COMPSTAT: A STREET-LEVEL PERSPECTIVE

by

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DEDICATION

This is dedicated to my family who supported me through the process thank you for your patience, strength, and support and to police officers across the country who risk their lives daily in order to protect the public.

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TABLE OF CONTENTS

	Page
List of Tables.	vi
List of Figures	vii
Abstract	
Chapter 1 Introduction.	
Chapter 2 Background	
Chapter 3 Methodology	
Chapter 4 Analysis and Results	
Chapter 5 Discussion and Policy Implications	
Chapter 6 Conclusion.	
Appendices	65
Bibliography	

LIST OF TABLES

Table	Page
Table 1. Officer Characteristics.	32
Table 2. Themes from the Open Ended Question on the Main Goal of SRS	33
Table 3. Rank Order Mean Scores of SRS Elements	37
Table 4. Officer Satisfaction with Teamwork.	38
Table 5. SRS Accountability Findings	40
Table 6. SRS Impact on Patrol Officers	
Table 7. Frequency SRS is Discussed	43
Table 8. Analysis of Variance Statistics	
Table 9. Cross Tabulation of Variables	

LIST OF FIGURES

Figure	Page
Figure 1. Six Key Concepts of the SRS Program.	35

ABSTRACT

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Since its creation in 1994, Compstat has emerged as a major policing reform. This innovation has been the recipient of numerous awards and has diffused rapidly across the U.S. policing landscape (Weisburd et al., 2003; Willis et al., 2010). Despite its popularity, there has been relatively little systematic research on Compstat from the perspective of a department's largest resource – its patrol officers. This research attempts to address this gap by using a survey to collect and examine the views of patrol officers of Compstat within a single police department in the Northern Virginia region that makes an effort to involve patrol officers in the Compstat process. Assessing street-level officer's understanding of Compstat is important as this reform, at least in theory, promises to transform the entire organization. Identifying whether the perspective of these officers is consistent with the agency's efforts is useful as it can reveal where implementation problems are likely to occur and what might account for these problems.

Surveys asked questions regarding the key elements of the Compstat program as it was designed by the organization in order to assess patrol officer perception. Findings show that many officers understood the main goal of the program and reported using problem solving and crime analysis data at the street-level; however, they did not feel that the accountability component required by command staff extended to them at the street-level. These results are in contrast to the traditional top-down management model of Compstat that places these responsibilities at the command staff level. Traditionally patrol officers are only tasked with responding to calls and following orders from command staff directed problem solving that stems from their use of timely data-driven information.

INTRODUCTION

Compstat is a police management innovation that originated in the New York City Police Department in 1994. The innovation is attributed to the leadership of then Police Commissioner, William Bratton, Deputy Commissioner Jack Maple, and other members of the command staff. Acting as a police management tool, Compstat uses data-driven information and management accountability to encourage the implementation of effective crime reduction strategies (Bratton, 1998; McDonald, 2004; Weisburd & Braga, 2006; Willis et al., 2004, 2007). Core elements of the total quality management concepts were incorporated in the NYPD model. These elements were the foundation for open communication between headquarters and command staff that emphasized crime control and better service delivery (Walsh & Vito, 2004). The elements of total quality management seen in the Compstat model include an organizational commitment to continuous improvement, a top-down management philosophy, and employee involvement. The focus on these management elements became part of the NYPD Compstat model under Bratton, bridging the gap between the private and the public sector.

One of the major tenets of the Compstat program is regular meetings of command staff during which problems are addressed, information is exchanged, and plans of action are discussed. At these meetings district captains are responsible for reporting their crime statistics, explaining the problems within their areas of responsibility, and presenting strategies developed to address these problems. Depending on the command structure of the organization, captains may be supported in their mission by lieutenants and sergeants who pass plans on to the street-level officers, who are ultimately responsible for their implementation. Compstat meetings are also where district captains are subject to direct criticism of their efforts should they fall short of expectations. This accountability measure is a vital component of the Compstat program and encourages management personnel to succeed and continuously improve.

Perhaps because of Compstat's focus on leadership and management, little research has been conducted on Compstat from the perspective of patrol officers. In fact, the creators of the innovation were mostly concerned with increasing the accountability of middle managers there by excluding patrol officers from the innovation context (Bratton, 1998). However, as the Compstat innovation diffuses there have been changes in implementation from the NYPD program (Willis et al., 2007). Police organizations have not merely adhered strictly to the NYPD model, rather some have emphasized the elements in which they are most interested (Willis et al., 2007). One example of a police agency that has taken this approach is the Alexandria Virginia Police Department (APD).

The Compstat program in Alexandria, known as the Strategic Response System (SRS), is the department's adaptation of the NYPD's Compstat program and shares many similar features with the traditional model. Some of the similarities include: a focused and clear mission of reducing crime, accountability of decision makers for results, regular

command staff meetings, use of data driven information to formulate crime reduction strategies and innovative problem solving. One major difference between SRS and the NYPD's Compstat program is that Alexandria involves the patrol officer in the Compstat process. This non-traditional approach by the department provides a unique opportunity to examine patrol level involvement in the Compstat model.

In fact, during discussions with the command staff it was clear that the APD makes an effort to train, communicate and involve officers in the SRS program. The Deputy Chief of patrol personally trains all new officers on the SRS program to ensure they understand the importance of SRS within the department. These efforts are also reflected in the literature the department produces about the program, which emphasizes involvement at all levels of the organization. The department also makes an effort to communicate SRS information through the use of street-level supervision. Supervisors are expected to buy-in to the SRS program and to encourage patrol involvement.

Information is communicated at roll-call before shifts begin that acts as a reminder to line officers of SRS information. The APD works to rely on data-driven information not just at the command staff level but also to push that information down to the street-level officer. In discussions with the Crime Analysis unit it was clear that regular crime statistics were provided to patrol officers for operational use. Problem solving is also encouraged at the street-level and an emphasis is placed on extending these efforts beyond the command staff to all levels of the organization. Although the APD SRS program shares many features with the NYPD Compstat model the efforts to involve the patrol officer in the SRS program is a key distinction between the two. The

top management in the APD is clearly behind patrol officer involvement in the SRS program and participation is expected at all levels.

The commitment by the department to include all levels of the organization in the SRS Program provides a unique perspective of the Compstat model. SRS provides an opportunity to assess the patrol officer perspective of a Compstat model where officers are expected to take part and have knowledge of the program that has not before been considered. The assessment of the patrol officer perspective was the focus of this study.

By examining officers' perceptions of SRS this project contributes to a more comprehensive understanding of Compstat than the rather limited current research on how Compstat operates from the top-down. From a larger policy perspective this view of Compstat is particularly important as the program spreads and police agencies attempt to improve their practices leading to changes in the innovation.

BACKGROUND

Policing as a science is an evolving discipline and the evolution of law enforcement institutions is one that has taken on continued growth in the last two decades in part due the emergence of new policing innovations (Weisburd & Braga, 2006). Of these, one of the most highly touted is Compstat. Since its creation in 1994, Compstat has been riding a wave of popularity that stemmed from its original success in the New York City Police Department in the mid-nineties (Bratton, 1998).

Some have argued that Compstat successfully contributed to drastic decreases in crime (Bratton, 1998) while others have raised questions regarding this connection (Eck & Maguire, 2000; Eterno & Silverman, 2006; Walsh & Vito, 2004; Weisburd et al., 2006). Whether or not the crime decrease can be attributed to Compstat, it is clear that the crime rate in New York City decreased significantly after its implementation. The semi-annual crime statistics reported in July 1995 included a 31 percent drop in the murder rate over that same period in 1994, a 21.9 percent decrease in robberies, an 18.1 percent decrease in burglaries, 25.2 percent decrease in motor-vehicle theft and the total crime rate was down 18.4 percent (Bratton, 1998). Despite the lack of strong empirical evidence for Compstat's role in reducing crime, it has received many accolades (Walsh & Vito, 2004). According to its supporters, Compstat drastically changed the organization of the

NYPD and set the stage for a new way of thinking in police management (Henry, 2002; McDonald, 2002; Walsh, 2001; Walsh & Vito, 2004).

As focus on Compstat increased after this initial success others began to think about the innovation and its possible diffusion. Research began to emerge that defined Compstat's elements and began to identify key concepts. Four main principles of Compstat identified by McDonald include accurate, timely information dissemination throughout the department, specific strategies for specific problems, immediate resource deployment to deal with identified problems, and a thorough follow up and assessment process of the methods used (McDonald, 2004). Weisburd et al. expanded upon these elements and classified six categories or main principles of Compstat (Weisburd et. al., 2003; Willis et al., 2007). These elements include mission clarification, internal accountability, geographic organization of operational command, organizational flexibility, a data-driven problem identification and assessment process as part of problem solving, and innovative problem solving tactics to address identified issues. A seventh element that was identified by Willis et al. addresses the area of external information exchange and providing those outside of the police organization access to the department (2004). It is these seven elements that became the foundation for understanding of the NYPD Compstat model.

As this study placed an emphasis on the patrol officer at the Alexandria Police

Department, these seven elements were reduced to the four that best relate to the streetlevel. These four chosen elements were clearly emphasized by the APD as taking place at
the street-level making them relevant for assessing the agency from this perspective. The

four chosen include mission clarification, problem solving, internal accountability, and data-driven information. They are described below in detail.

The first element of Compstat explored in this study is mission clarification. This refers to the organization's core mission – the fundamental purpose of the organization's existence. According to Bratton, the mission should be as specific as possible with the goal of a target or end point for an organization (Bratton, 1998; Weisburd et al., 2003; Willis et al., 2007). In this study this element was measured at the street-level by assessing the understanding of the patrol officers. Since the APD plans for patrol officers to take part in the SRS program and use SRS information one would expect patrol officers to be knowledgeable about SRS's core mission. If there is significant disagreement on the core mission among patrol officers, then it is difficult for the organization to claim it is focusing its energies on what matters most and communicating information down to the line officer. The department claims that SRS is comprehensive, however, the level of knowledge of patrol officers is unknown.

The second element of interest is internal accountability. This concept focuses on the need to hold key actors responsible for their actions and foster an environment that motivates individuals to succeed through positive and negative rewards (Maple, 1999; Weisburd et. al., 2003; Willis et al., 2007). This element is of particular interest for this study as it relates to the street-level perspective. This idea is traditionally applied to the command staff in the NYPD Compstat model that is geographically responsible for their districts. However; when the role of the street-level officer is considered it becomes clear that accountability measures for the patrol function will also be important as they are

tasked with carrying out crime initiatives. Further, the APD model explicitly claims to extend accountability throughout the organization as part of SRS, making this element important for the assessment. If the department incorporates the patrol officer, how responsible, if at all, do they feel for their performance under Compstat? Do they believe the captains experience this accountability? These questions were a goal of this assessment.

A third element is data-driven information. This concept involves the use of crime data such as police incident and arrest reports, as well as computer aided dispatch data, by the command staff in order to develop crime reduction strategies. A reliance on crime analysis information by sector captains is expected in the NYPD Compstat model and is a corner stone of the innovation. This study considers how patrol officers are encouraged, or take their own initiative, to use crime data and other crime analysis information in their districts. In fact, one of the origins for this element came from preliminary visits to the department where it was made clear that patrol officers were expected to receive and use crime data as part of their patrol strategies. This led to its incorporation in the assessment as it was viewed as a street-level responsibility by the APD.

The last element is problem solving. The importance of this element is in the use of new ways to consider crime problems and implement effective solutions to crime reduction (Weisburd et. al., 2003; Willis et al., 2007). This mentality needs to be encouraged in order to break reliance on traditional methods that may be ineffective and to foster adherence to change initiatives. This mindset must prevail in a Compstat system if it is to be successful (Weisburd et. al., 2003; Willis et al., 2007) but can be difficult for

organizations to properly implement. In the NYPD Compstat model this responsibility falls on the sector captains. However, the APD encourages the patrol officers to take a problem solving approach to crime in their sectors. This element was assessed in this study by understanding patrol officers' perceptions of whether they used problem solving in their patrol sectors.

These four elements were chosen, not only because they are intended to take place at the street-level in the APD SRS model, but also because they are the most relevant to the patrol officer perspective. The three other identified elements of the NYPD Compstat model, geographic organization of operational command, organizational flexibility, and external accountability, are less relevant to this assessment because they are more management focused. External accountability involves incorporating outside stake holders (Willis et al., 2004) into the information exchange process and is largely the domain of command staff and crime analysts who may provide Compstat data to outside communities. In order to adequately assess this element command staff, crime analysts, or community members would be the appropriate data source as they would have the best knowledge of the department's ability to accomplish this goal.

The Compstat element of geographic organization of operational command is also beyond the scope of patrol officers. The purpose of this function is to increase communication and limit coordination problems between units and is designated to district commanders (Willis et al., 2007). Patrol officers are tasked with an assigned sector and are removed from this allocation responsibility. As a result they most likely have limited knowledge of the ability of the department to accomplish this task.

Last, organizational flexibility is better assessed at the command staff level. This element requires that the organization develop a capacity to change without "disrupting existing structures and routines in response to non-routine work demands" (Willis et al., 2007, p 169) and is not a responsibility with which patrol officers normally become involved. Other than possibly seeing or becoming a part of a new deployment of officers in the field patrol officers are unlikely to know the management reasons or the ability of the organizations capacity to better organize resource deployment. This is not a patrol responsibility under the NYPD Compstat model and the APD does not stress this involvement by patrol officers.

By comparing findings of the APD assessment with the four chosen elements of the traditional Compstat model this study explores a bottom-up perspective of the organization as compared with the NYPD model. Understanding patrol officers' perceptions in a Compstat model that makes an effort to incorporate street-level perspective is important as this approach has received little attention from research. As a result, these findings may offer insight into the value that line officers can bring to Compstat when they are involved. This idea is contrary to the Compstat model conceived by Bratton in the NYPD in a number of ways.

The NYPD model was clearly focused on middle managers. Bratton as the lead creator of Compstat felt that there was a need for accountability at the precinct commander level and he made it clear that these managers were to be praised for their successes and held accountable for failures. In fact, the intent was to create the feeling that each precinct was a small police department with all of the pressure and

responsibilities that came with running a department (Bratton, 1998). Accountability for patrol officers was not a major component of the NYPD model as it was originally conceived. Bratton clearly makes this case for his management focus: "I am a police manger, not a criminologist. I tend to think about crime not as a sociological problem but as a management problem" (Bratton, 1999, p 10).

This focus came from the problems that were seen at the outset of Compstat. They included a lack of a sense of importance of the crime control mission, a lack of expectations for officers, police managers that lack creativity to solve problems, unproductive organizational structures, and a lack of good information with which to make decisions (Weisburd et al., 2004). These problems at the NYPD led to the focus on management reform to achieve results rather than a focus on patrol officers. Hence, when improvements were implemented and crime rates fell Bratton made the case that management changes were the primary reason for the success of Compstat. Patrol officers were only expected to follow orders and carry out crime initiatives and making arrests was their primary responsibility (Bratton, 1999). Bratton makes the case that before Compstat officers were more concerned with complying with bureaucratic rules and after its implementation they were tasked with "tactical strategic enforcement activities" (Bratton, 1999, p 19). This implies the NYPD mission of directing patrol officers from the top down in order to achieve results.

These differences show some of the contrasts between the APD and the NYPD techniques and intended uses for patrol officers. This management focused approach by the NYPD is not uncommon in police innovations and patrol officers are often excluded

from reform efforts. In fact, the challenges that patrol officers face when adopting police innovations are unique and their voice is often ignored in policing research. This makes the APD approach a shift in the Compstat model as not only does the department incorporate patrol officers into the SRS program but they also solicit patrol input during regular agency reviews. This effort to solicit the patrol perspective is not a focus of the majority of police departments or police research in the United States.

Some have gone as far to say that the majority of police research in the United States "embodies the interests and perspectives of police management and unduly neglects the interests and perspective of the officer" (Thacher, 2008, p 47). The problem of a narrow focus on police policy rather than practice is significant in that patrol officers, detectives, and patrol supervisors are ultimately charged with the task of carrying out the new policies. Further, a line officer assessment, makes the connection Thacher suggests which may lead to a better implementation of the Compstat program. If police research and subsequent policy creation is to be successful, incorporating and understanding street-level perspectives is a critical component (Lipsky, 1980).

A previous attempt to make this connection between policy and practice at the street-level in regard to Compstat was documented in an ethnographic study by Dabney that takes a bottom-up approach in its examination of Compstat at a single site (2009). This is the only study that specifically focuses on the connection between Compstat policy and street-level practice. Here the research moves beyond a measure of implementation of Compstat from a management perspective and toward its impact on the individual officer and street-level supervisor (Dabney, 2009). The goal was to observe

a "single geographic command within a larger Compstat-aligned police agency and then considering in detail how the rank and file members of the organization...orient toward this innovative management system" (Dabney, 2009).

Dabney finds that many of the "rank and file" officers had a poor understanding of the Compstat program and were unable to articulate its true meaning when asked. The understanding of core principles was limited or nonexistent despite the efforts and goals of the upper command staff (2009). Also highlighted was the overwhelming perception by the officers that the only goal of crime reduction strategies was to increase arrests or "bodies" for their command staff to use in the Compstat meetings. Ultimately the author found that the views of the officers did not align with the command staff's "top-down" expectations leading to a fracture of the organization's mission ideals in the district examined (Dabney, 2009).

Here Dabney demonstrates the importance of assessing Compstat from the perspective of patrol officers; however, his focus looks at one geographic area within the city and does not examine an agency that emphasizes the involvement of patrol officers like the APD. These concerns are addressed in this study by moving beyond a single geographic area in order to measure the entire agency while making use of surveys that provides access to a larger sample and benefits from quantitative analysis and focusing on a police agency that makes an effort to include all levels of the organization. This allowed for a more focused assessment of the street-level perception within a Compstat organization while providing a structured consistent format for responses tailored to the research questions.

Another example of insight into the street-level perception is seen in an article by Eterno and Silverman in which they found that patrol officers were not impacted by their supervisors sanctions (2006). Based on their research the majority of patrol officers were unlikely to respond to direction from commanding officers. As a result it is "likely that Compstat-driven activity is accomplished by very few officers who are most directly influenced by the commanding officers" (Eterno & Silverman, 2006, p. 225) in this case those officers assigned to the police station or office based assignments and not those at the street-level. (Eterno & Silverman, 2006). This finding raises questions about what aspects of Compstat patrol officers are following. These questions were addressed in this study.

In addition, Kelling and Sousa considered the role of the officer in the NYPD model of zero tolerance Broken Window theory approach (2001). They found that despite the zero-tolerance policies associated with broken windows policing, officers regularly used discretion when making decisions about whether or not to enforce laws for minor offenses. Instead officers used surrounding context to make decisions (Kelling & Sousa, 2001) raising questions about crime initiative adherence. This review of Compstat suggests that little attention has been devoted to assessing patrol officers' perceptions of Compstat. There has been some discussion of street-level impact but presently little actual data collection and analysis specifically at the patrol level exists.

Information from a patrol level assessment is important because when a policy change affects a patrol officer, as in the implementation of Compstat, often it can be met with resistance (Skogan, 2008). This resistance could have an impact on the directed

patrol initiatives from Compstat strategies that, when facing a lack of support, may receive little implementation. Often new initiatives within police agencies face resistance that does not match the enthusiasm of the command staff and may be seen by officers as the latest attempt at politics or a "passing fad" (Skogan, 2008).

Further, understanding officers' perceptions is important because limitations of program adoption can come in many forms and there are often specific challenges to implementing programs that involve street-level workers such as the police (Maynard-Moody et. al., 1990). In street-level organizations despite the existence of considerable structure, policy needs to be able to adapt to fit within these dynamic structures (Lipsky, 1980; Maynard-Moody et. al., 1990) and an important step in this process is understanding actor perceptions.

A limited understanding of a new policy or crime strategy that is implemented within an organization may also be due to an attempt to make sense of the new requirements by the actors to understand their job under the new strategy (Lin, 2000). This may lead to the view of each new initiative or innovation by actors through the values and norms most salient within the organization in which they operate regardless of command staff intent (Lin, 2000). As a result, a better understanding of the street-level can provide insight into the culture of the organization that is important for command staff to understand if they are to fully implement Compstat in the organization.

This influence of culture within the organization may explain a lack of adherence to a new plan or policy as the organizational actors attempt to navigate their environment as they understand it to satisfy the needs they perceive have been created by the

organization (Hall & Tolbert, 2005; Lin, 2000). This is due to the fact that within the organizational culture there may be years of ingrained norms impacting the actors within the organization including the incentives and sanctions perceived to satisfy those needs (Lin, 2000). As a result, those within the organization can feel constrained by these guidelines and feel pressure to operate within them regardless of new policies and programs if leadership does not adequately communicate the new innovation and its related guidelines to the organization.

These implementation challenges show the importance of assessing Compstat attitudes and opinions at the street-level. Allowing for a better understanding of how patrol officers perceive the program may provide insight into ways command staff can improve officer perception and may improve participation. In addition, better understanding of the police organization at the street-level will allow for increased understanding of how Compstat is adopted and whether the innovation remains a viable program to be used in the future (National Research Council, 2004).

Research Questions and Hypothesis

The limitations of the current research and the need to better understand an important innovation within the field demonstrates the importance of this study, and makes the case for the value of the project. To address this need there were two research questions. The first stems from the goal of the APD placing an emphasis on involving all levels of the organization in their Compstat program. Will these efforts contribute to use and support of SRS by patrol officers? For this question I hypothesize that officers will

have a generally high level of knowledge and participation in the SRS program due to the department's efforts to include them in the SRS process. The second research question is, what might explain the variation, if any, in their perceptions of SRS? For this question I hypothesize that variation will be explained by a number of areas assessed in the study including the amount of training received and the perception of that training, knowledge of the program, length of service, shift worked, sector worked, and education.

METHODOLOGY

To address the research questions the study was conducted on- site at the police department in Alexandria, Virginia. The method used incorporated a survey instrument that was administered in person to patrol officers assigned to the patrol division in each sector. The survey assessed the key concepts of the SRS program described earlier. The patrol division consists of 130 officers divided into two groups; an A and a B shift. These two groups are further divided across three shifts: day, evening, and a midnight. In order to reach as many officers as possible the survey was administered at all three shifts for both group A and B.

The survey took officers approximately ten to fifteen minutes and was administered at pre-shift or roll-call meetings. Informed consent was obtained from officers before the survey was administered through a pre-survey instruction and consent page at the start of the survey as well as through in person instruction. Officers were not required to complete the survey and could decline to answer any question. The instrument was designed to capture information about opinions and attitudes of the officers regarding the agency's Compstat program as they understand it at the street-level. This was not an assessment of the mechanism that transfers information to the street-level within the

department, but rather the opinions of the officer of the program as they see it from a patrol officer perspective.

Research Site

The City of Alexandria police department is located in a major metropolitan area outside of Washington D.C. and has an authorized strength of 320 sworn officers. The department serves a population of 150,000 residents, 69.6% that are white, 22.4% that are black, 5.8% that are Asian, 0.4% American Indian and Alaskan Native persons, 0.1% Native Hawaiian and other Pacific Islander, 1.7% other race or two races and 14.7% of these are of are Latino or Hispanic origin (2010 U.S. Census). According to the index crimes known to the police as reported in the FBI's Uniform Crime Reports, the city's crime rate (per 100,000) has decreased from 5,249 for 2006 to 4,713 for 2009 (VA. State Police). The city is divided into three main sectors to determine geographic accountability. Each sector has an assigned captain responsible for the operations. The department has expressed interest in research and has been open to evaluation in an attempt to improve their program and to better serve the community. The SRS (Strategic Response System) program was implemented in 2004 and is modeled after the Compstat model. The SRS mission statement is as follows:

Alexandria's Strategic Response System (SRS) incorporates successful approaches and best practices from other jurisdictions to meet the Police Departments goal of using sophisticated and ongoing crime analysis data to

respond proactively and effectively to new and emerging crime trends (APD Website, 2011).¹

As part of achieving this overall goal to reduce crime the department stresses a number of key concepts that were the focus for this street-level assessment. They include mission clarification of the SRS program, teamwork, internal accountability, problem solving, crime reduction/use of data-driven information, and leadership and communication (APD, 2011). The SRS meetings occur bi-weekly and are a command staff forum that allow for a problem solving approach to problems within the community. Patrol officers do not generally attend these meetings unless they are being recognized for good performance. However, they are not explicitly excluded from attending. These key concepts were implemented into the assessment of patrol officers' during the study in order to complete a direct evaluation of the impact of SRS on the street-level officer.

Sample

The sample consisted of available patrol officers assigned to patrol during data collection. Of the 130 authorized patrol officers at the APD the department indicates that they have approximately 120 currently in the patrol division due to attrition and ongoing hiring processes. It is these current patrol officers who were the target of the survey. In order to survey as many officers as I could, I administered the survey on two consecutive days, allowing me to survey officers who worked both A and B sides. As a result I

¹ See Appendix A for full mission statement regarding the SRS program from the department website.

collected data on the last day of one side's work week and the first day of the second side's work week. I administered the survey in person to officers and all that were present filled out a survey. In total across both sides and all shifts the final number of surveys collected was 82, giving me a 68% response rate.

The Survey Instrument

The survey was designed after spending time at the APD and talking with command staff about the program. Questions were based on department information of the SRS program that included key concepts, main goals and overall intent of the command staff. The questions in the survey were the basis of the dependent and independent variables for the study.² Questions associated with each variable are referenced below.

Dependent Variables

To address the core research questions identified above, those elements of SRS most relevant to how patrol officers do their work were used. These were chosen as they were clearly communicated by the department as targeted toward patrol officers in the SRS program. A brief explanation of each concept is seen below:

² See Appendix B for the full survey instrument

Mission Clarification

This theme assessed officer overall understanding of SRS and explored street-level perceptions of some of the major goals and elements of the program.³ Discussions with the command staff made it clear that the program was a major part of the department's mission. As a result the expectation was to a find a high level of knowledge, understanding and consensus among patrol officers.

Teamwork

The concept of teamwork is one of the foundations of the APD approach. Information from Alexandria Police Department about SRS states that one of the goals of the program is to promote teamwork in order to include the entire organization into the SRS program. Within the department teamwork is expected at all levels of the organization and can be regarded as fostering collaboration between units and within individual squads in response to crime problems. Therefore, this category allows for insight into how officers work together to accomplish department SRS goals. Officers were asked their opinions of

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³ Questions for this concept included: 1. To the best of your knowledge what is the main goal of your department's SRS program? (Please describe below) 2. Please rank the following SRS goals in terms of their importance with 1 being the most important and 6 being the least important.

teamwork within patrol and among different units as well.⁴ This includes the crime analysis unit that the department states pushes information to all levels.

Internal Accountability

Accountability for performance is a major focus of the program for sector captains in the NYPD Compstat model. This is also a focus of the SRS program with the distinction that the accountability is also extended to the patrol officers. For this study officer perception of this element is assessed to see if the department was able to extend this element to the street-level. Officers were asked about their experience of accountability as well as supervisor accountability in order to explore whether the SRS program holds both management and patrol officers accountable for issues in their district.⁵

Problem Solving

The ability to apply creative problem solving as the result of the Compstat program may be one of the most visible components of the program (Goldstein ,1990; Silverman, 1999;

⁴ Questions included: 1. To what extent has the SRS program led you personally to work with other patrol officers in your own sector to solve crime problems? (Please Check One) 2. To what extent has the SRS program led you personally to work with other units outside of your own? (Please Check One) 3. Overall, how satisfied are you with the level of teamwork in this department between different units?

⁵ Questions included: 1. Please indicate to what extent you agree with the following statement: In your opinion, SRS holds patrol officers personally accountable for reducing crime in their sectors. 2. Please indicate to what extent you agree with the following statement: In your opinion, SRS holds sector captains personally accountable for reducing crime in their sectors. (Please check one) This was also assessed in a rank order question and compared to others as most and least important.

Willis et al., 2007). Problem solving involves making use of the data-driven nature of the program and putting to use the information in ways that will address identified problems effectively. For this study problem solving is explored to see if the command staff were able to extend the problem solving efforts that are concentrated at the manger level in the NYPD model to the street-level. Others have considered problem solving at the street-level (Goldstein, 1990). However, the patrol officer's use of this concept within Compstat's top-down approach is the focus of this study. Questions for these key concepts directly assessed whether officers were motivated to take a problem solving approach, whether officers felt problem solving was a major element in the program and whether the problem solving efforts of the command staff were effective. ⁶

Crime reduction/Use of Data-Driven Information

For this section overall crime reduction and the impact of SRS on decision making were examined. For these questions⁷, the concern was whether patrol officers use SRS information to influence patrol strategies on the street. Questions asked officers specifically whether they adhere to SRS initiatives to guide patrol strategies and whether officers believe that the crime reduction strategies implemented are effective.

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⁶ Questions for this section included: Please indicate to what extent you agree with the following statement: Crime problems in my sector are resolved through the use of SRS. This was also assessed in a rank order question and compared to others as most and least important.

⁷ Questions included: 1. Please indicate to what extent you agree with the following statement: The use of SRS has reduced crime in my sector. 2. Please indicate to what extent you agree with the following statement: SRS contributes to the use of effective patrol strategies in the department.

Leadership and Communication

The top-down approach that dominates the Compstat paradigm makes leadership and communication a key element in communicating information to the street level. If the department is committed to including patrol officers in the SRS program, responses are expected to show that patrol officers demonstrate a high level of information exchange from supervisors. The types of questions for this concept included the frequency of supervisor communication of SRS information, and whether officers believe that supervisors demonstrate adequate knowledge of the program. ⁸

Independent Variables

Training

To address the second research question several possible explanatory variables were included in the survey that served as independent variables for the analysis. ⁹ When

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⁸ Questions included: 1. In my opinion, command staff takes adequate time to explain to patrol officers what specifically happens at regular SRS meetings. 2. In my opinion, command staff has done a good job of explaining to patrol officers the overall purpose and function of SRS in the department. 3. Please indicate the frequency with which your supervisor discusses what happens at SRS meetings. 4. Please indicate how supportive your supervisor is of the SRS program with 1 being the lowest and 5 being the highest. 5. Please indicate to what extent you agree or disagree with the following statement: My supervisor demonstrates adequate knowledge of the SRS program. 6. Please indicate to what extent you agree or disagree with the following statement: My supervisor clearly explains what the major SRS initiatives are in my sector.

⁹ Questions included: 1. Please indicate to what extent you agree or disagree with the following statement: The training I have received on the SRS program is adequate. 2. Please indicate to what extent you agree or disagree with the following statement: If more

assessing the knowledge of officers one important area to understand is the department's role in training. Training is a part of police organizations, particularly those that adopt innovations (Birzer & Tannehill, 2001) as with SRS. Further, police officers have been found to resist official training and prefer to rely on their own experience as a means of information (Bayley & Bittner, 1984). Regardless, officers typically receive training in all of the key areas they are responsible for such as defensive tactics, shooting, driving, legal. In fact, in discussions with the command staff it was clear that the APD makes an effort to train every officer on the SRS program. The challenge of training, as well as the department's commitment to do so, makes the case for the importance in the assessment. Further, if officers are not adequately trained this could provide insight into an area of needed improvement. Considering the APD commitment to including officers, the expectation is to find officers are well trained in the SRS program.

Officer Characteristics

The last theme addressed several additional possible explanatory factors that represented a number of independent variables. The variables explored in this section are as follows: length of service, sector worked, education, and shift. These were chosen for as possible explanatory components to survey responses. Education was chosen, as it is generally perceived as positive factor in the field. Research shows a link between education and performance (Smith & Aamodt, 1997; Truxillo et al., 1998) as well as a link to other

training were offered on the SRS system, I would be interested in attending. 3. Please indicate the amount of training in hours you have received on the SRS program.

factors such as the abuse of authority (Telep, 2010). If education is linked to performance then I expect to find that officers that have more education may respond differently to SRS leading to differences in survey response.

Length of service may have a significant impact on officer perceptions, as officer opinions are shaped by patrol and organization experiences over time. Research has shown that officers with more experience do less police work, while less experienced officers do more preventative patrolling and initiate more citizen contacts (Sherman, 1980). If officers with more years of service are doing less work than those with fewer years of service it may impact their opinions and participation in the SRS program.

Shift may also explain differences. Research shows that working night shifts and rotating shifts has an impact on police performance (Vila, 2006) that includes increased fatigue and even safety issues. If officers are experiencing these effects they may be less likely to take part in the SRS program initiative, engage in problem solving and use crime data at the street level.

Last, sector was chosen as a possible explanatory element for two reasons. The first was to understand differences in leadership influence. If one sector reports more adherence than others, one possible explanation may be the influence of the leadership as different supervisors are assigned to each sector. If this is the case it may provide insight into ways that the APD could improve those sectors that do not use and support SRS. The second reason sector was chosen is the possibility of differences in call volume and types of calls for service. It was made clear during time spent in the department that different sectors received different types and amounts of calls for service. These differences could

explain the use of SRS information among patrol officers as they are impacted by varying levels of reactive workloads.

Method of Analysis

Once survey data were collected from patrol officers, several steps were taken to analyze the information. The first was reporting the descriptive results. These findings were used to provide insight to patrol officer's perceptions of the SRS program within the department. The next step in the analysis explored what might explain the variations in responses. Data were used from the two independent variable measures, training and officer characteristics of patrol officers surveyed. One-way ANOVA was used to explore the relationships between the respondent's perceptions across the collected information.

ANOVA was used in place of t-tests as there were three or more groups compared and running individual t-tests increases the chance of type 1 error (Weisburd & Britt, 2007). In addition, as part of the ANOVA test the Tukey's post hoc test was also used. This allowed for determination of the significance between the means of the responses.

The third analysis used cross tabulation and Kendall's Tau-c in order to explore the relationship between variables further. A series of correlation analyses were conducted to test for a significant relationship between the dependent variables and independent variables. Kendall's Tau-c was calculated to determine the strength of the association between the ordinal dependent and independent variables. Kendall's Tau-c can report values from -1 to +1, a value of 0 indicates no relationship between the groups being compared, negative values indicate a negative relationship between the two

variables of interest and positive values indicate a positive relationship. Tau-c was used instead of Tau-b because the number of rows in the chi-square was not equal to the number of columns, making Tau-c appropriate (Weisburd & Britt, 2007).

In addition to the above method for examining the data a separate cross tabulation test was run using Cramer's V to determine the strength of association between the nominal and ordinal variables. Since the Kendall's Tau-c is not appropriate, this test was used as the variables had more than two rows or columns making phi inappropriate (Weisburd & Britt, 2007).

ANALYSIS AND RESULTS

The survey asked questions regarding officer perceptions of SRS. Information was collected on several of the SRS key concepts seen as important at the street-level.

After reporting the assessment findings, results were compared to four of the main elements of Compstat that closely relate to the street-level perspective and are a focus of the APD. These elements are internal accountability, mission clarification, problem solving and use of data-driven information.

Overall 82 officers participated in the study. As seen in table 1 below, the sample consisted of 28 day shift officers, 31 evening officers, and 23 midnight officers, a distribution which is proportionate to patrol allocation more generally. Each sector was well represented in the survey with 24 respondents indicating their assignment was sector (1), 24 in sector (2), and 21 in sector (3). Of note, were 11 officers who chose not to indicate a sector assigned and two who indicated they were not assigned to a sector at all. The non-response may be explained by some of the officers' feelings that they would be indentified despite the anonymous nature of the instrument. One officer, stated as much when turning in the survey.

Officers who participated in the survey varied in experience measured by years of service. Of the 79 officers who responded to the question, 14 reported having fewer than

3 years of experience, 31 having 3-5 years of service, 21 having 6-10 years of service, 9 having 11-20 years and 4 indicated more than 20 years of experience.

Education of officers was also asked. Of those who responded 50% reported having less than a four year college degree while 44% indicated having a four year degree or more. A further breakdown shows even more detail. The majority of officers responded that they had some college or an associate's degree N= 35, while 31 indicated having a bachelors degree. There were 5 officers that reported only having completed high school or a GED, 1 that reported only some high school and 2 that completed a Masters or Juris Doctorate degree. Five did not respond. These results show a relatively high level of education among patrol officers. While the level of education among police officers has been steadily increasing (Carter et al., 1989) research has shown that bachelor degree holding officers are in the 20% range (Carter et al., 1989) indicating the respondents here are somewhat higher than would be expected.

 Table 1. Officer Characteristics

	N	% of participants
Number of Years Worked	N =79	
Less than 3	14	17%
3-5	31	39%
6-10	21	27%
11-20	9	11%
20+	4	5%
No Response	3	4%
Sector Worked	N = 71	
Sector 1	24	34%
Sector 2	24	34%
Sector 3	21	30%
Not Assigned	2	3%
No Response	11	13%
Shift Worked	N =82	
Day	28	34%
Evening	31	38%
Midnight	23	28%
Education	N = 77	
Four Year Degree	36	44%
Less Than a Four Year Degree	41	50%
No Response	5	6%

Mission Clarification

To assess patrol knowledge officers were first asked an open-ended question that required them to write in the main goal of the SRS program. For this question responses were coded for major themes and key words (see table 2 below) in order to analyze responses. Out of 82 survey responses 20 chose not to respond, leaving 62 unique answers. Of those that chose to respond, some provided multiple responses. Of these 62

¹⁰ To explore whether the missing data may indicate bias those with a non-response were separated from the rest of the results and examined for differences. The results were very close when compared. Based upon this review it was determined that the non-response did not indicate bias in the results.

there were 37 specific answers that indicated the main goal was to reduce crime, 13 that the use information, 12 indicated problem solving, 6 accountability, 5 an element of quick or rapid response and 5 claimed the program was only for political gain.

Table 2. Themes from the Open Ended Question on the Main Goal of SRS (N = 62)

Codes	Number of times mentioned
Reducing Crime	37
Information use/gather	13
Problem Solving	12
Accountability	6
Rapid Response	5
Political Gain	5

The finding that the majority reported the department's main goal of reducing crime is consistent with the APD model and shows that the department is achieving the goal of a clear mission for its SRS program. Additional responses represented several major elements of the department's SRS program. These include the use of information, problem solving, accountability and rapid response, all which are part of the key concepts of the program. There were also elements of some of the departments current patrol methods that stemmed from crime reduction strategies. Responses included:

"To reduce crime and also to have a quicker more timely and more effective response to crime and crime trends within the city."

[&]quot;Problem solve current crime trends. And eliminate those trends as quickly as possible."

[&]quot;Address crime trends in a timely manner - Hold commanders accountable for their sectors - create competition between sectors & commanders."

Some responses associated SRS with other recent policing innovations (e.g., broken windows or hot spots policing), although reducing crime was still a key focus overall.

Two examples seen below illustrate this point as these statements written by officers to represent the main goal of the program.

"Community oriented policing strategies strategically deployed to address crimes that are currently happening (Hotspots) and prevent future crimes from taking place (i.e. Broken windows theory)."

"Strategic response system is to go to high call volume areas every 20 min/intervals to reduce crime in those areas. Collect data and comprise a system to see what areas demand policing."

Most answers were short and to the point, for example "reduce crime", while a few were more in-depth and indicated multiple elements of the program. Regardless, the majority of respondents were able to articulate the main goal of reducing crime.

To further explore patrol officer understanding of the program, participants were asked to rank six of the main goals of SRS in order of their importance from one to six with one being the most important and six being the least. These results are seen in figure 1 below. This question was designed to assess officer perception of which SRS concept they most value as a way to determine a lack of support and adherence.

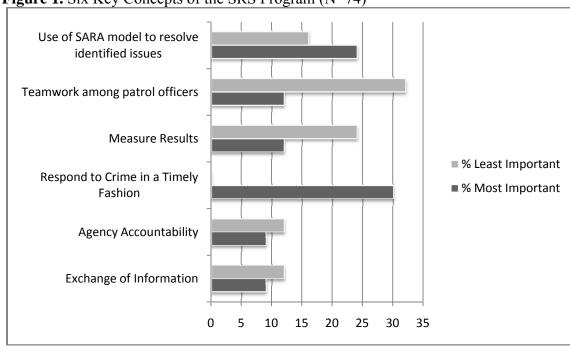


Figure 1. Six Key Concepts of the SRS Program (N=74)

The results show similarities to the first question regarding officer's opinion of the main goals of the program. Findings show that the majority of the responses ranked as most important were responding to crime or crime reduction. In this case out of the 74 respondents 30% ranked "respond to crime in a timely fashion" as the most important and this response had the lowest mean score as well of 2.89 indicating a more positive rank. These results are in contrast to the perception of teamwork among patrol officers which was most frequently ranked as least important at 32% with a mean score of 4.08. The fact that teamwork was most often ranked as least important is surprising as this is a goal of the department. However, findings are consistent with what others have found (Willis et al., 2007) that suggested Compstat's emphasis on crime reductions in individual sectors

fostered competition between them and thus undermined teamwork. There were other categories that stood out in the findings of this question as well. The use of the SARA¹¹ model also received a number of most important rankings. This is likely due to the department's emphasis on problem solving among patrol officers. One surprising result was the lack of support seen for measuring results. Of the 74 officers that responded, 24% chose this as least important while only 12% indicated most important. These findings show that officers may not be receiving feedback on the progress of SRS efforts and suggest an area for improvement by the department.

To explore the data further the means of each category are shown in Table 3 (see below). These results also show the findings from the question that asked offices to rank from 1 to 6 several main elements. A 1 indicates the most important and a 6 indicates the least important to the respondent. While officers had a wide range of answers regarding some of the most and least important categories, respond to crime in a timely fashion was the most frequently chosen. This suggests that officer experience of the mission clarification component of the Compstat model is consistent with the department's stated main goal and officers demonstrate knowledge if the SRS program as the department intends.

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¹¹ For a complete explanation of the SARA method see the POP Center at http://www.popcenter.org/about/?p=sara

Table 3. Rank Order Mean Scores of SRS Elements (N = 74)

Mean Results of Rank Order Data	
Use of SARA Model to Resolve Crime	3.37
Teamwork Among Patrol Officers	2.80
Exchange of Information	2.46
Measure Results	2.28
Agency Accountability	2.17
Respond to Crime in a Timely Fashion	1.73

For this table 1 represents the most important and 6 represents the least important.

Teamwork

The next theme addressed is teamwork. Previous results have shown that many officers ranked teamwork as one of the least important elements. Since this is a key element of the APD's SRS program, it is worth exploring further. For the purpose of this question, teamwork is regarded as fostering collaboration *between* units and *within* individual squads in response to crime problems as the APD envisions. To assess this element of the program officers were asked the extent to which Compstat led them to work with other patrol officers in their sector to solve crime problems. In Alexandria, 70% indicated that they did work with other officers either sometimes or frequently, 26% reported that they never worked with others and 4% reported that they always did. It appears that when asked directly the majority of officers were influenced by the SRS program in this way.

Table 4. Officer Satisfaction with Teamwork (N = 82)

Teamwork Opinions	
Dissatisfied	27%
Somewhat dissatisfied	19%
Neutral	28%
Satisfied	21%
Very Satisfied	5%

The last question posed regarding teamwork was a direct measure of officer satisfaction of teamwork within the department. As seen in Table 4 above, results show that only 26% indicated some type of satisfaction with the teamwork between units in the department. One reason this may be the case already referenced, is that officers may feel a sense of competition between units leading to an unwillingness to work with each other to achieve goals (Willis et al., 2007). A second reason this may be the case is the shortage of patrol officer staffing. While I was present at the department during data collection it was clear that having enough patrol officers for minimum staffing numbers was a reoccurring problem. In fact, conversations with supervisors about officers present for sampling was an indication of this problem. On days during which data collection took place, the supervisors were forced to request officers from the previous shift to stay over and work the next shift on a volunteer basis for overtime pay.

This patrol staffing problem may help explain patrol officers' feelings of dissatisfaction with the level of teamwork especially if other officers are working other assignments or special units thereby leaving patrol short-staffed. This finding may help explain the contrasting results that show that when officers are asked about teamwork among other patrol officers in their sectors opinions are positive, however, when asked

about the department as a whole opinions decrease. Results may also be due to a varying interpretation of what teamwork is among patrol officers and demonstrates the need for more research in this area.

Internal Accountability

Accountability is also a focus for APD that should extend to the street-level. To assess this element officers were asked whether SRS holds them personally accountable for reducing crime in their sectors. As seen in table 5 below, the majority of patrol officers did not feel that the accountability component of SRS extended to them at the street-level. The large percentage of officers that indicate that SRS does not hold them accountable provides insight into the disconnect between the accountability felt by Captains and patrol officers. However, the finding that 46% report some accountability is surprising and indicates that the APD is making efforts to extend the mechanism to the street-level and is in direct contrast to the NYPD model. During the assessment officer opinion of sector captain accountability was also collected. Officer perception in this case was that 77% agreed that captains were held accountable for the crime rates in their sectors. This finding reinforces the evidence of the top-down approach in the Compstat system and aligns with both the APD and NYPD models.

Table 5. SRS Accountability Findings (N =82)

Accountability Opinions	
Patrol Officer Accountability	
Agree	46%
Disagree	54%
Sector Captain Accountability	
Agree	77%
Disagree	23%

Problem Solving

The use of innovative problem solving is a defining feature of the SRS program. As a major component of the program officers are expected to take part in this process and problem solving efforts should extend to the street-level. To assess patrol officer knowledge, officers were asked whether SRS motivated them to accomplish this task. Officers were given the option to chose from several of the department's main SRS goals for this question. Responses were coded for a (yes) or (no) answer which was indicated by a lack of response, none of the above was also an option. Results are seen in table 6 below. Results showed that 42% of officers reported that they were motivated to take a problem solving approach by the SRS program. The finding, while not the majority, makes the case that the APD is pushing this concept to the street-level and that problem solving component that was originally designed to take place among managers in the NYPD model, has transferred to the street-level. This was a focus of the department and one that they are making progress towards.

Table 6. SRS Impact on Patrol Officers (N = 82)

Patrol Officers Perceptions	Yes	No
Take a problem solving approach toward crime	43%	57%
Use crime analysis to better understand crime trends	45%	55%

Crime Reduction/Data-Driven Information Use

The APD expects patrol officers to use crime analysis information to inform their decision making. To assess this concept officers were asked if they were motivated to use crime analysis to better understand crime trends in the (yes) or (no) format referenced above. Results showed (see table 6 above) that in fact 45% of officers reported using crime data at the street-level and while not the majority shows that many officers may have adopted this SRS concept. In addition, officers were asked whether the information from the crime analysis unit increased their knowledge about crime in their sector.

Results showed that 84% agreed that their knowledge was increased while only 15% disagreed (There was one non-response). This is an indication that officers are using data to make decisions at the street-level and shows the perceived quality of the data-driven information. In fact, 31% of the 84% strongly agreed that the information increased their knowledge.

These findings demonstrate that the APD efforts to include officers in the SRS program are having an impact and the task of using data-driven information is not just the responsibility of the district commanders but has been extended to the street-level. In the NYPD model officers are expected to simply execute established plans instead of using

data and problem solving themselves, however, the APD expects more from patrol officers.

To drill down deeper into the issue and ask specifically whether officers use the data in making decisions and whether the data reduces crime, officers were asked how often they used the information provided through SRS to guide patrol actions on the street. 79% reported that they were using information sometimes or frequently to guide patrol strategies. Officers were also asked whether information from the SRS program contributed to effective patrol strategies. Findings were that 56% of officers agreed while 40% disagreed (4% did not respond). It appears that the majority of officers believe that SRS contributes to effective strategies and that the majority of officers are in fact using the information to influence their decision making. These results show that the APD has been successful at involving patrol officers in the SRS process.

Leadership and Communication

The successful involvement of patrol in the SRS program would seem to require both good leadership and communication. To understand this issue, officers were asked about the role of management in the SRS program. First, officers were asked about the upper-level command staff. When asked whether command staff adequately explained what happens at SRS meetings, 68% disagreed that the explanation was adequate while just 29% agreed. In addition, 51% of officers disagreed that the command staff had done a good job of explaining the overall purpose and function of the SRS program while 48% agreed that the explanation was good (there was one no response). These findings show

that officers would like to hear more from the upper-level command staff about the SRS program and suggest that sector captains could better communicate SRS information to the street-level. This is an important finding, and one that may be resolved through efforts by the department to improve communication. Doing so may impact officer perceptions in other areas and improve officer understanding, attitudes and participation in the SRS process.

Second, the street-level supervisor or patrol sergeant role was assessed. Officers were asked how often their supervisor discussed SRS meetings. Seemingly, sergeants should play a key role in communicating of this information to patrol officers in the SRS model in order to ensure adherence to SRS initiatives. This is of particular interest after the finding that the command staff was not found to adequately communicate SRS information. However, as seen in Table 7 below, findings show that 57% of officers reported only hearing about SRS from the patrol sergeants, once a month or every few months, while 16% reported never hearing about SRS.

Table 7. Frequency SRS is Discussed (N = 81)

Categories	
Daily	2%
Every Week	24%
About Once a Month	37%
Every few Months	20%
Never	16%

^{*}Percentages do not sum to 100 due to rounding

Also examined was how supportive patrol sergeants were of the SRS program. Officers were asked to rate supportiveness on a scale from 1-5 with one being the lowest and five being the most supportive. The majority of the answers (76%) ranked supervision as 3 or

better. Only 18% rated supervision support as a 2 or below. This places almost all of the officers' opinions of their supervisors in the moderate to strong support categories. This is an important finding as officer perception of supervisor support may be crucial to patrol officer adherence to new crime reduction programs that stem from the SRS program. A moderate to strong supervisor support is a positive finding for the organization as research has shown the value of supervision support in order for innovations to be successful (Skogan, 2008).

Next, officer perception of patrol sergeant knowledge of SRS was assessed. Findings were that 77% agreed that their supervisor possessed adequate knowledge of the SRS program while only 21% disagreed. This shows that patrol officer's perception of sergeant's knowledge of SRS is positive despite perceptions that they do not frequently communicate that information. It is worth noting that since some officers lack a good understanding of the SRS program themselves this finding may require future research to adequately determine supervisor knowledge.

The last measure of leadership was whether sergeants clearly explained what the major SRS initiatives were in their sectors. It was expected that the sergeants would take an active role in explaining crime reduction strategies created in response to crime problems as they are an important link in the communication process between sector captains and the patrol officers. If patrol officers are to become involved with these initiatives and have an impact on crime, results should show strong support for this measure. Findings were consistent with this goal. It was found that 73% agreed that initiatives were clearly explained by supervision while just 26% disagreed. This is an

important part of the crime directive communication process and the clear majority believed that street-level supervisors were accomplishing this task. These results regarding the influence of leadership and their ability to communicate SRS information adequately to patrol officers show the APD's commitment to pushing information down to the street-level, however, there may still be room for improvement.

Results indicate that both the upper-level command staff and street-level supervisors could increase efforts to communicate with patrol officers regarding the SRS program. Officers reported that management was not taking adequate time to communicate SRS information and that they had not done a good job of explaining the program overall. These are areas that would benefit from an increased focus by the organization as they could improve the institutionalization of SRS at the street level.

Training

To assess the training element officers were first asked whether training they have received on the SRS program was adequate. Findings were that 52% agreed that training was adequate while 27% disagreed and 12% responded that they have never had training on the SRS program at all. Officers were also asked the actual amount of training they received on the SRS program. Findings were that 23% reported less than one hour, 32% reported 1-2 hours, 18% reported 3-4 hours, 6% reported 5-6 hours and 16% chose 7 or more hours. These responses show that the amount of training officers receive varies a great deal and may explain the diversity of opinions seen regarding the program. When

the first two categories are combined, 54% of the sample received two hours or less of training on the SRS program. Although there is room for improvement, this commitment to training officers on the SRS program demonstrates the commitment by the department to involve patrol officers and fits with the APD model efforts.

In addition to the amount of training, officers were asked whether they would be interested in more training. Results were that 51% agreed that they would be interested while 48% reported that they would not. While the findings here are close to evenly split there are a large amount of respondents that indicated an interest in more training further making the case that more training on SRS is needed and would be well received.

Summary Descriptive Findings

- The majority of officers reported the main goal of the SRS program was reducing crime
- 42% were motivated by SRS to take a problem solving approach toward crime
- 84% agreed that crime analysis increased their knowledge about the crime in their sector
- 79% reported that they were using SRS information sometimes or frequently to guide patrol strategies
- Management was rated highly for their efforts to communicate SRS information to the street level

Analysis of Variance of Descriptives

Reported so far are the descriptive findings of the survey. The next step is exploring what might explain the variation in responses. To do this data were collected on two additional measures, training and officer characteristics of those surveyed. These represent possible explanatory measures to officer perceptions seen so far in the study.

Only those variables with significant differences were included in the results here, the rest were removed from the model. This was done as the goal is not to maximize the explained variance but rather to better understand the significant relationships between the dependent variables represented in the themes and collected measures that may best explain the responses. Neither the training measure, education or sector measures were significant for any of the dependent variables in this section and were not reported. (This finding can be found in Appendix C) Significance was reported at the .05 level.

Shift

In this study, officer shift was significantly associated with perceptions of the effectiveness of the SRS program (F=4.838, df = 2, 76, p = .001). Specifically, when asking officers whether they strongly agreed (4), agreed (3), disagreed (2) or strongly disagreed (1) with the statement that SRS contributed to effective strategies, the mean score of officers who worked day shift was 2.21; evening shift was 2.66; and midnight shift, 2.76. As with all of the data reported here, the higher the score the more positive the perception. In this case, those who worked the midnight shift felt more positively about the use of SRS to contribute to successful patrol strategies than days or evening shift. While evening shift was found to be more positive than day shift. The difference between day and evening was significant p = .036 as well as the difference between day shift and midnights p = .018. This shows that the significant variation found in the ANOVA is explained by these shifts and that it is the officers that work these shifts who had opinions that varied significantly.

Shift was also significantly associated with supervisor knowledge (F = 3.13, df = 2, 77, p = .049). Officers were asked regarding their supervisor's knowledge using the same scale from strongly agree to strongly disagree. The mean of each response was as follows: days 2.60, evenings 3.06 and midnights 3.04. These findings suggest that the evening and midnight officers were more likely to agree that the supervisors demonstrate adequate knowledge about the SRS program than the day shift officers. However, the post hoc test was not significant for the differences found between the shifts. This is most likely due to the .049 significance finding of the ANOVA which is close to the significance cut off making the between group differences non-significant.

Years Worked

There were a number of significant findings when years worked was used to explore the themes of the SRS program at the department (see table 8 below). Years worked was significantly associated with satisfaction of the level of teamwork between different units (F=5.16, df=4, 74, p=.001). When asking officers whether they were very satisfied (5), satisfied (4), neutral (3), somewhat satisfied (2), dissatisfied (1) with the teamwork between units the mean score of officers by years worked was: less than three years was 3.50, three to five years 2.58, six to ten years 2.47, eleven to twenty years 1.55, and twenty or more years 1.50. Findings show that those with more years of service were less satisfied than those with fewer years worked. The difference between less than three years, six to ten years, eleven to 20 years and more than twenty years were

all significant in the post hoc test showing the variation found in the ANOVA is explained by officers who reported working these shifts.

One possible explanation for this finding is that officers with less time worked are more likely to have been exposed early in their careers to the SRS program and the program was seen as a norm of the organization rather than a change. A second explanation is that patrol officers with more years of service have an increased perception that patrol is undervalued in the department from a resource perspective. In fact, during time spent at the department, it was clear that resources for patrol were a problem and that meeting minimum staffing was a recurring issue. These results provide some explanation into the previous findings of teamwork perception that showed support and a lack of support for teamwork among respondents. However, more research is needed to provide a definitive answer.

Table 8. Analysis of Variance Statistics (N = 79)

Number of Years	Mean Scores		
Worked			
	Teamwork	Resolve Crime	Guide Patrol
			Actions
Less than 3	3.50	2.78	2.42
3-5	2.58	2.45	2.16
6-10	2.47	2.14	1.60
11-20	1.55	1.77	2.0
20+	1.50	2.25	2.0
	p = .001	p = .012	p = .002
	Officer	Capt	Reduce
	Accountability	Accountability	Crime
Less than 3	3.0	2.92	2.64
3-5	2.38	3.12	2.51
6-10	2.42	3.23	1.95
11-20	2.22	1.77	2.11
20+	2.0	2.75	2.25
	p = .04	p = .000	p = .01
	Effective Patrol		
	Strategies		
Less than 3	2.92		
3-5	2.64		
6-10	2.40		
11-20	1.88		
20+	2.5		
	p = .01		

Also found to be significantly associated with the years worked variable was opinion of patrol officer accountability of crime (F = 2.65, df = 4, 74, p = .04). When asking officers whether they strongly agreed (4), agreed (3), disagreed (2) or strongly disagreed (1) with the statement that SRS held them accountable for crime in their sector, the mean score of officers who worked less than three years was 3.0 while those that worked 11 to 20 years reported a mean of 2.22. These findings show a difference in

perception due to the amount of years worked and the opinion of whether officers are held accountable for the crime in their district. However, the post hoc test did not show any significant difference between the group differences.

The variable that assessed officer perception regarding SRS resolving crime problems in the officer's sector was also found to be significantly associated with years of service (F = 3.43, df = 4,74, p = .012). For this question officers were asked whether they strongly agreed (4), agreed (3), disagreed (2) or strongly disagreed (1) with the statement that crime problems were resolved in their sector as a result of the use of SRS. The largest difference was seen between those with less than three years worked with a mean of 2.78 and with those with 11 to 20 years worked that reported a mean of 1.77. This difference was found to be statistically significant. These were the only two groups that were significantly different in the ANOVA post hoc test. Those with fewer years worked were more likely to think SRS was likely to resolve crime problems in their sector.

The use of SRS to guide the patrol actions by patrol officers was a critical part of this assessment and results showed that whether officers used SRS information to guide patrol actions was also significantly associated with the number of years worked (F = 4.76, df = 4, 47, p = .002). Options for respondents ranged from not at all (1), to always (4) for this question. As seen in table 8 above the mean scores were mostly within the 2 - 2.4 range which indicated a "sometimes" response on the scale. A statistically significant difference was found between the groups less than 3 years and 6 - 10 years. These results show that the variance observed is explained by these two variables.

Whether SRS reduces crime was also significantly associated with the number years worked in the ANOVA (F = 3.34, df = 4, 73, p = .014). For this question officers were asked whether they strongly agreed (4), agreed (3), disagreed (2) or strongly disagreed (1) that SRS reduces crime. The means scores were: less than three years worked 2.64, three to five years worked 2.51, six to ten years worked 1.95, eleven to twenty years worked 2.11, and twenty or more years worked 2.25. Statistically significant differences were found between the groups less than three years/three to five years worked with those that reported working six to ten years. The significant difference between these variables of whether SRS reduces crime and the number of years worked explained the variance in responses.

The last variable that was significantly associated with years worked was whether SRS contributes to effective patrol strategies (F = 3.55, df = 4, 72, p = .011). Officers were asked whether they strongly agreed (4), agreed (3), disagreed (2) or strongly disagreed (1) that SRS contributed to successful patrol strategies. The mean score of officers who worked less than three years was 2.92, three to five years 2.64, six to ten years 2.40, eleven to twenty years 1.88 and twenty or more years 2.5. With the exception of the last category (more than 20 years) officers with more years worked were less likely to agree that SRS produces effective patrol strategies. Two groups were statistically different. The difference between less than three years of service and 11-20 years was significant (.006) and the group 3-5 years and 11-20 years worked was significant (.033). The variation among these groups explained the significance found in the ANOVA.

response on the survey. As expected, it is clear that the number of years worked did have an impact on officer opinion.

Measure of Relationship Between Variables

In order to explore the relationship between variables further a series of analyses were conducted to test for a significant relationship between the variables of interest.

Reported in Table 9 below are the significant findings at the .05 level. To explore this relationship cross tabulations were run using Tau-c for the ordinal variables. This allowed for determination of direction, either positive or negative associations between variables. If findings were positive then as one variable increased the other also increased. If the relationship was negative then as one variable increased the other decreased indicating a negative relationship.

Results showed a number of significant relationships (see Table 9 below). One of the largest was between the adequacy of training and whether supervisors explained the purpose and function of SRS (tau c = .444). This finding shows that those who were more likely to agree that supervisors adequately explained SRS were also more likely to report that the training of SRS was adequate. This moderate to strong relationship shows that a connection between supervisor communication and perceived training.

Also found to have a significant relationship was the opinion of whether SRS led to effective patrol strategies and the number of years worked (tau c = -263, p = .000). For these two variables there is a negative relationship. Indicating the more years worked the less positive officers felt about the effectiveness of patrol strategies. This was a weak to

moderate relationship but is consistent with the other findings in the survey that years of service impacts officer perceptions.

A similar relationship was found for the use of SRS to guide patrol strategies and years worked (tau c = -.300, p = .001). The relationship between these two variables reaffirms previous findings that as the years of service increase the use of SRS to guide patrol strategies decreases. This is a weak to moderate relationship but is consistent with the other findings in the survey regarding length of service and perceptions of the SRS program.

In addition to the above method for examining the data Cramer's V was run for the sector and shift independent variables as a way to consider relationships across variables which were nominal by ordinal. There were no significant differences found in the data for any of the variables.

 Table 9. Cross Tabulation of Variables

	Strength of association
Variables Compared	Value of Tau c
Years Worked	
Effective patrol strategies	263***
Use of SRS to guide patrol	300**
Officer accountability of crime	206*
Amount of Training	
Number of meetings attended	.152*
Adequacy of Training	
SRS placed officers where they are	.201*
most needed	
Supervisors adequately explained	.169 *
what happens at SRS meetings	
Supervisors explain the purpose and	.444***
function of SRS	
Frequency supervisors discuss what	.268**
happens at SRS meetings	
Supervisors demonstrate adequate	197**
knowledge	
Education	
Officers held accountable for the	.211**
crime in their sector	

^{*} p<.05 ** p<.01*** p<.001

DISCUSSION AND POLICY IMPLICATIONS

This study explored patrol officer perception of the SRS program. The main goal of the study was exploratory and assessed one police department that made a concerted effort to involve all levels of the organization in its Compstat program. Findings have shown that APD has been able to make significant progress in involving patrol officers in the SRS program. Not only have officers demonstrated knowledge of the program but they also have reported taking part in some of the key concepts. Officers indicate that they use crime analysis information, take part in problem solving, are influenced by SRS information and use this information to direct patrol strategies.

In terms of leadership and communication, the majority of officers did not feel that command staff adequately explained what occurred at SRS meetings and about a half felt similarly about the overall SRS process. Officers, however, were much more satisfied with how their supervisor's explained SRS initiatives, although this information tended to be communicated on a monthly rather than a more frequent or weekly basis. Two main factors were found to explain officer responses of the survey. Both shift and years of service were significant for a number of variables and explained some of the variation in responses. These findings show that the APD has been largely successful at generating

knowledge about, and support for, the SRS program among patrol officers – a rank that has been little included in Compstat implementation.

Before discussing implications it is necessary to consider limitations of the study. First, the sample size was small and as a result, limited the analysis of the findings. Second, there is the possibility of bias from using a survey instrument. The challenge of construct validity is a concern in this type of instrument in that the instrument may not adequately measure the areas intended as officers may have been uncomfortable providing their true opinions. Third, external validity is a limitation as the sample size is small and the project was exploratory which makes the results less generalizable to other police agencies that use the Compstat model. However, the survey was successful at assessing patrol officer perception of the SRS program which led to a number of key findings:

- Majority of officers understood that SRS's main goal was to reduce crime and officers ranked this element as most important
- Teamwork between officers was supported while teamwork between units was not
- Strong support was found for the use and value of crime analysis information
- Accountability of patrol officers was not found to be a significant influence
- Accountability was found for sector captains
- Problem solving was reported to take place at the street-level as a result of SRS
- Years worked and shift were significantly associated with several survey responses
- Sector and education were not significantly associated with survey responses

These findings show that the APD has been able to exert a largely positive influence over patrol officers' attitudes toward the SRS program. Some of these findings are consistent with what others found regarding Compstat implementation while others were somewhat

surprising. To explore the results already reported the Compstat elements already introduced will be used.

In terms of mission clarification, street-level perception of the SRS program showed that officers mostly understood that the main goal of the SRS program was to reduce crime. As the rank order data showed, there were a wide range of opinions regarding the level of importance of the components however, the majority did choose reducing crime as the most important element. This finding informs the approach that the NYPD model suggests is a major component of the Compstat program which is representing a single focus (Bratton, 1998; Weisburd et al., 2003; Willis et al., 2007) and shows that the APD has been able to influence officer knowledge.

Findings of internal accountability showed that patrol officers did not feel that the accountability component of SRS extended to them at the street-level. However, the majority of officers did feel that sector captains were held responsible for reducing crime. This finding reaffirms what others have found regarding Compstat in police organizations (Weisburd et al., 2003; Willis et al., 2007). It is worth noting that 46% did report that they felt accountable for crime in their sector as a result of SRS. This shows that while the department still has room to improve APD has been able to incorporate patrol into the SRS program's accountability component. Progress in this area aligns with expectations for innovation development proposed by Weisburd and Braga that anticipate modest improvements in measuring the performance of police departments as innovations continue to diffuse (2006).

Assessment of problem solving within the department found that many officers reported they were motivated by the SRS program to take a problem solving approach toward crime and indicates that the APD has been able to extend this component to the patrol officer. In the NYPD Compstat model one would expect to find the majority of problem solving concentrated within the command staff as a function of responding to crime problems in innovative ways. In the NYPD model, patrol officers are mainly responsible for responding to calls and following the crime directive strategies established at the top of the organization. However, results showed that APD has clearly made an impact on this element. While these findings do show officer involvement in problem solving, they do not assess how well or what type of problem solving they are taking part in. These areas would benefit from future research.

Last, support was found among patrol officers for the use of data-driven information at the street-level. Including patrol officers in the use of crime data is a major emphasis of the APD and this was evident during the assessment. This finding is in contrast to what is expected in the NYPD Compstat model as this task largely is the responsibility of the Command staff. These results show that the department has been able to push information down to the street-level through the crime analysis unit.

In conducting this study I wanted to explore officer knowledge of the SRS program and answer the question whether the APD has been able to impact the patrol officer with several key concepts of the SRS program. Results showed that officers did demonstrate a high degree of knowledge about SRS components and in fact several aspects of the program were found to make an impact at the street-level. With this

information, I reject the null hypothesis that officers do not have a limited knowledge of the SRS program and find that the APD efforts to increase knowledge and involvement of patrol officers has had an impact. These results are in contrast to the NYPD model and provide new insight in to the Compstat program.

The second research question addressed in this study was whether in the survey results would be explained by several areas that included: training, length of service, shift worked, sector worked, and education. Results showed that some of these areas did explain survey responses and some did not. With sector and education I failed to reject the null hypothesis that these would explain variation of survey responses. However, with shift and training I was able to reject the null hypothesis that these two variables would not explain variation in responses.

There was evidence that the longer patrol officers worked at the department the less positive their perceptions were about the SRS program. These results could be due to a number of factors. First, as suggested by Sherman (1980) differences between officers in length of service may be generational and officers with longer tenure at the department who were working before the 2004 implementation of the SRS program were socialized under a different model. This could lead to a lack of support for the "new" program and an unwillingness to use and support SRS. Second it is possible that the more tenured officers were never properly trained on the SRS program. Survey findings show an average of two hours of training for the majority of patrol officers. This could be an indication that more training for those with more tenure is needed. Also, new officers are more likely to have undergone the initial SRS training with the Deputy Chief at a time

when they were still learning how the police organization works and the SRS program became a norm for them more easily.

Another explanation could be a lack of involvement of patrol officers in crime reduction strategies and instead a reliance on groups of special teams of officers specifically assigned to the problem. In my conversations with command staff at the department it became clear that special units are at times involved in crime reduction initiatives as a way to improve implementation. This may decrease reliance on patrol officers by command staff and over time impact their perception as not their responsibility.

Overall, these findings suggest that the APD has been able to impact the implementation of SRS at the street-level. This success is likely due to agency commitment to ensure supervision involvement in the SRS program. The department goal is to foster a feeling among management that the use and successful implementation of SRS is linked to their performance evaluations. The department has made it clear that in order for supervision to be perceived as successful SRS must be part of their mission. This suggests that the accountability element of SRS extends beyond SRS meetings and sector captains reporting crime results to the lower level supervision within the organization. This is likely due to the focus placed on SRS involvement throughout the organization from the top of the organization and setting expectations high in order to achieve these results.

Despite these positive findings regarding management, there is, as is almost always the case when it comes to organizational change, room for improvement. The

finding that the majority of officers disagree that the explanation of SRS is adequate and that the frequency of reporting SRS information could be improved provides insight into ways the APD could take steps to improve patrol officer involvement.

The findings of this study are consistent with what has been suggested is future in policing innovations. Individual police departments are expected to continue to institutionalize innovation practices by making adjustments to that fit their unique organization and community needs (Weisburd & Braga, 2006) which can be seen in the APD SRS program. These efforts are a sign of the APD striving to improve the agency and a commitment to their ultimate goal of crime reduction by a focus on improvement and accountability throughout the organization.

Policy Implications

These results suggest several policy implications. First, the agency would benefit from an increased focus on officers that have more years of service when considering ways to improve implementation and patrol officer buy-in. Results showed that negative perceptions tend to concentrate in those with the most years of service which may impact implementation. Second, the department should consider ways to increase patrol officer accountability at the street-level. This may increase adherence to crime reduction strategies and improve results through better implementation. A lack of accountability may indicate a lack of adherence generally which may impact the success of crime reduction strategies. Perhaps incorporating patrol officers into Compstat meetings or holding separate regular meetings for officers during which they face accountability

personally for the crime in their sector would be a way to address this concern. Third, the focus on problem solving by patrol officers indicates that officers are open to taking on more responsibility regarding problems in their sectors. Allowing them to do so could be a way to increase accountability at the street-level. Doing could also improve the crime reduction strategy creation process through better information from the bottom-up within the department by increased involvement from those that have the most knowledge of relevant issues at the street-level.

Fourth, the findings that the majority of patrol officers feel that management is not spending enough time communicating information about SRS suggests that this could be improved. By better explaining the SRS program overall, and regularly communicating SRS information to the patrol level, the APD may improve street-level implementation of a number of SRS key concepts examined in this study.

Ultimately, while limited and exploratory in nature this study shows that more research is needed in order to better understand the patrol officer perspective at the street-level. Future studies could include a more in-depth analysis of the mechanism of the crime directive process as it makes it way down to the street-level and as a result provide unique insight into the Compstat process. Assessing and better understanding the Compstat mechanism in this way would provide insight into the organizational elements that impact the program and suggest barriers to accountability below the Captain level which would be useful for a better understanding of the program.

CONCLUSION

Current literature on the Compstat model informs a number of the top-down components and provides managers with a command staff perspective of the program. By examining officers' perceptions of SRS within the APD this project contributes to a more comprehensive understanding of the Compstat model from another perspective, that of the patrol officers. The department's focus on including patrol officers is a departure from the NYPD doctrine and represents a new approach to the Compstat model. Improving knowledge of this innovation becomes increasingly important as diffusion continues and departments are dealing with implementation strategies and looking for ways to improve the process.

Findings of this study show that there is evidence that some SRS components are understood and in fact used at the street-level while others, accountability most notably have had less impact. Despite the traditional top-down management approach that dominates the Compstat innovation there is value in understanding the rank and file officer in police innovations as they represent the majority of the department and can be the catalyst for the success or lack of success of major police innovations. Excluding this voice is excluding a key organizational influence and increasing the likelihood of innovation difficulties and possible failure.

APPENDICES

APPENDIX A.

Alexandria Police Department SRS Mission Statement

Alexandria's Strategic Response System (SRS) incorporates successful approaches and best practices from other jurisdictions to meet the Police Department's goal of using sophisticated and ongoing crime analysis data to respond proactively and effectively to new and emerging crime trends. The Department's model relies on the use of advanced technology to lead meeting discussions. SRS also relies heavily on the education of involved staff regarding how to use, interpret and access crime analysis data to develop strategies that respond to identified neighborhood issues. Technology will be used to document formal (agreed upon) responses to issues and assess the effectiveness of the implemented responses.

Participation, teamwork, increased communication among various operational and investigative units, ownership of issues and accountability for results are the guiding principles of the Department's process. Bi-weekly meetings serve as the forum to identify issues and develop responses. Commanders are held accountable to develop effective responses and work with Crime Analysis staff to study the effectiveness of various responses.

Identified problems and strategies are tracked in order to assess ongoing effectiveness in addressing those issue(s) that have been targeted for proactive and increased response.

Meeting participants include the Chief of Police, deputy chiefs, captains, lieutenants, a representative number of sergeants, Community Support Officers, School Resource Officers, Residential Police Officers and any number of detectives and support personnel who may have input on particular issues. Participants are expected to take collective ownership in effectively responding to identified issues. Depending on the issue, an individual commander may be assigned sole responsibility to plan and implement the Department's response to a particular problem. (APD, 2011)

Model and Guiding Principles

Alexandria's Strategic Response System (SRS) incorporates successful approaches and best practices from other jurisdictions to meet the Police Department's goal of using sophisticated and ongoing crime analysis data to respond proactively and effectively to new and emerging crime trends. The Department's model relies on the use of advanced technology to lead meeting discussions. SRS also relies heavily on the education of involved staff regarding how to use, interpret and access crime analysis data to develop strategies that respond to identified neighborhood issues. Technology will be used to document formal (agreed upon) responses to issues and assess the effectiveness of the implemented responses.

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SRS develops, enhances and improves the following concepts:

- Teamwork at all levels.
- Clarity of purpose, mission and direction.
- Organizational communications.
- Agency and employee accountability.
- Proactive and problem solving response.
- Measurable results.
- Substance and quality of communications outside the organization.
- Ability to effectively measure individual and organizational performance.
- Increased integration of crime analysis into decision-making process so that
 policing strategies and deployment are unified, consistent, fact based and effective
 to reduce crime and respond to neighborhood issues.
- Represents a modern, effective, creative organizational response capability.

- Patrol function was restructured to place the highest number of officers on duty during peak call for service times.
- Incorporates accountability, consistency, and results into SARA model (Scan, Analyze, Respond, Assess) until the identified issues are controlled or alleviated.

APPENDIX B

Strategic Response System Patrol Officer Survey

Information and Instructions

This is an ANONYMOUS survey being conducted by George Mason University as part of a Master's thesis in the Department of Criminology, Law and Society. The survey has been authorized by your Chief, but your participation is entirely voluntary.

Instructions: This survey will take approximately 10 minutes to complete. Be sure to clearly indicate your answer.

Some items require a written response. Please write your answer clearly in the space provided.

Do not write your name or any other identifying information on the questionnaire. When finished please place the survey in the provided envelope and return it to the researcher. THANK YOU FOR YOUR COOPERATION

The purpose of this survey is to learn about the Alexandria Police Department's SRS (Strategic Response System) program from the perspective of the patrol officer. By participating in this research and sharing your views, you will be providing potentially important information that could be used to develop the SRS process and help inform management decisions.

1.	1. To the best of your knowledge what is the main goal of your department's SRS program? (Please describe below).		
	Please rank the following SRS goals in terms of their importance with 1 being the most important and 6 being the least important.		
	Exchange of crime information between personnel Agency accountability		
	Respond to crime in a timely fashion Measure results		
	 Teamwork among patrol officers Use of the SARA model (Scan, Analyze, Respond, Assess) to resolve identified issues 		
3.	In my opinion, SRS helps motivate me to: (Check all that apply).		
	 □ Take a problem solving approach toward crime in my sector □ Use crime analysis to better understand crime trends □ Provide input to command staff about crime problems in my area □ None of the above 		

4. To what extent has the SRS program led you personally to work with other officers in your own sector to solve crime problems? (Please Check One)		
	 □ Not at all □ Sometimes □ Frequently □ Always 	
5.	To what extent has the SRS program led you personally to work with other units outside of your own? (Please Check One).	
	 □ Not at all □ Sometimes □ Frequently □ Always 	
6.	Overall, how satisfied are you with the level of teamwork in this department between different units?	
	 □ Dissatisfied □ Somewhat dissatisfied □ Neutral □ Satisfied □ Very Satisfied 	
7.	How many times have you attended a SRS meeting in the last year? (Please check one)	
	1. □ 0 2. □ 1 3. □ 2 4. □ 3 5. □ 4 6. □ 5 or more times	
8.	Please indicate to what extent you agree with the following statement: In your opinion, SRS holds patrol officers personally accountable for reducing crime in their sectors. (Please check one).	
	 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 	

9	Please indicate to what extent you agree with the following statement: In your opinion, SRS holds sector captains personally accountable for reducing crime in their sectors. (Please check one).
	 □ Strongly agree □ Agree □ Disagree □ Strongly disagree
1	O. Please indicate to what extent you agree with the following statement: Information from crime analysis increases my knowledge about the crime problems in my sector. (Please check one).
	 □ Strongly agree □ Agree □ Disagree □ Strongly disagree
1	1. Please indicate to what extent you agree with the following statement: Crime problems in my sector are resolved through the use of SRS. (Please check one).
	 □ Strongly agree □ Agree □ Disagree □ Strongly disagree
1	2. How often do you use information provided through SRS to guide your patrol actions on the street? (Please check one).
	 □ Not at all □ Sometimes □ Frequently □ Always
1.	3. Please indicate to what extent you agree with the following statement: The use of SRS has reduced crime in my sector. (Please check one).
	 □ Strongly agree □ Agree □ Disagree □ Strongly disagree

14. Please indicate to what extent you agree with the following statement: SRS contributes to the use of effective patrol strategies in the department check one).	. (Please
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 	
15. Please indicate to what extent you agree with the following statement: SRS has resulted in patrol officers being placed in those areas of the city they are needed most. (Please check one).	where
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 	
16. Please indicate to what extent you agree or disagree with the following st The training I have received on the SRS program is adequate. (Please che	
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree □ I have never received training on SRS 	
17. Please indicate to what extent you agree or disagree with the following st If more training were offered on the SRS system, I would be interested in attending. (Please check one).	
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 	
 18. Please indicate the amount of training in hours you have received on the sprogram. 1. □Less than one hour 2. □ 1-2 hours 3. □ 3-4 hours 	SRS
4. □ 5-6 hours5. □ 7 or more hours	

19. Please indicate to what extent you agree or disagree with the following statement: In my opinion, command staff takes adequate time to explain to patrol officers what specifically happens at regular SRS meetings. (Please check one).				
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 				
20. Please indicate to what extent you agree or disagree with the following statement: In my opinion, command staff has done a good job of explaining to patrol officers the overall purpose and function of SRS in the department. (Please check one).				
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 				
21. Please indicate the frequency with which your supervisor discusses what happens at SRS meetings. (Please check one).				
 □ Daily □ Every week □ About once a month □ Every few months □ Never 				
22. Please indicate how supportive your supervisor is of the SRS program with 1 being the lowest and 5 being the highest. (Circle one)				
1 2 3 4 5				
23. Please indicate to what extent you agree or disagree with the following statement: My supervisor demonstrates adequate knowledge of the SRS program. (Please check one).				
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 				

24. Please indicate to what extent you agree or disagree with the following statement My supervisor clearly explains what the major SRS initiatives are in my sector. (Please check one).		
 □ Strongly agree □ Agree □ Disagree □ Strongly disagree 		
25. Please indicate the number of years you have worked as a patrol officer in the Alexandria Police department. (Please check one).		
 □ Fewer than 3 years □ 3-5 years □ 6-10 years □ 11-20 years □ More than 20 years 		
26. In which sector do you currently work? (Please cl	heck one).	
 □ Sector 1 □ Sector 2 □ Sector 3 □ Not assigned to a sector 		
27. What shift do you currently work? (Please check one).		
 □ Day shift □ Evenings □ Midnights 		
28. Please indicate your highest level of education completed. (Please check one).		
 □ Some High School □ High School Graduate/GED □ Some college/A.A. Degree □ Bachelors □ Some Graduate School 	6. ☐ Masters/JD or LLB 7. ☐ Ph.D.	

APPENDIX C

ANOVA Statistics

ANOVA Statistics				
Variables	Number of Years Worked	Sector Worked	Shift Worked	
Teamwork with other officers	F=1.43, p = .231	F=1.26, p = .294	F=.696, p = .501	
Teamwork with other units	F=.898, p = .470	F=.679, p = .568	F= 2.22, p = .114	
Teamwork Between Units Satisfaction	F =5.16 p = .001	F=.860, p = .466	F= .185, p = .340	
Officer Accountability of Crime	F = 2.65, p = .040	F=1.23, p = .304	F=.145, p = .865	
Captain Accountability of Crime	F = 8.18, p = .000	F=.342, p = .795	F=1.66, p = .195	
Use of Crime Data Information	F=1.181, p = .326	F=1.33, p = .270	F=1.53, p = .222	
Crime Resolved	F=3.43, p = .012	F=.096, p = .962	F=.255, p = .775	
Used to Guide Patrol	F=4.76, p = .002	F=.720, p = .544	F=1.56, p = .226	
Reduces Crime	F=3.34, p = .014	F=.763, p = .519	F=1.99, p = .143	
Effective Patrol Strategies	F=3.55, p = .011	F=.230, p = .875	F=4.83, p = .001	
Supervisors				
Explain What Happens at SRS	F=.781, p = .541	F=1.29, p = .283	F=.165, p = .848	
Explain Purpose of SRS	F=1.07, p = .377	F=1.60, p = .197	F=.829, p = .440	
Frequency Discussed	F=.318, p = .865	F=.532, p = .662	F=2.48, p = .090	
Amount of Support for SRS	F=.107, p = .980	F=2.44, p = .072	F=.135, p = .874	
Supervisor Knowledge	F= .559, p = .693	F=1.42, p = .174	F=3.13, p = .049	
Do Supervisors Explain SRS	F=.648, p = .630	F=.760, p = .434	F=2.68, p = .074	

Variables	Education	Adequate	Amount of	
Teamwork with	F=.921, p = .473	<i>Training</i>	Training = 171	
other officers	r921, p4/3	F=1.62, p = .177	F=1.65, p = .171	
Teamwork with other units	F=.529, p = .754	F=1.85, p = .127	F= .961, p = .434	
Teamwork Between Units Satisfaction	F = .648, p = .664	F=.951, p = .440	F= .807, p = .525	
Officer Accountability of Crime	F = 1.60, p = .171	F=1.68, p = .162	F=1.70, p = .159	
Crime Captain Accountability of Crime	F = 1.88, p = .109	F=2.23, p = .073	F=.124, p = .973	
Use of Crime Analysis Information	F=1.88, p = .109	F=2.16, p = .084	F=.988, p = .420	
Crime Resolved	F=1.03, p = .402	F=1.96, p = .145	F=1.37, p = .252	
Used to Guide Patrol	F=.079, p = .995	F=1.72, p = .169	F=1.91, p = .118	
Reduces Crime	F=.341, p = .887	F=.546, p = .735	F=.218, p = .927	
Effective Patrol Strategies	F=.854, p = .517	F=1.30, p = .532	F=.612, p = .655	
Supervisors				
Explain What Happens at SRS	F=.577, p = .717	F=.848, p = .543	F=.341, p = .877	
Explain Purpose of SRS	F=.495, p = .779	F=765, p = .625	F=.938, p = .407	
Frequency Discussed	F=.275, p = .925	F=1.52, p = .217	F=1.15, p = .338	
Amount of Support for SRS	F=.622, p = .684	F=1.61, p = .180	F=2.23, p = .109	
Supervisor Knowledge	F= .407, p = .842	F=2.25, p = .072	F=897, p = .470	
Do Supervisors Explain SRS	F=.280, p = .922	F=1.19, p = .321	F=, 1.21p = .246	
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