Police Department Management Study

ARLINGTON, TEXAS

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June 24, 2003

1. INTRODUCTION AND EXECUTIVE SUMMARY

The Matrix Consulting Group was retained by the City of Arlington to conduct a Management Study of the organization and operations of the Police Department. In reaching the concluding point of the study, the project team has assembled this final report which summarizes our findings, conclusions and recommendations, where appropriate. This report represents the conclusion of four months of analysis of the organizational structure, staffing, management and operations of the Police Department. This first chapter introduces the approaches utilized in this study.

In this Management Study of the Arlington Police Department, the Matrix Consulting Group's project team utilized a wide variety of data collection and analytical techniques. The project team conducted the following data collection and analytical activities:

- The project team began an intensive process of interviewing staff in every Police Department function and collecting a wide variety of data designed to document workloads, costs and service levels. Members of the project team individually interviewed almost 200 staff. These interviews included not only managers and supervisors, but also many line staff.

- The project team supplemented this input through the use of confidential employee surveys. About 60% of the employees took advantage of this opportunity to provide input to us. Its results were useful to the project team to identify issues and potential solutions.

- The project team developed descriptive summaries, or profiles, of each Division and operating unit in the APD – reflecting organizational structure, staffing, workloads, service levels and programmatic objectives. These profiles were reviewed with managers and staff.

- We compared workloads / service levels as well as the performance and management of the Arlington Police Department with the project team's

assessment technique called 'best management practices'. This step served as an issue identification step in our analytical process.

- The project team also reviewed initial findings and issues with the management of the Police Department as well as with City management.
- We evaluated operations and services in detail and developed the analyses contained in this report.

In all instances, the measures of efficiency and effectiveness utilized by the project team in our analyses were selected and adjusted to reflect the unique operating and service conditions in Arlington.

As a companion to this document the project team has provided the City with a Technical Appendix which contains several background documents described above, including the descriptive profile, the summary of the employee survey and the 'diagnostic assessment' of the Arlington Police Department.

EXECUTIVE SUMMARY

The project team has prepared this detailed summary of the findings, conclusions and recommendations contained in this final report.

It is important to place any analysis such as this into a complete context. A management study necessarily focuses much of its attention on improvement opportunities which need to be addressed in a client agency. However, this study process has also identified many positive characteristics of the Arlington Police Department. The 'best practices' assessment process utilized in this study was key to understanding that the Department has a history of providing high levels of service, a wide range of services and a tradition of evaluating new approaches to law enforcement. The table, below, summarizes these positive attributes:

Summary of Key Positive Findings
DEPARTMENTAL MANAGEMENT
• The Arlington Police Department is, and has been for many years, an 'accredited' agency through an ongoing and stringent process by a national association. This has focused the Department on the attainment of many 'best practices'.
• The Department has adopted a number of strategies to address issues as the arise including the "100 Day Plan" that targeted improvement in response times and other performance issues.
• The Department is involved in "cutting edge" law enforcement issues, including for example: development of the Amber Alert system, identification and pursuit of internet and computer crime, and use of digital technology to support all facets of Police Department operations.
• Executive staff hold regular and frequent meetings to review trends in criminal behavior, quality of life issues and other factors for the community. These are accomplished on a rotating basis to cover each area of the City.
• Mechanisms exist to forward concerns from the community to the appropriate command for action.
• The Department has made extensive efforts to facilitate contact of appropriate unit commanders and supervisors. The Department's website, for example, provides email and phone contact information.
• Clear policies and procedures are in place throughout the Department. Generally, policies are well crafted and meet industry best practices.
• Specific policies relating, for example, to the storage of drugs and money are designed to insure high levels of accountability and to reduce the risk exposure of the City and the Department.
FIELD OPERATIONS
• The Police Department has focused on improving response times to calls for service with recent evidence of success in reduction of response times to high priority calls.
• The Police Department deploys field personnel in a manner consistent with historical workloads, the need to ensure appropriate response times and to balance proactive capabilities.
• Staffing and deployment decisions are accomplished using formal models which evaluate such key analytical factors as workloads, service level objectives and availability of staff. The current model has been in place for almost 15 years, since a previous study was conducted.
• The geographic policing model utilized in Arlington is predicated on the philosophy that field personnel should be empowered to take responsibility for crime and other services in their assigned areas. The Department has decentralized the follow-up investigations of many crimes.
• The Police Department has taken steps to manage calls for service through the use of a "Teleserve" unit. This unit takes reports for calls for service over the telephone, providing a report to the victim, documenting the incident but not requiring a field response.
• Dedicated traffic enforcement personnel exhibit extremely high levels of enforcement activity.

Summary of Key Positive Findings
• Traffic enforcement activities are directed toward problems – with a focus on reducing injuries and accidents. A commonly used Traffic Enforcement Index shows Arlington to use enforcement to reduce traffic problems (e.g., injury accidents and drunk driving) at a higher level than most communities.
• The process for moving cases from patrol to investigations is generally automated and is based on the availability of leads and other factors that may contribute to the solvability of a crime.
• The Police Department maintains a range of critical incident response capabilities. These include both standing teams as well as ad hoc emergency response personnel.
INVESTIGATIONS
• The Department is on the "cutting edge" given its use of civilians, including civilian investigators who handle full case loads, in selected units, which are indistinguishable from sworn investigator case loads.
• The City and the Department are involved in numerous regional task force initiatives – including efforts to address auto theft, narcotics, vice and other problems.
• The Department has decentralized follow-up investigations for many crimes in the City, leaving more specialized investigations in centralized units.
JAIL
• The Department uses civilian personnel to staff the City Jail rather than more expensive sworn personnel.
• Jail staff receive medical 1st Responder training to enable them to better screen incoming arrestees and to respond to emergencies within the Jail.
• The Department makes efforts to use "trusties" in the Jail – in spite of the fact that this is difficult given the fact that this is a limited, pre-arraignment detention facility.
INTERNAL AFFAIRS
• Internal affairs investigations are conducted quickly (generally less than 30 days, with review by legal and command staff completed within 20 additional days).
• In addition, the Department has consistently initiated more complaints internally than have been initiated by the public.
• The Department has initiated an early intervention program designed to identify employees with potential issues before they result in an internal affairs complaint. This training has been provided to all managerial and supervisory personnel.

Summary of Key Positive Findings
ADMINISTRATIVE SERVICES
• The City has made extensive investments in technology and information resources throughout the Police Department, including computer aided dispatch, automated records management systems, bar coding of property and evidence.
• Crime Analysis support is substantial for all operational units. Support includes routine report generation, identification of patterns of crime, identification of potential suspects and other leads.
• Reports are prioritized so that important documents are available first (e.g., arrests, serious crimes) while other documents are processed as time allows (though all are processed within time standards established by the Department).
• The property and evidence facility is well-secured with access limited to appropriate personnel.
• The Public Information process in the Department is staffed by experienced personnel who quickly respond to media requests and manage all public affairs.
• Generally, the recruitment process for new Police Officers is thorough and exceptional, resulting in a broad pool of applicants and recruits.
• Recruitment efforts are targeted to Hispanic and Asian candidates in an effort to enhance the Department's ability to deal with these growing populations within the City.
• The APD recruits well-educated personnel with its requirement for a minimum of a Bachelor's degree.
• The testing and background check processes conform to 'best practices' and in many cases exceed national standards in terms of timeliness and effectiveness.
• The fall-out rate at the academy is low (about 5%), demonstrating the success of the pre-Academy testing and selection procedures.
• In-service training reflects the Department's commitment to provide high levels of varied and targeted training for personnel.
• There are a number of mechanisms by which departmental and individual training needs are identified and provided.
• The FTO program is well-designed with formal training required of FTO's, daily evaluations conducted of new Officers and a well-planned rotation between FTO's for each Officer.
• School Resource and Youth Officers are handling a wide range of appropriate and targeted activities. This program is funded in conjunction with the school district.
• The Arlington Police Department provides a highly diverse and innovative set of crime prevention programs for the community, including the crime free multi-housing program.

It should be pointed out that in spite of its length, the positive characteristics of the Police Department described above are not exhaustive – they represent operational

and management approaches which highlight the quality of this Department. As a result, while there are many recommendations found in this report to improve operations and services, these proposed changes reflect a tradition of self-examination for the Department and continue a philosophy of providing excellent service to the community. These changes should be viewed as evolutionary, not revolutionary.

There are also several improvement opportunities which should be addressed by the City and its Police Department. These areas are summarized in the extended table which begins on the next page. The detailed analyses which this table summarizes are contained within the report. This summary has been constructed to show each issue identified by the project team, our recommended solution to each issue, the priority we attach to the recommendation and the fiscal impact of each recommendation. It should be noted that the numbers in the first column, “Index”, refer to the section and subsection heading numbers within the report.

SUMMARY OF RECOMMENDATIONS IN THE FINAL REPORT AND IMPLEMENTATION PLAN

Arlington Police Department

Index	Finding	Recommendation	Priority	Fiscal Impact
		FIELD SERVICES		
2.1.4	The patrol staffing model relies on several assumptions when actual data are available. The existing model does not adequately allow the Department to evaluate operations and services.	Utilize the Matrix Consulting Group model for patrol staffing. This model utilizes actual Officer availability, response and workload data as well as proactivity targets.	High 7/03	$0
2.1.7	Opportunities exist to increase the use of alternative responses to calls for service.	Expand the use of non-sworn personnel to respond to lower priority calls for service in the field. The project team recommends an incremental approach to implementation and the Department should consider the use of a pilot program in one District, after a period of training.	High Begin: 10/03 Full: 4/04	PSA's: ($874,000)
2.1.8	Proactive time and staff utilization can be enhanced by re-deploying small numbers of personnel among Districts and shifts.	Transfer five officers from the North and South Districts to the East and West Districts.	High 7/03	$0
2.1.10	Patrol supervisory and management staff (Sergeants and Lieutenants) in general are not actively involved in the direct planning and management of proactive capabilities of field personnel.	Increase the involvement of Sergeants and Lieutenants in managing field operations by developing and reviewing field work plans, tracking quality of life issues (in addition to crime trends) identified by the public (making use of "Cop Solve" on the intranet).	High 9/03	$0
2.1.11	The use of Sergeants in dedicated administrative roles is not an effective use of resources.	Increase Sergeant staffing by two positions and add one civilian administrator to each District.	Medium 7/04	$348,500
2.2.2	The Department is making use of a trained Accident Investigator (sworn) to handle administrative tasks related to processing DUI arrests.	Return the AI to enforcement activities and hire a professional (civilian) position to process these documents. The net 'savings' shown in the right hand column results from changes in personnel costs and increased enforcement revenue generated by return of a sworn staff position to the field.	High 9/03	($30,000)

Index	Finding	Recommendation	Priority	Fiscal Impact
		FIELD SERVICES		
2.2.3	The Accident Investigation Unit has insufficient supervisory coverage. This is worsened by the fact that staff are working on two shifts and there is only a single supervisor at this time.	Authorize an additional Sergeant for the Accident Investigation Unit.	High 9/03	$84,000
2.2.4	The Hit and Run Unit investigates minor hit and run accidents. More serious hit and runs, involving significant property damage, injury or death are handled by AI's and other detectives.	Redistribute the workload of the unit and eliminate the two positions assigned to the unit.	High 9/03	($140,000)
2.3	Special Operations team members are at risk of 'burnout' due to high levels of call out for emergency incidents.	Consider training additional personnel at a higher level – making them available on an ad hoc basis to provide call-out relief to the Special Operations Team.	Medium 7/04	$0
2.5	The Warrant Unit utilizes sworn and non-sworn positions to process Class C misdemeanor warrants. Many of the duties do not require a sworn position.	Convert one sworn position in the Warrants Unit to a non-sworn position.	High 10/03	($9,700)
		INVESTIGATIVE SERVICES		
3.2.2	Current staffing in the Districts exceeds the levels necessary to handle both existing workload and the workload recommended for re-distribution to these units. In addition, much of the work load handled by District investigators can be handled by civilian investigators, as is currently the case in central investigations.	Reduce detective staffing by 8 positions in the Districts. At the same time, add 6 professional (PSA) positions to provide support to investigators and handle selected cases. Re-deploy the detectives in a team concept to address issues at the Sector level rather than assigning them one per beat.	High 10/03	($192,000)
3.2.3	Investigative Sergeants are not devoting sufficient time in case review, monitoring case loads, etc.	Investigative Sergeants need to take a more active role in investigative management. This includes the need to develop additional management reports (e.g., cases older than 30 days, cases with no supplement).	High 7/03	$0
3.3.2	The Economic Crimes unit has changed its focus to computer based crimes with a resulting reduction in the attention given to lower level financial crimes.	Shift the investigation of selected crimes such as forgeries and frauds to District investigators. Evaluate opportunities to regionalize identity theft and computer crime cases.	High 10/03	$0

Index	Finding	Recommendation	Priority	Fiscal Impact
INVESTIGATIVE SERVICES				
3.3.3	Auto Theft investigative levels do not support the current level of staffing.	Reduce Detective staffing by one position. Add a professional position to handle the administrative workload of the unit. Shift some cases to the District Detectives.	Medium 11/03	($10,000)
3.4	Workload in the Domestic Crimes unit exceeds that which can be effectively handled by current staff.	Add a Detective to this unit.	High 9/03	$70,000
3.5	The Juvenile Unit is staffed appropriately given current workloads. However, an additional position will be required as workload grows beyond this level.	Monitor workload in the unit. Additional staff resources may be required when workload grows.	Low	$0
3.10	The Victim's Assistance unit does not measure the outcome of the provision of their services.	Develop outcome measures to enable the unit to track the efficacy of programs and services.	Low	$0
3.11	The Victim's Assistance unit has been assigned a vehicle seized under forfeiture with over 160,000 miles of utilization.	The unit should receive a newer vehicle at the compact sedan class (the current vehicle is a Chevy Suburban).	Medium 12/03	$15,000 (1x)
ADMINISTRATIVE SERVICES				
4.1.1	The Department has functioned with only modest impacts associated with leaving the Supply Technician position vacant.	Redistribution of the duties assigned to the vacant Supply Technician would not result in a reduction of services. Eliminate the position and reassign the duties to other personnel.	High 7/03	($30,000)
4.1.2	High error rates in completion of expense and travel reports were identified (25% of a one position's time is spent quality controlling these reports).	Provide training and hold staff accountable for proper completion of expense reports.	Medium 10/03	$0
4.1.3	The Department has shifted responsibilities of the 2 Fleet Specialists resulting in using the PSA from the North District to assist with movement of patrol vehicles for maintenance.	Reassign duties, making the Fleet Specialists responsible for fleet activities. Return the PSA to the North District for regular duties.	High 7/03	$0
4.2.1	The Police Department's information system needs require re-evaluation.	Develop a strategic plan specific to the IT needs of the Department. This should be the focus of the Technology Services Department.	Medium 12/03	$0

Index	Finding	Recommendation	Priority	Fiscal Impact
ADMINISTRATIVE SERVICES				
4.2.2	The Police Department has not kept up with available upgrades to the Tiburon system.	Implement the RMS upgrade to keep the Department in-line with Communications upgrades and to address other issues.	High 9/03	$160,000 (1x)
4.2.3	The Police Department is moving toward implementing an Automated Field Reporting.	The project team supports this change and recommends that steps be taken to begin implementation as soon as possible. Ensure that field officers are adequately trained before change is made. Implementation of this change will result in the elimination of data entry positions.	High 10/04 – if testing is complete	($746,000)
4.2.4	The Department is using a number of databases outside of Tiburon for tracking key information.	Shift these tasks to the Tiburon functions which will provide the same ability to track information.	Medium 12/03	$0
4.2.5	The APD is re-entering warrant data that is already entered into the Court's systems.	Obtain a file from the Courts daily to eliminate the need for this entry.	Medium 11/03	$0
4.2.6	The City has made a significant investment in the Tiburon system. The Department has not shifted its work processes to match the capabilities of the system.	The City should require the Department to match its functions to the functionality of the system. In cases where the APD believes this to be impractical, a justification should be developed and approved by the City.	Medium 12/03	$0
4.4.1.1	The Department has historically employed a comprehensive outreach program for recruitments. This effort has been reduced as funding is reduced.	Continue to invest in these basic efforts at outreach.	High	$0
4.4.4.3	The Department provides a wide range of training programs and seeks feedback on training needs from a wide range of personnel.	Institute a survey to determine if training is effective and meeting the needs of the staff.	Medium 12/03	$0

Index	Finding	Recommendation	Priority	Fiscal Impact
ADMINISTRATIVE SERVICES				
4.4.5.4	The Department's training for new supervisors and managers has recently been instituted. However, the project team believes that more could be done to define the appropriate roles and training required.	Develop a task force to examine the specific training needs for the new Sergeant and Lieutenant.	Medium 10/03	$0
4.4.5.6	There is no multi-year plan addressing training targets for the Department.	Develop a training plan covering three years. This will enable the Department to identify training that is required periodically and to ensure that there is time made available for these efforts.	Medium 3/04	$0
4.7	The Crime Prevention Unit could require a non-sworn position if staff availability continues to be an issue.	Add a Police Service Assistant to assist with the programs.	Medium 6/04	$60,000
FLEET MANAGEMENT				
5.2.1	The City's take home car policy does not fully address the need for take home cars for those who may be required to respond to emergency situations.	Develop a specific policy to fully address this issue.	High 7/03	$0
5.2.2	Staff assignments of take home cars appears to be excessive.	Reduce the number of take home cars from 32 to 5. Remaining take home cars should be allocated to – K-9 (3) officers, the on-call CAPERS detective and the Officer assigned to media relations.	High 9/03	$0
5.3	31% of the police patrol sedans are assigned to specific staff or units, and not available for use by Police Officers assigned to patrol beats	Reduce the number of assigned police patrol sedans by 30, and reassign these sedans to a "pool" for use by Police Officers, Police Sergeants, and Police Lieutenants assigned to patrol.	High 7/03	$0
5.5	The number of "general purpose" sedans assigned to the Police Department appears to exceed current needs.	Fleet Services should evaluate the potential to eliminate 13 general-purpose sedans assigned to the Police Department. 5 other general-purpose sedans within the department should be "pooled."	High	($33,000)

Index	Finding	Recommendation	Priority	Fiscal Impact
FLEET MANAGEMENT				
5.6	Mid-sized vehicles are not appropriate units for Lieutenants in patrol operations.	Reassign the mid-sized sedans elsewhere in the City's fleet.	High 7/03	($136,000) (1x)
5.7	Police and Fleet Services management need to better coordinate the balancing of utilization of vehicles.	Fleet Services and the APD should be responsible for managing the rotation of vehicles to ensure more balanced mileage over the life of the vehicles.	Medium 10/03	$0
5.8	Preventive maintenance practices should be improved.	Evaluate the necessity of performing the "A" service every 2,000 miles. Also work to improve the scheduling of preventive maintenance stops for fleet units.	Medium 10/03	$0
5.9	Police fleet downtime exceeds the levels normally targeted for similar fleets. Current down time exceeds 5% on most days.	Reduce downtime to under 5%. Take steps to address minor maintenance issues and to provide patrol staff with the ability to initiate some actions during off-hours (vehicle towing, etc.). Instruct Police Officers on how to properly close down an MDC.	High 7/03	$0
5.9	Evaluation of the maintenance needs of the Police fleet show that no less than four mechanics should be assigned to maintaining police patrol sedans.	Do not allow the number of mechanics assigned to maintenance of police patrol sedans to fall below 4 – this will prevent excessive downtime of police patrol sedans.	High 9/03	$0
ORGANIZATIONAL STRUCTURE				
6.3	The current organizational structure of the Department is sound.	Civilianize the supervision of the Management Initiatives Unit.	Medium 12/03	$0
DEPARTMENTAL MANAGEMENT				
7.1	The current approach to managing the Department can be improved by taking several steps.	Hold an internal retreat to identify and revise goals and objectives; increase the use of performance measures at all levels of the organization to increase accountability; re-focus the bi-monthly meetings to review of goals and objectives, and especially on areas where the Department is not meeting performance expectations.	High 7/03	$0

In an effort to show the cumulative or net impacts of these recommendations, the project team has developed the following two tables. The first table, which follows, provides a summary of the net staffing changes in the Department assuming that all recommendations are implemented:

Position	Change
Police Sergeants	3
Police Officers / Detectives	(39)
Police Service Assistants (PSA)	26
Other Professional Staff Positions	(9)
Total	**(19)**

The total net change would be a reduction in staff of 19 total positions. This assumes that the Police Department adopts three major policy shifts: (1) changes in the geographical assignment of detectives; (2) the expansion of the PSA program in patrol on two shifts handling a broad range of calls; and (3) a change in report writing away from calling-in reports to automated field entry of reports.

The table, on the following page, shows the "phasing" impact on net savings over time – as recommendations are initiated and the impacts of salary increases or reductions and one-time costs (or savings) are considered in the Department budget. The table shows costs / cost savings for all priorities of operating expenses.

Operating Division	Recommendation	Year	Cost / (Cost Savings)
Field Services	Return an Accident Investigator to the field.	2003	($30,000)
	Add a Sergeant to Accident Investigations.	2003	$84,000
	Eliminate the Hit and Run Unit.	2003	($140,000)
	Civilianize a sworn Warrants position.	2003	($9,700)
	Expand the use of PSA's to handle calls.	2004	($874,000)
	Add Sergeants and civilians to support Districts.	2004	$348,500

Operating Division	Recommendation	Year	Cost / (Cost Savings)
Investigations	Reduce District investigators	2003	($192,000)
	Civilianize an Auto Theft position	2003	($10,000)
	Add a Domestic Crimes detective	2003	$70,000
Administrative	Eliminate the Supply Technician position	2003	($30,000)
	Reduce data entry staffing	2004	($580,000)
	Add a PSA to Crime Prevention	2004	$60,000
NET TOTALS	**Annual, with complete implementation**		**($1,303,200)**
	Net 2003-2004		**($257,700)**
	Net 2004-2005		**($1,045,500)**

Note that the calculations behind this exhibit are based on the assumption that the City adopts all of the project team's recommendations and that those recommendations are adopted per the Matrix Consulting Group's recommended timing (as shown in the main table of this executive summary. The summary shows that aggregate net savings, should all recommendations be adopted and implemented, would be $257,000 in the next fiscal year and would increase by over $1 million per year to about $1.3 million in fiscal year 2004-2005.). It should be noted that year one projected savings are understated by the extent of phasing of the field PSA recommendation.

2. ANALYSIS OF THE OPERATIONS BUREAU – FIELD SERVICES

This chapter focuses on the field and related services provided by the Arlington Police Department. These include activities such as: patrol, traffic enforcement, special operations and jail. Other functions in the Operations Bureau, such as district, central and special investigations are examined in the next chapter. Each service area is evaluated in terms of management, staffing and services provided. The chapter begins with a description of Arlington's approach to field law enforcement through 'geographic policing'.

1. DISTRICT PATROL OPERATIONS

The Arlington Police Department has adopted an approach to providing field patrol (and some investigative) services that is described as "geographic policing." This approach has resulted in a number of strategic and deployment decisions that are described and evaluated in this chapter. The first sub-section, that follows, describes the meaning of the phrase "geographic policing" as it is applied in Arlington.

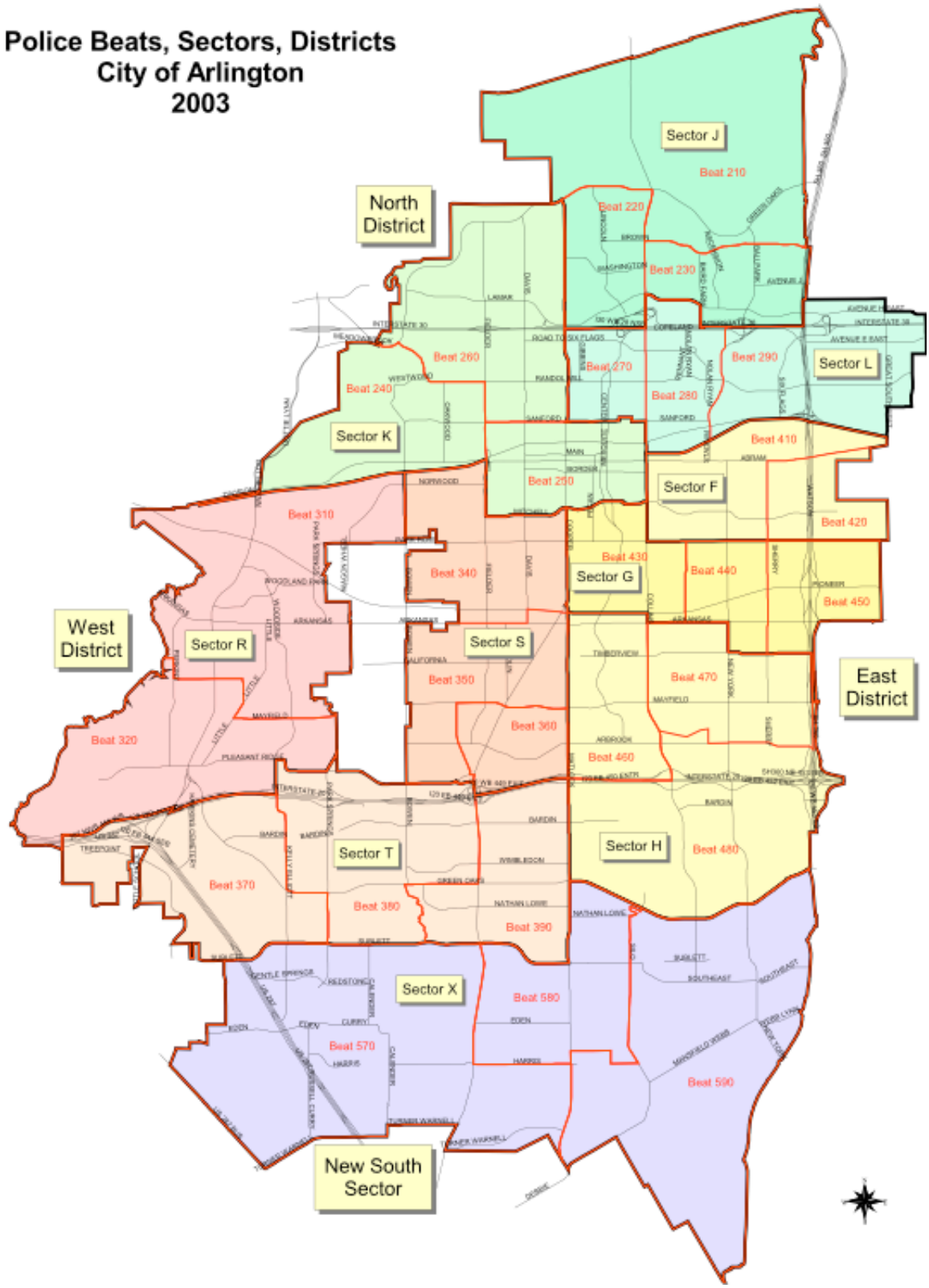
(1) The Current Approach to Deployment and Operations is Founded in a Philosophy Called "Geographic Policing."

The City of Arlington has adopted an approach to law enforcement which permeates many aspects of the organization and deployment of personnel within the APD. This approach or philosophy is called "geographic policing." This approach is called many different things around the United States and elsewhere around the world but the philosophy and its implications are summarized in exhibit, which follows this page:

Service Area	Impact of Geographic Policing
Patrol Organization	• Deputy Chiefs are responsible for patrol and other issues within Districts (see below). • Generally, Lieutenants are responsible both for a shift and for a geographic area (Sectors). • Sergeants are responsible for supervising personnel on a shift and are responsible for the activities within a specific Beat. • Patrol Officers are assigned to a Beat – multiple Police Officers work with a Sergeant to deliver services within a Beat (i.e., across shifts). • This approach requires that supervisory and management personnel coordinate both temporal and geographic concerns.
Geographic Organization	• City is broken down into four Districts. • Districts are broken down into Sectors. • Sectors are broken down into Beats. • For analytical purposes, Beats can be broken down into PRA's (police reporting areas).
Patrol Deployment	• Patrol staff (Officers) are deployed into Beats. • Beats are designed so that they generally result in similar levels of workload as compared to one another. This can result in significant variations in the size of the Beats depending on the make-up of a particular area of the community. • Patrol staff are also deployed variably across the three shifts to provide for additional personnel during peak workload periods (i.e., to provide back-up, handle calls for service in the queue, etc.).
Addressing "Hot Spots" and Trends and Quality of Life Issues	• The program is intended to hold the lowest levels (i.e., Sergeants and Police Officers) accountable for identifying and addressing issues in their Beats. • As a practical matter, this applies upwards to the Lieutenants in the Sectors and the Deputy Chief in each District. • Crime Analysis staff (assigned both centrally and in the Districts) provide substantial support and analytical capability to the personnel in the Districts by identifying trends, "hot spots," etc. • Actions taken to address specific concerns are coordinated at the lowest level possible with involvement of support resources as necessary.

Service Area	Impact of Geographic Policing
Interaction with Neighborhood Groups	• Community interaction is handled at the lowest appropriate level. This is intended to hold staff accountable for the crimes and quality of life within their Beats (or larger areas as appropriate) and to improve the attention that potential issues may receive.
Support Services (i.e., Traffic Enforcement, etc.)	• May be organized centrally. • Individual Officers and supervisors have "primary" areas of responsibility – to assist in developing accountability and to foster a working relationship between the units and the Districts. • Major issues can be addressed by a request from the District to the central unit for more focused attention.
Investigations	• Organized centrally for major crimes that require specialization, special training, long term investigation and in the Districts for crimes that tend to have a geographic component to them. • Intended to place accountability and resources at the lowest possible level.

The intent of the geographic policing model is to make personnel more accountable and to thereby improve the delivery of services in every part of the City. By making personnel responsible for relatively small areas of the City (patrol beats) the intent is to allow specific focus on the differing issues of concern in each area. The map, on the following page, shows the current deployment of beats, sectors and districts.


Police Beats, Sectors, Districts
City of Arlington
2003
North District
West District
East District
New South Sector
Sector J
Sector K
Sector L
Sector F
Sector G
Sector R
Sector S
Sector T
Sector H
Sector X
Beat 210
Beat 220
Beat 230
Beat 240
Beat 250
Beat 260
Beat 270
Beat 280
Beat 290
Beat 310
Beat 320
Beat 340
Beat 350
Beat 360
Beat 370
Beat 380
Beat 390
Beat 410
Beat 420
Beat 430
Beat 440
Beat 450
Beat 460
Beat 470
Beat 480
Beat 570
Beat 580
Beat 590

(2) The Police Department Made Significant Changes to Its Operational Approach Following a Previous Management Study.

The Police Department last underwent a comprehensive external evaluation in 1989 in a study entitled: "Police Department Resource Utilization Analysis," conducted by Ralph Andersen & Associates. A number of major recommendations were made in the study that had an impact on the delivery of services by patrol and related functions. These are summarized in the following table:

Recommendation
Re-focus activities and services of the units in the [Patrol Bureau] towards direct service provision.
Increase patrol Officer staffing to the patrol shifts to meet service demands through control of "leakage" and the filling of vacant positions.
Reallocate patrol resources to shifts to match current service demands.
Assess the severity of the calls for service in analyzing workload distribution between and among patrol shifts.
Evaluate the configuration of patrol beats in accordance with sound design principals.
Reclassify burglar alarm responses as Priority 2 calls.
Develop and adopt a false alarm ordinance.
Re-evaluate leave policies during peak summer demand months.
Discontinue the practice of assigning patrol supervisors and personnel to the Jail.
Equip all traffic enforcement cars with mobile data terminals.
Maintain the motorcycle unit as configured.
Discontinue the 4/10 plan for traffic and special operations staff.
Discontinue the take home car practice for special operations staff.

The City and the Police Department adopted many of the recommendations for change and improvement. Given the elapsed time since the previous management study, however, many of the conditions underlying departmental operations have

changed and the City and Department are facing many new challenges. In the sections, which follow, the project team compares and contrasts alternative methods to evaluate patrol resource needs, beginning with an examination of data elements which they have in common.

(3) The Analysis of Field Patrol Resource Requirements Needs to Be Based on Actual Workloads Handled and Personnel Availability Factors.

There are many ways to analyze police department field resource needs. While some methods rely on comparative ratios, such as officers per capita, the Matrix Consulting Group utilizes a method in which the number of field personnel required is based on an analysis of the unique workloads and service level requirements of a community. This same philosophy underlies the work performed by Ralph Anderson & Associates. The reasons for this approach include:

- The nature or severity of call for service demands vary among communities.
- The level of service desired by communities vary – for example 'proactive' time or response time targets.
- Topographical and road layout factors impact resource requirements because of the impacts on response times.

The project team will compare and contrast two workload/service level based models for evaluating the deployment and staffing requirements of the patrol function of the Arlington Police Department – the model utilized in the Ralph Anderson & Associates study and the one utilized by the Matrix Consulting Group. While each of these models takes a different approach at portraying the patrol staffing and deployment requirements, they each rely on many of the same data inputs. The common critical inputs are described in the following subsections.

(3.1) Field Workloads

The first critical data element required to analyze field resources is to document the types and amount of work handled by patrol officers. The first table, below, shows the distribution of citizen generated calls for service among the four patrol districts and overall in the City. The 'calls for service' shown in the table exclude officer initiated activity (which results from proactive time which is availability). The table also shows the current allocation of calls for service handled by an administrative unit (called the Data Entry Unit or "Teleserve") which takes reports for 'minor crimes' or non-crime, service calls, over the telephone directly from complainants:

Calls for Service Allocation
Based on 2002 Data

District	Teleserve CFS (2002)	Total CFS (2002)	% of Calls
East	4,481	56,067	7.992%
North	5,875	65,678	8.965%
South	1,525	18,887	8.074%
West	5,904	60,256	9.798%
Citywide	**17,785**	**200,888**	**8.853%**

The table provides several key pieces of information:

- There are almost 201,000 calls for service handled in some way by the Arlington Police Department – almost 550 calls per day.
- Field patrol resources respond to the vast majority of these calls – 183,000 calls last year (or about 501 calls per day).
- The distribution of calls for service among the four districts is fairly consistent (with the exception of the new and much smaller South District), as follows:
  - East: 27.9%
  - North: 32.7%
  - South: 9.4%
  - West: 29.9%
- The Teleserve unit handles approximately 8.9% of all calls for service and takes approximately 42% of all reports taken by the Department. This varies among the four districts as a result of differential call types in each area.

As a result of handling these calls for service, there are related workloads – reports are generated, people are arrested, etc. The table, which follows, provides a summary of other aspects associated with handling calls for service in the community:

Other Key Workload Handled by Patrol
Based on 2002 Data

District	Arrests	Reports	Back-up	Committed Time
East	1,899	12,731	0.57	62.0 mins
North	2,697	14,501	0.51	59.0 mins
South	303	2,870	0.38	51.3 mins
West	1,902	12,067	0.52	58.3 mins
Citywide	**6,801**	**42,169**	**n/a**	**n/a**

In many police departments, many of these workload elements are counted separately. In the APD, the records management system can provide data on a total "Committed Time" basis. This time is defined as the sum of the time committed to a call for service by all units involved. This time includes the time spent traveling to the call, handling the call at the scene, writing reports, processing any arrests and the provision of back-up by other units at each call for service. This does not include units which never arrive at the scene.

The tables on the following pages show the distribution of calls for service in each of the four patrol districts. These data show the following:

- Citizen generated calls for service (excluding officer initiated activities).
- Distribution of calls for service based on actual 2002 data.
- Call for service workload on a time of day and day of week basis.
- Call for service workload by district.

The section following the tables provides a description of the project team's models for patrol staffing and deployment.

Distribution of Citizen Generated Calls for Service - Time of Day / Day of Week
Call Data Estimate for 2003 (Calls Assigned to New Beat / District Alignment)
Arlington Police Department All Districts Combined

Hour/Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	%Total	CFS/Hr.
0000	945	934	801	894	971	1,602	1,786	**7,933**	3.8%	21.73
0100	680	683	658	696	781	1,371	1,623	**6,492**	3.1%	17.79
0200	652	613	598	644	818	1,283	1,427	**6,034**	2.9%	16.53
0300	465	434	415	461	633	925	1,031	**4,364**	2.1%	11.96
0400	523	501	520	497	605	791	871	**4,307**	2.1%	11.80
0500	400	370	396	397	375	514	584	**3,036**	1.5%	8.32
0600	574	643	610	578	620	576	458	**4,058**	2.0%	11.12
0700	1,019	1,017	1,034	1,059	1,057	701	543	**6,429**	3.1%	17.61
0800	1,246	1,145	1,166	1,180	1,207	1,000	767	**7,711**	3.7%	21.13
0900	1,240	1,250	1,190	1,155	1,200	1,108	859	**8,003**	3.9%	21.93
1000	1,237	1,272	1,229	1,177	1,212	1,316	1,042	**8,485**	4.1%	23.25
1100	1,213	1,112	1,104	1,151	1,284	1,342	1,139	**8,345**	4.0%	22.86
1200	1,309	1,279	1,148	1,277	1,363	1,460	1,215	**9,051**	4.4%	24.80
1300	1,470	1,311	1,339	1,370	1,358	1,497	1,297	**9,643**	4.7%	26.42
1400	1,473	1,437	1,345	1,328	1,484	1,475	1,260	**9,803**	4.8%	26.86
1500	1,643	1,660	1,586	1,562	1,743	1,531	1,337	**11,062**	5.4%	30.31
1600	1,796	1,700	1,719	1,757	1,825	1,548	1,416	**11,760**	5.7%	32.22
1700	1,867	1,871	1,824	1,784	1,920	1,592	1,526	**12,383**	6.0%	33.93
1800	1,823	1,794	1,685	1,802	1,850	1,635	1,502	**12,090**	5.9%	33.12
1900	1,614	1,580	1,568	1,658	1,748	1,731	1,586	**11,485**	5.6%	31.47
2000	1,529	1,639	1,519	1,521	1,646	1,654	1,547	**11,055**	5.4%	30.29
2100	1,516	1,563	1,561	1,643	1,789	1,863	1,654	**11,588**	5.6%	31.75
2200	1,449	1,326	1,439	1,519	1,923	1,983	1,534	**11,174**	5.4%	30.61
2300	1,114	1,210	1,209	1,332	1,785	2,075	1,350	**10,074**	4.9%	27.60
Total	**28,794**	**28,342**	**27,663**	**28,442**	**31,199**	**32,571**	**29,355**	**206,366**	100.0%	23.56
% of Total	**14.0%**	**13.7%**	**13.4%**	**13.8%**	**15.1%**	**15.8%**	**14.2%**	**100.0%**		

Distribution of Citizen Generated Calls for Service - Time of Day / Day of Week
Call Data Estimate for 2003 (Calls Assigned to New Beat / District Alignment)
Arlington Police Department East District

Hour/Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	%Total	CFS/Hr.
0000	272	299	233	262	292	471	560	**2,390**	4.1%	6.55
0100	201	207	173	195	250	414	528	**1,969**	3.4%	5.39
0200	195	176	159	168	284	380	442	**1,804**	3.1%	4.94
0300	135	109	124	124	194	278	299	**1,263**	2.2%	3.46
0400	112	94	101	90	121	187	209	**914**	1.6%	2.50
0500	106	94	113	99	88	145	144	**788**	1.4%	2.16
0600	160	175	182	141	162	150	130	**1,100**	1.9%	3.01
0700	273	270	269	258	277	189	157	**1,694**	2.9%	4.64
0800	318	296	299	301	306	245	208	**1,973**	3.4%	5.40
0900	324	332	286	287	340	302	240	**2,110**	3.7%	5.78
1000	286	317	302	309	363	356	273	**2,206**	3.8%	6.04
1100	313	289	289	289	331	334	333	**2,177**	3.8%	5.97
1200	343	331	323	338	362	432	387	**2,516**	4.4%	6.89
1300	392	357	352	370	357	429	354	**2,609**	4.5%	7.15
1400	388	383	365	322	414	407	344	**2,623**	4.6%	7.19
1500	462	488	455	424	465	446	360	**3,099**	5.4%	8.49
1600	508	484	507	488	500	436	421	**3,344**	5.8%	9.16
1700	539	495	511	483	505	456	458	**3,448**	6.0%	9.45
1800	540	508	497	508	511	485	460	**3,508**	6.1%	9.61
1900	457	457	465	438	506	488	507	**3,318**	5.8%	9.09
2000	457	475	440	442	440	504	518	**3,276**	5.7%	8.98
2100	415	469	437	470	511	529	519	**3,350**	5.8%	9.18
2200	428	370	405	458	560	589	495	**3,306**	5.7%	9.06
2300	321	321	322	387	508	599	393	**2,850**	4.9%	7.81
Total	**7,944**	**7,795**	**7,608**	**7,651**	**8,647**	**9,252**	**8,739**	**57,637**	100.0%	6.58
% of Total	**13.8%**	**13.5%**	**13.2%**	**13.3%**	**15.0%**	**16.1%**	**15.2%**	**100.0%**		

Distribution of Citizen Generated Calls for Service - Time of Day / Day of Week
Call Data Estimate for 2003 (Calls Assigned to New Beat / District Alignment)
Arlington Police Department North District

Hour/Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	%Total	CFS/Hr.
0000	348	311	255	324	352	581	591	**2,762**	4.1%	7.57
0100	268	248	241	265	266	506	521	**2,315**	3.4%	6.34
0200	231	237	228	269	304	497	520	**2,287**	3.4%	6.27
0300	187	169	147	179	235	355	406	**1,678**	2.5%	4.60
0400	176	170	157	157	174	256	271	**1,361**	2.0%	3.73
0500	137	113	125	131	136	176	235	**1,053**	1.6%	2.88
0600	184	225	189	183	215	223	164	**1,384**	2.1%	3.79
0700	314	348	319	354	348	211	178	**2,071**	3.1%	5.68
0800	375	377	415	408	363	324	244	**2,506**	3.7%	6.87
0900	411	382	378	389	359	354	264	**2,537**	3.8%	6.95
1000	450	413	387	400	370	421	341	**2,783**	4.1%	7.62
1100	406	383	365	386	441	447	362	**2,790**	4.1%	7.64
1200	423	438	335	398	453	445	391	**2,883**	4.3%	7.90
1300	461	424	425	439	437	444	420	**3,049**	4.5%	8.35
1400	436	467	429	440	479	480	404	**3,134**	4.7%	8.59
1500	507	504	498	464	541	450	442	**3,405**	5.1%	9.33
1600	559	529	523	584	590	462	441	**3,688**	5.5%	10.11
1700	628	609	579	596	641	503	468	**4,024**	6.0%	11.02
1800	561	557	514	586	585	502	457	**3,762**	5.6%	10.31
1900	506	497	500	547	549	538	517	**3,652**	5.4%	10.01
2000	488	542	467	461	524	540	497	**3,518**	5.2%	9.64
2100	471	526	478	543	589	589	546	**3,742**	5.6%	10.25
2200	440	440	483	536	627	656	522	**3,704**	5.5%	10.15
2300	366	389	388	471	598	645	426	**3,281**	4.9%	8.99
Total	**9,333**	**9,298**	**8,823**	**9,507**	**10,177**	**10,602**	**9,629**	**67,370**	100.0%	7.69
% of Total	**13.9%**	**13.8%**	**13.1%**	**14.1%**	**15.1%**	**15.7%**	**14.3%**	**100.0%**		

Distribution of Citizen Generated Calls for Service - Time of Day / Day of Week
Call Data Estimate for 2003 (Calls Assigned to New Beat / District Alignment)
Arlington Police Department South District

Hour/Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	%Total	CFS/Hr.
0000	74	57	60	58	62	110	151	**571**	2.9%	1.56
0100	35	36	44	40	58	89	127	**430**	2.2%	1.18
0200	28	35	45	44	39	68	78	**337**	1.7%	0.92
0300	26	28	22	34	23	56	54	**242**	1.2%	0.66
0400	96	91	102	97	91	108	115	**700**	3.6%	1.92
0500	39	33	32	34	26	44	27	**234**	1.2%	0.64
0600	66	60	59	87	75	37	29	**412**	2.1%	1.13
0700	148	117	125	126	111	73	65	**766**	3.9%	2.10
0800	150	121	122	153	152	109	91	**900**	4.6%	2.46
0900	133	131	119	127	123	121	104	**858**	4.4%	2.35
1000	131	112	146	123	107	155	122	**896**	4.6%	2.46
1100	108	109	105	120	124	140	113	**819**	4.2%	2.24
1200	130	115	108	137	143	150	101	**883**	4.5%	2.42
1300	136	132	130	121	144	143	126	**931**	4.8%	2.55
1400	156	146	146	118	126	123	117	**933**	4.8%	2.56
1500	148	161	164	169	184	134	104	**1,064**	5.5%	2.92
1600	197	169	174	161	182	126	125	**1,135**	5.8%	3.11
1700	158	197	199	168	191	149	127	**1,190**	6.1%	3.26
1800	163	163	159	140	168	151	132	**1,076**	5.5%	2.95
1900	144	142	135	166	154	125	118	**984**	5.1%	2.70
2000	155	153	136	161	139	135	130	**1,008**	5.2%	2.76
2100	143	121	160	153	151	171	143	**1,042**	5.4%	2.86
2200	141	120	104	99	175	160	118	**917**	4.7%	2.51
2300	126	153	143	123	181	223	136	**1,086**	5.6%	2.97
Total	**2,830**	**2,703**	**2,739**	**2,760**	**2,929**	**2,901**	**2,555**	**19,416**	100.0%	2.22
% of Total	**14.6%**	**13.9%**	**14.1%**	**14.2%**	**15.1%**	**14.9%**	**13.2%**	**100.0%**		

Distribution of Citizen Generated Calls for Service - Time of Day / Day of Week
Call Data Estimate for 2003 (Calls Assigned to New Beat / District Alignment)
Arlington Police Department West District

Hour/Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	%Total	CFS/Hr.
0000	250	267	253	251	266	440	483	**2,210**	3.6%	6.06
0100	175	192	200	195	208	362	446	**1,778**	2.9%	4.87
0200	197	164	166	162	191	338	387	**1,606**	2.6%	4.40
0300	117	129	122	123	181	237	271	**1,181**	1.9%	3.24
0400	140	146	160	152	219	240	276	**1,332**	2.2%	3.65
0500	118	131	125	134	125	149	178	**960**	1.6%	2.63
0600	163	183	180	167	168	166	136	**1,162**	1.9%	3.18
0700	284	281	321	321	321	228	143	**1,898**	3.1%	5.20
0800	403	351	329	318	386	323	224	**2,333**	3.8%	6.39
0900	372	405	407	353	377	331	252	**2,497**	4.0%	6.84
1000	370	430	395	344	372	383	305	**2,600**	4.2%	7.12
1100	387	331	345	357	388	420	331	**2,559**	4.1%	7.01
1200	413	395	382	404	405	433	337	**2,769**	4.5%	7.59
1300	482	399	434	440	420	481	397	**3,053**	4.9%	8.36
1400	493	441	405	448	465	465	395	**3,112**	5.0%	8.53
1500	526	507	469	506	554	501	432	**3,494**	5.6%	9.57
1600	531	518	515	523	553	524	428	**3,593**	5.8%	9.84
1700	542	570	535	537	583	484	472	**3,721**	6.0%	10.20
1800	558	565	515	568	587	497	453	**3,744**	6.0%	10.26
1900	507	484	469	508	539	580	444	**3,530**	5.7%	9.67
2000	428	469	477	457	543	476	403	**3,253**	5.3%	8.91
2100	487	446	485	477	538	574	446	**3,453**	5.6%	9.46
2200	441	396	447	427	561	578	398	**3,247**	5.2%	8.90
2300	301	347	357	352	498	608	396	**2,858**	4.6%	7.83
Total	**8,687**	**8,546**	**8,493**	**8,523**	**9,446**	**9,816**	**8,432**	**61,943**	100.0%	7.07
% of Total	**14.0%**	**13.8%**	**13.7%**	**13.8%**	**15.2%**	**15.8%**	**13.6%**	**100.0%**		

(3.2) Officer Availability

The second important workload element is the amount of time available for field personnel. The table, which follows, provides the calculation of the "net availability" of police officers in patrol together with the source of the data or assumption utilized. The project team defines net availability as the number of hours that an Officer (or any other employee) is available to perform their key roles and responsibilities after the impact of leaves and administrative responsibilities have been subtracted from their gross scheduled hours of work.

Payroll Code	Value	Source
Gross Hours Scheduled	2,080.00	Payroll System
Sick Leave	(66.47)	Payroll System
Vacation Leave	(100.89)	Payroll System
Holiday Leave	(82.87)	Payroll System
Other Leaves	(18.97)	Payroll System
Authorized Leave With Pay	(3.95)	Payroll System
Authorized Leave Without Pay	(9.39)	Payroll System
Injury	(6.47)	Payroll System
Long Term Disability	(0.31)	Payroll System
Sub-Available	**1,790.68**	
Employee of the Month	(0.80)	Payroll System
Jury Duty	(0.65)	Payroll System
Meritorious Service	(0.06)	Payroll System
Safe Driving	(0.56)	Payroll System
Net Available Time	**1,788.60**	
Meals and Breaks on Shift	(168.14)	Assumption
Shift Briefing	(56.05)	Observation
Vehicle and Equipment Preparation	(56.05)	Assumption
Training	(72.00)	Training Files
Departmental Meetings/Committees	(11.21)	Interviews
Court	(22.42)	Assumption
Net Available Time After All Factors	**1,402.73**	

The table, above, shows that the "average" Police Officer is available for work 1,402.7 hours. The points, below, expand on several key issues identified in the table:

- The payroll system shows that Police Officers are available 1,790.7 hours after all leave categories have been accounted for. This is equivalent to 86.1% of the

time. This includes the impact of long term disability, family medical leave and other factors that take an officer out of the patrol schedule (vacation, sick leave, etc.). A review of data for calendar year 2001 from the same payroll system shows that this has been a consistent figure for the Department (2001 showed a total of 1,777.9 hours compared to 1,788.6 leave used).

- Other factors such as jury duty and various employee awards (that grant time off) result in the loss of another two hours for the "average" patrol officer. These have an insignificant impact on availability.

- The project team made a number of assumptions based on observation and consultation with APD staff regarding the impacts of administrative responsibilities, court, training as well as time off factors associated with meals, etc. These assumptions (except training time which is an actual figure) are described below:

  - **Meals and Breaks** were assumed to take a total of 45 minutes per shift actually worked (i.e., after regular days off and the 14% for leaves was accounted for) per officer. This assumption takes into consideration that field personnel need to be covered during these periods except in emergencies.

  - **Shift Briefing** was observed and is assumed to take 15 minutes per shift actually worked per officer.

  - **Vehicle and Equipment Preparation** was observed and is similarly assumed to take 15 minutes per shift worked per officer. This includes time during the shift to fuel vehicles in service.

  - **Training** time was developed from current training records for the Police Officer classification.

  - **Departmental Meetings / Committees** include internal activities in which Police Officers may be involved. This would include, for example, field training officer meetings, policy review committees, etc. This does not include time spent at community meetings or other activities that stem from the use of proactive time. This is assumed to impact 5% of staff on every shift (including graveyards) for one hour per shift actually worked.

  - **Court** is assumed to take one hour per shift actually worked for 10% of officers. It should be noted that personnel records only count court time in which a patrol officer is called in on an overtime basis.

The next section compares the patrol analytical methodology in the Ralph Anderson & Associates model used by the Arlington Police Department over the past 13

years with the one recommended by the Matrix Consulting Group, together with a rationale for changing the use of resource planning models.

(4) <u>The Project Team Recommends a Patrol Staffing Model That Is Based on the Department's Actual Experience and City Policy Decisions.</u>

There are several models in use for evaluating patrol staffing and deployment. The patrol staffing model utilized by the Matrix Consulting Group is similar in many ways to the one used by Ralph Andersen & Associates (which is based on an approach developed by the International Association of Chiefs of Police) but differs in one critical way – the use of actual data versus assumptions relating to the mix of call handling, proactive and administrative times. The table, below, provides a summary of the differences between the two patrol staffing models:

Element of the Model	Current Model (Ralph Anderson)	Recommended Model (Matrix CG)	Model Favored by Differences
Reactive Workload	• Intended to be 33% of total Officer time. • Based on actual calls for service. • Relies on estimates for the time that a call for service takes.	• Intended to be established by policy as between 55% and 60% of an Officer's net available time. • This calculation take administrative time out before this calculation is made. • This portion of workload is based on actual call experience, committed time (for all units) related to all elements of patrol workload.	• MCG Model relies on actual experience rather than estimates. • **Favors MCG model.**
Proactive Time Available	• Intended to be 33% of total Officer time.	• Targeted at between 40% and 45%. Determined as a policy decision by the City.	• MCG model allows policy decision to be applied after those things that are generally not controllable are taken into account. • **Favors MCG model.**

Element of the Model	Current Model (Anderson)	Recommended Model (Matrix CG)	Model Favored by Differences
Administrative Time	• Predicted to be 33% of Officer time.	• Actual experience is that administrative time is 20% of an Officer's time (after all leaves are accounted for).	• MCG model uses actual experience and does not over-account for administrative time. • **Favors MCG model.**
Staff Availability	• Current approach uses an estimate that was first developed when the model was implemented into use in the APD.	• MCG approach uses actual availability data (from payroll and training systems) and uses up-to-date estimates of other administrative time lost.	• **Favors MCG model.**

This analysis shows that the model used by the Matrix Consulting Group is based on actual data wherever possible compared to a series of assumptions based on an outdated assumption allocating 'thirds' of time to reactive, proactive and administrative times. The Matrix Consulting Group's model is summarized in the following table:

Input / Calculation	Description
Committed Time	• The APD tracks numerous time data. • One that is tracked is "Committed Time." This includes the following: - Primary unit time on-scene. - Any report writing time. - Any arrest processing time. - Any time dedicated to the call for service by non-primary units (for any of the reasons above or for any other reason not listed). - Does not include units that are cancelled before they arrive on-scene.
Reactive Time	• The product of the number of calls for service times the number of hours in the shift (or period being measured) times the Committed Time. • When expressed as a percentage, it is shown as the Reactive Time divided by the Net Duty Time Available.
Proactive Time	• The remainder of the Net Duty Time Available after all Reactive Time is accounted for.

Input / Calculation	Description
Call for Service Workload	• The average number of calls for service (citizen generated only) that are handled within a given period of time. • Expressed in a per-hour basis in the spreadsheet.
Staff Available	• Determined using shift logs, payroll records, etc. • Shows the average number of Officers (does not count supervisors) available to handle call for service workload.
Shift Length	• The duration of the average shift worked in patrol. • Can be altered to reflect shorter-than-shift periods of time if such detail is desired in an analysis. • Need to be careful to link workload to the appropriate period of time if non-shift length analyses are conducted.
Gross Duty Time Available	• Determined by multiplying the number of staff available times the length of the shift (or whatever time period is being used).
Administrative Time Lost	• Includes: meals, shift briefing, vehicle / equipment preparation time, training, court, meetings (Department business only), etc.
Net Duty Time Available	• Takes into account the gross time less the time lost on shift (i.e., administrative time).

Recommendation: The Police Department should adopt the Matrix Consulting Group staffing model. This model makes use of actual experiential data rather than a series of assumptions that are not founded in Arlington's actual experiences.

The section, which follows, provides a summary of the results of the project team's analysis of the use of proactive time in field patrol.

(5) The Analysis of Patrol Operations Shows That Proactive Time Is Inconsistently Distributed Among Shifts in All Districts.

The project team developed an analysis of proactive time to assist in the analysis of current patrol deployment. The concept of proactivity is very important in law enforcement – if field personnel are committed a large proportion of the time, they have little capability to impact the root causes of crime, to anticipate crime (when analysis shows there to be some predictability) or to work with citizens. Moreover, field personnel with little uncommitted time find it difficult to produce response times at

community expected levels. Police departments that have developed a community policing program based on effective use of proactive time typically target a 40% - 45% uncommitted time range. These departments, and research supporting these targets, have found that proactive time below 40% does not provide time in sufficient blocks to be useable; above the 45% level is typically not affordable and is inefficient. The table, below, provides a brief discussion of the two proactive time targets utilized in our patrol staffing model:

40% Proactive Time	45% Proactive Time
• Below this level, proactive time begins to come in blocks that are too small to be useful for "community policing". • At this level, police should be able to engage in a wide range of preventive activities, including: directed patrol, responding to non-criminal quality of life complaints, engaging in traffic enforcement and other activities. • Ability to engage in community meetings and other time consuming efforts (which take Officers out of their patrol areas or make them unavailable for call) is more constrained at these levels of uncommitted time. • As with any effort, this requires active involvement of supervisors. More of the Officers' time is dictated by the necessity of handling call for service than in higher target situations.	• Above this level, proactive time comes in blocks that are difficult to utilize in routine shift circumstances. • At this level, Police Officers should be able to engage in the full range of activities described under the 40% target. • In addition, the Department should be able to free Officers from shift work to attend community meetings, etc. with little impact on reactive capabilities. • Investment in this level of proactive law enforcement requires a strong commitment to actively manage the use of this time, for supervisors to be held accountable for their Officers' utilization, etc.

The project team views 40% to be a minimum average proactive time target for an agency involved in a community policing program; 45% is targeted by agencies that have developed a comprehensive program of officer / community involvement. Several key factors should be kept in mind when reviewing the analysis of proactive time:

- Patrol availability was calculated using the net availability and other information provided in the preceding sections.

- Actual deployment of patrol personnel in the field. Current experience with actual patrol deployment is very limited given the recent shift in District, Sector and Beat deployments (as a result of the creation of the South District).

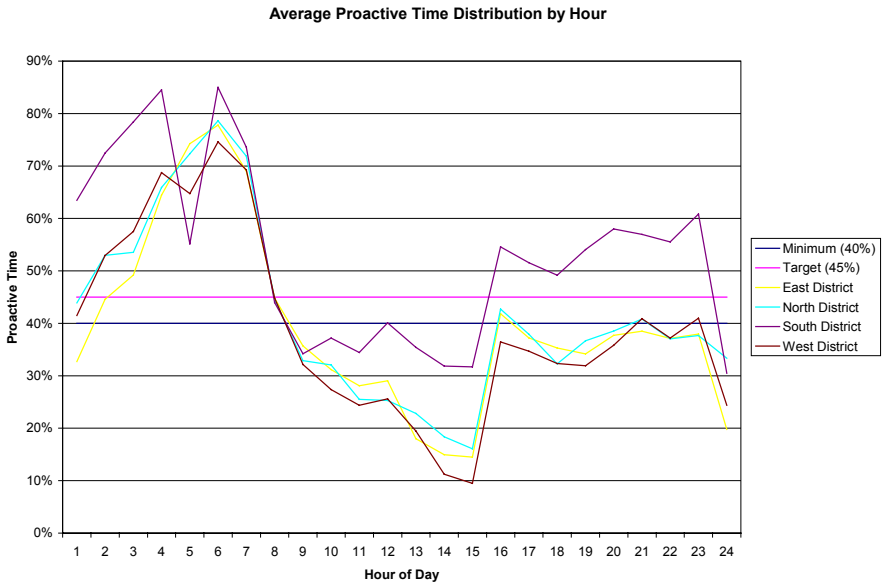
- Call for service workloads, distributed on district, time of day and hourly bases.

The first series of tables, show on the four pages appended to this subsection, provide the allocation of proactive time on a per-shift and overall basis for each of the four Districts. The results of this analysis are summarized below:

- **East District** overall proactive time is 44.4%. The shift breakdown is as follows:
  - Days: 32.5%
  - Evenings: 42.2%
  - Midnights: 65.4%
- **North District** has an overall proactive time of 47.3%. The shift breakdown is as follows:
  - Days: 33.4%
  - Evenings: 43.2%
  - Midnights: 69.2%
- **South District** overall proactive time is 57.5%, with a breakdown among the shifts as follows:
  - Days: 41.0%
  - Evenings: 58.5%
  - Midnights: 77.3%
- **West District** has an overall proactive time of 44.9%, with a breakdown as follows:
  - Days: 31.3%
  - Evenings: 42.3%

- Midnights: 68.2%

These analyses show that there are wide variations among shifts in all Districts though little significant variation on an average basis among the Districts. While the daily average for each district is within the targeted range, some shifts are below it and others (mostly midnight shifts) are significantly above. The exception is the South District which is less densely populated but makes up almost one-third of the City's total land area.



To further refine our understanding of this complex issue, the project team examined proactive time at a higher level of detail, on an hour by hour basis for each day of the week. The graph, above, shows the results of this more detailed analysis.

Distribution of Uncommitted (Proactive) Time for Patrol Officers
East Patrol District
Based on 2002 Call for Service Workload

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	41.82	10.74	18.65	12.43
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	20,074	5,154	8,952	5,968
Less Breaks / Meals (1.6 hours / Officer)	(4,341)	(1,115)	(1,936)	(1,291)
Net Duty Time Available	15,733	4,040	7,016	4,677
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	5.88	5.49	8.17	3.26
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	62.04	62.04	62.04	62.04
Direct Call Handling Time (mins.)	8,755.08	2,724.80	4,054.93	1,618.00
Percentage of Time Committed to Reactive Workload	**55.6%**	**67.5%**	**57.8%**	**34.6%**
Total Proactive Time Available After Reactive Work	**44.4%**	**32.5%**	**42.2%**	**65.4%**

Distribution of Uncommitted (Proactive) Time for Patrol Officers
North Patrol District
Based on 2002 Call for Service Workload

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	48.60	12.43	19.78	16.39
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	23,329	5,968	9,494	7,867
Less Breaks / Meals (1.6 hours / Officer)	(5,045)	(1,291)	(2,053)	(1,701)
Net Duty Time Available	18,284	4,677	7,441	6,166
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	6.81	6.60	8.95	4.02
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	59.00	59.00	59.00	59.00
Direct Call Handling Time (mins.)	9,642.96	3,115.20	4,224.40	1,897.44
Percentage of Time Committed to Reactive Workload	**52.7%**	**66.6%**	**56.8%**	**30.8%**
Total Proactive Time Available After Reactive Work	**47.3%**	**33.4%**	**43.2%**	**69.2%**

Distribution of Uncommitted (Proactive) Time for Patrol Officers
South Patrol District
Based on 2002 Call for Service Workload

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	15.26	3.96	6.78	4.52
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	7,324	1,899	3,255	2,170
Less Breaks / Meals (1.6 hours / Officer)	(1,584)	(411)	(704)	(469)
Net Duty Time Available	5,740	1,488	2,551	1,701
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	1.98	2.14	2.58	0.94
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	51.30	51.30	51.30	51.30
Direct Call Handling Time (mins.)	2,437.78	878.26	1,058.83	385.78
Percentage of Time Committed to Reactive Workload	**42.5%**	**59.0%**	**41.5%**	**22.7%**
Total Proactive Time Available After Reactive Work	**57.5%**	**41.0%**	**58.5%**	**77.3%**

Distribution of Uncommitted (Proactive) Time for Patrol Officers
West Patrol District
Based on 2002 Call for Service Workload

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	41.82	11.30	18.08	12.43
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	20,074	5,425	8,681	5,968
Less Breaks / Meals (1.6 hours / Officer)	(4,341)	(1,173)	(1,877)	(1,291)
Net Duty Time Available	15,733	4,252	6,803	4,677
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	6.20	6.26	8.42	3.19
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	58.30	58.30	58.30	58.30
Direct Call Handling Time (mins.)	8,675.04	2,919.66	3,927.09	1,487.82
Percentage of Time Committed to Reactive Workload	**55.1%**	**68.7%**	**57.7%**	**31.8%**
Total Proactive Time Available After Reactive Work	**44.9%**	**31.3%**	**42.3%**	**68.2%**

(6) The Analysis of Patrol Staffing Shows That the Arlington Police Department Has Adequate Personnel to Provide a High Level of Service to the Community.

The project team calculated the patrol staffing needs with the Matrix Consulting Group's model utilizing a range of two proactive targets – 40% and 45%. This range allows the City to compare the staffing required to meet both targets as well as to evaluate the impacts of the alternative levels of proactive time. The project team has increased 2002 calls for service in each District by 2.8%, the average growth in the past few years, in an effort to provide guidance for this year (it should be noted, however, that call for service growth this year has been slower than this so this assumption is somewhat 'conservative'). The exhibits on the four following pages show the results of the Matrix Consulting Group's patrol staffing model as applied to all four districts (using projected 2003 call for service workloads). The data portrayed in the exhibits assume the continued use of the Teleserve Unit in handling low priority calls consistent with how this unit has been utilized in the past year. In the subsection which follows the patrol staffing calculations, the project team addresses the impact of expanding the use of alternative call response techniques, including the use of field civilians.

Calculation of Patrol Staffing Requirements
Based on 2003 Forecast Workload
East Patrol District

	Workload Factor
1. COMMUNITY GENERATED WORKLOADS	
• Calls for service (2002 Actual - Inflated by 2.8%)	57,636.88
• Calls for service handled by Data Entry (2002 Actual - Inflated by 2.8%)	4,606.47
• Calls for service (Total - Less Calls Handled by Data Entry)	**53,030.41**
• Handling time/CFS in hrs. (@ 62.04 mins. Actual)	1.03
• Total CFS handling time in hrs. (includes back-up, report and arrest time)	54,833.44
TOTAL TIME REQUIRED TO HANDLE COMMUNITY GENERATED WORKLOADS (HRS.)	**54,833.44**
2. TIME FOR PREVENTIVE PATROL AND SELF INITIATED ACTIVITIES (@ ALTERNATIVE LEVELS OF PROACTIVITY), IN HRS.	
• 45% of Available Time	44,863.73
• 40% of Available Time	**36,555.63**
3. TOTAL TIME REQUIRED TO HANDLE BOTH REACTIVE AND PROACTIVE ACTIVITIES (IN HRS.)	
• 45% of Available Time	**99,697.17**
• 40% of Available Time	**91,389.07**
4. PER OFFICER AVAILABILITY	
Est. Availability	
• Net hours worked(after all leaves and training) --	1,788.60
• Net hours lost on shift (meals / breaks / meetings / court)	385.90
Net hours worked each year	**1,402.70**
5. POLICE OFFICERS REQUIRED TO HANDLE WORKLOADS	
• 45% of Available Time	71.08
• 40% of Available Time	**65.15**
6. POLICE OFFICERS REQUIRED GIVEN EST. TURNOVER AND TIME NEEDED TO ACADEMY AND FIELD TRAIN	
• 45% of Available Time	76.76
• 40% of Available Time	**70.36**

Calculation of Patrol Staffing Requirements
Based on 2003 Forecast Workload
North Patrol District

	Workload Factor
1. COMMUNITY GENERATED WORKLOADS	
• Calls for service (2002 Actual - Inflated by 2.8%)	67,516.98
• Calls for service handled by Data Entry (2002 Actual - Inflated by 2.8%)	6,052.86
• Calls for service (Total - Less Calls Handled by Data Entry)	**61,464.12**
• Handling time/CFS in hrs. (@ 59.00 mins. Actual)	0.98
• Total CFS handling time in hrs. (includes back-up, report and arrest time)	60,439.72
TOTAL TIME REQUIRED TO HANDLE COMMUNITY GENERATED WORKLOADS (HRS.)	**60,439.72**
2. TIME FOR PREVENTIVE PATROL AND SELF INITIATED ACTIVITIES (@ ALTERNATIVE LEVELS OF PROACTIVITY), IN HRS.	
• 45% of Available Time	49,450.68
• 40% of Available Time	**40,293.15**
3. TOTAL TIME REQUIRED TO HANDLE BOTH REACTIVE AND PROACTIVE ACTIVITIES (IN HRS.)	
• 45% of Available Time	**109,890.40**
• 40% of Available Time	**100,732.86**
4. PER OFFICER AVAILABILITY	
Est. Availability	
• Net hours worked(after all leaves and training) --	1,788.60
• Net hours lost on shift (meals / breaks / meetings / court)	385.90
Net hours worked each year	**1,402.70**
5. POLICE OFFICERS REQUIRED TO HANDLE WORKLOADS	
• 45% of Available Time	78.34
• 40% of Available Time	**71.81**
6. POLICE OFFICERS REQUIRED GIVEN EST. TURNOVER AND TIME NEEDED TO ACADEMY AND FIELD TRAIN	
• 45% of Available Time	84.61
• 40% of Available Time	**77.56**

Calculation of Patrol Staffing Requirements
Based on 2003 Forecast Workload
South Patrol District

	Workload Factor
1. COMMUNITY GENERATED WORKLOADS	
• Calls for service (2002 Actual - Inflated by 2.8%)	19,415.84
• Calls for service handled by Data Entry (2002 Actual - Inflated by 2.8%)	1,567.70
• Calls for service (Total - Less Calls Handled by Data Entry)	**17,848.14**
• Handling time/CFS in hrs. (@ 51.29 mins. Actual)	0.85
• Total CFS handling time in hrs. (includes back-up, report and arrest time)	15,257.18
TOTAL TIME REQUIRED TO HANDLE COMMUNITY GENERATED WORKLOADS (HRS.)	**15,257.18**
2. TIME FOR PREVENTIVE PATROL AND SELF INITIATED ACTIVITIES (@ ALTERNATIVE LEVELS OF PROACTIVITY), IN HRS.	
• 45% of Available Time	12,483.15
• 40% of Available Time	**10,171.45**
3. TOTAL TIME REQUIRED TO HANDLE BOTH REACTIVE AND PROACTIVE ACTIVITIES (IN HRS.)	
• 45% of Available Time	**27,740.33**
• 40% of Available Time	**25,428.64**
4. PER OFFICER AVAILABILITY	
Est. Availability	
• Net hours worked(after all leaves and training) --	1,788.60
• Net hours lost on shift (meals / breaks / meetings / court)	385.90
Net hours worked each year	**1,402.70**
5. POLICE OFFICERS REQUIRED TO HANDLE WORKLOADS	
• 45% of Available Time	19.78
• 40% of Available Time	**18.13**
6. POLICE OFFICERS REQUIRED GIVEN EST. TURNOVER AND TIME NEEDED TO ACADEMY AND FIELD TRAIN	
• 45% of Available Time	21.36
• 40% of Available Time	**19.58**

Calculation of Patrol Staffing Requirements
Based on 2003 Forecast Workload
West Patrol District

	Workload Factor
1. COMMUNITY GENERATED WORKLOADS	
• Calls for service (2002 Actual - Inflated by 2.8%)	61,943.17
• Calls for service handled by Data Entry (2002 Actual - Inflated by 2.8%)	6,069.31
• Calls for service (Total - Less Calls Handled by Data Entry)	**55,873.86**
• Handling time/CFS in hrs. (@ 58.25 mins. Actual)	0.97
• Total CFS handling time in hrs. (includes back-up, report and arrest time)	54,244.20
TOTAL TIME REQUIRED TO HANDLE COMMUNITY GENERATED WORKLOADS (HRS.)	**54,244.20**
2. TIME FOR PREVENTIVE PATROL AND SELF INITIATED ACTIVITIES (@ ALTERNATIVE LEVELS OF PROACTIVITY), IN HRS.	
• 45% of Available Time	44,381.62
• 40% of Available Time	**36,162.80**
3. TOTAL TIME REQUIRED TO HANDLE BOTH REACTIVE AND PROACTIVE ACTIVITIES (IN HRS.)	
• 45% of Available Time	**98,625.82**
• 40% of Available Time	**90,407.00**
4. PER OFFICER AVAILABILITY	
Est. Availability	
• Net hours worked(after all leaves and training) --	1,788.60
• Net hours lost on shift (meals / breaks / meetings / court)	385.90
Net hours worked each year	**1,402.70**
5. POLICE OFFICERS REQUIRED TO HANDLE WORKLOADS	
• 45% of Available Time	70.31
• 40% of Available Time	**64.45**
6. POLICE OFFICERS REQUIRED GIVEN EST. TURNOVER AND TIME NEEDED TO ACADEMY AND FIELD TRAIN	
• 45% of Available Time	75.94
• 40% of Available Time	**69.61**

The results of the patrol staffing model (given current policies regarding call handling by Police Officers) results in the staffing needs shown in the following table:

Comparison of Current Staffing With Calculated Staffing Needs
Arlington Police Department
40% Proactive Time Target

District	Current Police Officers Assigned to Patrol	Calculated Staffing Need	Variance
East	74	70	(4)
North	86	78	(8)
South	27	20	(7)
West	74	70	(4)
Total	**261**	**237**	**(23)**

Comparison of Current Staffing With Calculated Staffing Needs
Arlington Police Department
45% Proactive Time Target

District	Current Police Officers Assigned to Patrol	Calculated Staffing Need	Variance
East	74	77	3
North	86	85	(1)
South	27	21	(6)
West	74	76	2
Total	**261**	**259**	**(2)**

Under the 40% scenario, the model indicates that the Police Department could provide this service with a net reduction of 23 Police Officers. Under the 45% target the model shows that staffing is in balance with current workloads at that service level. While this analysis appears to 'justify' current staffing levels, the analyses in the following sections demonstrate that there are alternative approaches to handling these workloads which could impact staffing requirements.

(7) Expansion of "Differential Police Response" Techniques Would Have Significant Impacts on Patrol Staffing Requirements.

The use of "differential police response" has a relatively long history in the United States with the roots of the program extending back to work conducted more than 35 years ago. In Arlington, for example, the Police Department has adopted a program of taking police reports over the telephone using its Teleserve Unit (where civilian call takers complete the police report over the telephone with the complainant). Recent decisions have been taken that has resulted in a slight increase in the number of calls being handled by the Teleserve unit (within existing call categories).

The use of "differential police response" is intended to address a number of issues that have been of increasing significance to police departments around the country. These issues include:

- Use of 9-1-1 in conjunction with public expectations has dramatically increased demands for service from the police in most communities.
- Community resources are constrained and alternatives to police response have become increasingly important.
- Public education efforts, use of 3-1-1 (non-emergency hotlines) and other approaches have demonstrated varying levels of success in the communities that have made such efforts and investments.

The table, below, provides a brief description of the history of the "differential police response" approach to law enforcement:

Year	Development in Differential Police Response
1967	**Presidents Commission on Law Enforcement and Administration of Justice** delivers a report that suggests that police need to work to be more responsive to community needs – a key aspect of which is through improved communication with the community.
1968	**National Advisory Commission of Civil Disorders** found that law enforcement agencies must provide comprehensive services and recommended that police re-examine the traditional police organizational structure and processes.

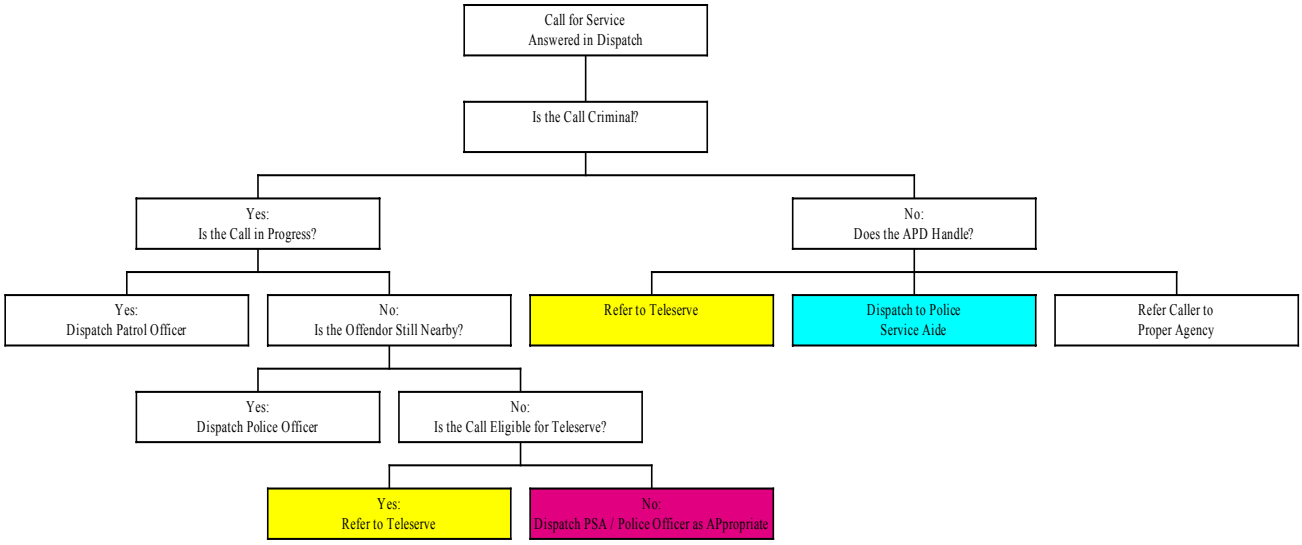
Year	Development in Differential Police Response
1972	**Kansas City Preventative Patrol Study** found that preventative patrol time is not only uncommitted time but that it is also unproductive time. Also found that isolating Police Officers in their cars and making them solely responsive to radio calls for service made them less responsive to the community and its needs.
1977	**Kansas City Response Time Study** found that a large proportion of the most serious (i.e., FBI Part 1) crimes are not susceptible to the impact of rapid police response. Further, the study found that for the majority of calls that could be impacted by rapid response, the rapidity of response was most often linked to how quickly the complainant called rather than how quickly the police department responded. Said in another way, the study found that very low response times did nothing to deter crime and did little to result in the immediate apprehension of criminals.
1977	**National Institute of Law Enforcement and Criminal Justice** (various field research projects) found that there is no universal deployment approach or tactic that can work equally well in all communities. Further, the studies showed that traditional deployment approaches allow police to intervene (typically after the fact) in incidents but do nothing to result in reduction of criminal activity or to improve the general quality of life in the community.
1980	**National Center for Community Police Research** found that the public is equally interested in police response to crimes and to police provision of order maintenance and assistance with quality of life issues.
1981	**National Institute of Justice's Differential Police Response Study** examined approaches to reducing police response to non-emergency calls for service. The study found that a large number of calls could be handled over the phone, by non-sworn field personnel or by simply delaying the response to the call for service.
1985	**Police Executive Research Forum's Studies in San Diego, Peoria and Rochester** found that the use of sophisticated technology and deployment strategies to reduce response times were well intentioned but generally misguided – fast response times neither addressed crime effectively nor enhanced citizen satisfaction with the police department.
1988	**Bureau of Justice Statistics** studies found that only 10% of a Police Officer's time is spent on crime related activities. The remainder of the time is spent handling administrative functions, patrolling and other activities.
1990's	A number of practical and local experiments have taken place to address the potential of various strategies in improving the ability of the police to respond effectively to the most critical issues while at the same time improving their operational efficiencies. These programs have included: self-reporting (gas drive offs, "beer runs" are examples); call-in reporting (misdemeanors, theft of property from a motor vehicle, etc.); and civilian field responders (minor accidents, misdemeanor reports, minor felony reports, evidence collection, traffic control).

The use of "differential police response" has taken on a number of forms in various communities around the United States (and the world). The most common approaches include the following:

Approach	Description of Key Elements
Call Queuing	• Calls are grouped by type into different "priority" levels. • Calls of the highest priority are dispatched immediately (Officers may even be broken away from on-going calls to respond). • Calls of a lower priority will be placed in a "queue" or "stacked" until an appropriate unit is available. This may mean holding the call for a unit specifically assigned to the beat where the call has originated, waiting for a special unit (vice, narcotics, youth), etc.
Self Reporting	• Offered for call types where the caller needs the police report primarily for insurance purposes – i.e., where there is little chance of apprehending the offender. • Most often used for call types such as: gas drive offs, "beer runs," and other minor thefts. • Reports are either mailed, faxed or made (in-person) by the complainant with no Officer involvement.
Phone Report Taking	• As with Call Queuing, this approach relies on the triage of calls for service before the fact. • Call takers are provided with a set of questions related to pre-determined protocols which leads to the ultimate decision regarding whether to send an Officer or whether to take the report by phone. • To enhance the success of these programs, the call takers are encouraged to provide the caller with information regarding the response time of an Officer (very long) compared to doing the report over the phone (immediate) and to take other steps to educate the public. • These steps taken by the call takers are often conducted in conjunction with other educational efforts by the department.
Civilian Field Report Taking	• Departments will dispatch uniformed non-commissioned (non-sworn) to take reports from complainants in the field. • Some departments utilize these positions as a way of augmenting the approaches describe, above. • Others use them as a way of handling calls that might have otherwise been taken over the phone (in another agency).
Field Civilians in Other Roles	• An expansion of the above roles. This approach has uniformed non-sworn personnel responding to calls for service that have been determined to be of 1) lower risk, 2) higher priority than those calls taken over the phone and 3) to have the potential for requiring some follow-up – such as with evidence collection or photography. • Departments send these staff members to a wide range of call type. • Examples include: misdemeanors, traffic accidents, minor felonies, non-violent issues, civil matters, etc.

In addition to the current practice of diverting additional calls to the Teleserve Unit, the project team examined the feasibility of diverting other call types to other types of resources. Many departments utilize non-sworn paraprofessionals in the field to respond to calls which require a response, but not that of a sworn police officer. The Arlington Police Department is not unfamiliar with the use of civilian paraprofessionals in other contexts – in investigations, non-sworn staff handle cases in addition to providing support to sworn detectives in many units. The Department also has a very limited field presence of these personnel – with one PSA currently assigned per patrol District.

The project team used the following decision tree approach to examining calls for service to determine the eligibility of each diversion type:



Applying this to the call types tracked by the Arlington Police Department yields a number of alternatives. The exhibit, that follows, provides a breakdown of all calls for service (in 2002 numbers) by type of call. The project team has annotated the list to show calls that could be handled by field civilians (or PSA's), in selected circumstances (e.g., cold minor burglary) and those that could be handled through Teleserve (many of which are already being handled in Teleserve in Arlington).

CALL TYPE	Patrol	Teleserve	TOTAL	PSA ?	Exp. Telesv
Unknown	159	4	163		
Abandoned Property	90	-	90	√	
Abandoned Vehicle	817	-	817	√	
Aggravated Assault	276	3	279		
Animal Ordinance Violation	1,606	-	1,606	√	√
Armed Robbery In Progress	287	-	287		
Arson	30	1	31		
Assault - Domestic	2,412	10	2,422		
Assault (Class C)	438	6	444		
Assault On A Police Officer	13	-	13		
Assault Report	1,854	9	1,863		
Assault W/Gun	42	-	42		
Assault W/Knife	72	-	72		
Assist Fire Department	381	-	381	√	
Assist Motorist	2,559	-	2,559	√	
Assist Officer	22	-	22		
Assist Traffic	3,293	-	3,293	√	
Attempted Kidnapping	2	-	2		
Attempted Sexual Assault	7	-	7		
Bank Robbery	1	-	1		
Bar Check	11	-	11		
Barricaded Person	1	-	1		
Be On The Lookout	12,571	5	12,576		
Bomb Threat	22	-	22		
Burglary Of An Apartment	444	4	448	√	
Burglary Other	71	14	85	√	
Burglary-Commercial Report	929	109	1,038	√	
Burglary-Residential Report	2,260	25	2,285	√	
Car Jacking	20	-	20		
Child Abuse	8	-	8		
City Ordinance Violation	15	-	15	√	
Commercial Alarm	13,233	1	13,234	√	
Community Contact	182	-	182		
Credit Card Abuse	68	78	146	√	√
Criminal Mischief Report	3,256	2,021	5,277	√	√
Criminal Trespass Report	568	1	569		
Criminal Trespass Warning	847	-	847		
Cruelty To Animals	14	-	14	√	√
Cutting In Progress	31	-	31		
Cutting Report	11	-	11		
Deadly Conduct	118	2	120		
Death Investigation	247	-	247		

CALL TYPE	Patrol	Teleserve	TOTAL	PSA ?	Exp. Telesv
Deliver Message	328	-	328	√	
Disorderly Conduct	36	1	37		
Disturbance	7,053	-	7,053		
Disturbance Loud Noise	8,454	-	8,454		
Domestic Disturbance	7,224	-	7,224		
Drive By Shooting-Residential	1	-	1		
Driving While Intoxicated	1,091	-	1,091		
Driving While License Susp.	10	-	10		
Driving Wrong Direction	6	-	6		
Drowning	4	-	4		
Drugs Possession	707	-	707		
E911- Hangup	11,264	-	11,264	√	
Embezzlement	1	-	1		
Evading Arrest	48	-	48		
Fail To Id	64	-	64		
False Imprisonment	2	-	2		
Felony Warrant	378	-	378		
Fight	647	-	647		
Fire	23	-	23	√	
Fireworks	577	-	577	√	
For Information Only	1,583	2	1,585	√	
Forged Prescription	18	-	18		
Forgery Report	944	13	957		
Found Child	52	-	52	√	
Found Property	438	11	449	√	
Gambling Offense	24	-	24		
Garage Burglary	210	7	217	√	
Graffiti	35	6	41	√	
Hit / Run Accident	2,476	4	2,480	√	
Holdup Alarm	1,122	-	1,122		
Home Invasion Robbery	18	-	18		
Indecency W/Child	111	-	111		
Indecent Exposure Report	121	1	122		
Injured Person	322	-	322		
Injury To A Child	103	-	103		
Injury To Elderly	4	-	4		
Investigation	12,803	11	12,814	√	
Jail Transfer	15	-	15		
Kidnapping Report	18	-	18		
Liquor Law Violation	23	-	23		
Lost Child	273	-	273		
Lost Property	95	918	1,013	√	
Major Accident	4,644	-	4,644		
Medical Transfer	506	-	506		
Meet Complainant	7,384	24	7,408	√	
Meet Officer	339	1	340		

CALL TYPE	Patrol	Teleserve	TOTAL	PSA ?	Exp. Telesv
Mentally Unstable Person	354	-	354		
Minor Accident	4,102	-	4,102	√	√
Minor In Poss Alcohol	36	-	36		
Minor In Poss Tobacco	5	-	5		
Misc Incident	1,554	522	2,076		
Miscellaneous Offense	906	316	1,222		
Misd Warrant Service	1,270	1	1,271		
Missing Person	444	55	499		
Motor Veh Theft-Other-Trailers	16	9	25	√	
Motor Vehicle Theft Attempt	86	21	107	√	
Motor Vehicle Theft In Progress	102	-	102		
Motor Vehicle Theft Report	1,682	943	2,625	√	
Murder	12	-	12		
Open / Close Gate	2,223	-	2,223		
Open /Door Window	390	1	391		
Overdose In Progress	174	-	174		
Overdose Report	12	-	12		
Panic Alarm	1,582	-	1,582		
Parking Violation	1,997	-	1,997	√	
Pay Phone 911 Hangup	92	-	92	√	
Person With A Weapon	122	-	122		
Poss Of Controlled Substance	84	-	84		
Poss Of Drug Paraphernalia	55	-	55		
Poss Of Prohibited Weapon	7	-	7		
Possession Of Marijuana	89	1	90		
Prostitution	16	-	16		
Protective Order Violation	67	3	70		
Prowler In Progress	345	-	345		
Prowler Report	43	-	43		
Public Intoxication	1,054	-	1,054		
Public Lewdness	22	-	22		
Purse Snatching	31	-	31		
Receiving Stolen Property	2	-	2		
Reckless Damage	601	13	614		
Recovered Vehicle	563	-	563	√	
Residential Alarm	16,437	-	16,437	√	
Resisting Arrest	12	-	12		
Robbery-Commercial	305	1	306		
Robbery-Individual	110	-	110		
Runaway Report	1,812	8	1,820		
Sale Or Manuf. Of Narcotics	75	-	75		
Salvage Law Violation	1	-	1		
Scalping	1	-	1		
School Crossing	7	-	7	√	
Seized Property	161	-	161		
Sexual Assault Report	253	5	258		

CALL TYPE	Patrol	Teleserve	TOTAL	PSA ?	Exp. Telesv
Shooting Report	54	-	54		
Shoplifting	1,565	4	1,569	√	
Shoplifting Robbery	20	-	20		
Speeding	706	-	706		
Stalking	9	2	11		
Suicide Death	5	-	5		
Suicide Threat / Attempt	182	-	182		
Suspicious Package, Envelope	39	-	39	√	
Suspicious Person	10,118	1	10,119		
Theft By Fraud	109	439	548	√	√
Theft Report	2,647	4,852	7,499	√	√
Threat / Harassment	1,063	1,149	2,212	√	√
Traffic Stop	161	-	161		
Train Wreck	1	-	1		
Unauthorized Use Of MV	256	166	422		
Unknown Alarm	45	-	45		
Unknown Violent Situation	1	-	1		
Unlawfully Carrying Weapon	31	-	31		
Vehicle Alarm	212	-	212	√	
Vehicle Burglary Report	3,055	4,454	7,509	√	√
Weapons Report	20	-	20		
Welfare Check	3,875	-	3,875	√	
Window Peeping	6	-	6		
Total By Call Type	**185,093**	**16,263**	**201,356**		
Percent Of Total	**91.9%**	**8.1%**	**100.0%**		

The breakdown shows that the City and the Police Department have a wide range of alternatives for handling calls for service beyond the 'traditional' approach of dispatching a Police Officer. As noted above, the Arlington Police Department is already making use of one of these alternatives by referring selected calls to Teleserve.

The table, below, shows that the Arlington Police Department can achieve a significant reduction in the number of calls for service dispatched to Police Officers in the field through the use of civilians. The table provides the project team's estimate of the potential impact of each policy alternative response technique utilizing assumptions regarding the proportion of total calls handled:

	2002 CFS	Hours of Ops.	% Calls During Period	% Calls Diverted	Potential Calls Diverted
Calls Eligible to be handled by civilians	**82,544**	16	75%	67%	41,478
				2002 CFS	200,888
				% of Total	**21%**

This analysis shows that the City could achieve diversion rates of about 21% of the calls for service away from Police Officers to civilian respondents (almost 10% of calls for service are already referred to Teleserve operators). The total calls proposed to be eligible for diversion would place the APD well below other programs in the country (for example: Clearwater and Tallahassee, Florida divert approximately 30% of their calls for service to a combination of Teleserve and community service officer programs).

Next, the project team calculated the number of PSA's that would be required to handle the diverted calls for service. This calculation is shown in the table below:

Element	Value
Calls Eligible for PSA's	41,478
Field Commitment Time	80%
Call Handling Time (Estimate)	0.5 hours
Hours Required	20,739 hours
Net Availability (PSA's)	1,480 hours
PSA's Recommended	18
Cost for PSA's *	$1,084,374
Police Officer Position Reduction	(28)
Savings from Police Officers **	($1,958,9082)
Net Savings	**($874,534)**

* Salary at mid-point of $45,228 and benefit rate of 33.2% for total of $60,243.
** Salary at mid-point of $52,524 and benefit rate of 33.2% for total of $69,961

This analysis has shown that shifting responsibility for handling less serious calls for service from Police Officers to PSA's can result in several impacts:

- **No change in the quality of service** received by the caller / complainant. Well-trained civilian responders can provide the same services that well trained Police Officers can to non-criminal or non-emergency calls for service. The Police

Department already uses civilians in a number of key roles including investigations and crime scene / evidence collection.

- **Civilians would not be exposed to risks for which they are not trained or prepared** given the careful selection of call types for which they would be eligible. In addition, the project team does not recommend that PSA's be used during the latest hours (11PM to 7AM) given their limited potential role.

- **There are potential savings for the City** because of compensation differences and the greater call handling rates for PSA's

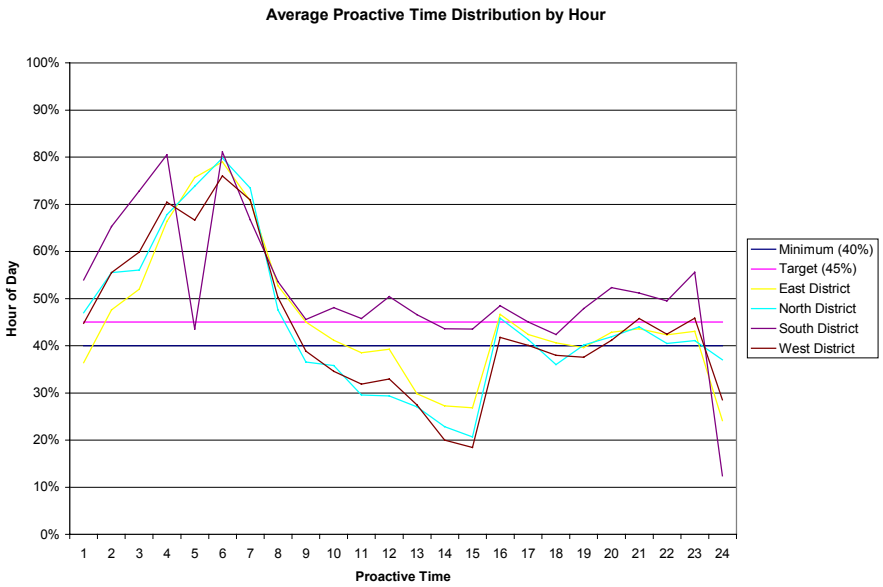
- **The Police Department has already demonstrated its willingness to consider a wide range of alternative response approaches** including those which are already utilized in-house and those which have been suggested (including deferred response to alarms) as alternatives.

Recommendation: The Police Department should expand the use of the civilian field responders (PSA's). This should enable the Department to reduce Police Officer staffing by 28 positions and to increase PSA staffing by 18 positions (if all call types recommended by the project team are adopted) resulting in net annual savings of more than $874,000. PSA's should report within the Patrol chain of command. The project team also recommends that the Police Department phase in this recommendation over a period of one year.

(8) Redeployment of Existing Personnel Can Accomplish a More Equitable Allocation of Proactive Time.

One of the major issues identified by the project team in the preceding sections is the significant mismatch between proactive time distribution and time of day. This section provides an analysis of the re-deployment required to achieve a more even distribution of proactive time given current workload and call diversion approaches.

The graph, that follows, shows the impact on the distribution of proactive time by hour of day when re-deployment of personnel is introduced. While there are still swings in the proactive time, the severity of those swings has been reduced (it should be pointed out that the proactive time "targets" are average daily targets – they should not be viewed as minimum thresholds). The project team shows the impacts of the re-deployments in analyses on the following pages.



District	Current	Recommended	Net Change
East	74	77	3
North	86	85	(1)
South	27	23	(4)
West	74	76	2
Total	**261**	**261**	**0**

The project team's analysis shows that, overall, there is no need for additional staffing at this time and that minor re-deployments of personnel can help equalize the overall availability of proactive time throughout the City.

Impact of Re-Deployment of Proactive Time Distribution
East District – 2003 Forecast Workload
No Other Changes Included

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	47.30	12.90	20.89	13.51
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	22,704	6,192	10,025	6,487
Less Breaks / Meals (1.6 hours / Officer)	(4,910)	(1,339)	(2,168)	(1,403)
Net Duty Time Available	17,794	4,853	7,857	5,084
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	6.58	5.64	8.40	3.35
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	62.04	62.04	62.04	62.04
Direct Call Handling Time (mins.)	9,796.71	2,799.24	4,169.09	1,662.67
Percentage of Time Committed to Reactive Workload	**55.1%**	**57.7%**	**53.1%**	**32.7%**
Total Proactive Time Available After Reactive Work	**44.9%**	**42.3%**	**46.9%**	**67.3%**

Impact of Re-Deployment of Proactive Time Distribution
North District – 2003 Forecast Workload
No Other Changes Included

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	52.21	13.51	21.50	17.20
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	25,063	6,487	10,320	8,256
Less Breaks / Meals (1.6 hours / Officer)	(5,420)	(1,403)	(2,232)	(1,785)
Net Duty Time Available	19,643	5,084	8,088	6,471
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	7.69	6.78	9.20	4.14
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	59.00	59.00	59.00	59.00
Direct Call Handling Time (mins.)	10,889.95	3,200.16	4,342.40	1,954.08
Percentage of Time Committed to Reactive Workload	**55.4%**	**62.9%**	**53.7%**	**30.2%**
Total Proactive Time Available After Reactive Work	**44.6%**	**37.1%**	**46.3%**	**69.8%**

Impact of Re-Deployment of Proactive Time Distribution
South District – 2003 Forecast Workload
No Other Changes Included

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	14.13	4.30	6.14	3.69
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	6,782	2,064	2,949	1,769
Less Breaks / Meals (1.6 hours / Officer)	(1,467)	(446)	(638)	(383)
Net Duty Time Available	5,315	1,618	2,311	1,387
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	2.27	2.20	2.65	0.96
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	51.30	51.30	51.30	51.30
Direct Call Handling Time (mins.)	2,797.04	902.88	1,087.56	393.98
Percentage of Time Committed to Reactive Workload	**52.6%**	**55.8%**	**47.1%**	**28.4%**
Total Proactive Time Available After Reactive Work	**47.4%**	**44.2%**	**52.9%**	**71.6%**

Impact of Re-Deployment of Proactive Time Distribution
West District – 2003 Forecast Workload
No Other Changes Included

	District	0700 - 1500	1500 - 2300	2300 - 0700
Deployment				
Actual On-Duty Staffing (Officers -- no supervisors)	46.69	12.90	20.27	13.51
Length of Shift (hours)	24.00	8.00	8.00	8.00
Total Gross Duty Time Available (mins.)	22,409	6,192	9,730	6,487
Less Breaks / Meals (1.6 hours / Officer)	(4,846)	(1,339)	(2,104)	(1,403)
Net Duty Time Available	17,563	4,853	7,626	5,084
Reactive Workload Requirements				
Average Number of Calls for Service per Hour	7.14	7.13	9.60	3.28
Committed Time (Travel, On-Scene, Reports, Arrests, etc. - All Units)	58.30	58.30	58.30	58.30
Direct Call Handling Time (mins.)	9,984.95	3,325.43	4,477.44	1,529.79
Percentage of Time Committed to Reactive Workload	**56.9%**	**68.5%**	**58.7%**	**30.1%**
Total Proactive Time Available After Reactive Work	**43.1%**	**31.5%**	**41.3%**	**69.9%**

(10) The Management of Field Operations Can Be Improved to Maximize the Potential Benefits of the Current Geographic Policing Approach.

The central requirement for the successful delivery of patrol services under any philosophical approach is effective management by patrol shift managers and supervisors – this is even more the case under the geographic policing model. In Arlington, Sergeants are personally responsible and accountable for a beat, involving the analysis of patrol data and coordination of a number of Police Officers who work in 'their' beats. Additionally, Sergeants are placed in a traditional field supervisor role responsible for several Police Officers working on their shift across half or more of a patrol District.

Patrol supervisors should divide their time approximately 50% in the field and 50% in administrative tasks. Sergeants have the key responsibility of ensuring the effective delivery of patrol services. In order to accomplish this, Sergeants must engage in the following types of activities:

- Perform a range of administrative tasks, including:
  - Scheduling
  - Proactive patrol plans
  - Utilization analysis
  - Performance reviews
  - Interaction and coordination with investigators
  - Organizing use of patrol personnel to serve warrants, papers, etc.
- Review the reports and logs of the Officers on their shift to determine whether they are achieving the goals of their District for quantity and quality of service.

- Spend time in the field evaluating the Police Officers on their shift. This should take the form of Sergeants acting as back-up or observer on a mix of calls.

- Make reasonable efforts to be on-scene for calls with high risk or liability potential to be high-risk. This is to provide extra back-up and to provide direction to Police Officers on the scene.

- Patrol their primary Beat and assigned area of their District to evaluate potential problem areas or to assess other proactive activity requirements.

In Arlington, patrol Sergeants are responsible for a number of other duties, including:

- The philosophy requires Sergeants to be responsible and accountable for the criminal activity and general quality of life in "their" Beats.

- This requires Sergeants to be capable of analyzing the activities in their Beats using the various information systems that are available on the Department intranet. This information is uploaded by the crime analysts and management information staff in a format that is easy for personnel to use (drop down menus).

- Additionally, the Police Department has developed systems on the intranet that allow supervisors to initiate, assign, track and evaluate issues in the community (including those identified by members of the community and those identified within the Department).

The project team found, however, that there are a number of issues in the way in which these responsibilities are carried out and the way in which the supportive system developed by the Police Department are used by the supervisors in patrol:

- Use of the analytical features available appears to vary widely among supervisors. Many supervisors rely on the Crime Analysts to provide them with guidance or to provide them with the analysis that they need to assess various situations.

- Use of the intranet's capability for tracking issues appears to be minimal. "Cop Solve" should provide the framework for establishing accountability for addressing problems in the community. The project team acknowledges that this will be addressed with implementation of the wireless LAN.

- Patrol supervisors have little direct involvement in the review of routine patrol paperwork (largely a by-product of the call-in reporting system). Currently, administrative Sergeants are expected to review some paperwork (particularly

the most sensitive and critical – arrest reports, warrants, etc.) while the majority of paperwork is "reviewed" by professional staff and Detectives (when they are reviewing cases for assignment).

- Police Officer proactive time is inconsistently planned and managed by patrol supervisors. While proactive time cannot be specifically predicted, the need to plan for it and its use is critical in an agency which has made such a significant investment in provide uncommitted time to its patrol force. As has been discussed, above, systems that already exist in the Department to track, assign and evaluate the use of proactive time go generally unused.

Failure of the Police Department to hold Sergeants (and the people above and below them in the chain of command) responsible and accountable for the activities in their Beats limits the potential effectiveness of the geographic policing model.

Recommendation: The Police Department should re-focus patrol supervisors on the management of proactive time. Specifically, Sergeants should be more directly involved in evaluating the work of Police Officers (by reviewing and signing off on narrative reports, etc.). In addition, Lieutenants and Sergeants should be taking a more active role in assigning work to Police Officers (whether to their beats or otherwise) and in following that work up to ensure that it has been done. There is no need to develop new systems to address this issue – these systems are already largely in place (i.e., Cop Solve on the intranet).

(11) The Use of Sergeants in Administrative Roles Assigned to Patrol Shifts Is Not an Effective Use of Resources.

Sergeants have the role of providing immediate shift supervision in the field in patrol operations. The table, below, shows the number of Sergeants required to provide supervision to the personnel in the field in each District on each shift at an industry best-practice of one Sergeant for every 6 – 9 Police Officers:

District	East	North	South *	West
Days PO's	13	14	4	13
Days Sgt. Req.	2	2	1	2
Eve.'s PO's	21	22	6	21
Eve.'s Sgt. Req.	3	3	1	3
Mid's PO's	14	17	4	14
Mid's Sgt. Req.	2	2	1	2
Total Sgt. Req.	8	8	3	8

The table, above, shows that each of the three large Districts require a total of 8 Sergeants per day and the South District requires three Sergeants per day while the South requires three per day. The table, below, shows the project team's calculation as to the number of Sergeants required in each District as compared to the number of Patrol Sergeants currently assigned (note that both the Police Officer staffing and the Sergeant staffing reflect the number of people assigned to patrol – including any "special units" that have been created by each Deputy Chief):

Factor / District	East	North	South	West
Sgt. Req. / Day	8	8	3	8
Impact of RDO (5/7)	11.2	11.2	4.2	11.2
Impact of Net Avail. (86%)	13.0	13.0	4.9	13.0
Current Total	12	12	3	12
Variance	(1)	(1)	(2)	(1)

This analysis shows that the Police Department does not have an adequate number of Sergeants assigned to each Patrol District. The analysis shows that East, North and West require an additional Sergeant, while South requires two additional Sergeants. The Arlington Police Department currently assigns one Sergeant on each shift as an Administrative Sergeant (handling routine paperwork, reviewing reports, approving vacation requests, maintaining the roster, filling shift vacancies, etc.) in each District. This results in the loss of a supervisor in the field to provide for what are primarily routine tasks.

The project team believes that many of these tasks can and should be handled by a professional (i.e., civilian) staff person. These personnel are lest costly than are Sergeants and are more specifically trained to handle the administrative duties. The potential for this effort has been shown in an on-going "experiment" in the North District

where the Deputy Chief has been making use of one professional staff person in this position. The project team makes the following recommendations:

- Cease the deployment of a sworn Sergeant in administrative roles in the Districts.
- Sergeants should be reviewing reports and other documents in the field – either in hardcopy or eventually on their laptops.
- Add one professional staff person per District to handle the bulk of administrative workload (at the "T8") level. This will address the gap of one Sergeant in the East and North (and the resulting "gap" created by the last recommendation in this section). These personnel should not be in the position of supervising Police Officers – these kinds of issues should be deferred to a patrol supervisor.

The annual fiscal impact of making this transition is shown, below:

Element	Impact
Add 2 Sergeants for South ($63,132 + 33.2% = $84,072)	$168,144
Add Three "T8" Administrative Aides ($45,228 + 33.2% = $60,243)	$180,729
Cost per Year	**$348,873**

Making this shift will improve the ability of all the Districts to supervise activities in the field and to handle the daily administrative activities of managing large patrol operations.

Recommendation: The Police Department should be authorized to add two Sergeants and three professional staff positions. The total annual cost for making these staff additions is $348,873 in salaries and benefits.

2. TRAFFIC ENFORCEMENT OPERATIONS

The Traffic Enforcement Unit of the Police Department is made up of several functions, including:

- Motorcycle Unit
- Accident Investigations
- Hit and Run Investigations
- DUI Investigations

The subsections, that follow, address each of these functions. The first section addresses the Motorcycle Unit and Accident Investigations Unit jointly.

(1) <u>The Motorcycle and Accident Investigations Unit Are Well Managed and Are Staffed Appropriately.</u>

Review of the approaches used by the Traffic Enforcement unit demonstrates that the Arlington Police Department is operating with a sound understanding of the effective methods for directing traffic enforcement operations. The unit uses the following approaches:

- Tracking and deploying personnel to the intersections and stretches of roadway that generate the highest accident activity.
- Deploying personnel to specifically target violations that are most likely to cause significant accidents and injuries – i.e., red light violations, high speed travel in residential / commercial areas, etc.
- Deploying personnel to areas of highway where conditions and speed limits change (due to changing density) to ensure compliance and to reduce accidents.
- Participating in specific targeted enforcement activities ("Click-It-Or-Ticket" seatbelt enforcement, child restraint seat enforcement, DUI, insurance and license checkpoints, etc.).

To address all of these issues, the Traffic Enforcement Unit is made up of a total of 16 Police Officers assigned to motorcycles and 13 Police Officers assigned as Accident Investigators. The 13th Accident Investigator has been detailed to serve as the "DUI Investigator" – primarily an administrative role. The table, that follows, provides a summary of the level of activity for the Police Officers assigned to the motorcycle unit:

Motorcycle Unit Productivity Measures
Calendar 2002 – APD

Officer	Red Light	R/L Cites	Haz. Cites	Non-Haz. Cites	Parking	Total Cites
1	74	792	249	1,078	108	2,301
2	341	1,305	538	1,547	27	3,758
3	92	436	55	605	69	1,257
4	98	681	234	601	50	1,664
5	180	1,015	278	1,313	62	2,848
6	33	444	135	874	8	1,494
7	62	569	757	1,294	4	2,686
8	61	1,047	466	1,133	6	2,713
9	38	399	99	877	90	1,503
10	19	283	138	482	12	934
11	431	912	302	920	8	2,573
12	569	1,139	203	1,002	16	2,929
13	65	442	668	957	67	2,199
14	87	845	486	520	41	1,979
15	613	840	274	1,244	10	2,981
16	9	138	94	252	50	543
Totals	**2,772**	**11,287**	**4,976**	**14,699**	**628**	**34,362**

Note that the above shows that the level of productivity for these Officers is quite high – using the net availability of 1,402.7 hours that was calculated for Police Officers in an earlier section shows that motorcycle Officers are writing more than 1.5 citations for every hour of availability. When the ancillary duties are considered (handling escorts, traffic control for major events, traffic control at accidents, etc.) and "enforcement hours" are considered, productivity increases to almost three (3.0) pieces of activity per hour. The table, below, shows workload measures as applied to the Accident Investigators (note that there are some Officers who are included in this group who worked for only a partial year – as such, all calculations are the result of dividing total workload by the 11 total field-assigned AI's available for the year).

Accident Investigator Unit Productivity Measures
Calendar 2002 – APD

Officer	Red Light	R/L Cites	Haz. Cites	Non-Haz. Cites	Parking	Total Cites	Accidents Worked
1	5	360	337	434	2	1,138	38
2	67	343	525	1,101	1	2,037	174
3	22	554	334	604	-	1,514	119
4	21	512	109	304	2	948	126
5	1	56	126	101	-	284	70
6	26	211	276	429	-	942	156
7	-	58	30	74	-	162	4
8	6	70	137	183	-	396	11
9	219	508	387	589	1	1,704	60
10	1	22	49	62	-	134	9
11	12	131	137	320	34	634	41
12	30	409	368	487	-	1,294	143
Totals	**410**	**3,234**	**2,815**	**4,688**	**40**	**11,187**	**951**

Similarly to the motorcycle units discussed previously, the Accident Investigators are an extremely productive unit with 1.3 citations written per hour available on a net availability basis and an additional 0.1 accidents worked per hour of available time. It should be noted that each accident worked can generate hours of investigation and documentation work for the Officer who is assigned the case.

(2) <u>The Use of an Accident Investigator in an Administrative Role is Not Efficient. This Position Should Be Returned to Field Work and the Workload Should Be Handled by a Civilian Position.</u>

The Police Department is currently dedicating an extensively trained senior Accident Investigator to process the Department's DUI prosecutions through the system. The specific tasks that this position is responsible for include the following:

- Processes all DUI complaints (approximately 1,600 in 2002).
- Obtains warrants (if necessary) for blood samples, arrests, etc.
- Files all motions and paperwork completed by arresting Officers.

- Processes all information to necessary Texas agencies (revocation of licenses, etc.).

- Investigates no-insurance cases (follow-up after arrests).

The Police Department has civilian professional staff performing similar work in central investigative units (handling full caseloads in some cases). Given the nature of this work balanced with the extensive training in accident investigation and reconstruction that the incumbent has received, it is inefficient to continue with the current practice. The project team recommends that the current position be returned to field duty to provide additional coverage in the field. Furthermore, the project team recommends that the Police Department be authorized to add a professional staff person (T8 level) to handle the bulk of the workload currently assigned to the Police Officer in this position. The cost of a PSA for this position would be approximately $60,000 with salary and benefits. A conservative estimate of the revenue generated by a field Accident Investigator at current productivity levels exceeds that cost by more than $30,000 annually making the decision a cost-effective one as well.

Recommendation: The Police Department should no longer utilize a highly trained Accident Investigator to perform the administrative tasks associated with the "DUI Investigator" position. Instead, this incumbent should be returned to the field and the Department should be authorized to hire a T8 level PSA to perform the functions of this position. The position will cost the City $60,000 in salary and benefits. However, the project team estimates that the return of an AI to the field will actually net the City more than $30,000 annually in additional citation revenues (as well as increasing public service and freeing patrol from working more major accidents).

(3) The Accident Investigation Unit Requires an Additional Sergeant to Provide for Adequate Supervision.

The project team examined the supervisory needs of the Traffic Enforcement Unit next. The current supervisor and staffing deployment in the unit is as follows:

Position	Motorcycle Unit	Accident Investigations
Sergeant	2	1
Police Officer	16	13 *
Ratio	1:8	1:13

* Reflects the elimination of the Hit and Run Unit staffing recommended in the following section.

The project team has previously identified a range of ratios between 1:6 and 1:9 as appropriate for field supervisory staffing levels in field patrol units. In addition, it should be noted that the Accident Investigators work two shifts – something that cannot be physically covered or supervised by a single Sergeant. The Police Department should be authorized an additional Sergeant to provide for effective supervision in the Accident Investigations Unit.

Recommendation: The Accident Investigations Unit should be Authorized an Additional Sergeant Position to provide for adequate shift supervision of the 13 Officers assigned to the squad. The cost of this staffing increase is estimated to be approximately $84,000 annually in salaries and benefits.

(4) The Hit and Run Investigations Unit Should Be Disbanded and the Investigations Assigned to Other Field Resources.

The Police Department currently has a dedicated Hit and Run unit that is comprised of two Police Officers. These Officers investigate “hit and run” vehicle accidents that occur in the City and that have not involved any major injuries to the parties involved (which would be assigned to and handled by Accident Investigators and possibly other District or Central Detectives). The table, which follows this page, shows the number of hit and run cases assigned to the unit (by Officer) for a recent 12 month period:

Month	Officer 1	Officer 2
Jan. 03	53	49
Dec. 02	56	67
Nov. 02	56	42
Oct. 02	47	47
Sep. 02	54	57
Aug. 02	61	61
Jul. 02	51	52
Jun. 02	45	44
May 02	57	56
Apr. 02	63	63
Mar. 02	61	37
Feb. 02	29	53
Average	**52.8**	**52.3**

Note that the caseloads of the Officers are relatively high – with more than 100 cases assigned on a monthly basis. In spite of this, there are other issues to be considered:

- Is there criminal activity at the root of these cases?
- Is the public good being served by the Police Department's involvement in these cases?
- Do the nature of these cases require a dedicated unit?
- Are there other areas of the Department that could handle these cases equally well and without the dedication of specific resources?

The project team believes that, on balance, the answers to those key questions leads to the dissolution of the dedicated unit and towards the re-distribution of the cases to patrol personnel (including Police Service Assistants, if a previous recommendation is implemented) or district investigators. Our conclusions are summarized, below:

- While there may be some criminal activity at the root of these cases, in many instances the matter is almost purely civil in nature. There has been property damage (typically not observed by the victim) and the Police Department is attempting to identify a suspect on little or no information in these cases.
- While the public good may be served by the investigation of these cases (particularly those with significant solvability factors) it is unclear that the public

good is further enhanced by the existence of a unit that is wholly dedicated to these issues.

- The nature of these cases is not such that they require a dedicated unit. While some additional training and experience are assuredly helpful in investigating these cases, similar levels of training and experience can be found in most investigative units in the Police Department. Furthermore, much of the work involved in tracking down information for those cases with some solvability (i.e., where there is a license plate, a witness, etc.) can be performed by well trained professional staff.

Recommendation: The Police Department should dissolve the Hit and Run unit and should reassign the caseload to other field resources or district investigators. The annual savings from making this change will be approximately $139,922 in salaries and benefits. We recommend that the inspection of vehicle "wreckers" be handled by the PSA's assigned in each District.

3. THE SPECIAL OPERATIONS UNIT SERVES AS THE DEPARTMENT'S PRIMARY RESPONSE TEAM FOR HIGH RISK INCIDENTS IS EFFECTIVELY STAFFED TO RESPOND.

The Special Operations Section is the Department's "standing" Special Weapons and Tactics Team which consists of seven sworn officers and supervisors. The Section is commanded by a lieutenant with a sergeant and five officers (P-1) assigned to the operations team. The Section works and trains closely with and is often augmented by personnel from throughout the Department that are assigned to the "Tactical Unit" on a part-time and as needed basis. The Tactical Unit consists of two six member "tactical" teams, one five member "sharpshooter" team, and a "hostage negotiation" team that ranges from six to ten members.

Part time support teams train with the Section on two Mondays per month, depending on workload and staffing for their job assignments, and respond as needed that require the support of multiple special weapons and / or tactic teams.

The organizational focus of the past was to have this Unit with two teams function as a "pro-active" street enforcement team supplementing District patrol with

hazardous search and arrest warrants, special enforcement programs, and to engage in individual discretion "roving enforcement units'. Today's single team is "reactive", with primary responsibility for:

- Responding to hostage and barricaded subject incidents.
- Scheduled high risk warrant arrests and narcotic search or "buy-bust' arrests.
- High visibility police presence.
- Executive protection.
- Tactical training for support tactical personnel.

With the emergence of the issues driving Homeland Security, the Special Operations Unit, because of the "special weapons and tactics" training has become the Department resource for:

- Assisting Federal agencies with incidents involving potential terrorist threats.
- Special team training with focus on "weapons of mass destruction".
- Civil disorder core response team for surveillance / intelligence.
- Department training for less-than-lethal weapons options.

The following table displays, on average for the past three years Section activity excluding recent additional activities associated with Homeland Security.

Special Operations Workload for the Past Three Years

Description of Activity	1999 / 2000	2000 / 2001	2001 /2002	Average
Hazardous operations, pre-arranged and unscheduled.	59	67	57	61
Hours associated with special assignments, executive protection, special event security scan, high visibility police presence.	6,713	6,443	7,312	6,823 hours
Tactical and Special Weapons training required to maintain team proficiency.	1,170	1,308	N/A	207 hours per year per team member

The above table reflects the following:

- The Team handles some type of "hazardous operations", scheduled or unscheduled, on average 61 times per year or approximately once per week.
- Special assignments such as executive protection, special event security scan, or high visibility police presence consumes approximately 6,823 hours annually, or approximately 1,137 hours for each of the six member field team per year.

As displayed from this information approximately four of the team's five working days, on average, are consumed for requests for service. This leaves, on average, one day of the week in which personnel can engage in personal tactics training and / or provide training to tactical support units as well as perform required equipment maintenance. In spite of this, relief for Special Operations team members is an issue.

Given the existing structure and specific assignment of Special Operations, "core" team members are on call as one unit. This has a mitigating impact on making a decision to take a member "off line" from potential call-out. Review of critical incident after action reports show that support personnel are used to supplement core team personnel required for a particular tactic (i.e. building entry team) for a critical incident. Support tactical personnel resource could be used to provide core team relief. To

implement this, two to four additional officers would need to receive enhanced training to serve specifically as "scheduled" relief for core personnel.

The selection, training, and process for short term Special Operations assignment, should be incremental and sensitive to workload and associated staffing for support personnel duty assignments. As the nature, scope, and activity of the Special Operations Unit expands measures should be taken to expand the personnel assignment.

Recommendation: That two to four Support Tactical personnel receive enhanced training to serve specifically as "scheduled" relief for core Special Operations team members.

4. THE STAFFING OF THE JAIL IS IMPACTED BY ITS DESIGN AS WELL AS BY PROCEDURES FOR BOOKING ARRESTEES INTO CUSTODY.

The City of Arlington operates a short-term detention facility in the Police Department for purposes of holding arrestees for processing, arraignment in the court, and release or transfer to the Tarrant County detention facility. An overview of the jail, its staffing and operations is provided in the following points:

- The jail is a short term detention facility designed to house approximately 68 individuals awaiting court appearances, including arraignment. Currently, facility population levels are over 100 arrestees.
- Staff work 8 hour shifts.
- Shift supervision provided by commissioned Sergeants as well as non-commissioned supervising jailors. Commissioned Sergeants oversee booking and overall operations; non-commissioned Supervisors are lead workers and maintain schedules.
- Intake is conducted in four 'phases' – Phase I is typically staffed with 4 jailors for computer intake and search; Phase II is typically staffed to perform photographs and fingerprinting; Phase III is staffed to perform dress-out of arrestees and assignment of temporary housing. Shift staffing also includes observation and central control. Minimum day and evening shift staffing is six (6) plus

commissioned and non-commissioned supervisors, though more common staffing levels are 7 – 8.

- Court is held daily for purposes or arraignment and various hearings.

- Food services are handled by jail staff; meals are cold.

- Medical services are not provided in the facility (injuries or serious illnesses are handled at the hospital). Booking staff handle medical screening questions. There is no real mental health screening.

- Bond clerks are also assigned to the jail.

In FY 2001-2002, the jail processed the following volumes of people through the system:

Activity	Total FY 2001-2002	Average Per Day
Bookings	14,954	41.0
Intoxilizer Tests	848	2.3
Medical Transfers	24	0.1
Prisoners Transferred	1,250	3.4

The Warrants Unit is also organized within the Jail Section. This function is examined in the next section of the report.

As with any 24 hour facility, there are two important considerations – the fixed post staffing plan (i.e., the functions to staff) and staff availability (i.e., the number of employees available to fill a position). The project team examined the staffing plan and number of staff required and have concluded the following:

- As in most facilities, there are fixed and floating functions in the jail. These include:

  – Functions which need to be constantly staffed for inmate and staff safety purposes are central control and housing.

  – Functions which are flexibly staffed include intake (administrative and physical booking of arrestees), releases, processing through arraignment,

inmate property, as well as activities in the jail such as meals and drugs, inmate transports, etc.

- At different staffing levels, the jail utilizes its staff in different ways, for example:

Function	6 Staff	7 Staff	8 Staff
Central	1	1	1
Housing	1	1	1
Rover	0 - 1	1	1
Intake / Other • Bookings and releases • Arraignment • Property in / out • Meals and medications • Inmate transports	3	4	5

The additional staff at 7 and 8 on duty, especially on higher volume weekends, allows staff to process arrestees more quickly. These staff totals include the civilian supervisory positions.

At current staffing levels, sufficient staff are authorized to average 7 Jailers on duty per shift. At this level, there are peak activity times when supervisors assist, some activities are delayed and the ability to separate a roving position is affected. In addition, the ability to send people out to training is impacted. This is further impacted by Arlington's practice of expediting booking so that arresting officers can return to the field. While an arresting officer fills out an arrest / booking report as soon as the transfer of the person is made in the jail, the officer needs to wait for a booking number which can only be generated in Tiburon once all booking paperwork is complete. The project team believes that this is inefficient. Arresting officers should return to the field as quickly as is practical and provided a booking number over the radio once it is

generated. Such a change could result in 3 staff required for intake and freeing up at least one position for other duties.

Recommendation: Staffing levels are adequate in the jail as currently configured, but a change in booking procedures could result in the rapid return of arresting officers to the field but with more processing back-ups in the jail. Any future addition to the jail should include a new intake area designed to better hold arrestees awaiting processing.

5. CIVILIANIZE ONE POSITION IN THE WARRANTS UNIT, THOUGH FIELD PATROL PERSONNEL SHOULD BE RESOURCES AVAILABLE TO ASSIST WITH WARRANTS.

The Warrants Unit is organized within the Jail Section. These staff are responsible for processing, serving and following-up on Class C warrants (mostly traffic and municipal code related). Currently, there are three sworn staff and three civilian staff (one of whom dedicates about 20 hours per week on warrants) who work Class C warrants through the mail, on the telephone, at the counter at the City's court and in the field (only the sworn personnel serve warrants in the field). In FY 2001-2002, the following activity was generated by the Warrants Unit.

Activity	Total FY 2001-2002	Average Per Work Day
Warrants Generated	48,898	196
Warrants Cleared	15,982	64
Clearance Percent	33%	
Total Uncleared Warrants (on 3/28/03, since 1999)	55,994	

Other aspects of the Department's approach to warrants include:

- The three sworn staff work warrants corresponding to the three patrol districts (north, east and west).
- The Unit attempts to work out payment plans for people with warrants, stretching out payments over several months as a way to increase collections.

- Patrol personnel will assist with warrants occasionally in the field (including distributing door hangers to encourage payment) and also when 'roundups' are performed (although the most recent roundup last year was cancelled).

- A new court information management system will better integrate the warrants system into the court.

- Collection totals through warrants unit efforts are currently over $2 million per year.

There are several issues and opportunities with respect to the Department's current approach to warrants, including:

- It needs to be pointed out that traffic warrants clearance rates are low in most jurisdictions because of transient or unresponsive populations. The experience of many agencies, including Arlington, is that it is critical to contact persons with warrants as soon as possible because of this fact. As a result, in Arlington, all Warrants Unit staff work intensively on mailing warrants and calling when warrants are presented to the office each week.

- Between 70%-80% of the staff time of the sworn personnel assigned to the unit (at a minimum, Mondays through Wednesdays) are in the office mailing letters to warrant violators. The office responsibilities do not require a sworn person to accomplish. All staff work together to get letters out on Monday and call / return calls on Thursday and Friday. As a result, there is a significant opportunity for increased civilianization.

- The field time of warrants staff generates few arrests which can be attributed to the officers assigned to the Unit – in 2002 this represented 391 arrests, or about 1 per day / 0.3 per warrant officer per day. This represents approximately 10% of all warrant arrests of this type, with the other 90% of Class C arrests performed by patrol and traffic personnel.

- The Police Officers are about as productive non-sworn staff when adjusted for field versus non-field time. This is shown in the table, below, for 9 months in 2002.

Average Activities Per Day
Warrants Unit, 2002

Activity	Staff A	Staff B	Staff C	Staff D	Staff E	PT Staff F
Warrants Worked	33.9	37.5	44.3	34.8	38.1	19.8
Warrants Cleared	11.0	12.9	16.2	14.9	12.6	9.7
Collections	$1,471	$1,459	$2,082	$1,974	$1,688	$1,192

A mix of sworn and non-sworn staff is desirable in a warrants unit. First of all, sworn staff have a tool unavailable to non-sworn personnel (i.e., arrest). Secondly, dedicated staff are more accountable for timely field warrant service than patrol personnel who have multiple responsibilities. While patrol personnel should provide more assistance to the Warrants Unit, this Unit requires dedicated sworn staffing. However, given the need for rapid mailings and calls and the cost effectiveness of non-sworn over sworn, the project team believes that one non-sworn position should be substituted for a sworn position. To accomplish this, the Police Department should do the following:

- Eliminate a sworn position assigned to the Warrants Unit and increase the number of professional staff by one. The cost difference between these positions, with benefits is approximately $9,700 per year.
- Assign the two Police Officers in the Unit to handle approximately equal halves of the City (in terms of warrant generation).
- Reduce the office time of the remaining two Police Officers in the Unit (to 40% or less).
- Stagger the hours of Police Officers to cover more evening hours.
- Obtain assistance from patrol and traffic units.

Recommendation: Eliminate one Police Officer position and increase professional (i.e., non-sworn) staff in the Warrants Unit by one for a new annual savings of approximately $9,700.