	18	1	107	126
Trespassing	5	0	5	10
Vandalism	22	7	105	134
Totals	71	14	444	529
Percentage	13%	3%	84%	100%
Ridership (Millions)	8.6	4.3	321.9	334.8
Per 1 Million Riders	8.26	3.26	1.38	1.58
Per Day	0.19	0.04	1.22	1.45
Source: BCAWR analysis of crime reported by TPD Crime Analysis from July 1, 2014 to June 30, 2015				

Perception of Safety

It is important that the Metro bus system be safe and relatively free from crime and disorder. However, it is also essential for those riding the Metro bus system, as well as the general public, to perceive the system as being safe. The public perception of system safety contributes to the willingness of the public to use the system.

Public Perception of Safety

Fortunately, most riders on the Metro bus system say they feel safe on the system. Based on the results of a recent survey (August 2015) of riders on the Metro bus system, a large majority responded they feel safe waiting for a bus (85%), and a similar large majority responded they also feel safe riding a bus (89%).

On the same survey, some riders surveyed said they experienced sexual harassment on the bus system. This included such actions as unwanted comments or gestures, unwanted touching, groping or fondling, and indecent exposure. Exhibit 29 shows the percentage responding they have experienced some level of sexual harassment.

Exhibit 29 Metro Bus System Survey Results - Percentage Experiencing Sexual Harassment		
Type	**Orange**	**Other Bus**
Comments/Gestures	14%	14%
Unwanted touching, groping, fondling	3%	7%
Indecent Exposure	7%	7%
Source: Metro Rider Survey on Safety and Security, August 2015		

Safety and Security Complaints

Another important indicator of the public or riders' perception of the safety of the Metro bus system is the number of complaints received regarding safety and security. Metro Customer Relations tracks complaints received by category using the C-CATS complaint tracking system.

A total of 201 security related complaints were received during the 12-month period ending August 2015 from riders on the Metro bus system. This equates to .6 safety and security complaints per million riders on the Metro bus system.

Bus Operator Assaults

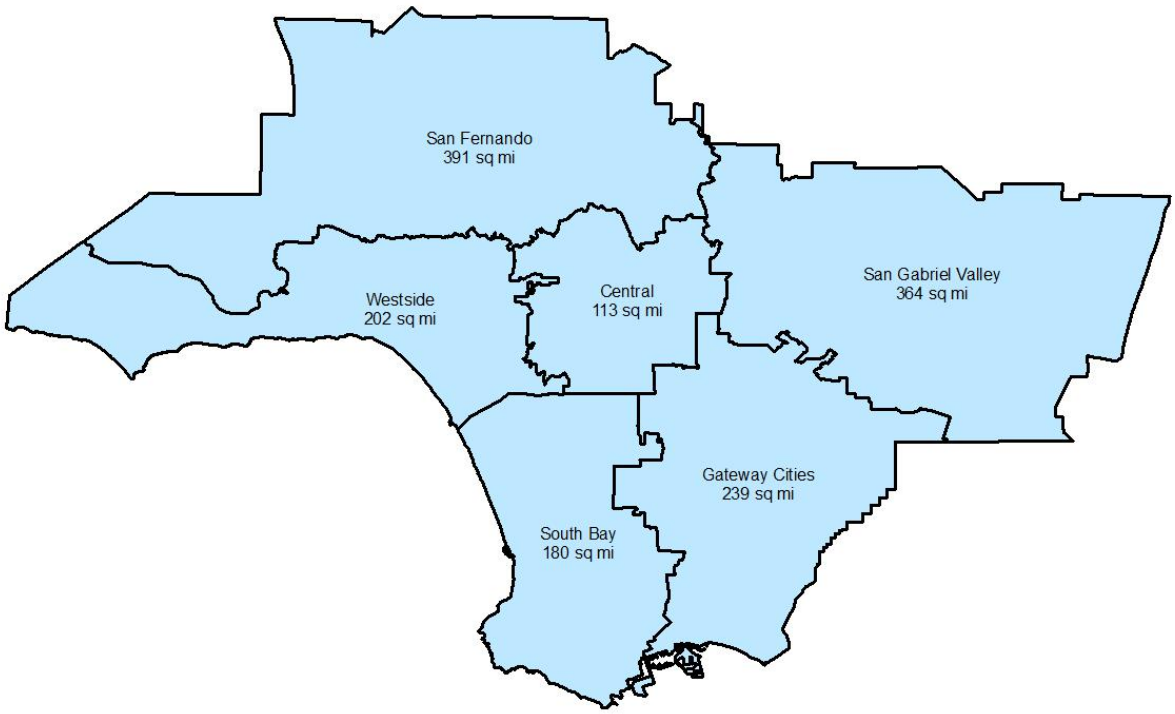
Ensuring Metro bus operators are safe, and feel safe, while operating buses is also important to Metro. Most bus operators (59%) responded they feel safe or somewhat safe operating the bus. Some (16%) responded they feel unsafe or somewhat unsafe, with one-quarter (25%) responding neutrally.

Metro has recently begun installing barriers between the operator and patrons on buses as a protection device for bus operators. While most (62%) operators said they would use them, operator barriers did not change their perception of safety. Metro has also begun installing onboard video monitors on buses. These monitors clearly demonstrate to riders that their activities are being monitored and recorded. Bus operators surveyed said these monitors improved their perception of safety, increasing the percentage saying they feel safe or somewhat safe (63%) and reducing those that feel unsafe or somewhat unsafe (7%).

Bus System Safety and Security Workload

Like most operations, law enforcement and security functions consists of a number of workload activities. Understanding this workload, including when and where there is a demand for this workload, is key to planning and deploying safety and security resources. Exhibit 30 on the following page shows the six sectors used by the TPD to define bus patrol sectors. Workload and performance is tracked based on these sectors.

Exhibit 30
Metro Bus System
Transit Policing Division Bus Patrol Sectors



Calls for Service

A primary workload for law enforcement is responding to and handling incidents that occur on the system, or calls for service. Responding to these calls and effectively handling the incidents that generate these calls is a high priority for ensuring system safety and security. Calls for service that require a physical response are categorized and dispatched by the TPD in the following three priority categories:

- **Emergency Calls:** Are the highest priority and include situations where life or property is in imminent danger. These include crimes in progress such as robberies, rapes, assaults, or burglaries. These also include violent domestic disturbances, and reports of individuals with guns or other weapons.
- **Priority Calls:** Include situations that require a fairly immediate police response, with no immediate threat to life or property. These could include disputes, disturbances of the peace, and suspicious activities.
- **Routine Calls:** Include calls where there is no substantial threat to life or property, but a response is needed. These include taking reports on crimes where a significant amount of time has elapsed since the occurrence of the crime.

The following two exhibits (Exhibit 31 and 32) show the workload created by dispatched calls for service on the bus system for FY 2015. There were a total of 26,947 dispatched calls for service on the Metro bus system in FY 2015. Of this total, 9,127 were in the South Bureau service area, and 17,820 in the North Bureau service area. This equates to an average total of about 74 (25 in the South Bureau area, and 48.8 in the North Bureau area) such calls for service each day. Most of the calls (59% in South and 58% in North) were considered priority calls by the TPD, and a significant number (32% in South and 32% in North) were considered low priority or routine. A relatively low number of calls for service (9% in both South and North) were considered to be emergency calls requiring the most rapid response.

Exhibit 31
Metro Bus System
Patrol Dispatched Calls for Service – South Bureau

Dispatched Calls for Service	Gateway Cities		South Bay		Orange Line		Silver Line		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Emergency	244	9%	324	8%	172	9%	66	12%	806	9%
Priority	1,595	57%	2,264	59%	1,186	61%	346	64%	5,391	59%
Routine	983	35%	1,227	32%	591	30%	129	24%	2,930	32%
Totals	2,822	100%	3,815	100%	1,949	100%	541	100%	9,127	100%
Percentage	31%		42%		21%		6%		100%	
Dispatched Calls Per Day	7.7		10.5		5.3		1.5		25.0	

Exhibit 32
Metro Bus System
Patrol Dispatched Calls for Service – North Bureau

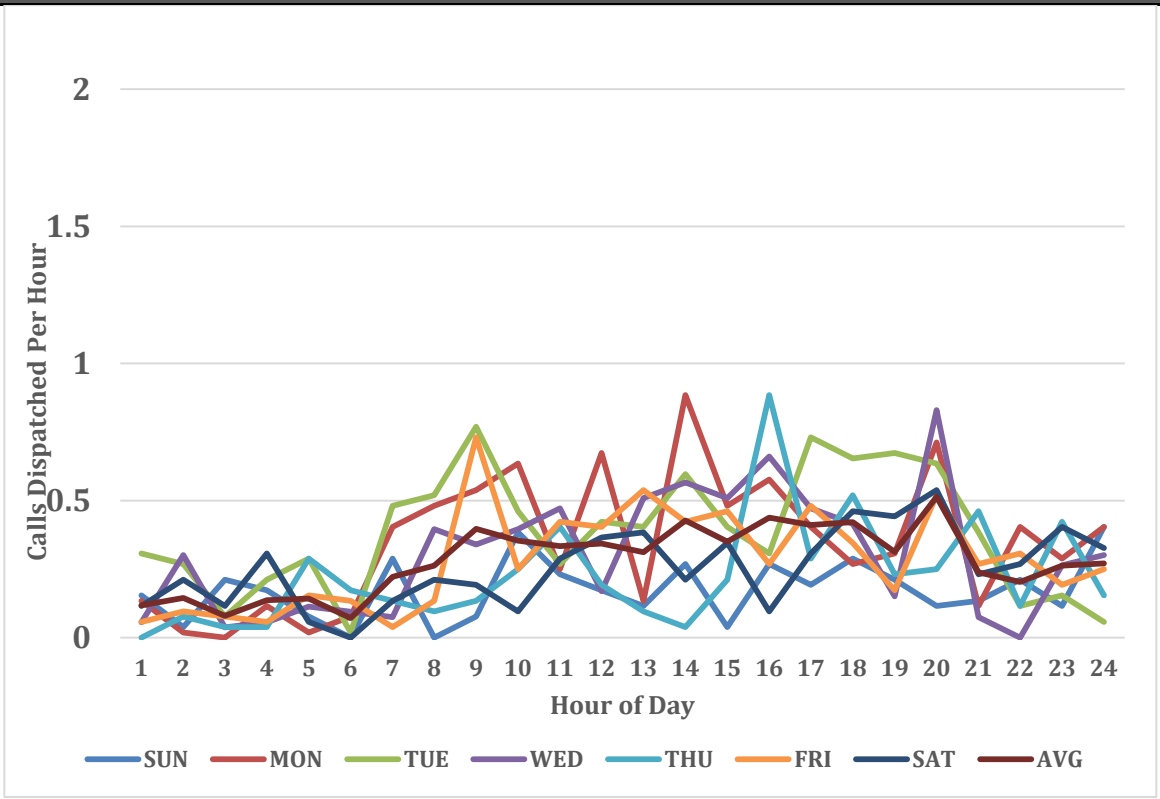
Dispatched Calls for Service	San Gabriel		Westside		San Fernando		Central		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Emergency	36	3%	169	8%	223	9%	1,204	10%	1,632	9%
Priority	783	58%	1,079	54%	1,632	63%	6,912	58%	10,406	58%
Routine	538	40%	742	37%	734	28%	3,768	32%	5,782	32%
Totals	1,357	100%	1,990	100%	2,589	100%	11,884	100%	17,820	100%
Percentage	8%		11%		15%		67%		100%	
Dispatched Calls Per Day	3.7		5.5		7.1		32.6		48.8	

The central bus patrol sector had the largest number of dispatched calls per day, with an average of nearly 33 each day. The South Bay bus patrol sector had the next largest number of dispatched calls per day, with an average of 10.5 each day. The Silver line had the smallest number of dispatched calls per day, with an average of only 1.5 each day.

Calls for Service by Day of Week and Time of Day

Key to determining safety and security staffing needs is to understand if there are any significant variances in calls for service workload by day of week or time of day. The following exhibit shows the number of dispatched calls for service by day of week and time of day. This exhibit shows the distribution of dispatched calls for service on the bus system by day of week and time of day is fairly uniform and low. The peak workload is less than one call for service per hour, with a typical workload of less than .5 calls for service per hour. This is a very low level of calls for service workload, and there are no significant variations in workload.

Exhibit 33
Metro Bus System
Transit Policing Division Dispatched Calls for Service
By Time of Day and Day of Week



Source: BCAWR Analysis of Computer Aided Dispatch system data for the period of July 1, 2014 to June 30, 2015 provided by LASD Data Systems Bureau,

Calls for Service Response Performance

Information on performance in responding to dispatched calls for service is also useful in service planning and deployment of resources. We analyzed the average amount of time required to dispatch calls for service, as well as the average amount of time required to respond to these calls.

The following exhibit shows the time (in minutes) required to dispatch and respond to incidents or calls for service by bus line. The amount of time noted as from "call entry to dispatch" is the amount of time from when the call was received by the TPD dispatch center until a patrol unit was dispatched to respond to and handle the call. The "dispatch to arrival" time is the amount of time it took for the patrol unit to travel to the scene of the incident.

Exhibit 34
Current Transit Policing Division Bus Patrol Operations
Bus Patrol Dispatched Calls for Service Response Time (In Minutes)

	San Fernando Valley	San Gabriel Valley Bus	South Bay Bus	Gateway Cities Bus	Westside Bus	Central Bus	Sliver Line	Orange Line	Avg.
Emergency Calls	**Minutes**								
Call Entry to Dispatch	2	1	3	3	3	3	4	1	2.5
Dispatch to Arrival	13	10	10	5	26	11	13	5	11.6
Total	15	11	13	8	29	14	17	6	14.1
Priority Calls	**Minutes**								
Call Entry to Dispatch	3	9	4	3	4	4	4	3	4.3
Dispatch to Arrival	18	22	15	16	19	15	13	18	17.0
Total	21	31	19	19	23	19	17	21	21.3
Routine Calls	**Minutes**								
Call Entry to Dispatch	3	3	3	6	16	4	3	7	5.6
Dispatch to Arrival	31	17	19	29	27	21	17	19	22.5
Total	34	20	22	35	43	25	20	26	28.1

Source: BCAWR Analysis of Computer Aided Dispatch system data for the period of July 1, 2014 to June 30, 2015 provided by LASD Data Systems Bureau.
Note: Call entry to dispatch time is the time from when a call is received by the TPD Dispatch Center until the call is dispatched to a patrol unit for response. Dispatch to arrival time is the time from when a patrol unit is dispatched until the unit arrives at the scene of the call.

This exhibit shows on average it took 2.5 minutes to dispatch a patrol unit to respond to emergency calls for service. It then took an average of 11.6 minutes for the dispatched patrol unit to respond to the scene of the call for service. The total time from call entry to arrival was 14.1 minutes for emergency calls. For priority calls, it took an average of 4.3 minutes to dispatch a patrol unit to respond. It then took an average of 17 minutes for the dispatched patrol unit to respond to the scene of the call for service. The total time from call entry to arrival was 21.3 minutes for priority calls. For routine calls, it took an average of 5.6 minutes to dispatch a patrol unit to respond. It then took an average of 22.5 minutes for the dispatched patrol unit to respond to the scene of the call for service. The total time from call entry to arrival was 28.1 minutes for routine calls.

Response times for calls in all categories were longer for calls in the Westside bus patrol sector compared to the other patrol sectors. This may indicate that the current resources committed

to the Westside bus patrol sector relative to the call for service workload is lower than that committed to the other areas of the system.

Current Bus System Protection Approach

The TPD currently provides two primary approaches to protect the Metro bus system. The first is through deploying patrol units to respond to incidents and calls for service on the bus system. The second is the "Bus Riding Team" which selectively rides buses either in uniform or plain clothes to address issues and crime on the bus system.

Incidents or Calls for Service

The TPD currently provides law enforcement services to the bus system through deputies deployed in patrol cars or motors within patrol sectors. The primary role of these patrol cars is to patrol bus stops and incidents and to respond to calls for service on the bus system. The motors are used to provide a more rapid response to incidents in the denser and more traffic congested bus patrol sectors. Deputies are supervised by field sergeants deployed throughout the system. Currently, a total of 108 sergeants and deputies are assigned to the bus system. The total current cost for these resources is about $23 million annually. The following exhibit shows the current distribution of TPD sergeants and deputies by bus patrol sector or bus line.

Exhibit 35
Current Transit Policing Division Bus Patrol Operations
Full Time Equivalent (FTE) Staffing and Costs

Personnel	San Fernando Valley	San Gabriel Valley	South Bay Cities	Gateway Cities	Westside	Central	Orange Line	Silver Line	Totals
Sergeants	5.0	3.0	3.0	3.0	1.0	5.0	1.0		21.0
Team Leaders	0.5	1.0	1.0	1.0	0.5	1.0	0.5		5.5
Deputies (Area Cars)	9.8	9.8	11.4	11.4	4.9	10.9	5.0	6.5	69.7
Motors (Rapid Response)	1.0	1.0			2.0	8.0			12.0
Total	16.3	14.8	15.4	15.4	8.4	24.9	6.5	6.5	108.2
Costs (In Millions)	$3.21	$3.02	$3.10	$3.10	$1.79	$5.33	$1.93	$1.28	$22.75
Percentage	14%	13%	14%	14%	8%	23%	8%	6%	100%

Source: LASD Contract Law Bureau.

It is important to consider the size of the bus patrol sectors when considering the current level of resources to provide service within those areas. For example, there are currently approximately 10 FTE deputies and one motor assigned to the San Fernando Valley bus patrol sector to provide coverage 24 hours each day, seven days each week. With this level of

resources it is only possible to have two or three patrol units deployed at any given time. Much of the time the deployment would be less. The San Fernando Valley bus patrol sector covers 391 square miles. This is a very large service area to attempt to serve, and respond to incidents in a reasonably timely manner. The San Gabriel Valley bus patrol sector has about the same current staffing level, and is only slightly smaller at 364 square miles.

It is not feasible to staff this function adequately to respond to all calls for service in a timely manner using dedicated resources given the geographic area covered by the bus lines and the size of the bus patrol sectors. Given the size of each bus patrol sector, and the resources deployed in each to respond to an incident, local law enforcement agencies currently and going forward must provide response when TPD patrol units are not able to respond in a timely manner.

Bus Riding Team

As shown in the exhibit, the TPD Bus Riding Team (BRT) currently includes one Sergeant position and six Deputy positions, with an annual cost of $1.39 million. These personnel proactively board and ride buses throughout the bus system.[9] Often the buses they ride are identified based on past incidents or repetitive crime. During 2015 the BRT has made a total of 17 felony arrests and 94 misdemeanor arrests. They also issued 88 citations. The BRT is seen as effective in providing security and addressing crime on buses. However, the current staffing allows it to impact only a very small portion of the Metro bus system.

Exhibit 36
Transit Policing Division
Bus Riding Team

Personnel	Number
Sergeants	1.0
Deputies	6.0
Total	7.0
Costs (In Millions)	$1.39

Bus System Protection Needs and Staffing Options

Protecting the Metro bus system requires two specific functions be performed. The first is responding to crimes and incidents on the bus system that generate calls for service on the system. This involves identifying the type of incident, determining the resources required to handle that incident, dispatching the appropriate resources to handle the incident, and the resources actually responding and handling the incident. Many of these calls for service involve crimes in progress. Given this, responding and handling these calls for service requires sworn law enforcement personnel.

The second specific function for protecting the Metro bus system is to provide a visible security presence throughout the bus system. Such a presence provides a deterrent to criminal activity, disorder, and code of conduct violations and encourages fare compliance. This presence also

[9] In the past, the OIG performed a regular bus "ride along" program to identify operator compliance and safety issues.

provides a sense of confidence in the safety and security of the system by the riding public. Either sworn law enforcement personnel or security personnel can perform this function.

Each of these specific functions, the estimated staffing required, and options for providing that staffing are discussed in the following sections.

Calls for Service (Crime and Incidents)

Several factors must be considered in determining the staffing requirements to respond to calls for service on the bus system, including the geography and area to be covered in responding to calls for service. For patrol units to respond within practical time frames they must be within a reasonable proximity of the area they must respond to. The current level of calls for service and crime workload within each service area must also be considered. Finally, the operational characteristics of the service area must be considered, including the passenger load, number of bus lines, hours of operation, and similar information.

The following exhibit shows the estimated staffing needs for responding to calls for service on the Metro bus system.

Exhibit 37
Metro Bus System - Crime and Calls for Service Car/Motor Based Patrol Units
Estimated Staffing Needs

Bus Lines and Patrol Sectors	Annual Days	Hours of Operation	Operational Hours Per Day	Number of Line Personnel	Annual Line Personnel Hours
Days and Evenings (AM/PM)					
Orange Line (Car)	365	6am to 10pm	16	1	5,840
Silver Line (Car)	365	6am to 10pm	16	1	5,840
San Fernando Valley (Car)	365	6am to 10pm	16	3	17,520
San Fernando Valley (Motor)	365	6am to 10pm	16	1	5,840
San Gabrielle Valley (Car)	365	6am to 10pm	16	3	17,520
Central (Car)	365	6am to 10pm	16	4	23,360
Central (Motor)	365	6am to 10pm	16	2	11,680
Westside (Car)	365	6am to 10pm	16	3	17,520
Westside (Motor)	365	6am to 10pm	16	1	5,840
South Bay (Car)	365	6am to 10pm	16	2	11,680
Gateway Cities (Car)	365	6am to 10pm	16	2	11,680
Nights (EM)					
Orange Line (Car)	365	10pm to 6am	8	0	0
Silver Line (Car)	365	10pm to 6am	8	0	0
San Fernando Valley (Car)	365	10pm to 6am	8	2	5,840
San Gabrielle Valley (Car)	365	10pm to 6am	8	2	5,840
Central (Car)	365	10pm to 6am	8	2	5,840
Westside (Car)	365	10pm to 6am	8	2	5,840
South Bay (Car)	365	10pm to 6am	8	2	5,840
Gateway Cities (Car)	365	10pm to 6am	8	2	5,840
Totals - Car/Motor Patrol Units					**169,360**

This staffing level was developed based on a consideration of each of the above factors. Calls for service would be handled by vehicle based patrol units, both in cars and on motors.

A total of eight service areas have been defined. Two are for the Orange and Silver bus transit ways. The remaining six service areas are consistent with the current TPD bus patrol sectors. The staffing during the day, evening, and night for each of these service areas is also defined. An estimated total of 169,360 hours of line personnel time is needed to provide this service. This staffing level is fairly consistent with the current level of staffing devoted to this service by the TPD. This staffing level is not ideal, given the large size of the bus patrol sectors. Response times to incidents on buses throughout these large sectors are not likely to improve with this staffing. However, it would not be cost efficient, or even feasible, to staff this service at a level that would provide timely response to all incidents or calls for service on buses throughout the service areas.

Three options were identified for providing the calls for service function on the Metro bus system as outlined in the exhibit below. A mix of these options could also be used to better provide this service. As previously stated, sworn law enforcement personnel must perform this service since many of the calls for service may require some form of law enforcement action.

Exhibit 38
Metro Bus System - Crime and Calls for Service Car/Motor Based Patrol Units
Options and Estimated Costs (In Millions)

Option 1: Contracted Law Enforcement Officers	$22.0
Option 2: Rely on Basic Service Provided by Local Law Enforcement Agencies	$ 0
Option 3: Dedicated Service Provided by Local Law Enforcement Agencies	TBD

- Option 1 is to continue with contracted service from the TPD. Under this option, TPD personnel currently deployed in patrol units would continue to patrol and respond to calls for service on the bus lines and bus patrol sectors, with some changes in the specific staffing and deployment by line. The estimated cost of this option is $22 million annually. It is important to note that local law enforcement agencies currently provide this service when TPD patrol units are not able to respond in a timely manner. This would continue to be a requirement. It is not feasible to staff this function adequately as a dedicated function to respond to all calls for service in a timely manner given the geographic area covered by the bus lines and the size of the bus patrol sectors.

- Option 2 is to rely on the basic service provided by local law enforcement agencies to respond to and handle incidents and calls for service on the Metro buses. As discussed previously, local law enforcement agencies currently have law enforcement patrol units deployed in the areas through which the Metro buses traverse. Responding to and handling incidents and calls for service in these areas is part of the basic responsibility and service provided by these local law enforcement agencies.

  Since Metro would not be paying for these services there would be no way to establish and enforce specific expectations for service levels. However, Metro could reasonably expect the same level of service provided by these agencies to others within each

jurisdiction. Since these law enforcement agencies already have resources generally deployed to respond to incidents in a timely manner within their service area, it is likely that the response performance by these agencies would generally be better than that provided by a more dispersed dedicated service. This option would be most effective if Metro increases its attention to developing a relationship with local law enforcement agencies through training, meetings, collaboration, communication, and information sharing.

- Option 3 is to contract with local law enforcement agencies for dedicated service to bus operations. There is currently no information on either the willingness or cost of local law enforcement agencies providing this service. Such information could be obtained through Metro's Request for Proposal process.

Visible Security Presence

The following exhibit shows the estimated staffing needs for providing a visible security presence on the Metro bus system. These estimated staffing needs include providing a security presence at two key transit centers at Harbor / Gateway and El Monte, and placing uniformed personnel on one percent of the buses operating throughout the bus service area. These personnel would be deployed and focused on buses and bus lines based on factors such as operator complaints, citizen complaints, total ridership, crime trends, fare compliance rates, and other factors.

While one percent of bus operating hours may seem low, this level would be a substantial increase from the current level, and would be consistent with other operations such as traffic enforcement. In addition, Metro could evaluate the need and effectiveness of the bus visible security presence on buses and make adjustments in the level as needed.

Exhibit 39
Metro Bus System - Visible Security Presence
Estimated Staffing Needs

Bus Security Presence	Annual Days	Hours of Operation	Operational Hours Per Day	Number of Line Personnel	Annual Line Personnel Hours
Days and Evenings (AM/PM)					
Harbor / Gateway Transit Center	365	6am to 10pm	16	2	11,680
El Monte Transit Center	365	6am to 10pm	16	2	11,680
Bus Riding		**Revenue Hours of Bus Operation**	**Percent of Bus Hours**	**Number of Line Personnel**	**Annual Bus Riding Hours**
Bus Riding to Provide Security Presence		6,484,875	1%	2	129,698
Totals - Bus Security Presence					**153,058**

Bus security presence personnel would be deployed in two person teams to provide backup and assistance for each other. One would be positioned behind the bus operator to provide

direct security for the operator as well as ensure fares are paid or patrons are not allowed to board. The second would be positioned near the rear door of the bus to preclude persons from boarding without valid fare.

Four options were identified for providing the visible security presence function on the Metro bus system as outlined in the exhibit on the following page. This function could be provided by either sworn law enforcement personnel, or certified and trained security personnel, with appropriate backup from law enforcement, or a mix of the two.

- Option 1 is to contract for visible security presence on the Metro bus system from the TPD. Under this option, TPD deputies would be assigned. The estimated cost of this option is $19.9 million annually.
- Option 2 is to use armed Sheriff Security Officers under contract with the LASD to provide a visible security presence on the Metro bus system. These security personnel would be backed up by either the contracted vehicle based law enforcement patrol units, or by local law enforcement agencies. The estimated cost of this option is $12.9 million annually.
- Option 3 is to use armed Metro Security Transit Security Officers to provide the visible security presence on the Metro bus system. These security personnel would be backed up by either the contracted vehicle based law enforcement patrol units, or by local law enforcement agencies. The estimated cost of this option is $9.8 million annually.
- Option 4 is to contract with local law enforcement agencies to provide a visible security presence on the Metro bus system. There is currently no information on either the willingness or cost of local law enforcement agencies providing this service. Such information could be obtained through Metro's Request for Proposal process.

Exhibit 40 Metro Bus System – Visible Security Presence Options and Estimated Costs (In Millions)	
Option 1: Contracted Law Enforcement	$19.9
Option 2: Contracted Security Officers (Armed)	$12.9
Option 3: Metro Security Transit Security Officers (Armed)	$ 9.8
Option 4: Service Provided by Local Agencies	TBD

Recommendation 10: The Metro System Safety and Law Enforcement Division should consider these elements and review and discuss the bus system risks, current safety and security workload, estimated staffing needs, and options for providing bus protection services outlined in this report to develop the Request for Proposals for law enforcement and security services and to develop a Bus Safety and Security Plan.

G. Investigations and Special Operations

Since crime occurs on the Metro system and within the agency it is necessary to conduct follow-up investigations of those crimes, identify and pursue suspects, make arrests, and develop cases for prosecution. It is also necessary to conduct special or proactive investigations of criminal activity based on recent crime information and trends. In addition, teams of professionals trained in dealing with emotionally disturbed and homeless persons are important to attempt to resolve related issues. The following exhibit shows the current TPD resources for providing these services.

Exhibit 41
Current Transit Policing Division Investigations and Special Operations
Full Time Equivalent (FTE) Staffing and Costs

Personnel	Detective Bureau	Crime Impact Team	Intel Lead Policing Team	Mental Evaluation Team	Totals
Sergeants	2.0	2.0			4.0
Investigators (Violent Crime)	9.0				9.0
Investigators (Property Crime)	4.0				4.0
Court Deputy	3.0				3.0
Access Services Investigators	2.0				2.0
Deputy		15.0	8.2	4.0	27.2
Total	20.0	17.0	8.2	4.0	49.2
Costs (In Millions)	$3.50	$3.37	$1.62	$0.89	$9.38

The above exhibit shows there are currently 18 FTE deputies and 2 FTE sergeants assigned to the TPD Detective Bureau at an annual cost of about $3.5 million. The current annual hours for deputies assigned to investigations equates to 32,202. These detectives investigate crimes that have occurred on the Metro system and within the agency, develop evidence and cases, identify and pursue suspects, and support prosecutions.

Both the Crime Impact Team (CIT) and Intelligence Lead Policing (ILP) Team conduct proactive investigations and special operations based on recent crime and crime patterns or trends. This approach, often referred to as "hot spot" policing, focuses on issues and crimes identified through "Intelligence Led Policing" meetings held every two weeks. There are currently about 23 FTE deputies and 2 FTE sergeants assigned to these functions, at an annual cost of about $5 million. The current annual hours for deputies assigned to special operations equates to 41,505. During 2015 the CIT made a total of 175 felony arrests and 1,012 misdemeanor arrests. They also issued 1,245 citations. The CIT and ILP teams are effective in proactively addressing crime on the Metro system.

The Mental Evaluation Team responds to incidents and locations impacted by emotionally disturbed or homeless persons and attempts to resolve these situations with long-term solutions. There are currently about 4 FTE assigned to these functions, at an annual cost of

about $.9 million. The current annual hours for deputies assigned to the mental evaluation team equates to 7,156.

Investigations and Special Operations Staffing

Future options for staffing the investigations and special operations needs of the Metro system are dependent on the future role of local law enforcement agencies. If the role of local agencies continues as is, the need for investigations and special operations will likely continue unchanged as well.

However, since the role of local law enforcement agencies in responding to crime and calls for service on the Metro system is part of their basic service, then this could also include responsibility for investigating crime and incidents these agencies respond to. The level of investigative and special operations support will need to be assessed further once information is received through the Request for Proposal process.

Recommendation 11: The Metro System Safety and Law Enforcement Division should use the information obtained through the Request for Proposal for law enforcement and security services, and identify the level of and approach to investigative and special operations services as part of the Rail and Bus Safety and Security Plans.

H. Critical Infrastructure Protection

As discussed previously in this report, risks associated with the critical infrastructure within the Metro System are significant. Critical infrastructure is defined as those "systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters." (Critical Infrastructure Protection Act of 2001.)

The primary role of the Metro's law enforcement and security efforts is to provide a deterrent to those posing a threat to critical infrastructure within the Metro System. Often those posing a threat will observe their targets, gather intelligence, and determine the level of vulnerability. They may also conduct dry runs to see if they encounter any obstacles or are challenged. The presence of law enforcement and security personnel, through the use of strategically managed unpredictable and random patrol modes, is an effective means of deterrence.

Critical Infrastructure Risks

Metro has two assets that are formally considered to be critical infrastructure. These are Union Station and the Gateway Metro Headquarters building. Risks to critical infrastructure are primarily identified through vulnerability assessments. These vulnerability assessments identify security gaps. Metro recently completed vulnerability assessments for these two assets.

For Union Station three primary security gaps were identified. These include minimal video surveillance capability and monitoring, inadequate access control to internal areas, and lack of detection to prevent introduction of unauthorized items (explosives, weapons, etc.).

For the Gateway Building identified security gaps include limited video surveillance capability and monitoring, limited security presence and patrol, limited ability to prevent vehicle based improvised explosive devices, and a lack of detection to prevent introduction of unauthorized items (explosives, weapons, etc.).

Current Critical Infrastructure Protection Approach

Both the TPD and Metro Security currently play important roles in protecting Metro's critical infrastructure. The TPD is primarily responsible for critical infrastructure protection at Union Station, and have implemented three strategies primarily focused on addressing critical infrastructure and mass casualty risk.

- **Threat Interdiction Unit (TIU)** personnel are highly trained and have specialized equipment specific to potential terrorist or active shooter threats. TIU's primary role is to prevent and respond to terrorist actions and other mass casualty events, focused on Union Station, in addition to routine patrol of Union Station. TIU also coordinates with the LASD Special Enforcement Bureau, which would provide a response to any serious threat or event in Union Station or on the system.

- **Mobile Search and Screening Team (MSST)** conduct random passenger and baggage screenings on a variable schedule in varying locations, primarily within Union Station. The purpose of these screenings is primarily to provide a deterrent to explosives or other threats in baggage.
- **K9 Explosives Detection Team** includes highly trained officers and canines focused on screening unattended packages and reducing the threat of explosive devices within Union Station and the Metro System.

The following exhibit shows the current TIU and K9 resources of the TPD to provide critical infrastructure protection services.

Exhibit 42
Current Transit Policing Division Critical Infrastructure Protection
Full Time Equivalent (FTE) Staffing and Costs

	Threat Interdiction Unit		K9 Explosives	
Personnel	**Union Station**	**Random Screening**	**Detection**	**Totals**
Sergeants	2	1	1	4
Deputies	21	9	11	41
Total	23	10	12	45
Costs (In Millions)	$4.66	$2.14	$2.66	$9.46

Note: Metro received a grant for TIU from DHS for $6.5 Million over 36 months.

Metro Security is primarily responsible for critical infrastructure protection for the Gateway Metro Headquarters Building. Metro Security accomplishes this by deploying armed security officers. These security officers are posted at the security desk on the plaza level, the third floor of the building, and the building loading dock.

Metro Security also has roving security officers assigned to both the interior and the exterior of the building, including the perimeter and parking garage area. A security officer is also assigned to the Transit Court during its hours of operation. Security officers are also posted to the Security Control Room, which includes limited surveillance coverage using closed circuit television (CCTV) cameras, receives calls for assistance, and maintains radio contact with Security Officers in the building and throughout the Metro System.

Critical Infrastructure Protection Needs and Staffing Options

Critical infrastructure protection requires protecting the two key critical infrastructure assets of the Metro System, Union Station, and the Gateway Metro Headquarters Building. The estimated staffing required for each of these, and options for providing that staffing, are discussed in the following sections.

Union Station

The following exhibit shows the estimated staffing needs for providing critical infrastructure protection of Union Station. This staffing level was developed based on a consideration of area

within Union Station to be covered, as well as the critical importance of this asset to the Metro System.

Exhibit 43
Union Station Critical Infrastructure Protection
Estimated Staffing Needs

	Annual Days	Hours of Operation	Operational Hours Per Day	Number of Line Personnel	Annual Line Personnel Hours
High Visibility Patrol Days and Evenings (AM/PM)					
High Visibility Patrol (Weekdays)	255	6am to 10pm	16	4	16,320
High Visibility Patrol (Weekends, Holidays)	110	6am to 10pm	16	2	3,520
Nights (EM)					
High Visibility Patrol (Weekdays)	255	10pm to 6am	8	2	4,080
High Visibility Patrol (Weekends, Holidays)	110	10pm to 6am	8	2	1,760
Totals - High Visibility Patrol					**25,680**
K9 Explosive Detection Days and Evenings (AM/PM)					
K9 Explosives Detection	365	6am to 10pm	16	1	5,840
K9 Explosive Detection Nights (EM)					
K9 Explosives Detection	365	10pm to 6am	8	1	2,920
Totals - K9 Explosives Detection					**8,760**
Random Passenger Search and Screening Days and Evenings (AM/PM)					
Random Passenger Screening	255	6am to 10pm	16	4	16,320
Totals - Union Station Critical Infrastructure Staffing					**50,760**

Three services have been defined to provide critical infrastructure protection at Union Station.

- The first is high visibility patrol throughout the Station. As with the security presence on the System described earlier, these personnel would be deployed in two person teams. They would patrol within a reasonable proximity of each other, for backup and assistance, but would not patrol side by side. We estimate two such teams are needed during the day and evening each weekday, and one such team would be required on weekends and holidays and overnight.
- The second is K9 explosives detection. We estimate one K9 team (Deputy/Officer and Canine) is needed during every day and overnight. This is to preclude any delay in responding to unattended or suspicious items that may contain explosives.
- The third is to conduct random passenger and baggage screening. This involves the brushing, with a swab, of the exterior of a carry-on bags or a visual inspection inside the item. The swab is then placed in explosive trace detection equipment. This service would move from location to location throughout Union Station and potentially the Metro System.

We recommend that the Union Station high visibility patrol and K9 explosives detection services be performed by law enforcement personnel given the critical nature of Union Station, and the

potential need for quick law enforcement action to potential threats or incidents. Two options were identified for providing the high visibility patrol and K9 explosives detection services as outlined in the exhibit below. A mix of these options could also be used to provide this service.

Exhibit 44 Union Station – High Visibility Patrol / K9 Explosives Detection Options and Estimated Costs (In Millions)	
Option 1: Contracted Law Enforcement Officers	$4.4
Option 2: Dedicated Service Provided by Local Law Enforcement Agencies	TBD

Either law enforcement or security personnel could perform the mobile random passenger and baggage screening. Four options were identified for providing the baggage screening services as outlined in the exhibit below. A mix of these options could also be used to provide this service.

Exhibit 45 Union Station – Random Passenger Screening Options and Estimated Costs (In Millions)	
Option 1: Contracted Law Enforcement Officers	$2.1
Option 2: Contracted Armed Security Officers	$1.4
Option 3: Metro Armed Security Transit Security Officers	$1.0
Option 4: Service Provided by Law Enforcement Local Agencies	TBD

Gateway Metro Headquarters Building

The following exhibit shows the estimated staffing needs for providing critical infrastructure protection of the Gateway Metro Headquarters Building as described earlier.

Exhibit 46
Gateway Metro Headquarters Building Critical Infrastructure Protection
Estimated Staffing Needs

	Annual Days	Hours of Operation	Operational Hours Per Day	Number of Armed Security Officers	Annual Armed Security Officer Hours
Gateway Building Security					
Plaza Level Desk	365	6am to 6am	24	1	8,760
3rd Floor Desk - AM and PM	365	6am to 10pm	16	2	11,680
3rd Floor Desk - EM	365	10pm to 6am	8	1	2,920
Loading Dock	260	6am to10 pm	16	1	4,160
Interior Rover	365	6am to 6am	24	1	8,760
Exterior Rover	365	6am to 6am	24	1	8,760
Transit Court	208	9am to 3 pm	6	1	1,248
Security Control Center	365	6am to 6am	24	2	17,520
Totals - Gateway Building Security					63,808

Providing critical infrastructure protection of the Gateway Metro Headquarters Building is a security function, and does not require law enforcement personnel. Two options were identified for providing this service as outlined in the exhibit below. A mix of these options could also be used to provide this service.

Exhibit 47 Gateway Metro Headquarters Building Security Options and Estimated Costs (In Millions)	
Option 1: Contracted Armed Security Officers	$5.4
Option 2: Metro Armed Security Transit Security Officers	$4.1

Recommendation 12: The Metro System Safety and Law Enforcement Division should use the information and options outlined in this report to develop a Request for Proposal for law enforcement and security services, and to develop a Critical Infrastructure Protection Plan.

I. Metro Facilities and Operations Security

Providing security for Metro facilities and operations is critical to ensure a safe transit environment for Metro employees, patrons and Metro property. This includes the bus division facilities, bus and rail maintenance facilities, parking lots, and other facilities.

Metro facilities and operations security is accomplished through three primary services. The first is providing security at Metro facilities through mobile security units. These units patrol the various Metro facilities and provide a visible security presence for those facilities. These units also oversee the contracted private security personnel that are posted throughout these facilities.

The second primary service is revenue operations security and protection provided through security escorts of Metro revenue collection personnel, and security presence in the Metro cash counting facility. This security service provides a visible security presence and deterrent to threats or attempts of theft of Metro cash assets.

The third primary service is providing security for Metro pressure washer personnel that clean various Metro stations and facilities during the overnight hours. Security personnel provide a visible security presence and deterrent to assaults or other actions against these Metro personnel. The following exhibit outlines the estimated staffing needs to provide these services for Metro's facilities and operations.

Exhibit 48
Metro Facilities and Operations Security
Estimated Staffing Needs

	Annual Days	Hours of Operation	Operational Hours Per Day	Number of Security Officers	Annual Security Officer Hours
Mobile Security Units					
Mobile Security Units - AM	365	6am to 2pm	8	7	20,440
Mobile Security Units - PM	365	2pm to 10pm	8	6	17,520
Mobile Security Units - EM	365	10pm to 6am	8	3	8,760
Totals - Mobile Security Units					46,720
Revenue Operations Protection					
Central Cash Counting Facility	365	0530 to 1400	8	3	8,760
Vault Truck Escort	365	0300 to 1130	8	3	8,760
Blue/Green Line Escort	365	0300 to 1130	8	4	11,680
Red/Gold Line Escort	365	0530 to 1400	8	4	11,680
Purple/Expo Line Escort	365	0530 to 1400	8	4	11,680
TVM/Maintenance Escort	365	1130 to 2000	8	8	23,360
Totals - Revenue Operations Protection					75,920
Pressure Washer Protection					
Pressure Washer Escort	365	10pm to 6am	8	6	17,520
Totals - Pressure Washer Protection					17,520
Total - Facility and Operations Security					140,160

Providing security for Metro facilities and operations is a security function, and does not require law enforcement personnel. Two options were identified for providing these services as outlined in the exhibit below. A mix of these options could also be used to provide this service.

Exhibit 49 **Metro Facilities and Operations Security** **Options and Estimated Costs (In Millions)**	
Option 1: Contracted Armed Security Officers	$11.8
Option 2: Metro Armed Security Transit Security Officers	$ 9.0

Recommendation 13: The Metro System Safety and Law Enforcement Division should use the information and options outlined in this report to develop a Metro and Operations Security Plan.

J. Employee Survey Results

Employee surveys were developed and administered to both employees of the LASD Transit Policing Division (TPD) and Metro Security as part of this effort. Draft survey questionnaires were developed and provided to the leadership of both the TPD and Metro Security for review and comment. Changes were made to the survey questionnaires based on this input and the survey finalized.

The survey questionnaires were administered through an Internet based survey application. Email addresses were obtained for each TPD and Metro Security employee. Emails were sent to each employee providing information on the survey, inviting them to participate, and providing a link for them to complete the survey.

Employees were assured that only summary information would be shared, and that their individual responses would be confidential. Several reminder emails were sent to employees that had not completed the survey, and the deadline for completion was extended to ensure all had an opportunity to participate.

The employee survey questionnaires were designed to obtain feedback on the following areas:

- Mission
- Accountability
- Communication
- Service Delivery
- Support Resources and Workload
- Staff Development and Training
- Morale and Outlook
- Fare Compliance
- Interaction Between the Sheriff's Department and Metro Security

Employees were asked to respond to a series of statements in each of the above topics on a scale from Strongly Agree to Strongly Disagree. Employees were also asked to provide narrative responses to the following two questions.

- What changes would you recommend to improve the quality of (Transit Policing Division's / Metro Transit Security's) service?
- What changes would you recommend to improve (Transit Policing Division's / Metro Transit Security's) organization and operations?

Emails were sent to all 740 TPD employees inviting them to participate in the survey. A total of 419, or 57 percent of these employees, completed the Transit Policing Division survey questionnaire online. Emails were sent to all 109 Metro Security employees inviting them to participate in the survey. A total of 60, or 55 percent of these employees, completed the Metro Security survey questionnaire online.

The following sections provide an overview of the employee survey results for the TPD and Metro Security. Additional information on the survey and survey responses is provided in the Appendix of this report.

Transit Policing Division

Most TPD personnel agreed with all the statements in each of the topics covered by the employee survey questionnaire. The lowest level of agreement was to the statement: "The morale of employees in Metro Transit Security is good." Fifty percent (50%) of TPD employees responded they strongly agreed or agreed with this statement.

Frequent topics contained in the narrative responses to the questions on how to improve the quality of TPD's service, organization, and operations include:

- Poor radio communications system
- Difficult process for booking/transporting arrestees
- Poorly motivated personnel
- Need for improved field supervision
- Mismatch of traditional policing approach and needs of the transit system
- Current deployment and workload differ/need redistribution of personnel better matching Metro peak rider periods
- More and better equipment and vehicles, better equipment maintenance
- No effective way to check fares on buses
- Need for more and better training
- Need more personnel – better coverage of reporting districts
- Better schedule / scheduling of personnel
- Need to improve morale

Metro Security

Many Metro Security employees disagreed with many of the statements in each of the topics covered by the employee survey questionnaire. The topics that less than half of Metro Security Employees agreed with are:

- Clear goals and priorities (57% Disagree)
- Accountability for poor employee performance (62% Disagree)
- Fair discipline (66% Disagree)
- Information sharing (76% Disagree)
- Value for ideas and input (56% Disagree)
- Have needed equipment (60% Disagree)
- Have appropriate authority (84% Disagree)
- Receive training (52% Disagree) and training is effective (59% Disagree)
- Morale is good (85% Disagree)

Frequent topics contained in the narrative responses to the questions on how to improve the quality of service of Metro Security, and Metro Security organization and operations include:

- Need for more officers
- Lack and quality of training
- Inadequate/ineffective CCTV equipment in Control Center
- Poorly equipped vehicles
- Lack of recognition and commendations for good work
- Lack of appropriate authority (limited law enforcement authority / on-duty status)
- Need clearly defined mission
- Need clearly defined roles and responsibilities
- Need for better internal communication
- Need Chief / Director of Metro Transit Security

Recommendation 14: The Metro System Safety and Law Enforcement Division should use the information obtained through the Transit Policing Division and Metro Security employee surveys to identify and address key issues.

K. Implementation Status of Prior Audit Recommendations

Previous audits and reviews provide valuable information on recommended changes to improve operations or outcomes. Without follow-up, these recommendations often are not implemented.

There were a total of 50 recommendations made in the LASD Contract Audit completed in June 2014. Of these, 14 (28%) have been fully implemented, 4 (8%) have been partially implemented, and 32 (64%) are in progress. The recommendations that are in progress require changes in the contract language to be fully implemented.

There were a total of 33 recommendations made in the APTA Peer Review completed in July 2014. Of these, 4 (12%) have been fully implemented and 29 (88%) are in progress. The recommendations that are in progress require changes in the contract language to be fully implemented.

Metro has established a system to track all prior audit recommendations and document actions taken to implement the recommendations. Metro staff periodically provide reports on progress made on implementing recommendations to the CEO and/or Board. This process is adequate to keep management and the Board informed on implementation progress.

Recommendation 15: The Metro System Safety and Law Enforcement Division should continue to monitor progress made implementing the LASD Contract Audit and APTA Peer Review recommendations and continue to report progress to Metro management and the Board. Where appropriate, recommendations should be considered in developing the Request for Proposals for law enforcement and security services.

APPENDIX

LASD TRANSIT POLICING DIVISION
AND
METRO TRANSIT SECURITY

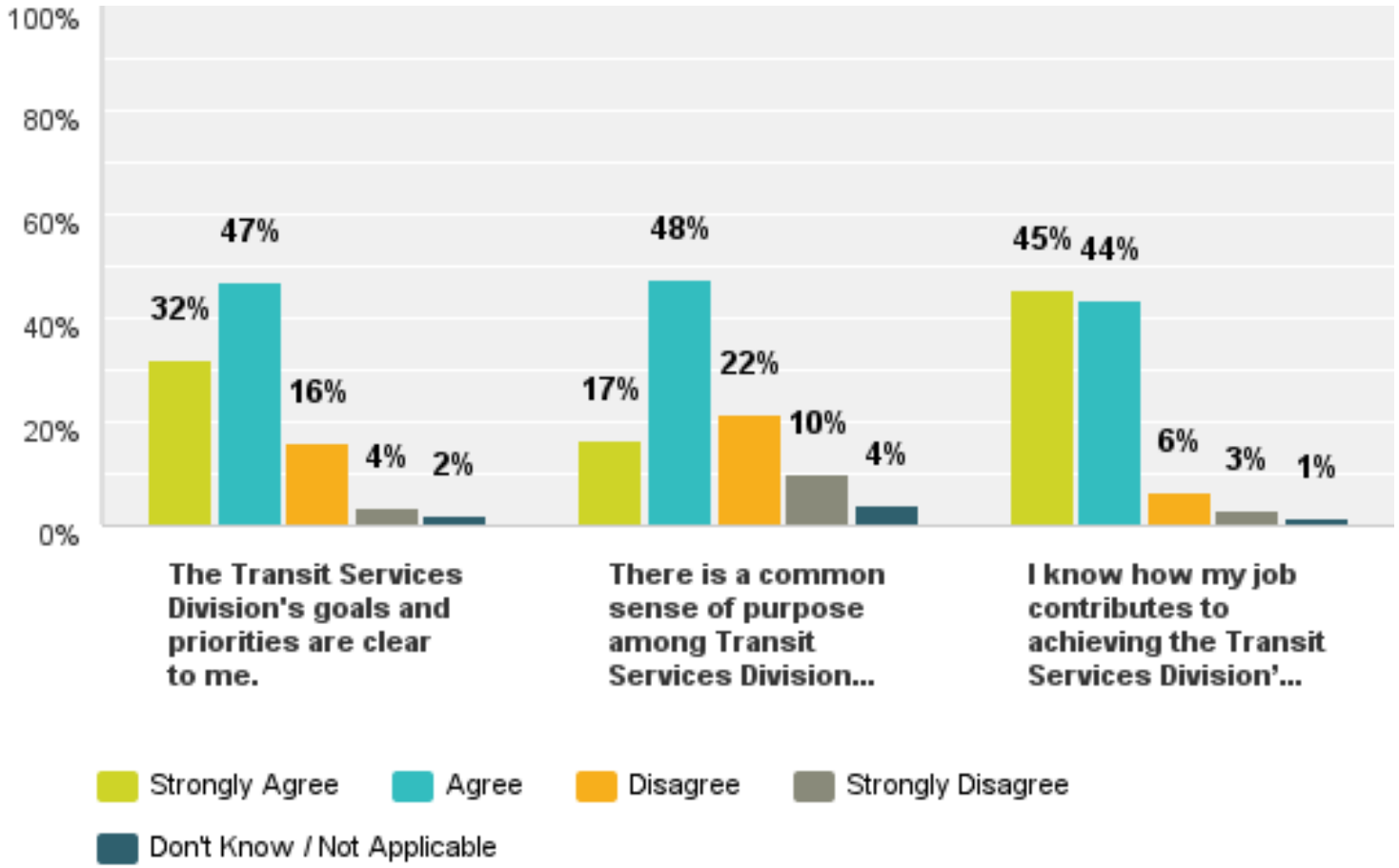
EMPLOYEE SURVEY SUMMARY RESULTS

LOS ANGELES SHERIFF'S TRANSIT SERVICES DIVISION EMPLOYEE SURVEY RESULTS

Metro Policing and Security Workload and Staffing
BCA Watson Rice, LLP

Q1: MISSION

Answered: 413 Skipped: 6



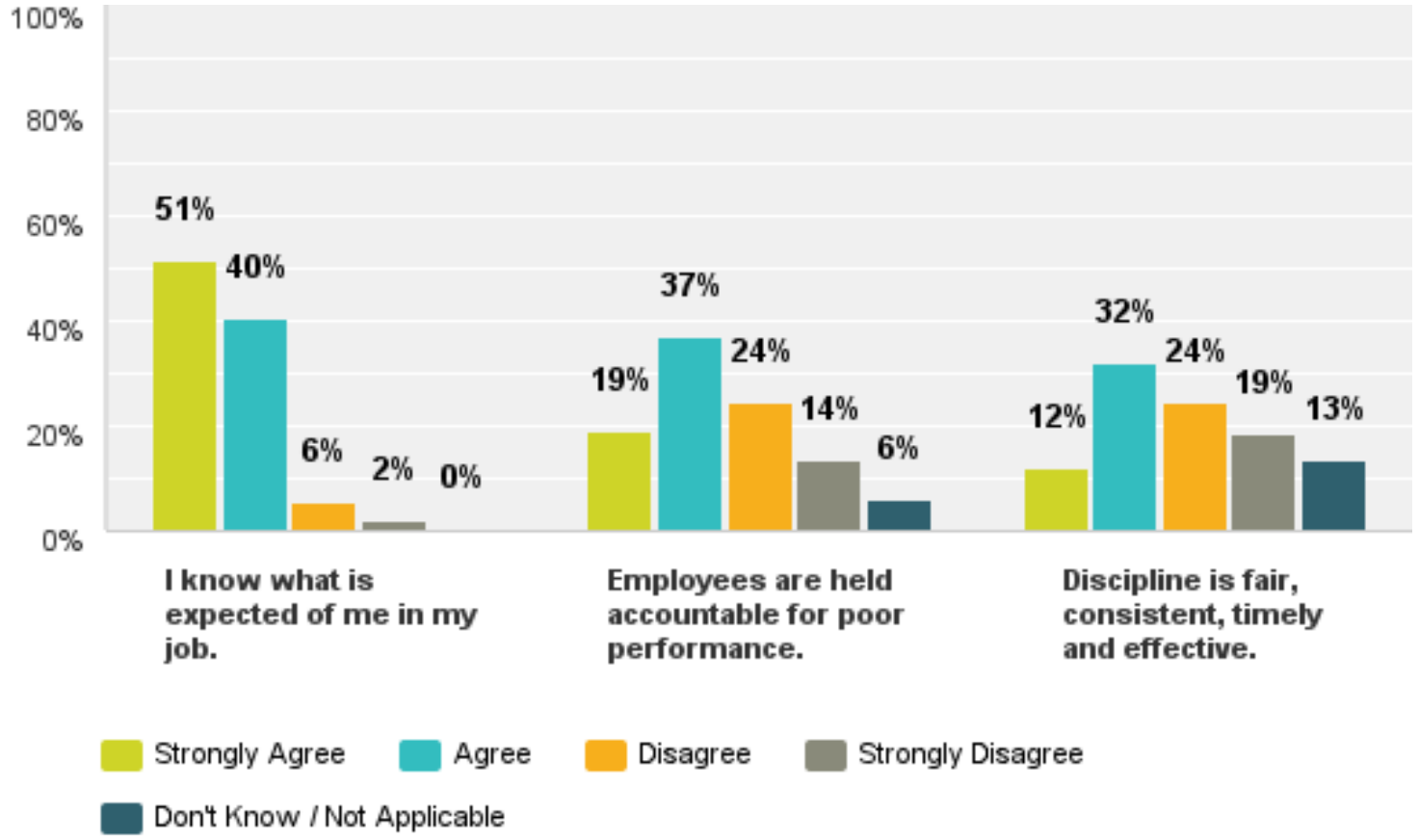
Q1: MISSION

Answered: 413 Skipped: 6

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The Transit Services Division's goals and priorities are clear to me.	**32%** 131	**47%** 193	**16%** 65	**4%** 15	**2%** 8	412	3.09
There is a common sense of purpose among Transit Services Division personnel.	**17%** 68	**48%** 196	**22%** 89	**10%** 41	**4%** 17	411	2.74
I know how my job contributes to achieving the Transit Services Division's goals.	**45%** 187	**44%** 180	**6%** 26	**3%** 13	**1%** 6	412	3.33

Q2: ACCOUNTABILITY

Answered: 409 Skipped: 10



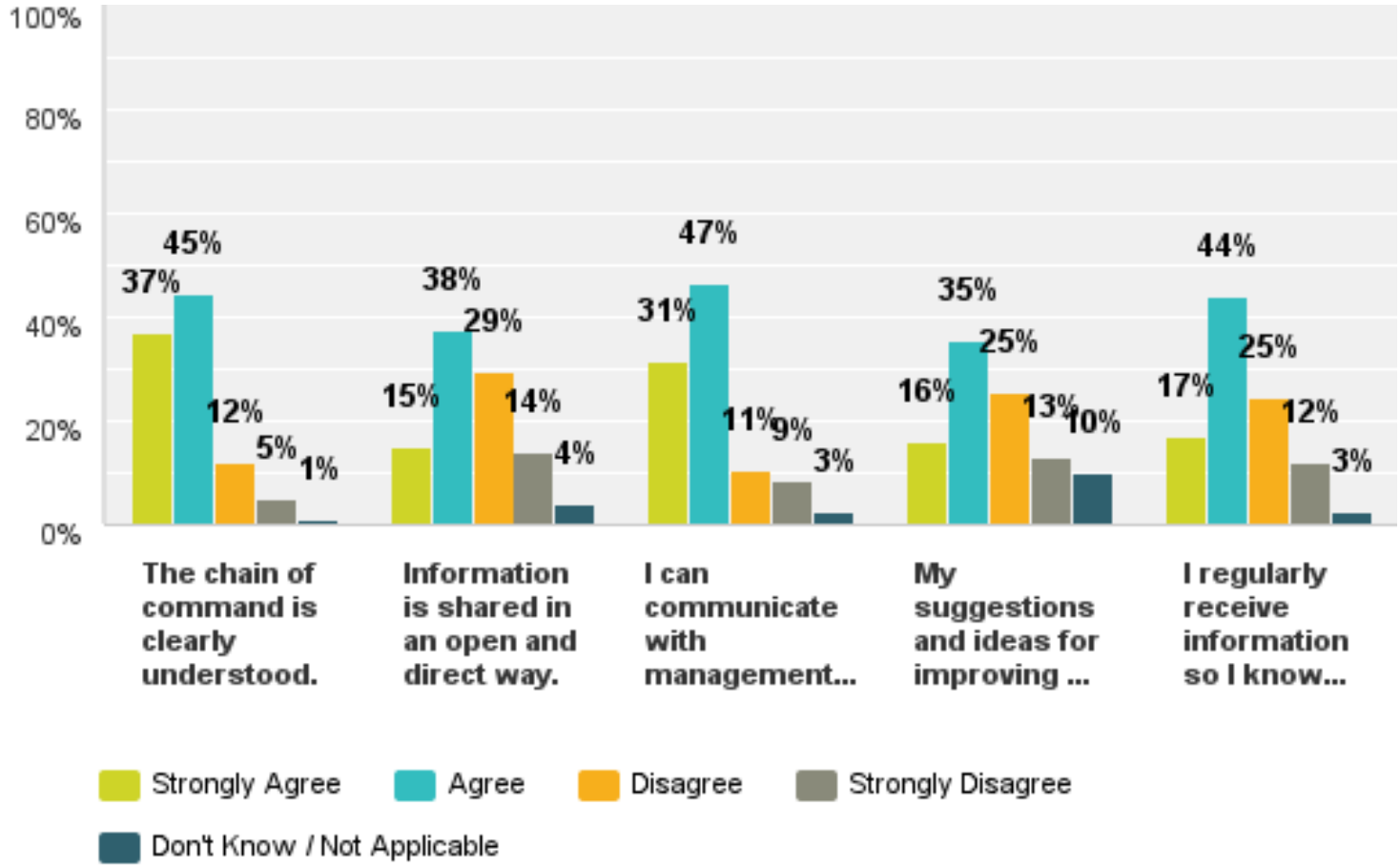
Q2: ACCOUNTABILITY

Answered: 409 Skipped: 10

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
I know what is expected of me in my job.	**51%** 210	**40%** 165	**6%** 23	**2%** 9	**0%** 2	409	3.42
Employees are held accountable for poor performance.	**19%** 77	**37%** 151	**24%** 99	**14%** 56	**6%** 25	408	2.65
Discipline is fair, consistent, timely and effective.	**12%** 48	**32%** 130	**24%** 99	**19%** 76	**13%** 54	407	2.42

Q3: COMMUNICATION

Answered: 412 Skipped: 7



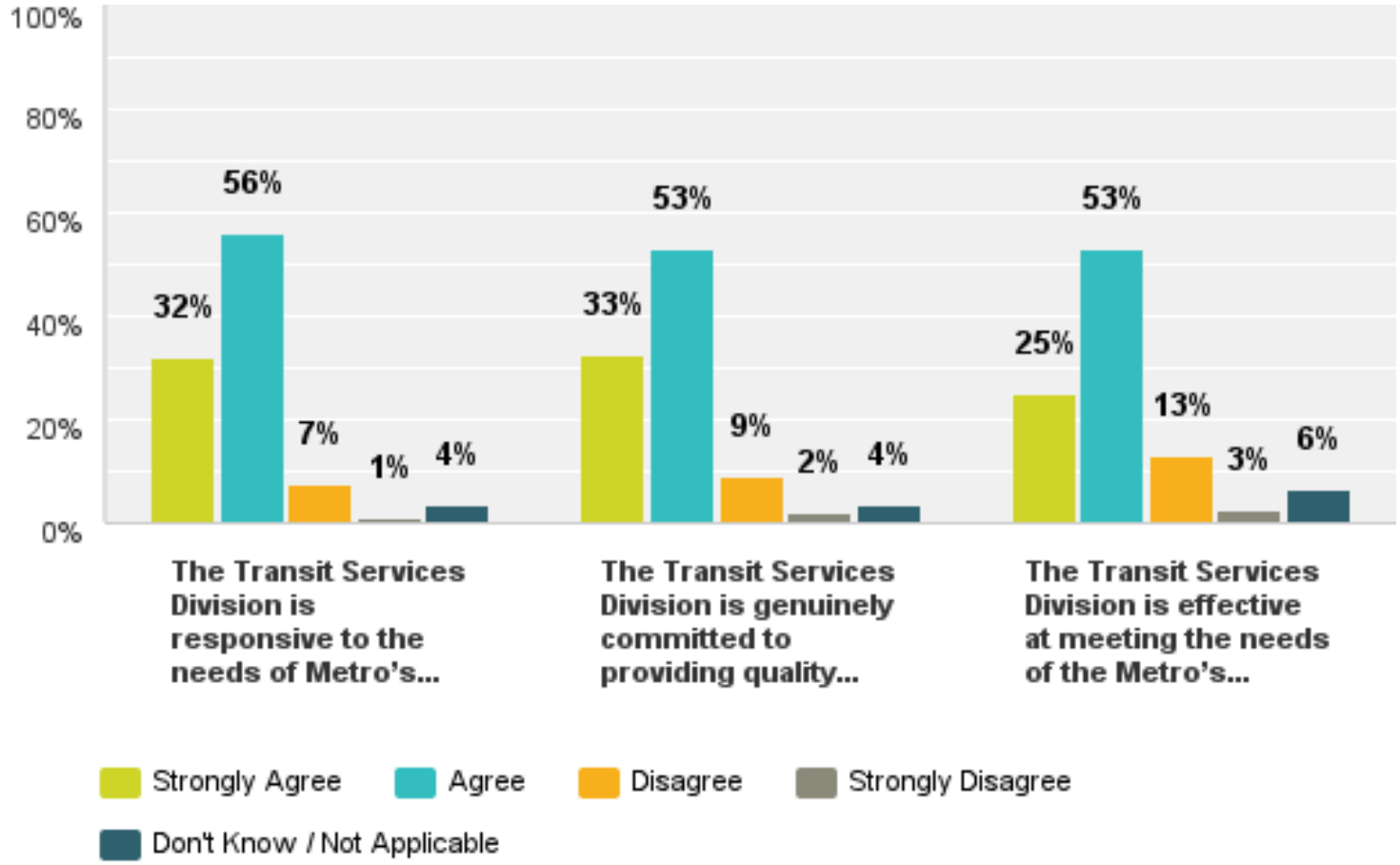
Q3: COMMUNICATION

Answered: 412 Skipped: 7

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The chain of command is clearly understood.	**37%** 153	**45%** 183	**12%** 50	**5%** 20	**1%** 5	411	3.16
Information is shared in an open and direct way.	**15%** 62	**38%** 155	**29%** 121	**14%** 57	**4%** 16	411	2.56
I can communicate with management if I need to.	**31%** 129	**47%** 192	**11%** 44	**9%** 35	**3%** 11	411	3.04
My suggestions and ideas for improving the Transit Services Division and its services are valued.	**16%** 65	**35%** 146	**25%** 105	**13%** 54	**10%** 42	412	2.60
I regularly receive information so I know what is going on.	**17%** 70	**44%** 181	**25%** 101	**12%** 49	**3%** 11	412	2.68

Q4: SERVICE DELIVERY

Answered: 403 Skipped: 16



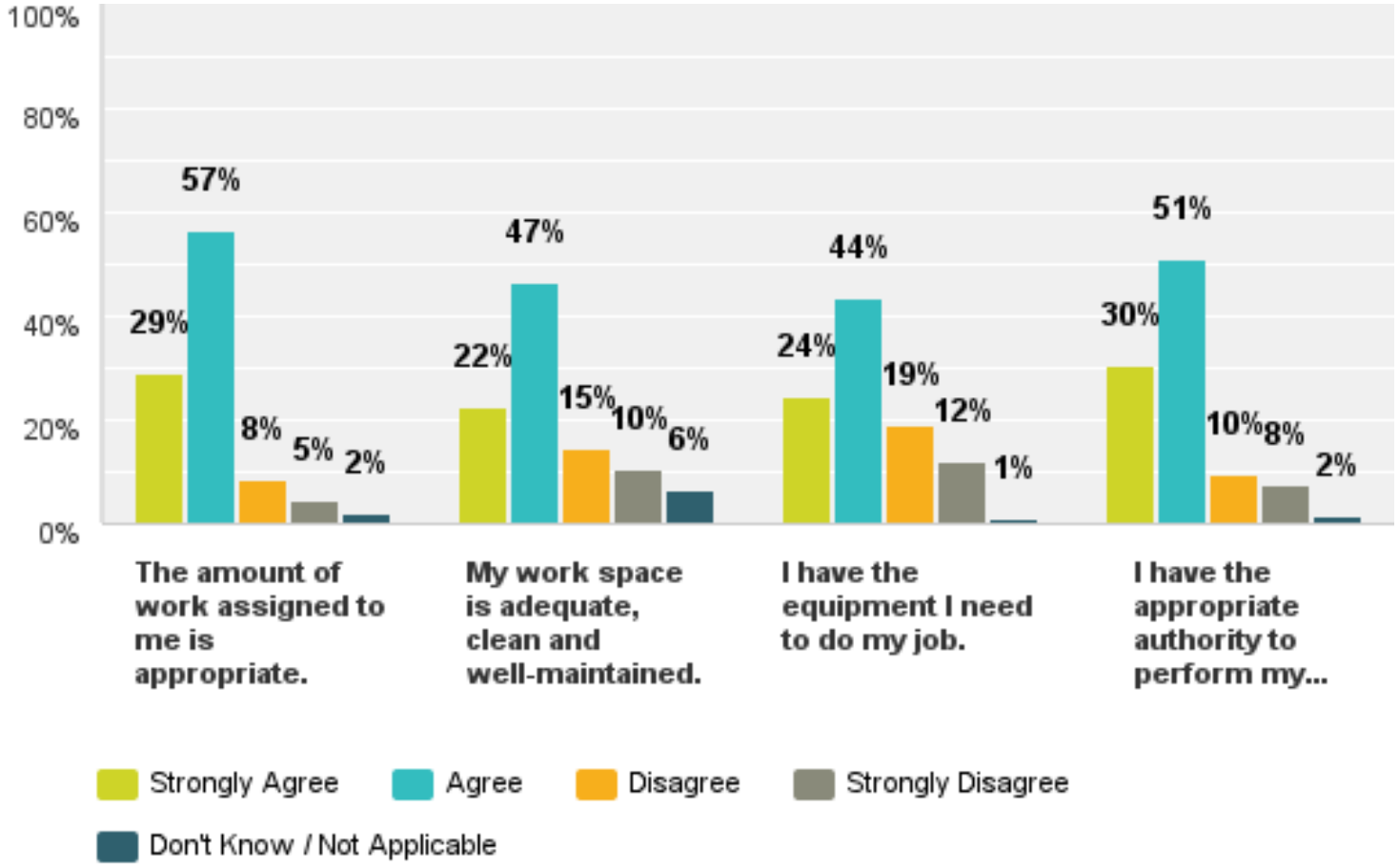
Q4: SERVICE DELIVERY

Answered: 403 Skipped: 16

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The Transit Services Division is responsive to the needs of Metro's patrons.	**32%** 129	**56%** 225	**7%** 30	**1%** 4	**4%** 15	403	3.23
The Transit Services Division is genuinely committed to providing quality customer service.	**33%** 131	**53%** 213	**9%** 36	**2%** 8	**4%** 15	403	3.20
The Transit Services Division is effective at meeting the needs of the Metro's patrons.	**25%** 101	**53%** 213	**13%** 52	**3%** 11	**6%** 26	403	3.07

Q5: SUPPORT RESOURCES & WORKLOAD

Answered: 400 Skipped: 19



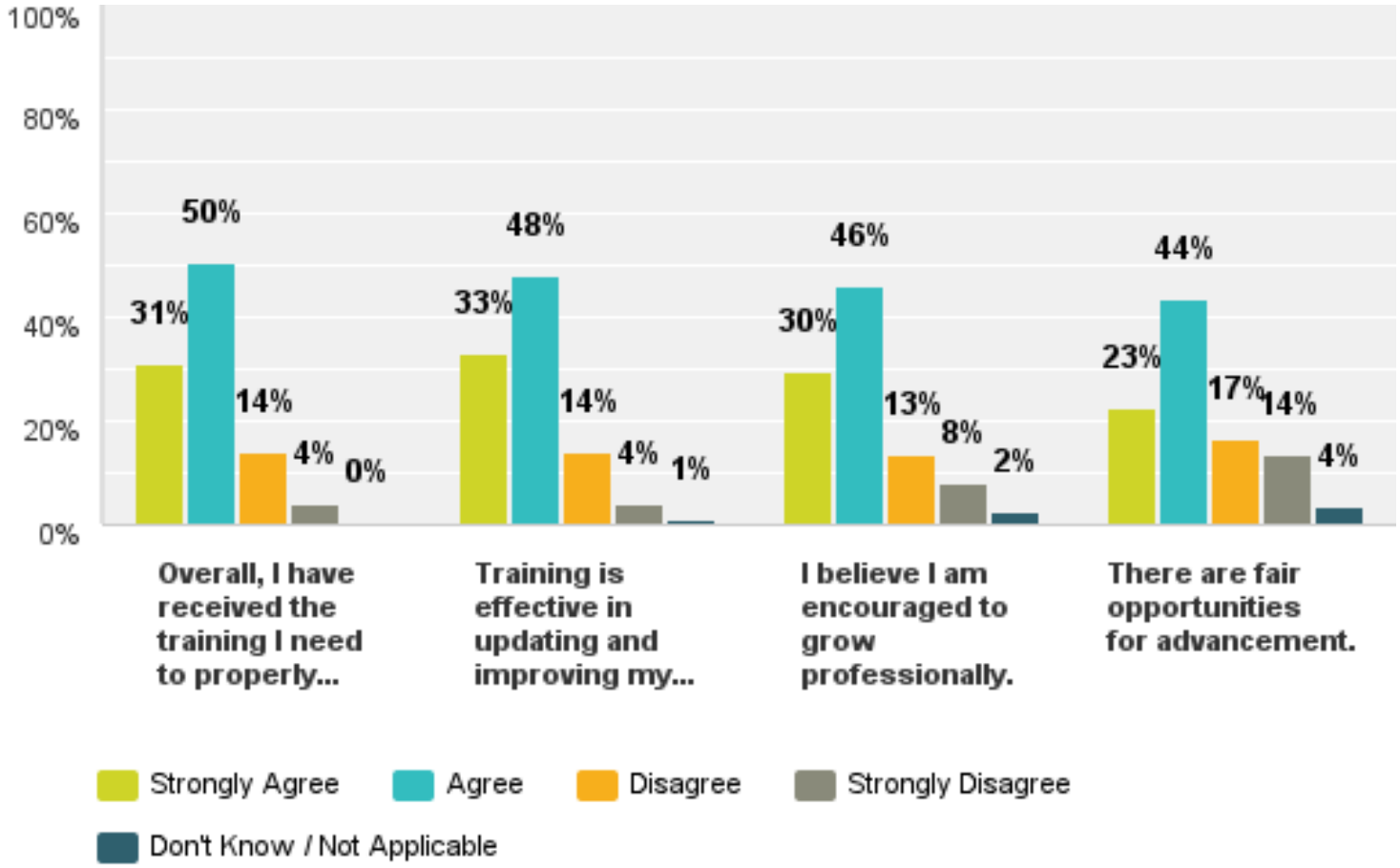
Q5: SUPPORT RESOURCES & WORKLOAD

Answered: 400 Skipped: 19

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The amount of work assigned to me is appropriate.	**29%** 115	**57%** 225	**8%** 33	**5%** 18	**2%** 7	398	3.12
My work space is adequate, clean and well-maintained.	**22%** 89	**47%** 186	**15%** 58	**10%** 41	**6%** 25	399	2.86
I have the equipment I need to do my job.	**24%** 97	**44%** 174	**19%** 75	**12%** 48	**1%** 4	398	2.81
I have the appropriate authority to perform my duties.	**30%** 121	**51%** 204	**10%** 38	**8%** 30	**2%** 6	399	3.06

Q6: STAFF DEVELOPMENT AND TRAINING

Answered: 401 Skipped: 18



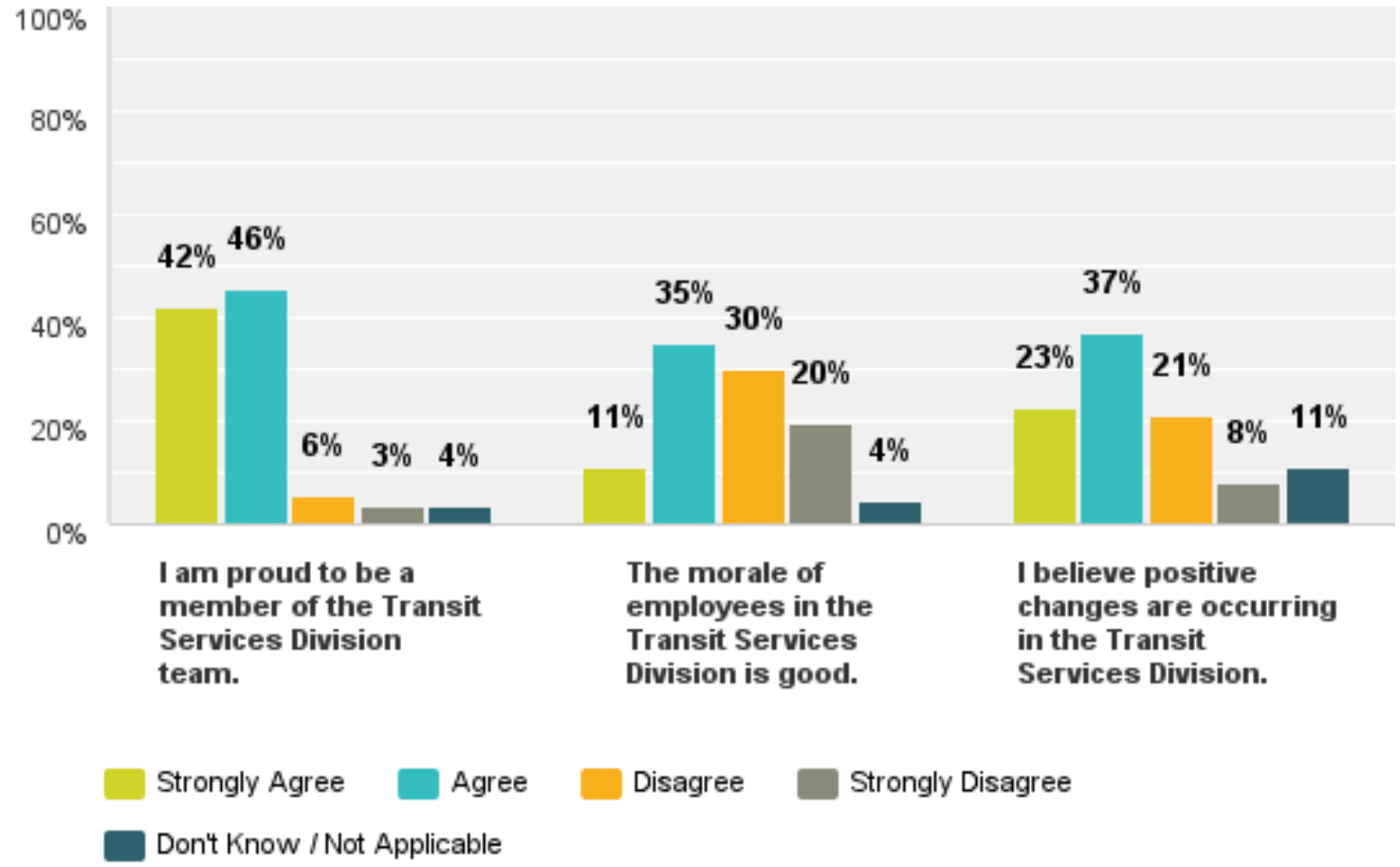
Q6: STAFF DEVELOPMENT AND TRAINING

Answered: 401 Skipped: 18

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
Overall, I have received the training I need to properly perform my work.	**31%** 124	**50%** 202	**14%** 56	**4%** 17	**0%** 2	401	3.09
Training is effective in updating and improving my skills.	**33%** 132	**48%** 192	**14%** 56	**4%** 16	**1%** 4	400	3.11
I believe I am encouraged to grow professionally.	**30%** 119	**46%** 185	**13%** 54	**8%** 33	**2%** 10	401	3.00
There are fair opportunities for advancement.	**23%** 91	**44%** 174	**17%** 67	**14%** 54	**4%** 14	400	2.78

Q7: MORALE & OUTLOOK

Answered: 396 Skipped: 23



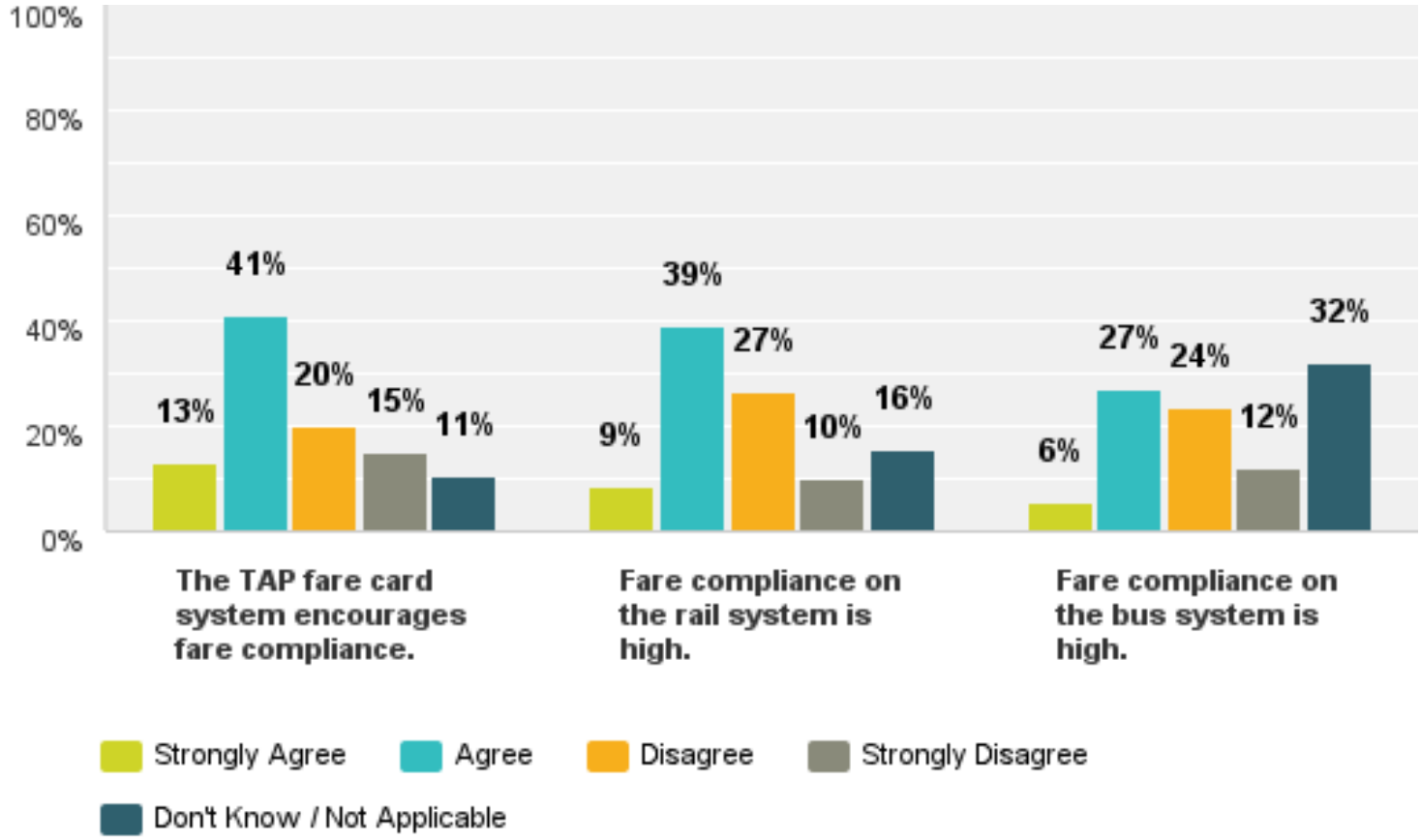
Q7: MORALE & OUTLOOK

Answered: 396 Skipped: 23

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
I am proud to be a member of the Transit Services Division team.	**42%** 165	**46%** 180	**6%** 22	**3%** 13	**4%** 14	394	3.31
The morale of employees in the Transit Services Division is good.	**11%** 44	**35%** 137	**30%** 119	**20%** 77	**4%** 17	394	2.39
I believe positive changes are occurring in the Transit Services Division.	**23%** 89	**37%** 146	**21%** 82	**8%** 32	**11%** 44	393	2.84

Q8: FARE COMPLIANCE

Answered: 396 Skipped: 23



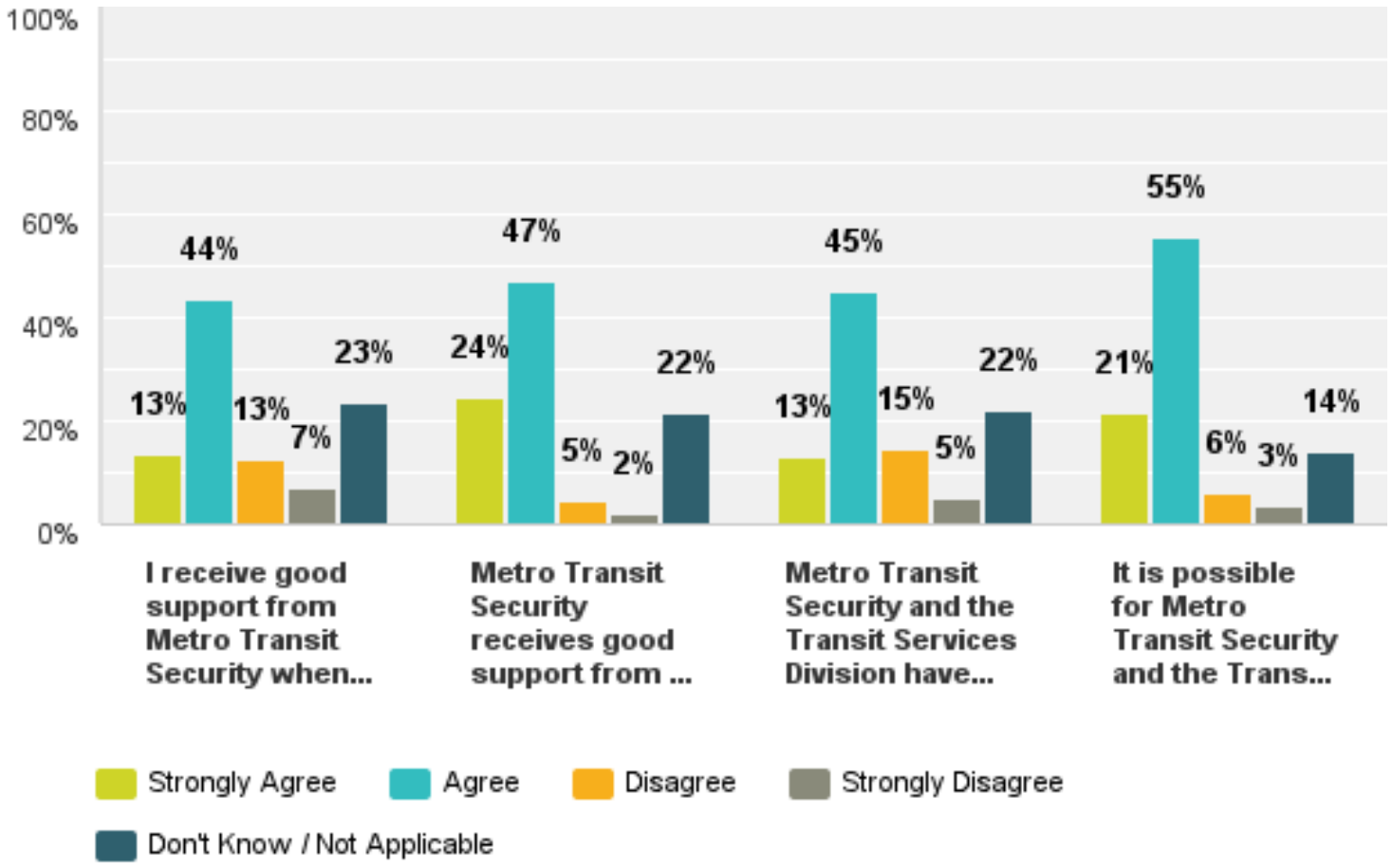
Q8: FARE COMPLIANCE

Answered: 396 Skipped: 23

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The TAP fare card system encourages fare compliance.	**13%** 52	**41%** 163	**20%** 79	**15%** 60	**11%** 42	396	2.58
Fare compliance on the rail system is high.	**9%** 34	**39%** 155	**27%** 105	**10%** 40	**16%** 62	396	2.55
Fare compliance on the bus system is high.	**6%** 22	**27%** 106	**24%** 94	**12%** 47	**32%** 127	396	2.38

Q9: INTERACTION WITH METRO TRANSIT SECURITY

Answered: 396 Skipped: 23



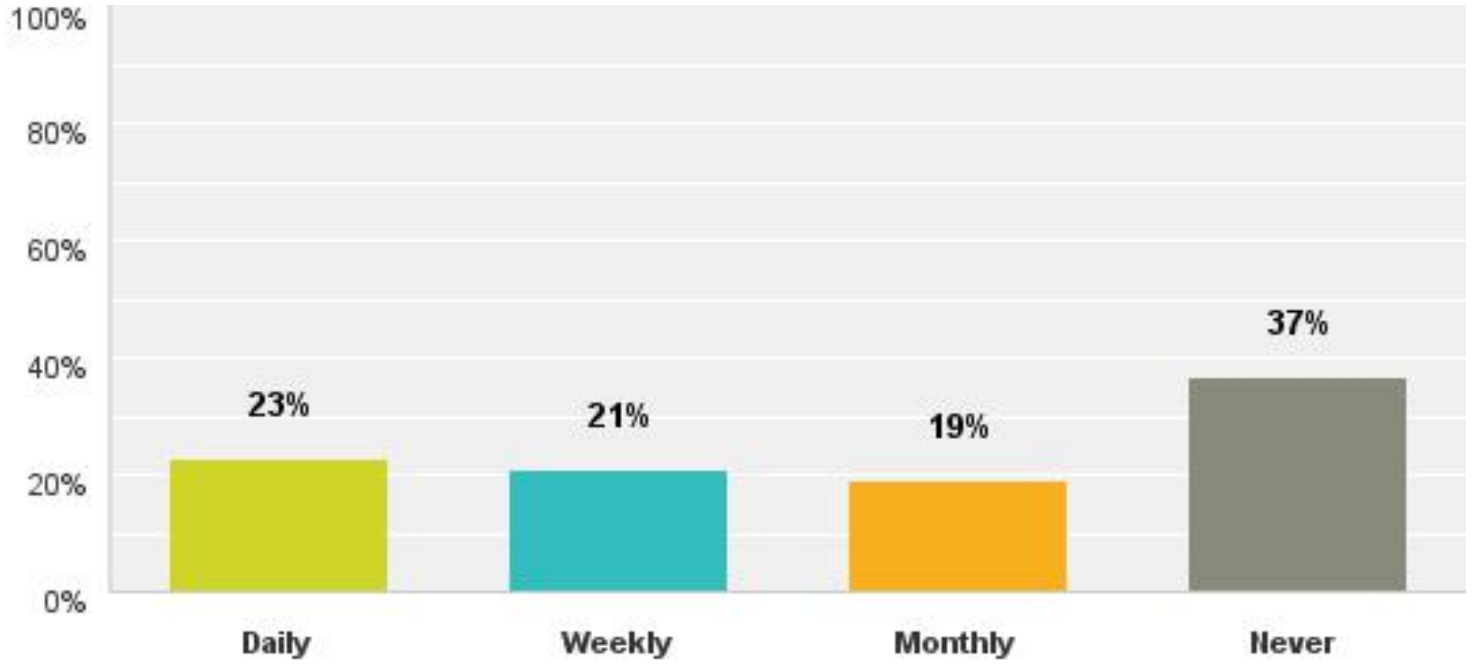
Q9: INTERACTION WITH METRO TRANSIT SECURITY

Answered: 396 Skipped: 23

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
I receive good support from Metro Transit Security when needed.	**13%** 53	**44%** 173	**13%** 50	**7%** 27	**23%** 93	396	2.83
Metro Transit Security receives good support from the Transit Services Division when needed.	**24%** 97	**47%** 187	**5%** 18	**2%** 8	**22%** 86	396	3.20
Metro Transit Security and the Transit Services Division have a positive working relationship.	**13%** 52	**45%** 179	**15%** 58	**5%** 19	**22%** 88	396	2.86
It is possible for Metro Transit Security and the Transit Services Division to work together effectively.	**21%** 84	**55%** 219	**6%** 24	**3%** 13	**14%** 55	395	3.10

Q10: How frequently does your work require interaction with Metro Transit Security?

Answered: 395 Skipped: 24



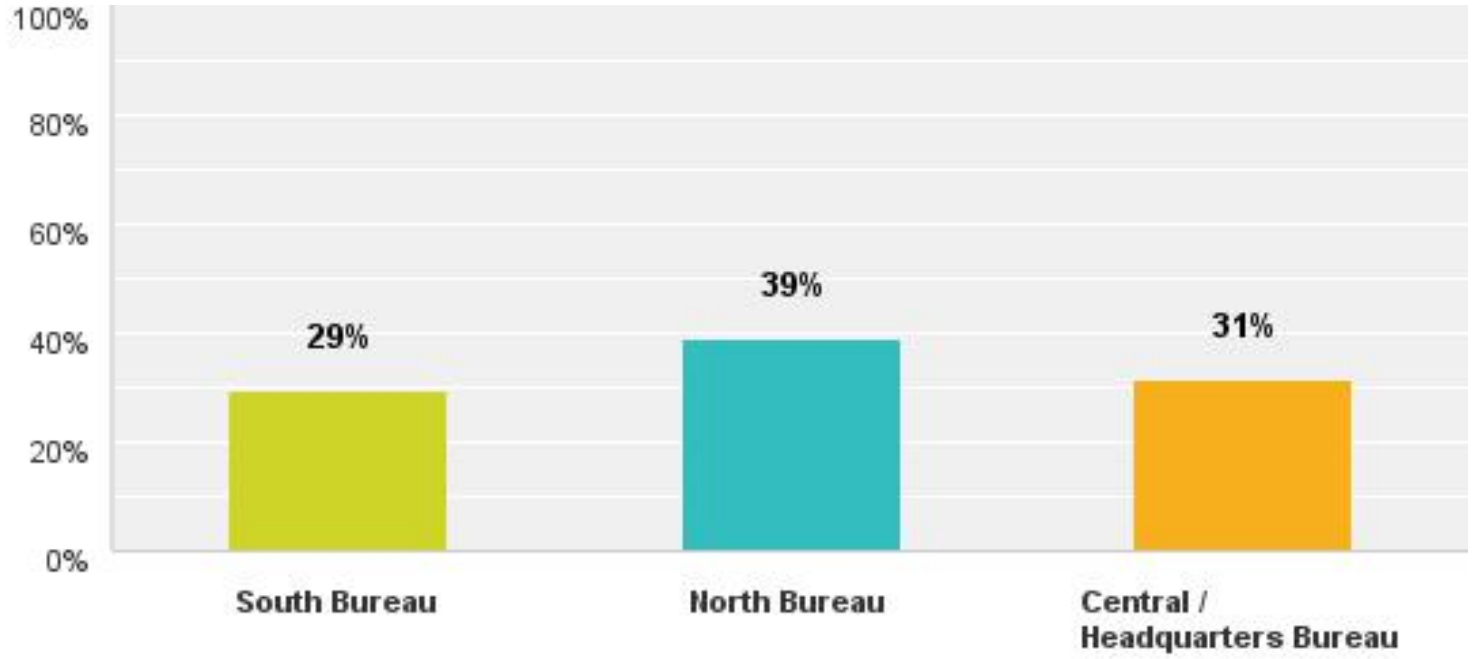
Q10: How frequently does your work require interaction with Metro Transit Security?

Answered: 395 Skipped: 24

Answer Choices	Responses	
Daily	23%	90
Weekly	21%	83
Monthly	19%	76
Never	37%	146
Total		395

Q13: My primary assignment is in the:

Answered: 378 Skipped: 41



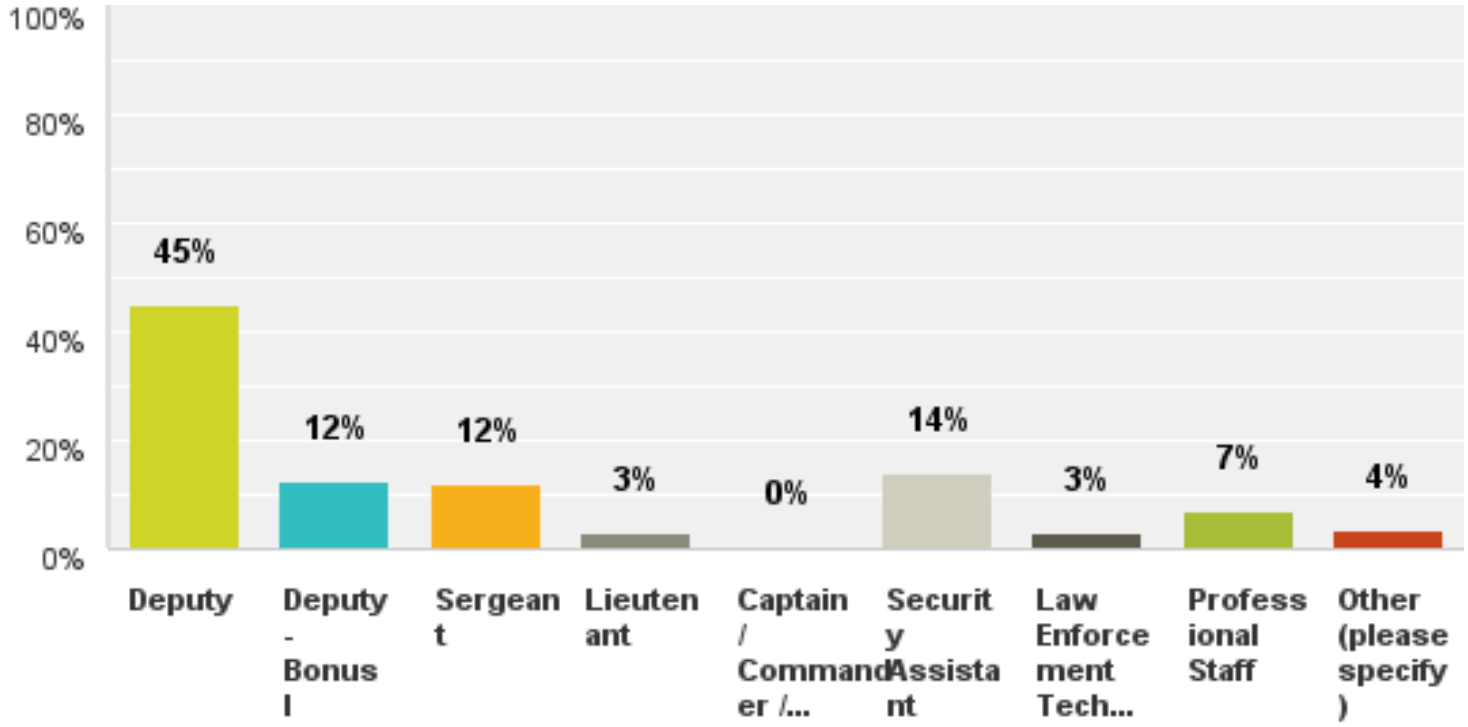
Q13: My primary assignment is in the:

Answered: 378 Skipped: 41

Answer Choices	Responses	
South Bureau	29%	111
North Bureau	39%	148
Central / Headquarters Bureau	31%	119
Total		**378**

Q14: I am a:

Answered: 383 Skipped: 36



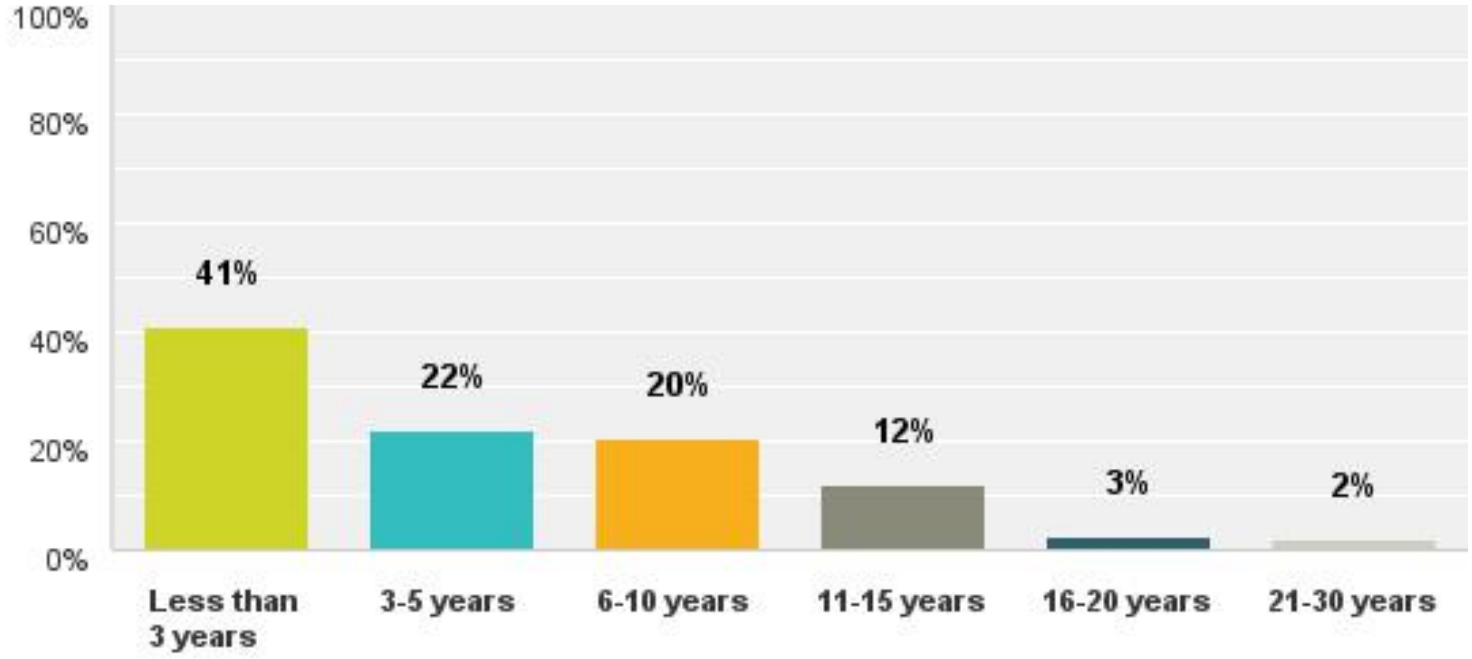
Q14: I am a:

Answered: 383 Skipped: 36

Answer Choices	Responses	
Deputy	45%	172
Deputy - Bonus I	12%	47
Sergeant	12%	46
Lieutenant	3%	11
Captain / Commander / Chief	0%	1
Security Assistant	14%	53
Law Enforcement Technician	3%	12
Professional Staff	7%	27
Other (please specify)	4%	14
Total		**383**

Q15: I have been with the Transit Services Division:

Answered: 385 Skipped: 34



Q15: I have been with the Transit Services Division:

Answered: 385 Skipped: 34

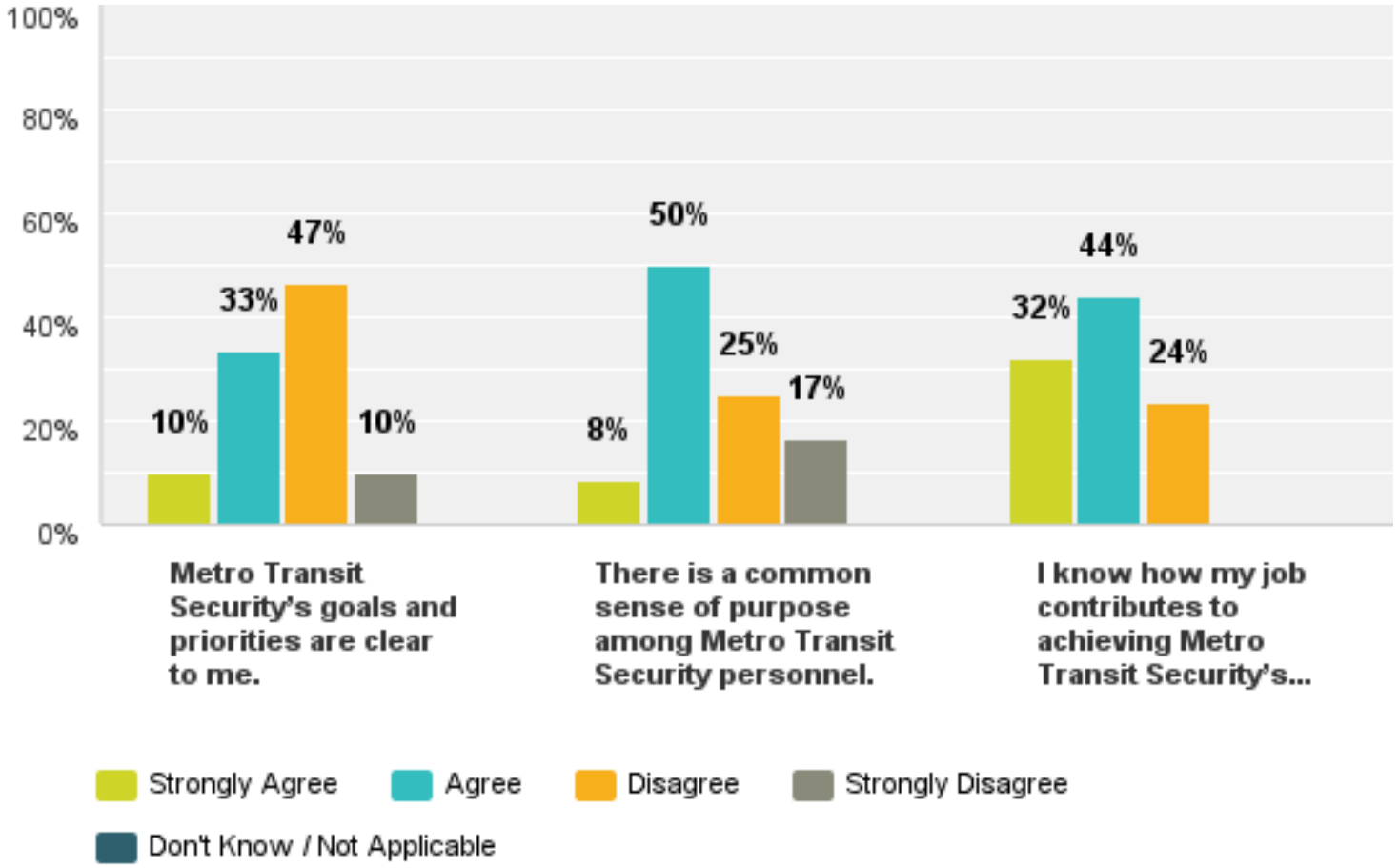
Answer Choices	Responses	
Less than 3 years	**41%**	158
3-5 years	**22%**	84
6-10 years	**20%**	78
11-15 years	**12%**	47
16-20 years	**3%**	10
21-30 years	**2%**	8
Total		**385**

METRO TRANSIT SECURITY EMPLOYEE SURVEY RESULTS

Metro Policing and Security Workload and Staffing
BCA Watson Rice, LLP

Q1: MISSION

Answered: 60 Skipped: 1



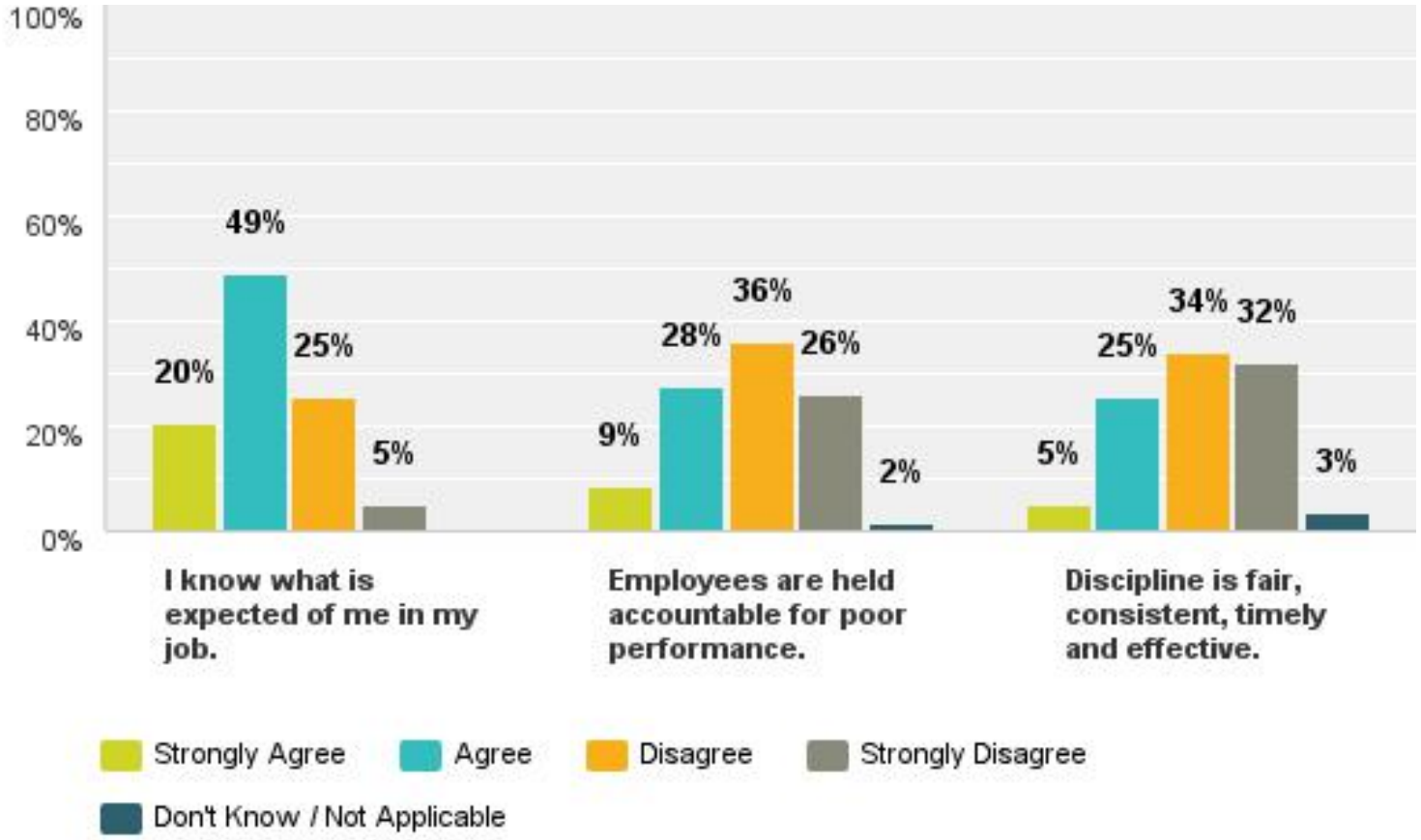
Q1: MISSION

Answered: 60 Skipped: 1

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
Metro Transit Security's goals and priorities are clear to me.	**10%** 6	**33%** 20	**47%** 28	**10%** 6	**0%** 0	60	2.43
There is a common sense of purpose among Metro Transit Security personnel.	**8%** 5	**50%** 30	**25%** 15	**17%** 10	**0%** 0	60	2.50
I know how my job contributes to achieving Metro Transit Security's goals.	**32%** 19	**44%** 26	**24%** 14	**0%** 0	**0%** 0	59	3.08

Q2: ACCOUNTABILITY

Answered: 59 Skipped: 2



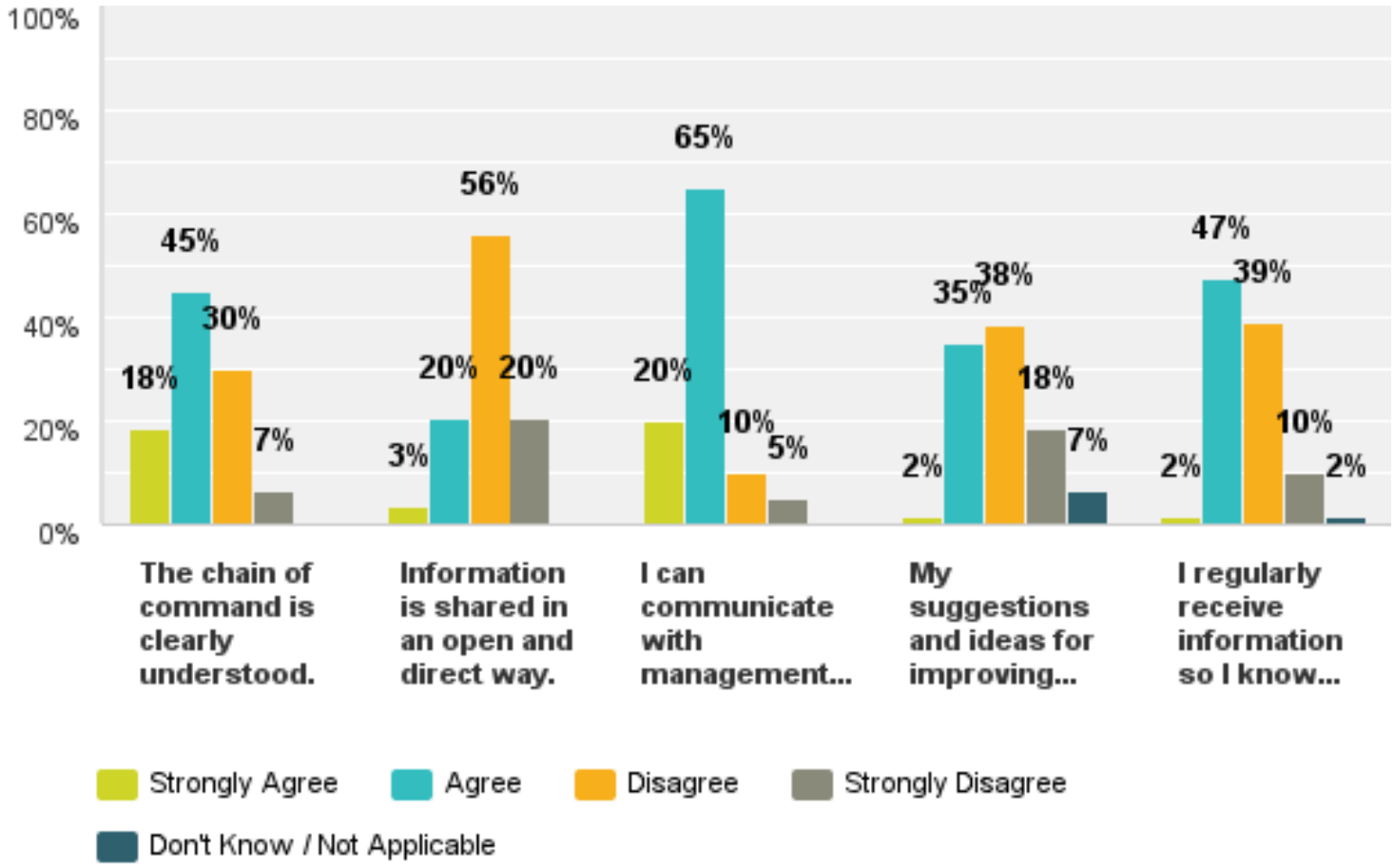
Q2: ACCOUNTABILITY

Answered: 59 Skipped: 2

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
I know what is expected of me in my job.	**20%** 12	**49%** 29	**25%** 15	**5%** 3	**0%** 0	59	2.85
Employees are held accountable for poor performance.	**9%** 5	**28%** 16	**36%** 21	**26%** 15	**2%** 1	58	2.19
Discipline is fair, consistent, timely and effective.	**5%** 3	**25%** 15	**34%** 20	**32%** 19	**3%** 2	59	2.04

Q3: COMMUNICATION

Answered: 60 Skipped: 1



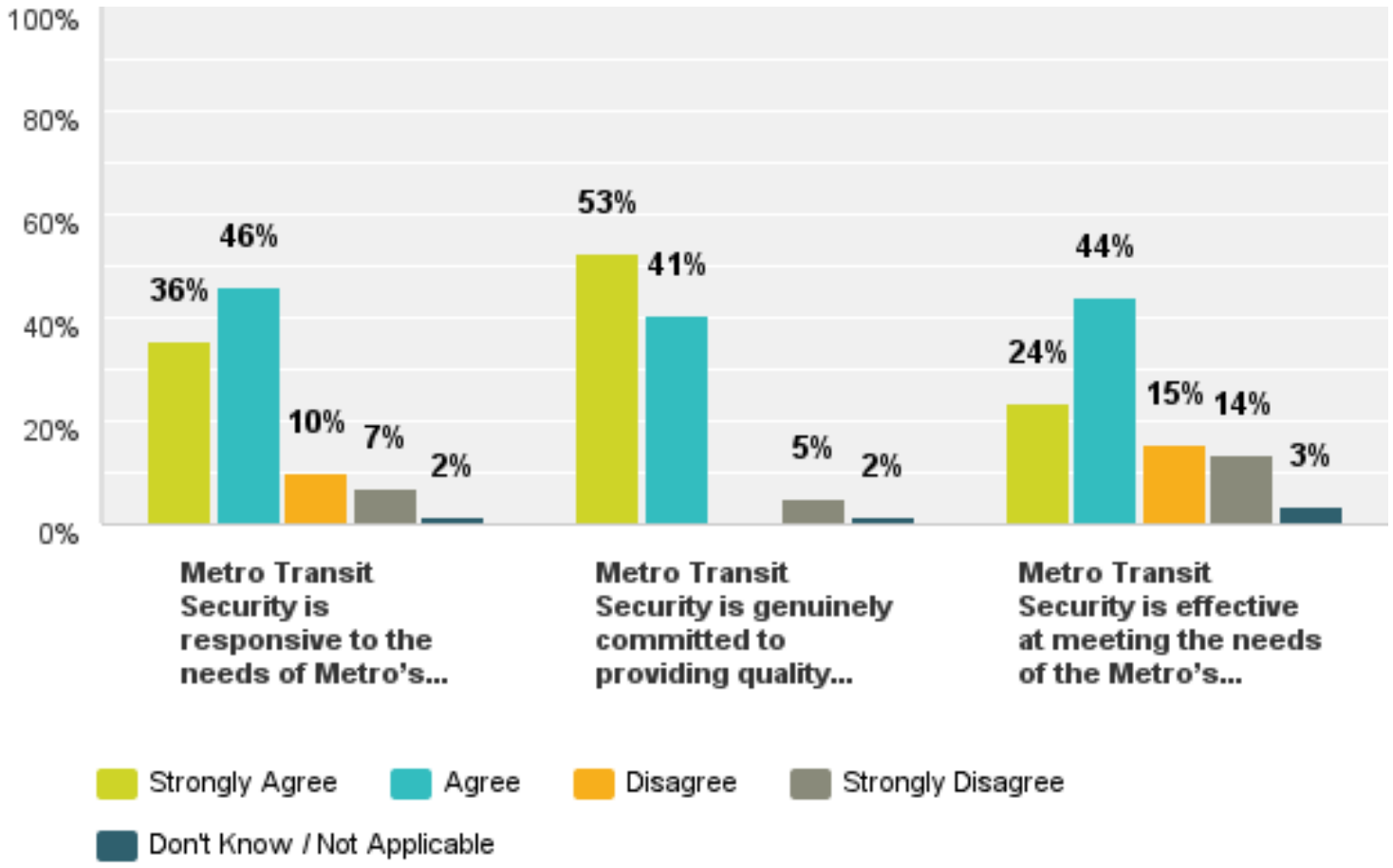
Q3: COMMUNICATION

Answered: 60 Skipped: 1

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The chain of command is clearly understood.	**18%** 11	**45%** 27	**30%** 18	**7%** 4	**0%** 0	60	2.75
Information is shared in an open and direct way.	**3%** 2	**20%** 12	**56%** 33	**20%** 12	**0%** 0	59	2.07
I can communicate with management if I need to.	**20%** 12	**65%** 39	**10%** 6	**5%** 3	**0%** 0	60	3.00
My suggestions and ideas for improving Metro Transit Security and its services are valued.	**2%** 1	**35%** 21	**38%** 23	**18%** 11	**7%** 4	60	2.21
I regularly receive information so I know what is going on.	**2%** 1	**47%** 28	**39%** 23	**10%** 6	**2%** 1	59	2.41

Q4: SERVICE DELIVERY

Answered: 59 Skipped: 2



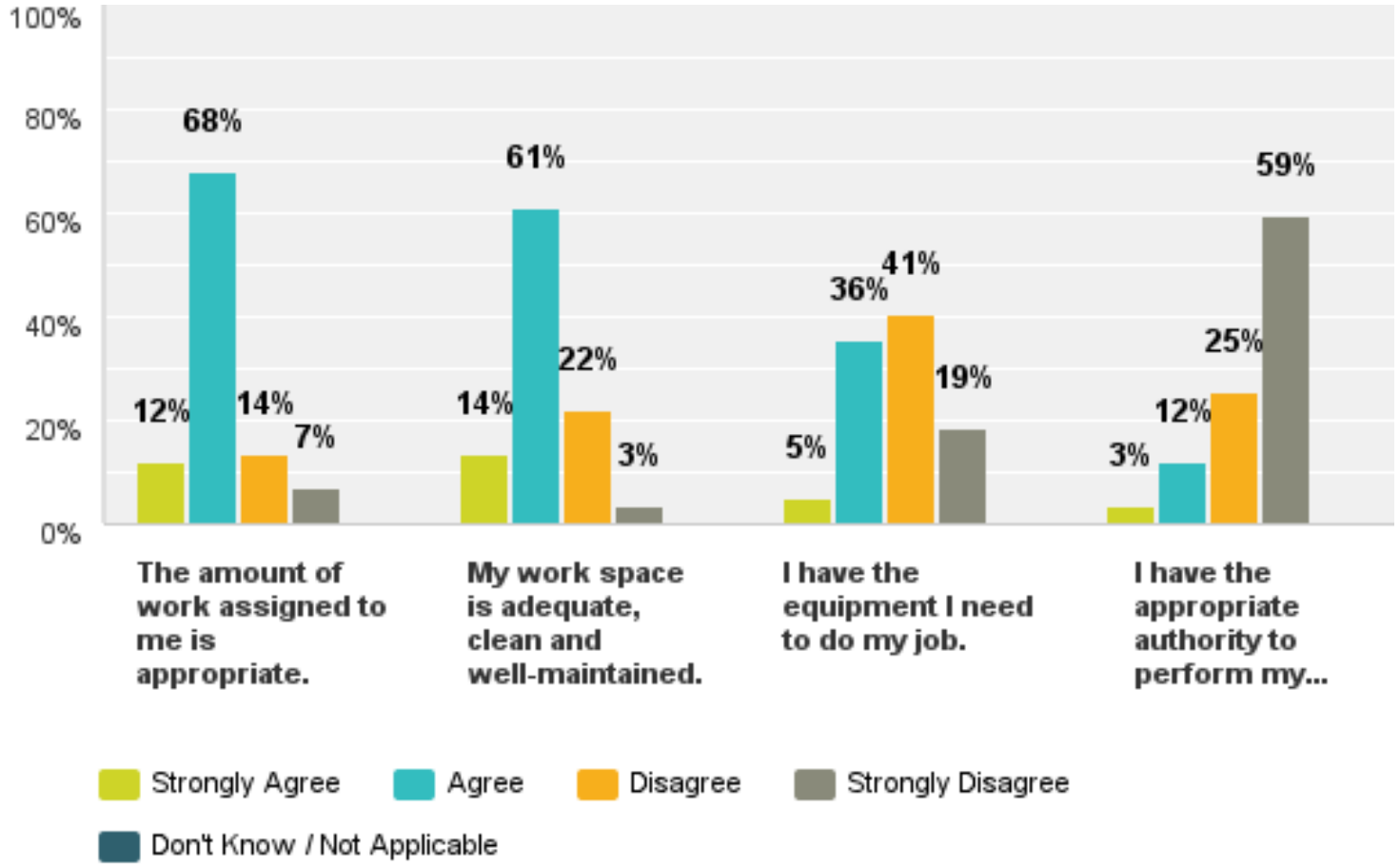
Q4: SERVICE DELIVERY

Answered: 59 Skipped: 2

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
Metro Transit Security is responsive to the needs of Metro's patrons.	**36%** 21	**46%** 27	**10%** 6	**7%** 4	**2%** 1	59	3.12
Metro Transit Security is genuinely committed to providing quality customer service.	**53%** 31	**41%** 24	**0%** 0	**5%** 3	**2%** 1	59	3.43
Metro Transit Security is effective at meeting the needs of the Metro's patrons.	**24%** 14	**44%** 26	**15%** 9	**14%** 8	**3%** 2	59	2.81

Q5: SUPPORT RESOURCES & WORKLOAD

Answered: 59 Skipped: 2



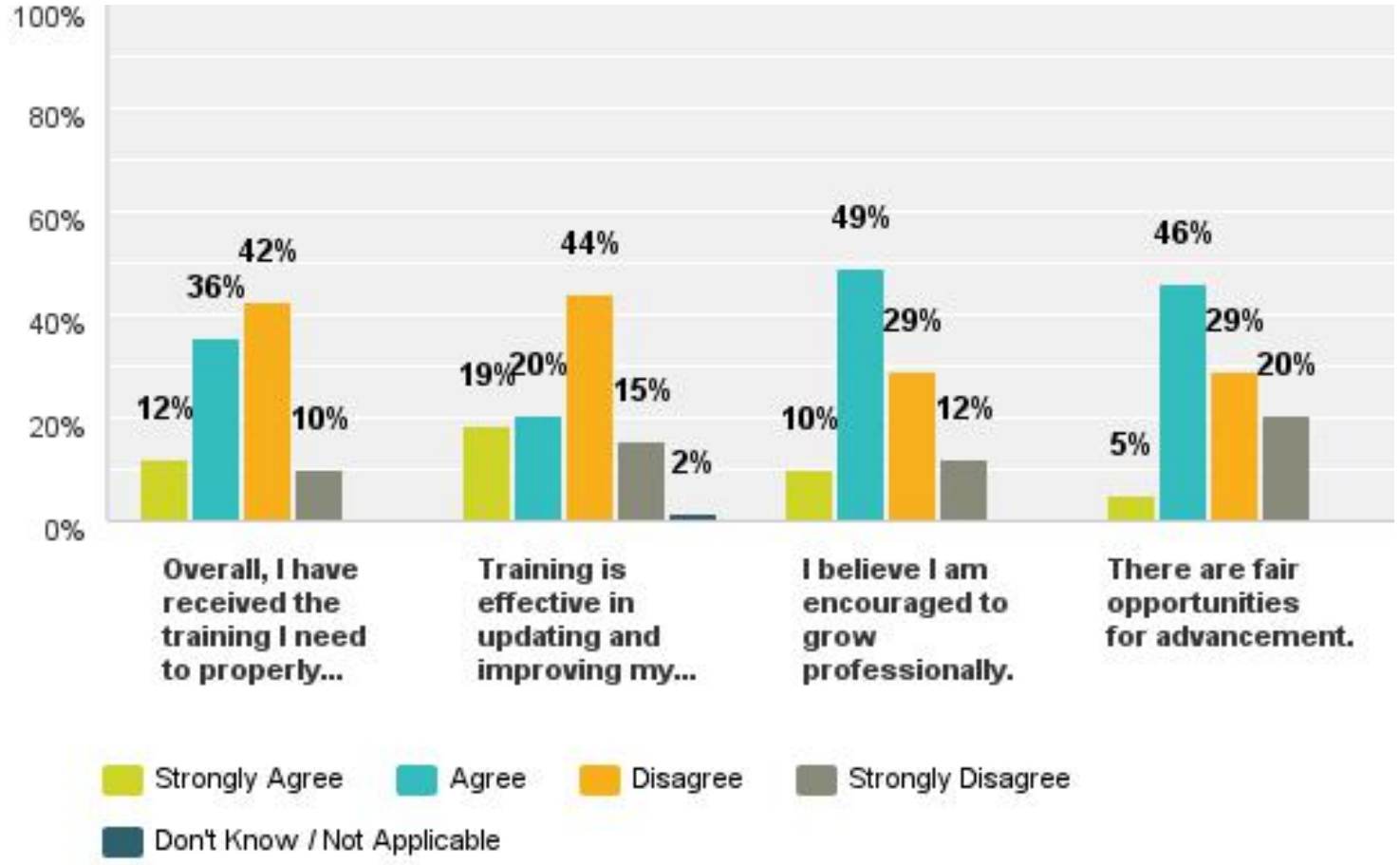
Q5: SUPPORT RESOURCES & WORKLOAD

Answered: 59 Skipped: 2

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The amount of work assigned to me is appropriate.	**12%** 7	**68%** 40	**14%** 8	**7%** 4	**0%** 0	59	2.85
My work space is adequate, clean and well-maintained.	**14%** 8	**61%** 36	**22%** 13	**3%** 2	**0%** 0	59	2.85
I have the equipment I need to do my job.	**5%** 3	**36%** 21	**41%** 24	**19%** 11	**0%** 0	59	2.27
I have the appropriate authority to perform my duties.	**3%** 2	**12%** 7	**25%** 15	**59%** 35	**0%** 0	59	1.59

Q6: STAFF DEVELOPMENT AND TRAINING

Answered: 59 Skipped: 2



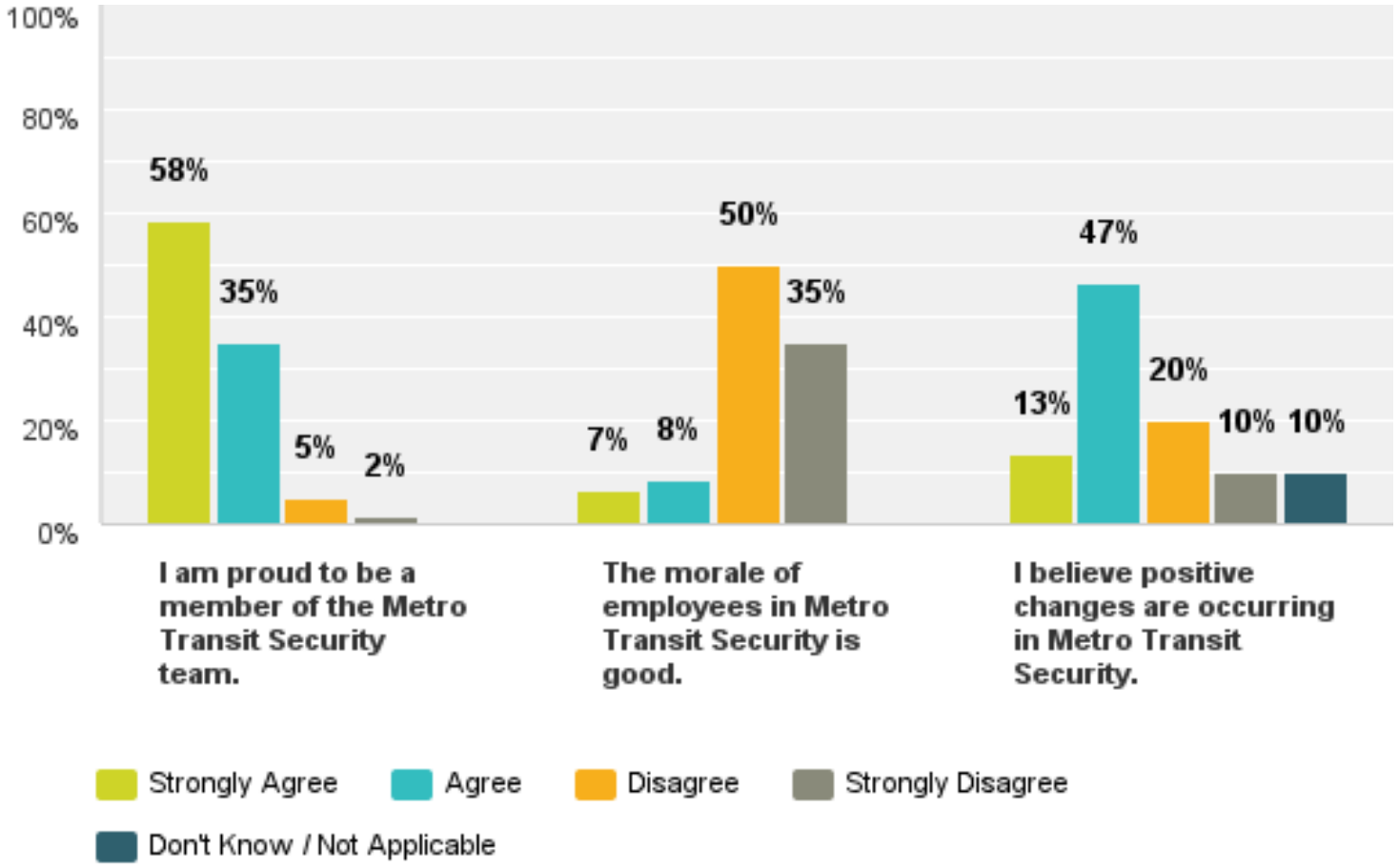
Q6: STAFF DEVELOPMENT AND TRAINING

Answered: 59 Skipped: 2

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
Overall, I have received the training I need to properly perform my work.	**12%** 7	**36%** 21	**42%** 25	**10%** 6	**0%** 0	59	2.49
Training is effective in updating and improving my skills.	**19%** 11	**20%** 12	**44%** 26	**15%** 9	**2%** 1	59	2.43
I believe I am encouraged to grow professionally.	**10%** 6	**49%** 29	**29%** 17	**12%** 7	**0%** 0	59	2.58
There are fair opportunities for advancement.	**5%** 3	**46%** 27	**29%** 17	**20%** 12	**0%** 0	59	2.36

Q7: MORALE & OUTLOOK

Answered: 60 Skipped: 1



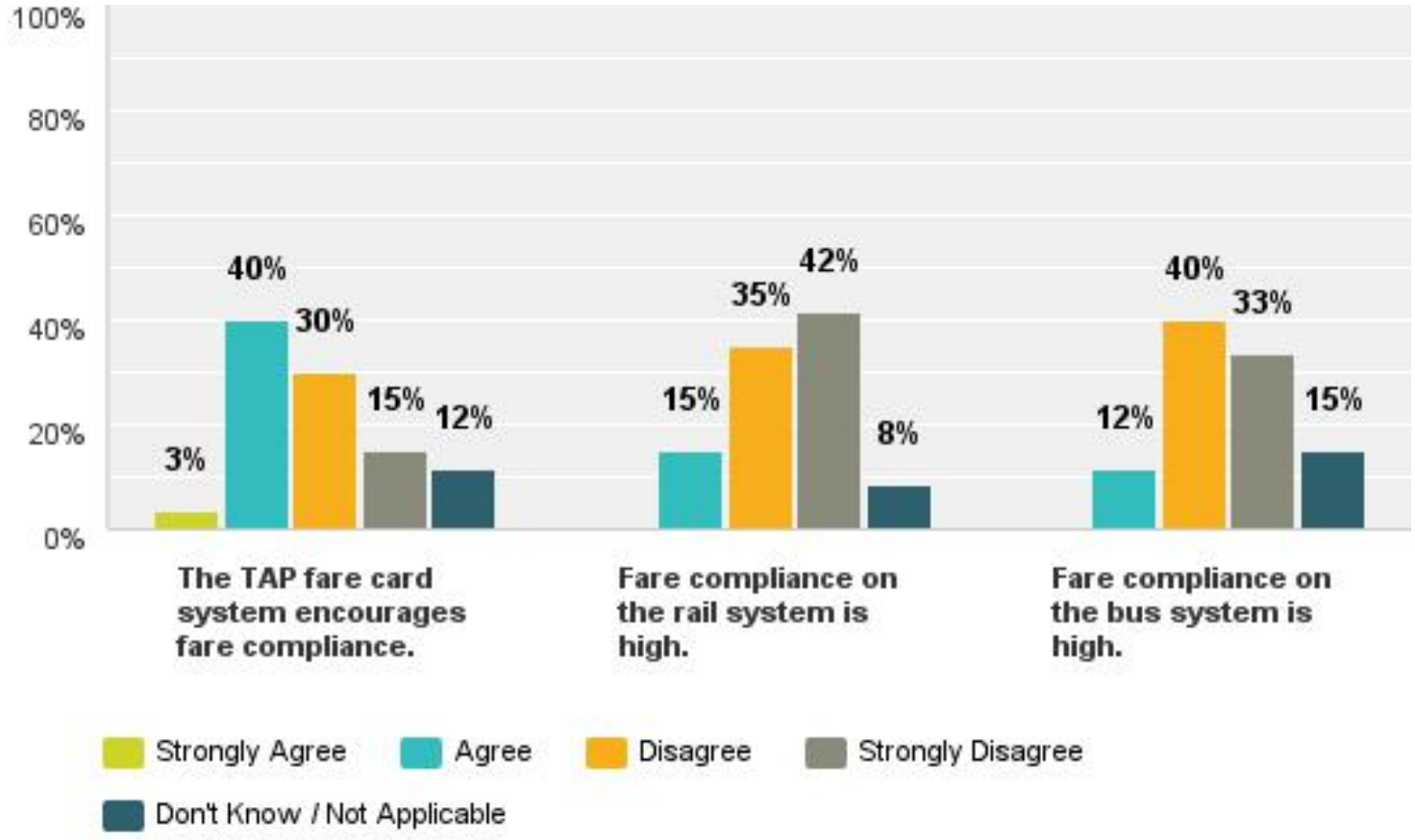
Q7: MORALE & OUTLOOK

Answered: 60 Skipped: 1

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
I am proud to be a member of the Metro Transit Security team.	**58%** 35	**35%** 21	**5%** 3	**2%** 1	**0%** 0	60	3.50
The morale of employees in Metro Transit Security is good.	**7%** 4	**8%** 5	**50%** 30	**35%** 21	**0%** 0	60	1.87
I believe positive changes are occurring in Metro Transit Security.	**13%** 8	**47%** 28	**20%** 12	**10%** 6	**10%** 6	60	2.70

Q8: FARE COMPLIANCE

Answered: 60 Skipped: 1



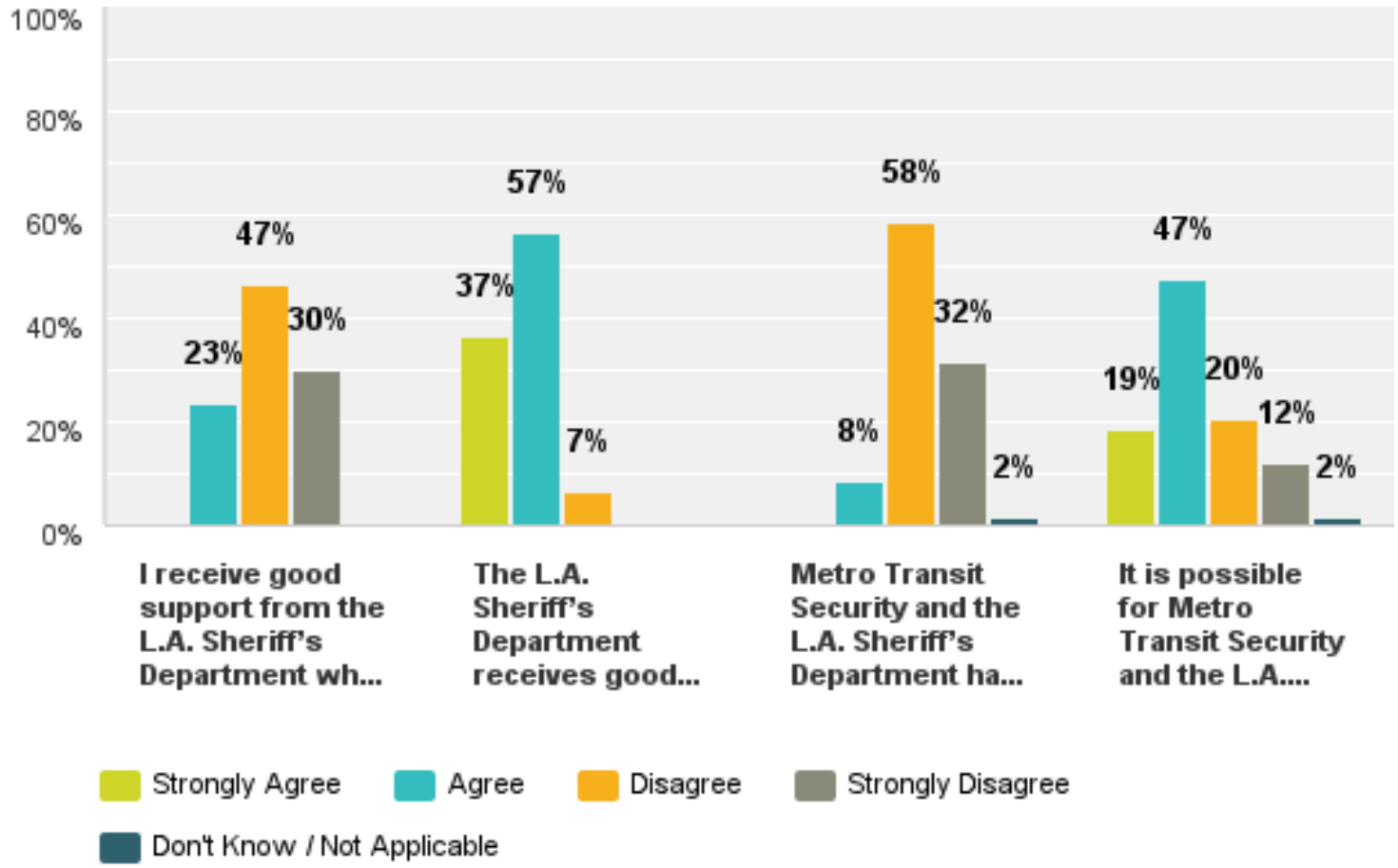
Q8: FARE COMPLIANCE

Answered: 60 Skipped: 1

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average
The TAP fare card system encourages fare compliance.	**3%** 2	**40%** 24	**30%** 18	**15%** 9	**12%** 7	60	2.36
Fare compliance on the rail system is high.	**0%** 0	**15%** 9	**35%** 21	**42%** 25	**8%** 5	60	1.71
Fare compliance on the bus system is high.	**0%** 0	**12%** 7	**40%** 24	**33%** 20	**15%** 9	60	1.75

Q9: INTERACTION WITH THE LOS ANGELES SHERIFF'S DEPARTMENT

Answered: 60 Skipped: 1



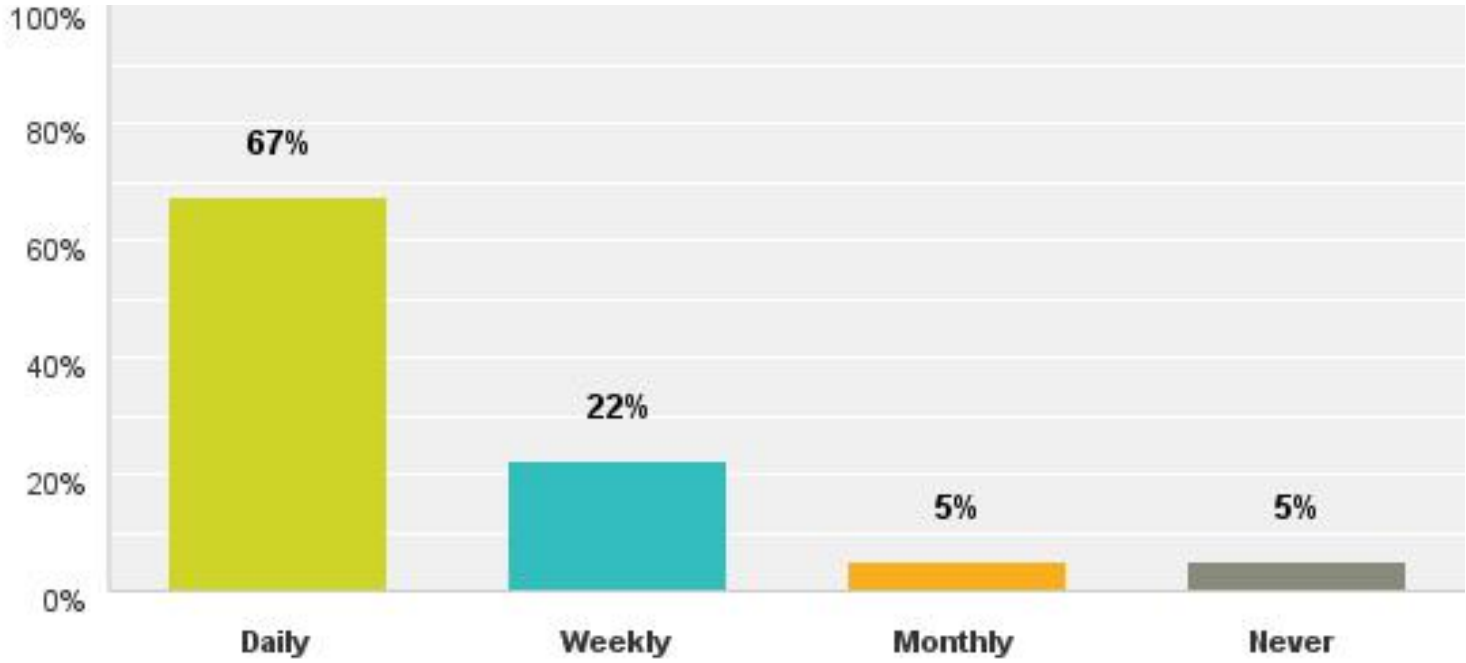
Q9: INTERACTION WITH THE LOS ANGELES SHERIFF'S DEPARTMENT

Answered: 60 Skipped: 1

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know / Not Applicable	Total	Weighted Average	ighted rage
I receive good support from the L.A. Sheriff's Department when needed.	**0%** 0	**23%** 14	**47%** 28	**30%** 18	**0%** 0	60	1.93	1.93
The L.A. Sheriff's Department receives good support from Metro Transit Security when needed.	**37%** 22	**57%** 34	**7%** 4	**0%** 0	**0%** 0	60	3.30	3.30
Metro Transit Security and the L.A. Sheriff's Department have a positive working relationship.	**0%** 0	**8%** 5	**58%** 35	**32%** 19	**2%** 1	60	1.76	1.76
It is possible for Metro Transit Security and the L.A. Sheriff's Department to work together effectively.	**19%** 11	**47%** 28	**20%** 12	**12%** 7	**2%** 1	59	2.74	2.74

Q10: How frequently does your work require interaction with the L.A. Sheriff's Department?

Answered: 58 Skipped: 3



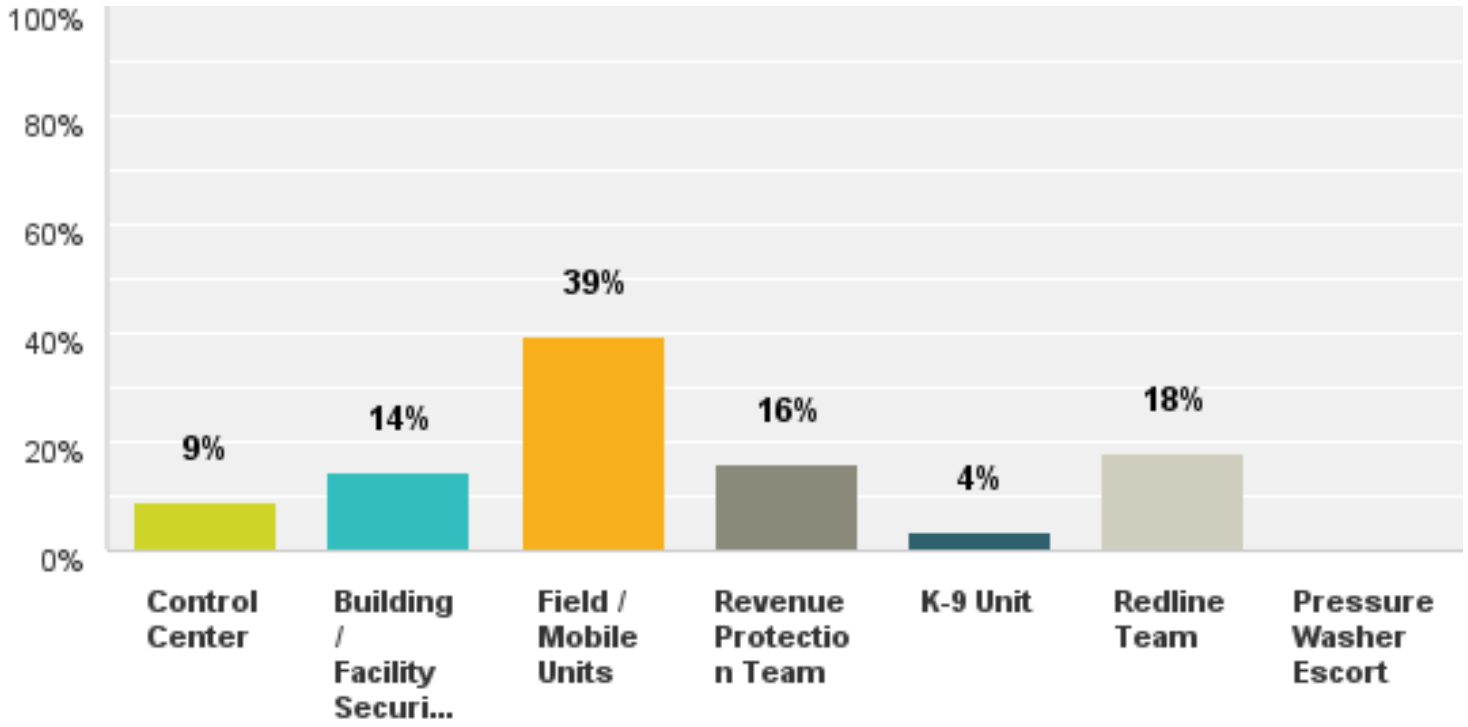
Q10: How frequently does your work require interaction with the L.A. Sheriff's Department?

Answered: 58 Skipped: 3

Answer Choices	Responses	
Daily	67%	39
Weekly	22%	13
Monthly	5%	3
Never	5%	3
Total		58

Q13: My primary assignment is in the:

Answered: 56 Skipped: 5



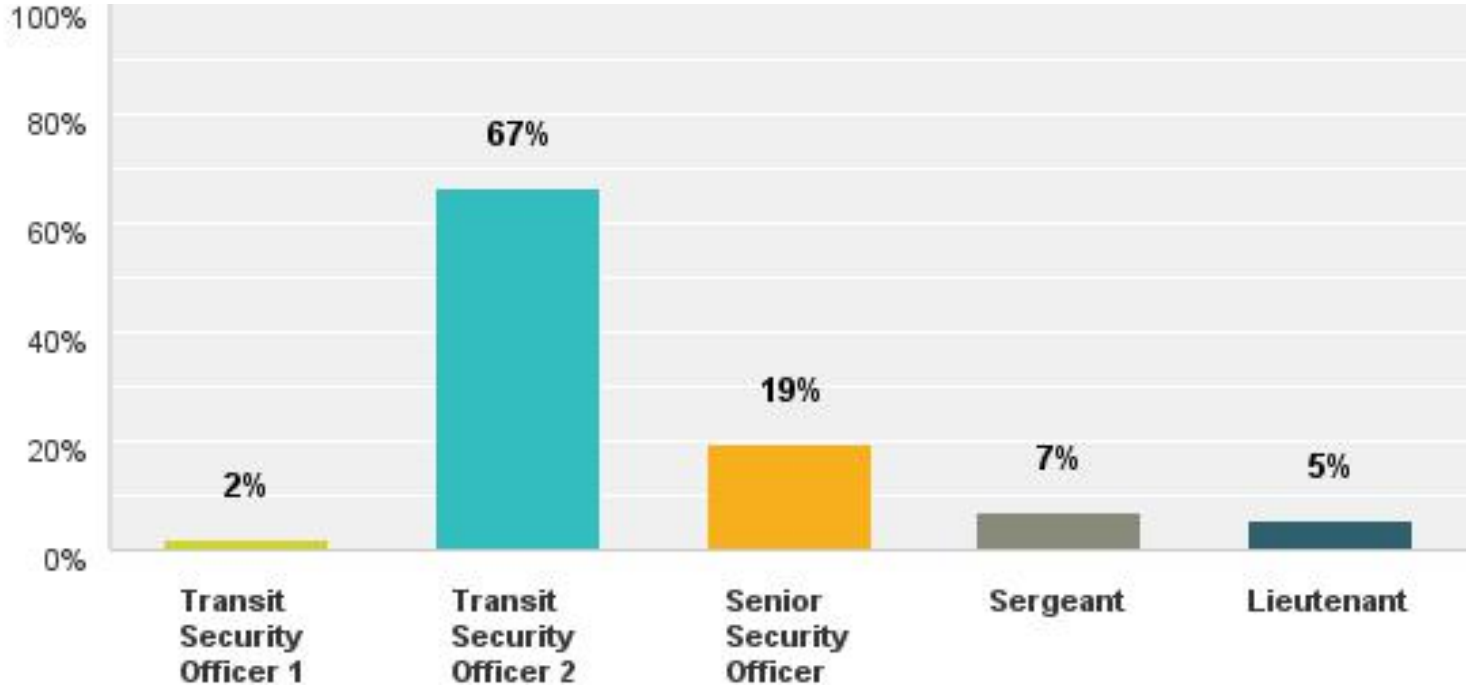
Q13: My primary assignment is in the:

Answered: 56 Skipped: 5

Answer Choices	Responses	
Control Center	9%	5
Building / Facility Security (Fixed Post)	14%	8
Field / Mobile Units	39%	22
Revenue Protection Team	16%	9
K-9 Unit	4%	2
Redline Team	18%	10
Pressure Washer Escort	0%	0
Total		**56**

Q14: I am a:

Answered: 57 Skipped: 4



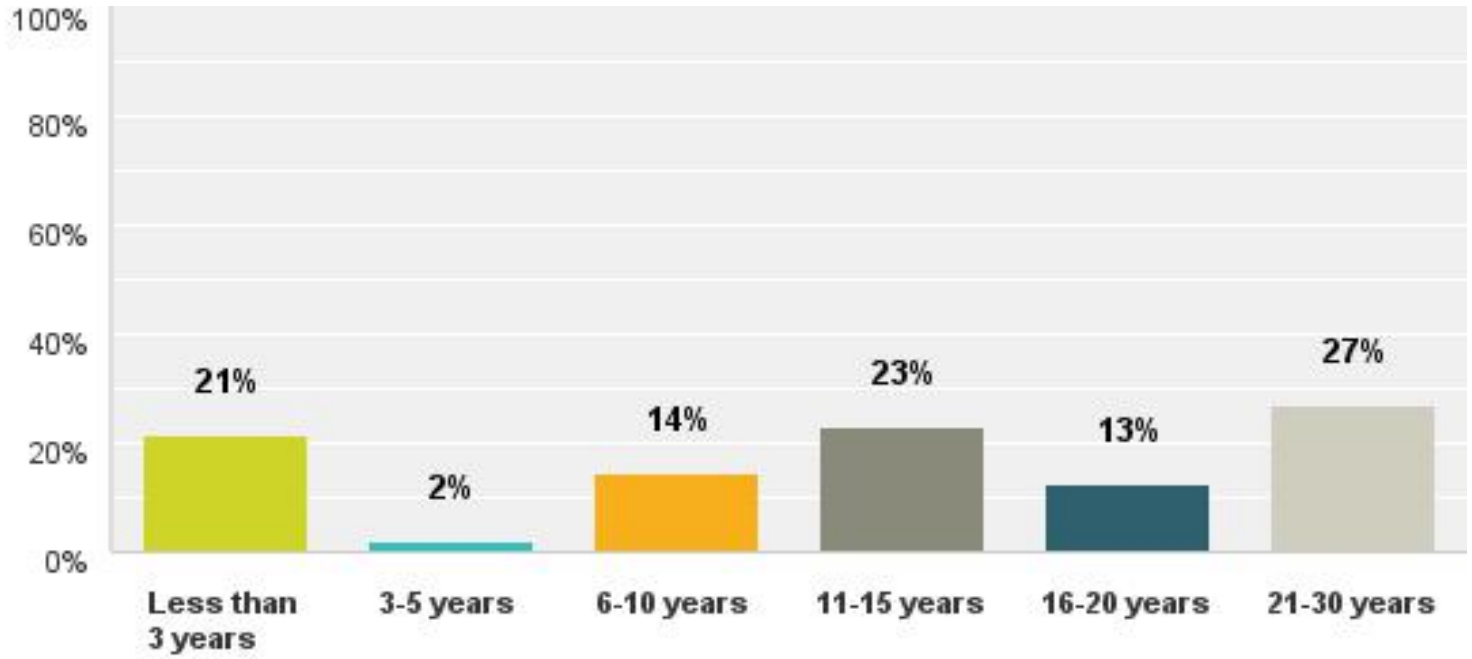
Q14: I am a:

Answered: 57 Skipped: 4

Answer Choices	Responses	
Transit Security Officer 1	2%	1
Transit Security Officer 2	67%	38
Senior Security Officer	19%	11
Sergeant	7%	4
Lieutenant	5%	3
Total		**57**

Q15: I have been with Metro Transit Security:

Answered: 56 Skipped: 5



Q15: I have been with Metro Transit Security:

Answered: 56 Skipped: 5

Answer Choices	Responses	
Less than 3 years	**21%**	12
3-5 years	**2%**	1
6-10 years	**14%**	8
11-15 years	**23%**	13
16-20 years	**13%**	7
21-30 years	**27%**	15
Total		**56**