

**A Study on the Consolidation of Law
Enforcement Services for
The Village of Ossining, The Town of Ossining
and The Village of Briarcliff Manor**

FINAL REPORT

June 8, 2010



POLICE OPERATIONS

POLICE OPERATIONS

I C M A C O N S U L T I N G S E R V I C E S



Leaders at the Core of Better Communities

**Submitted by and reply to:
Public Safety Services
ICMA Consulting Services
International City/County Management Association
777 North Capitol Street NE, Suite 500
Washington, DC 20002
ConsultingServices@icma.org
202-962-3585**

ICMA Background

The International Municipality/County Management Association (ICMA) is the premier local government leadership and management organization. Since 1914, ICMA's mission has been to create excellence in local governance by developing and advocating professional local government management worldwide. ICMA provides an information clearinghouse, technical assistance, training, and professional development to more than 9,100 city, town, and county experts and other individuals throughout the world.

ICMA Consulting Services

The ICMA Consulting Services team helps communities solve critical problems by providing management consulting support to local governments. One of ICMA Consulting Services' areas of expertise is public safety services, which encompasses the following areas and beyond: organizational development, leadership and ethics, training, assessment of calls for service workload, staffing requirements analysis, designing standards and hiring guidelines for police and fire chief recruitment, police/fire consolidation, community-oriented policing, and municipality/county/regional mergers.

Project Contributors

Richard Richardella

Dov N. Chelst

Kenneth R. Chelst

Paul O'Connell

Malhar Kale

Akia Garnett

Leonard A. Matarese

Executive Summary

ICMA provides an analysis of the impacts of the consolidation of the Village and Town of Ossining and the Village of Briarcliff Manor police departments to form a single police agency that would service the three municipalities.

We believe this consolidation can be accomplished, with significant financial savings, approximately \$2,984,506 annually on salary and wages only, while maintaining the high quality of public services which the three communities expect. Potential savings in overtime and other issues relating to the collective bargaining agreements such as longevity and holiday pay are not included in this total nor are the savings from reduced operational expenses which are impossible to calculate until the parties make decisions on facilities.

Initially our efforts were focused upon exploring all possible combinations of potential mergers; two departments merging, maintaining separate dispatch centers, merging dispatch but retaining separate agencies, etc. However, after a complete review of the data it became quite clear to us that a full merger of all three agencies was by far the best solution both in operational and financial issues. Any other combination would preclude achieving the full benefit of a consolidation.

The benefits of the consolidation would include, but not be limited to, the following:

- Reduction of the total number of police and personnel producing substantial savings while maintaining high service levels.
- Reduction of capital and operational expenses by having one police facility that houses all police operations for all municipalities.

- Improved officer safety by having all police units in the Town on the same radio frequency and insuring no officers are working alone.
- Establishment of a fully coordinated, comprehensive approach to providing regional police services
- Creation of a central 911 emergency system that dispatches and coordinates emergency responses throughout the Town.
- Increased opportunity to purchase equipment, vehicles and technology in greater quantities at reduced costs.
- Implementation of a coherent approach to solving common quality of life problems that affect all three communities.
- Establishment of a town wide COMPSTAT program providing for better response to community wide policing issues.

Certainly there are short term issues and concerns that must be addressed to implement such a significant change. There is no technical reason why a single police department cannot properly service these three communities. Rather, the obstacles to a successful consolidation would be the organizational and cultural changes that would be required. State Laws, Civil Service rules, union contracts, policies and procedures would all provide significant but not insurmountable challenges.

We also note that “shared services” – that is partnerships in delivering police services, are routinely successful. For example, the City of Dunedin, Florida has contracted with the Pinellas County Sheriff’s Office for police services for decades. This relationship has provided high quality police services to the residents of Dunedin at a cost significantly lower than the city could provide comparable services.

Within New York State, Town and Village police departments in Eire County have merged successfully. Warren County, a tourist community

centered around Lake George, with a year-round population is just over 66,000 residents and a summer the population that climbs to well over 250,000 has consolidated its police services. The county encompasses eleven towns, one city and one village. With the exception of the City of Glens Falls and a few part time peace officers, all of these communities have merged their police forces with the county sheriff. This has proven to be a cost-effective means for smaller communities to have local police services, while taking advantage of the resources available in larger agencies.

Considerable research has been accomplished about mergers and consolidations both in the public and private sectors and that material should be a driving force should the municipalities involved decide to pursue the consolidation. However it does seem that there are so many commonalities between the three agencies involved here that a merger should be able to be accomplished fairly readily. Given the benefits, both financial and operational, such a consolidation would provide, it appears that the benefits of this change would well make this a worthwhile effort.

We believe that a critical component of any successful merger (absent complete financial crisis, which unfortunately we are seeing in many communities around the country) must be that all current employees are assured that their employment will be retained and that all reductions in force will occur through attrition. This does not necessarily mean that everyone will retain their current rank. Clearly there will be one chief so that two chiefs would be reduced in rank to a command position. This will take time and during this period the new consolidated department will be overstaffed. The municipalities can estimate fairly accurately how long this will take by doing a fairly simple actuarial analysis of age, length of serve and historical

retirement patterns. Also incentives can be offered to hasten retirements, thus expediting the process and achieving financial savings earlier.

We believe that to insure adequate responsiveness and representation for all residents of each of the affected municipalities that there be established a "Police Committee" or Commission, with representatives appointed by the respective governing bodies to oversee and the actual consolidation and the ongoing operations of the consolidated agency. The municipalities should seek legal advice as to the ability under NY State Law to create a formal commission as opposed to a committee.

During our work we heard considerable comments, especially from the police, that each community is different, has differing needs and differing expectations from its police departments and thus it would be difficult or impossible to provide. This was offered routinely as a justification as to why a consolidation just would not work.

In fact, many municipal police organizations service areas with neighborhoods with significantly differing demographics and land uses and do so successfully. Modern police managers understand that true community policing means meeting the needs and expectations of the various communities they serve and alter their policing models to meet those needs.

We also note that in the course of the study what is commonly referred to as the "Westchester County Police Act" was quoted as an impediment to a consolidation. Additionally General Municipal Law (GML) also was cited as providing barriers to consolidation and providing mandates on departmental operations.

Although ICMA cannot give legal advice our review finds that there are numerous court cases, Attorney Generals Opinions and arbitration decisions that affect the interpretation of the Act and GML. For example, the Attorney General opined in 1985 that a Westchester County village may by local law establish the position of commissioner of police in place of police chief, and thereby supersede special state act governing village police departments in county. (An option that we would recommend the committee explore.)

ICMA strongly recommends that, should the municipalities decide to pursue further the consolidation that it retain expert legal advice to address the numerous legal issues that will need to be addressed. We also recommend that the New York State Department of Civil Service be contacted early in the process. And the Attorney General's Office is actively supporting and assisting mergers and consolidations throughout New York and should be considered as a resource as well.

ICMA commends the elected leadership of all three communities for their efforts at providing municipal services at lower costs to their citizens and tax-payers. We also recognized the dedicated effort of the citizen members of the LOGO Committee. Further we thank the Police Chiefs of all three municipalities for their cooperation and assistance in this project.

We summarize by stating the obvious. There are no technical reasons which would prevent a consolidation of all three agencies. The deciding factors to achieving consolidation and the financial and operational benefits such a merger would provide will largely fall to the leadership of elected officials, the willingness of police officials to embrace change and the desire of the public to improve efficiency and effectiveness in local government operations.

TABLE OF CONTENTS

Executive Summary	3
I. Introduction	11
II. Overview	14
III. Current Staffing Review	14
IV. Proposed Consolidation Organization	16
A. Divisional Structure	16
B. Work Schedule	18
C. Communications & Records	18
D. Current Costs	20
E. Crime Statistics/ Calls for Service Cost Analysis	21
F. Options for Funding	23
G. Table of Organization	26
H. 12 Hour Work Schedule	29
I. Crime Trends	31
J. Investigations	32
K. Commission on Accreditation for Law Enforcement Agencies	33
L. Communications Center	34
M. Facility, Vehicles and Equipment	35
M. Additional Observations	35
O. Recommendations	36
V. Data Analysis	38
A. Introduction	38
B. Workload Analysis	38
Figure 1: Percentage of Calls per Day, Initiator	42
Table 1: Calls per day by Initiator	42
Figure 2: Percentage of Calls per Day, by Department	43
Table 2: Calls per Day, by Initiator and Department	43
Figure 3: Percentage of Calls per Day by Category	44
Table 3: Percentage per Day by Category	45

Figure 4: Percentage Non-Zero In Service Calls per Day	46
Table 4: Nonzero In-Service Calls per Day	47
Figure 5: Calls per Day by Initiator and Month	48
Table 5: Calls per Day by Initiator and Month	48
Figure 6: Calls per Day, by Category and Month	50
Table 6: Calls per Day, by Category and Month	51
Figure 7: Average Occupied Times, by Category and Initiator	52
Table 7: Primary Units Average Occupied Times by Category	53
Figure 8: Number of Responding Units, by Initiator and Category	54
Table 8: Number of Responding Units, by Initiator and Category	55
Figure 9: Number of Responding units by Category	56
Table 9: Number of Responding Units, by Category	57
Figure 10: Percentage of Calls and Workload in February	58
Table 10: Percentage and Work-Hours per Day, February 2009	59
Figure 11: Percentage Calls and Work Hours, August 2009	60
Table 11: Percentage and Work Hours Per day, August 2009	61
C. Deployment	61
Figure 12: Deployed Officers, Weekdays, February 2009	63
Figure 13: Deployed Officers, Weekends, February 2009	63
D. Workload	64
Figure 14: Deployment / Workload, Weekdays, February 2009	66
Figure 15: Deployment / Workload, Weekends, February 2009	66
Figure 16: Deployed Officers, Weekdays, August 2009	67
Figure 17: Deployed Officers, Weekends, August 2009	68
Figure 18: Deployment and Workload, Weekdays, August 2009	69
Figure 19: Deployment and Workload, Weekends, August 2009	69
E. Response Times	70
Figure 20: Average Response Time, By Hour, February & August	72
Figure 21: Dispatch Delay CDF	73
Figure 22: Travel Time CDF	74
Figure 23: Response Time Cumulative CDF	74

Figure 24: Average Response Time, February 2009	75
Figure 25: Average Response Time, August 2009	75
Table 12: Average Response Time Components	76
Table 13: 90 th Percentile for Components	76

I. Introduction

ICMA conducted this study, which was authorized by the Municipalities of Village of Ossining, Town of Ossining and the Village of Briarcliff Manor, to review the operations and staffing of the three existing police departments with the goal of determining alternative service delivery possibilities.

ICMA's work focused on the internal performance of the police departments and detailed data analysis of four main areas: workload, deployment, response times and budget. These four areas are almost exclusively related to patrol operations, which constitute by far the majority of the police departments' personnel and financial commitment.

Although only four areas were selected for detailed data analysis, ICMA's operations analysis considers all areas of the police department that would affect the delivery of police service to all three municipalities.

Policing in U.S. municipalities involves a complex set of activities. The police officers of the three municipalities are not simply crime fighters whose responsibilities are to protect people's safety and property and to enhance the public's sense of security. The police discharge myriad other basic responsibilities on a daily basis, including preserving order in the community, guaranteeing the movement of pedestrian and vehicular traffic, protecting and extending the rights of persons to speak and assemble freely, and providing assistance for those who cannot assist themselves.

All three municipalities provide their citizens with a full range of police services, which include responding to emergencies and calls for service, performing directed activities, and solving problems.

All three municipalities are struggling with the current financial uncertainty as well as long term financial issues. This is similar to what many other municipalities are facing around the country. At the same time, these communities are attempting to meet the policing challenges of the twenty-first century with greater use of technology and increasingly higher salaries and benefits for police personnel. These issues have forced municipalities around the country to review law enforcement delivery systems and to adopt strategies that would have been rejected only a few years earlier. The financial issues facing New York State are among the most severe in the country and will require innovative solutions. ICMA commends the elected officials of the Villages and Town for their willingness to tackle the consolidation issue.

In its analysis of the all three municipalities, ICMA has applied broadly accepted contemporary concepts and principles of organization and management to identify areas where police services could be strengthened. ICMA recognizes that every department must be structured to meet the specific needs of the community it serves. However, certain principles of organization have been proven valid over a period of time:

- Tasks that are similar or related in purpose, processes, methods, or clientele should be grouped in one unit or several units under the control of one person.
- Each task should be clearly made the duty of an individual; designated individuals should have definitive responsibilities for planning, execution, and control.
- Each individual, unit, and situation should be under the immediate control of one, and only one, individual, thus achieving the principle of unity of command.

- Each assignment or duty should carry with it the authority necessary to fulfill the responsibility.
- Clear lines of authority between the responsibilities of units should be drawn by a precise definition of the duties of each.
- Rank should increase one step at each level of the organization's structure and be consistent with the duties and responsibilities assigned to the position.
- Personnel who supervise others should hold supervisory rank.
- Qualified civilian employees should staff functions that can be performed by non-sworn personnel.
- Nontraditional or highly specialized functions should be established only if an ongoing need is demonstrated.

These principles, coupled with the knowledge of the community possessed by the present police administration of all three municipalities, should guide the development of an appropriate organizational chart and the operational policies necessary for the direction a consolidated organization.

The consolidation must be structured to perform its essential functions efficiently and effectively, within fiscal restraints, consistent with the nature and particular needs of the municipalities it serves. ICMA will identify positions that should be funded to provide a recommended level of police service to three municipalities without compromising officer or citizen safety.

II. Overview

The Town of Ossining includes the Village of Ossining and approximately 93 percent of the Village of Briarcliff Manor. Although the Town police have jurisdiction within the Villages their primarily service that area of the Town outside of the Villages' boundaries. The following table shows the population and land areas serviced by each police agency.

	Town Total	Village of Ossining Police	Village of Briarcliff Police	Town Police
Population	36,534	24,010	7158	5,366
Land Area	11.7	3.2	5.9	2.6
Water Area	3.9	3.1	0.8	0

III. Current Staffing Review-2009

Village of Ossining

The Village of Ossining has an authorized strength of 57 sworn officers with 9 full time and 9 part time (school crossing guards) civilians. The police department is comprised of 1 chief, 1 captain, 4 lieutenants, 8 sergeants and 46 police officers who perform in various positions.

Town of Ossining

The Town of Ossining has an authorized strength of 18 full time and 1 part time sworn officers with 1 part time civilian. The police department is comprised of 1 chief, 1 lieutenant, 5 sergeants, and 11 police officers who perform in various positions.

Village of Briarcliff Manor

The Village of Briarcliff Manor has an authorized strength 19 sworn officers with 1 part time civilian. The police department is comprised of

1 chief, 1 lieutenant, 5 sergeants, and 12 police officers who perform in various positions.

Observations

We note that in some of the municipalities, some police supervisors do not work nights and are usually off on weekends. This practice puts too much responsibility and authority within the rank and file and especially on the first-line supervision (sergeants).

ICMA believes that the absence of command-level management throughout the work period does not help to build strong first-line supervisory skills. In fact, the existing police policy and procedure may open the municipality to future vicarious liability concerns regarding “failure to supervise”.

A consolidated police agency will correct these actions and create a proactive rather than reactive police agency in dealing with issues affecting the communities. The police officers will work in an environment with more supervisory accountability and leadership needs will be better defined. There will be a common vision, strengthening police leadership and its officers to accomplish the goals and objectives of delivering high-quality law enforcement services to all three communities.

Under the consolidation plan, the police administration can implement a robust proactive program to address the issues and concerns of the community, similar to a COMPSTAT program, with high levels of accountability.

IV. Proposed Consolidated Organization

A. Divisional Structure

The potential consolidation permits the creation of a streamlined department structure which would be organized around the two major functions of a police agency – Line Operations (patrol, investigations and traffic enforcement) and Staff Operations or (administration, dispatch, records, etc.).

Command Personnel-Deputy Chief and Commanding Officers

It is the intent of ICMA to identify a person in charge whenever the chief is not available; the use of the deputy chief is an acceptable way to achieve the leadership goals and objectives of the consolidation.

The deputy chief shall be the second in command of the police department and shall have authority commensurate to the chief of police, but with final dispositions made by the chief of police.

The deputy chief of the police department shall be responsible for the following functions:

- Assume all authority of the chief when for any reason the chief is absent from duty
- Coordinate the operations of all bureaus and personnel within
- Develop and guide all long- and short-term planning within the department
- Review all disciplinary proceedings against any member of the department before final disposition by the chief of police
- Be receptive to all community relations programs and develop community spirit together with police functions
- Control and maintain personnel files.

The deputy chief's responsibilities should be divided into three operational categories: patrol, investigative and administrative functions

It is ICMA's recommendation that the chief of police can effectively manage the department through one deputy chief and two other commanding officers by using the following procedure.

The chief of police, deputy chief and the two commanding officers shall have an employee agreement with the three municipalities regarding the consolidation.

The concept will follow the Fair Labor Standards Act (FLSA) section regarding police executives. These 4 positions; chief of police, deputy chief, 2 commanding officers, should be considered managerial executives and excluded from the bargaining unit applying the following definition:

- *A person formulates policies when he develops a particular set of objectives designed to further the mission of a segment of the governmental unit and when he selects a course of action from among available alternatives. A person directs the effectuation of policy when he is charged with developing the methods, means, and extent of reaching a policy objective and thus oversees or coordinates policy implementation by line supervisors. Whether or not an employee possesses this level of authority may generally be determined by focusing on the interplay of three factors:*
 - (1) The relative position of that employee in his employer's hierarchy*
 - (2) his/her functions and responsibilities*
 - (3) The extent of discretion he exercises*

ICMA illustrates the divisional structure in Figure 26 in a proposed table of organization.

B. Work Schedule

We also suggest that the new agency operate on twelve hour shifts rather than the current eight hour work schedules for several reasons. First and most importantly the 12 hour shift permits the establishment of four platoons, each with its own lieutenant in command. The platoon works as a unit with each member reporting the same days providing excellent continuity of command. Second, the twelve hour shift has proven to provide significant benefits to both the police department and to the employees as well including:

- Reduction in overtime
- Deployment of additional essential personnel to perform more efficiently and effectively.
- Reorganizing the police department structure, addressing accountability and responsibility more adequately.
- Reducing the number of days officers work in a pay period.
- Providing for weekends off every other week.

Research has been completed regarding the economics of a 12-hour patrol schedule. (Patrick J. Solar, "The Economics of Patrol Scheduling, Part 2," *Law and Order Magazine*, October 2009). The Federal Bureau of Investigation has also reported in May of 2009 regarding the use of 12-hour shift and its benefits to the police officer and department. The 12-hour shift plan is rapidly drawing support from rank and file officers and most police unions. ICMA has provided an organizational chart in Figures 27 and 28 which clarifies the 12- hour patrol staffing levels.

C. Communications & Records

We believe that one of the most obvious benefits of a consolidation would be the creation of a single communication / recordkeeping capability. The effects of this one area of consolidation would be

significant both from an operational standpoint as well as a financial view.

Having all officers on one radio frequency will greatly enhance officer safety as well as responsiveness to emergencies. Having one records system with one data basis will dramatically improve the police ability to conduct investigations, identify suspects and provide useable data for programs such as COMPSTAT.

The dispatch and records functions should be completely civilianized. Using sworn officers as dispatchers is a huge, unnecessary financial expense. Further civilianizing this function will permit the creation of a career path for non-sworn persons. We note that those departments that have traditionally used police officers as dispatchers often resist the civilianization of dispatchers citing the need to have experienced sworn officers making dispatch decisions. However modern, well managed, large agencies routinely use civilians in the dispatch function. The key to success is proper training of the dispatchers and ensuring that field supervisors are adequately performing their roles by monitoring calls and directing subordinates. In fact very few "police decisions" are made in the dispatch center.

We note that the Town currently operates a new facility with an excellent communications system. Dispatch and records could function out of that facility even though the actual police department headquarters might be housed elsewhere.

D. Current Costs

Budget*

According to the 2009 budget data provided by each of the municipalities, the salary and benefits costs for the police department for each of the three municipalities are:

	Salaries	Benefits	Rate	Total	# FT Sworn	#PT Sworn	# FT Civilians	#PT Civilians
Village of Ossining	5,467,599*	2,411,121	44.1	\$7,878,720	57		9	9
Village of Briarcliff	1,795,174*	863,478	48.1	\$2,658,652	19			1
Town of Ossining	1,635,274*	867,349	53.04	\$2,502,623	18	1		1
				\$13,039,995	94	1	9	11

- Village of Ossining
\$5,457,599* in salaries and an additional \$2,411,121 in benefits with 57 sworn-9 full time/9 part time civilians
- Village of Briarcliff Manor
- \$1,795,174* in salaries with an additional \$863,478 in benefits with 19 sworn and 1 part time civilian
- Town of Ossining
\$1,635,274* in salaries with an additional \$867,349 in benefits with 18 plus 1 part time sworn and 1-part time civilian

Thus the three communities are spending over \$13 million on personnel costs alone to police the three municipalities.

(*Note: Overtime and other issues relating to the collective bargaining agreement such as longevity and holiday pay are not included in these figures.

If these issues were incorporated into the calculations, the saving could be greater based on the 22 police officer's salaries and benefits which would be eliminated. In addition, there would be a saving related to overtime as a result of increased deployment.

For example, in 2009 the overtime was \$982,238 for the Village of Ossining, \$82,413 for the Town of Ossining and \$171,718 for Village of Briarcliff Manor, a total of \$1,236,369 for all 3 communities)

We believe a substantial savings related to overtime will be achieved once the 12-hour shifts and the consolidation is completed.

E. Crime Statistics/ Calls for Service Cost Analysis

To understand the level of criminal activity in the respective municipalities and to extrapolate the costs to respond to those crimes we advise that The New York Law and Public Safety reported the following Part 1 Crimes for the following municipalities in 2008. (Part 1 Crimes are the most serious offenses: murder, rape, robbery, aggravated assault, burglary, larceny and motor vehicle theft)

- Village of Ossining-358 incidents
- Village of Briarcliff Manor-52 incidents
- Town of Ossining-46 incidents

Therefore, there were a combined total of 456 part 1 crimes.

ICMA provides the following cost per call for service analysis:

Calls for Service Cost Analysis Method

Citizen initiated calls for service includes all calls both emergency and non-emergency (does not include officer initiated calls) versus the budget costs for each municipality.

Calls for Service Cost Analysis				
CFS Initiator	Briarcliff Manor	Town of Ossining	Village of Ossining	Combined
Calls	3,725	1,798	10,794	16,317
Total Cost	2,658,652	2,502,623	7,868,720	\$13,039,995
Cost per call	\$713.73	\$1,391.89	\$728.99	

Crimes Cost Analysis Method

Per Part 1 Crimes versus the budget costs for each municipality.

Part 1 Crimes Cost Analysis				
	Briarcliff Manor	Town of Ossining	Village of Ossining	Combined
Part 1 Crimes	52	46	358	456
Total Cost	2,658,652	2,502,623	7,868,720	\$13,039,995
Cost per part 1 crimes	\$51,127.92	\$54,404.85	\$21,979	

Thus it costs all three municipalities in excess of \$13,000,000 annually to employ 94 police officers to handle 16,317 citizen initiated calls for service and to investigate 456 part 1 crimes.

ICMA projects the total costs to fund one police agency based upon the organization we have proposed below, would be far less than the sum of all three budgets in each community, creating an annual savings of approximately \$2,984,506 including salaries and benefits.

A consolidated police agency would benefit the communities through the overall reduction of employee salaries, the single largest expense in the police organization. In the proposed table of organization, there will be an overall reduction from three police chiefs to one, and a reduction in the number of lieutenants, patrol sergeants, patrol officers, detectives (investigators), dispatchers and other civilian personnel.

The projected cost of wages for sworn personnel may be estimated by taking highest salary at each rank, and multiplying it by the number of positions at that rank. After determining the same quality of level of police service that will be delivered with one police agency, all three communities should determine what method of financing should be adopted.

Beyond the initial start up costs, such as uniform procurements and possible facility improvements, the consolidated police agency should operate more inexpensively when compared to the combined cost of operating three separate police departments eliminating much duplication.

F. Options for Funding

While there are many options for determining funding, here are some examples:

- The total cost to fund a consolidated police agency may be apportioned according to the percentage of taxable parcels as a percentage of the total parcel or a percentage of valuation in all three communities
- Evenly divide the total cost of providing annual police service to all three communities
- Apportion the cost of the consolidation of the police agency by the proportion of calls for service handled in each community(this is other initiated or 911 calls not self initiated calls by each police officer)
- Establishing a special taxing district for all three communities to finance the police service in much the same way a fire district is financed.

The methods selected must be specified in a written agreement between the communities. The creation of the consolidated police

authority may allow the municipalities to benefit from pending legislation that might alleviate some short term costs. ICMA recommends that the municipalities consult with the Consolidation of Local Government Services guide issued by the Municipal Service Division of New York State Department of Civil Service in December 2007, for some helpful financial assistance in this area.

If there is continuing interest in a merger after this initial feasibility study, a series of subsequent meetings should be scheduled to solicit input from the many interest groups that will be affected by the consolidation of police services.

For example-concerns and suggestions from residents, local businesses, employees, unions (collective bargain units) and other interested persons should be recorded, categorized and evaluated in terms of consequence. The costs of benefits and other contractual expense must also be considered.

Collective Bargaining Units

It is here that all three municipalities will be better served with one collective bargaining unit, thus reducing the costs of negotiations for three collective bargaining agreements year after year from three, reducing the three police unions to one. In addition, the number of representatives will be reduced, reassigning more police personnel to actual police duties, along with the saving associated with the exacerbated costs of arbitration, and contracts.

Data Analysis/Technology

Data management and accuracy are crucial to effective analysis. As with other police departments around the country, ICMA encountered a number of issues when analyzing data supplied by the municipalities. We describe these issues in this report and make recommendations for improving this aspect of the police department. However, even with the limitations caused by these data issues, ICMA was able to develop a comprehensive analysis of police data.

With regard to the internal functions of the agency, ICMA had no difficulties. All three police departments were able to provide ICMA with detailed information on all aspects of department operations, and each member of the agency with whom we met was forthcoming and helpful.

The consolidated department would provide for a better allocation of staffing. There are shortfalls in each of the departments that can be overcome with the consolidation of the three agencies.

This is illustrated and explained within the Data Analysis in Figures 14-15 and 18-19 regarding the workload versus deployment.

G. Table of Organization

ICMA provided 2 comparison tables of organizations using the existing sworn and civilian person to match up against what will actually be necessary to operate a consolidated police agency. The saving associated with the proposed table of organization will result in approximately \$2,984,506

Scenario -A- Table of Organization with Police Officers participating in the Dispatch Center

Police Department	Village of Ossining	Town of Ossining	Briarcliff Manor	TOTAL		
				Proposed	Change	
Chief	1	1	1	3	1	-2
Deputy Chief	0	0	0	0	1	+1
Commanding Officers	1	0	0	1	2	+1
Lieutenants	4	1	1	6	5	-1
Sergeant	8	4	5	17	13	-4
Police Officers	43	12	12	67	50	-20
Total Sworn	57	18	19	94	72	-22
Total Civilians	9	1 P/T	1 P/T	10 FTE	10 FTE	0 F/T

Scenario A-Based on the assumptions that all three municipalities collectively employ 94 police officers plus 9 full time civilians, 2 part time civilians plus 9 school crossing guards with a total cost of \$13,039,995

ICMA believes that based upon the data analysis that 72 sworn police officers and 10 full time civilians plus the crossing guards can provide the same level of service for 16,317 calls for service with 456 part 1 crimes for approximately \$10,055,489 or a cost savings of \$2,984,506.

Scenario B-Instead of utilizing police officers in the dispatch configuration, the municipalities could add funding for 8 dispatchers which will save an additional 6 police officer's salaries.(approximate police officer salary with benefits is \$127,659 versus a dispatcher's salary of \$74,000 or an additional cost savings to all three municipalities of almost \$170,000)

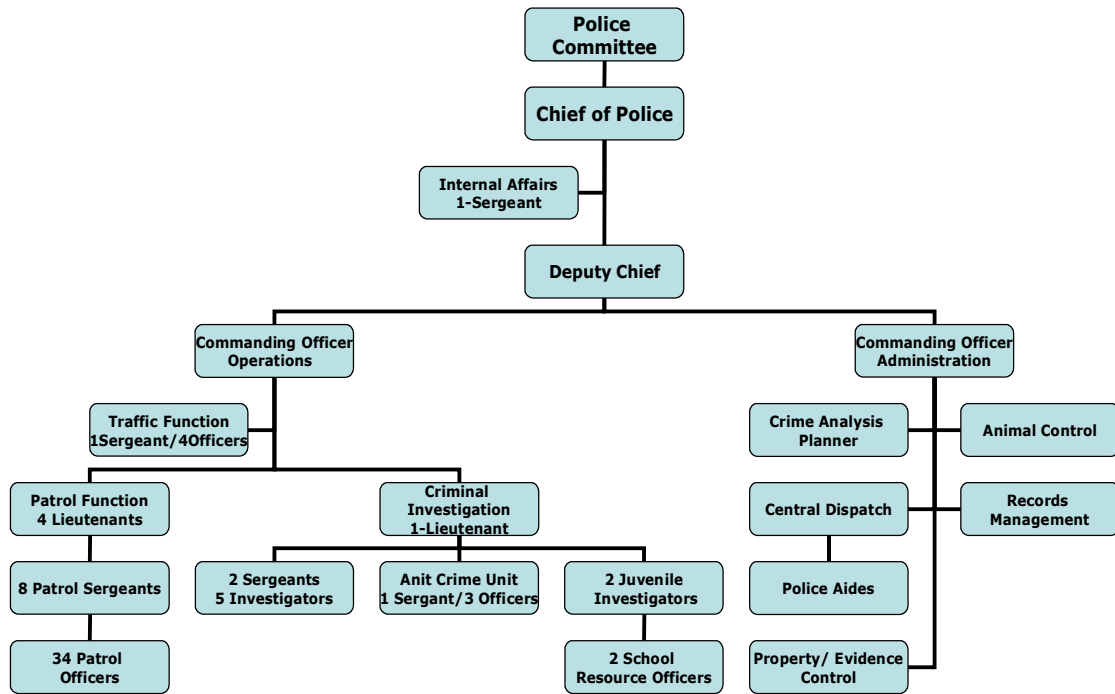
**Scenario B -Table of Organization with Civilians
Dispatchers participating in Dispatch Center**

Police Department	Village of Ossining	Town of Ossining	Briarcliff Manor	TOTAL		
					Proposed	Change
Chief	1	1	1	3	1	-2
Deputy Chief	0	0	0	0	1	+1
Commanding Officers	1	0	0	1	2	+1
Lieutenants	4	1	1	6	5	-1
Sergeant	8	4	5	17	13	-4
Police Officers	43	12	12	67	50	-20
Total Sworn	57	18	19	94	66	-28
Total Civilians	9	1 P/T	1 P/T	10 FTE	18 FT**	+8 F/T

We also believe that as the new consolidated agency becomes fully functional over a period of several years there will be additional opportunities for cost savings such as further civilianization.

We note that while there will be additional savings in the non-personal services lines that initially the costs should remain the same due to the start up costs of the project to cover legal costs, uniforms, vehicles and other out of pocket expenses etc., associated with the consolidation.

Town and Village of Ossining and Briarcliff Manor Consolidation of the Police Departments Table of Organization

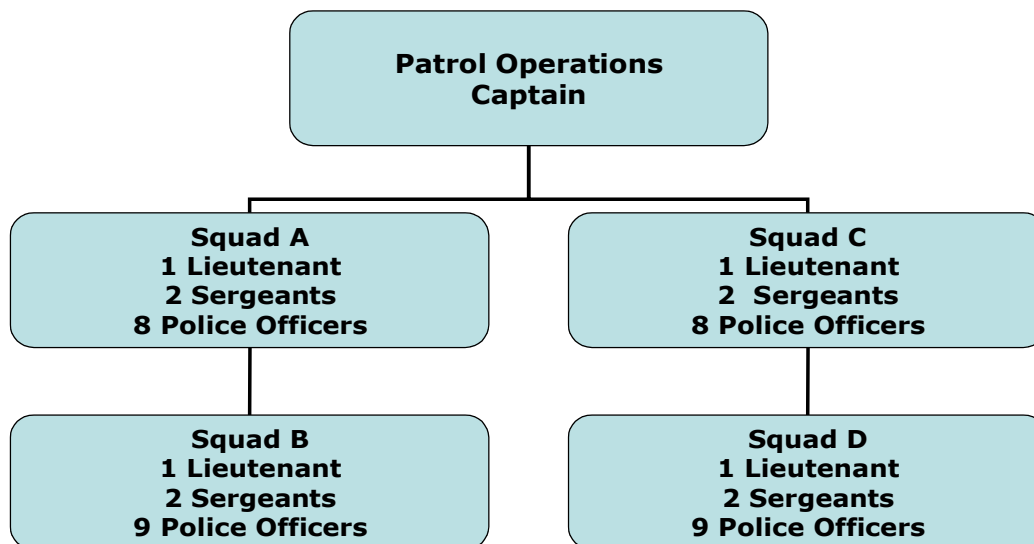


H. 12 Hour Work Schedule

As previously discussed we believe that the 12 hour schedule provides an opportunity to maximize resources while being particularly

staff friendly. In this schedule, officer would work 7 days in a two week period, averaging 42 hours per week. The department can choose to pay officers straight time for the additional two hours or utilize alternatives to reduce the work week to 40 hours average. We note that in the 42 hour week approach, for every 20 officers working, the additional two hours per week contribute the equivalent of one additional full time officer. Thus, even when paying the additional hourly rates the department is avoiding the associated costs of an additional officer (uniforms, training, insurance, etc.)

Consolidation of the Police Departments 12 Hour Compressed Staffing Organizational Chart



12 hour Day Actual Schedule

Week #		SUN	MON	TUE	WED	THU	FRI	SAT
1	Day Team	A	B	B	A	A	B	B
	Night Team	C	D	D	C	C	D	D
2	Day Team	B	A	A	B	B	A	A
	Night Team	D	C	C	D	D	C	C
3	Day Team	A	B	B	A	A	B	B
	Night Team	C	D	D	C	C	D	D
4	Day Team	B	A	A	B	B	A	A
	Night Team	D	C	C	D	D	C	C

Schedule repeats every 4 weeks.

Notes:

- Each team gets Friday, Saturday and Sunday off every other week.
- Teams work 36 hours one week and then 48 hours the following week, averaging 42 hours per week. This is within FLSA requirements and the extra hours can be paid at straight time or by using "kelly time".

I. Crime Trends for All Three Municipalities

ICMA has composed a chart with regarding the crime trends for the past 5 years. These crime trends should be considered with the number of investigators assigned to Criminal Investigations Unit.

Crime Report Index	Year	Index/	Violent/	Murder/Rape/Robbery/A-A*/	Burglary/Larceny/Vehicle-Theft					
Ossining Village	2004	337	71	0	8	38	25	33	190	43
Ossining Village	2005	339	61	0	2	26	33	48	199	31
Ossining Village	2006	357	67	1	2	42	22	58	218	14
Ossining Village	2007	392	52	1	2	22	27	100	227	13
Ossining Village	2008	358	45	0	4	18	23	70	234	9

Ossining Town	2004	46	3	0	0	0	3	3	39	1
Ossining Town	2005	51	1	0	0	0	1	10	38	2
Ossining Town	2006	59	3	0	0	1	2	11	45	0
Ossining Town	2007	52	6	0	0	0	6	5	41	0
Ossining Town	2008	46	1	0	0	0	1	5	39	1

Briarcliff Manor	2004	68	4	0	0	1	3	64	1	59	4
Briarcliff Manor	2005	13	1	0	0	0	1	12	1	10	1
Briarcliff Manor	2006	53	2	0	0	0	2	51	8	37	6
Briarcliff Manor	2007	52	1	0	0	0	1	51	12	35	4
Briarcliff Manor	2008	36	0	0	0	0	0	36	6	29	1

*A-A represents Aggravated Assault

Total part 1 crimes for all three municipalities are 456 incidents.

J. Investigations

The criminal investigation function is vested with the responsibilities ordinarily associated with non uniformed investigations and patrol activity. The investigators conduct follow-up on information gathered by the uniformed patrol force. The investigators should also be the point of contact, working closely with investigators from county, state, and federal agencies.

Assigning cases to a single person as the principal investigator should be the typical circumstance with the consolidation. While assigning more than one person to a case is not precluded, the action is designed to place accountability for each case.

The investigations function personnel should provide service to all three communities on two tours of duty 6 days a week (Monday through Saturday, rotating the "on call" status for Sundays). The detective sergeants should supervise as well as carry a work load.

Over the years of gathering statistical information, while reviewing other police departments' benchmarks, we found that the usual workload analysis for an investigator is based on 80 to 120 cases per investigator (detective) annually, based on the Part 1 crimes of the Uniform Crime Report.

Under the consolidation, the criminal investigation function can now be particularly goal-oriented, focusing on long-range planning, which assists the department in fully understanding the investigative workload. This will allow the new consolidated police agency to identify the most productive methods for follow-up on investigations.

Therefore, instead of simply reacting to criminal activities, there is a thoughtful plan developed by the administration.

K. Commission on Accreditation for Law Enforcement Agencies (CALEA)

Under the consolidation, the new department will have to modify the present rules, regulations and policies and procedures to provide direction and guidance to the police officers and civilians in the new agency. We believe that this will be an opportune time to pursue CALEA accreditation. We understand that the Village of Ossining Police Department holds New York State certification and should be commended for that effort. However, CALEA accreditation is far more stringent, internationally recognized, and will insure that the new consolidated agency meets the highest standards of professional excellence.

The accreditation program requires agencies to adopt a series of standards that contain a clear statement of professional objectives. Agencies that participate in the program conduct a thorough self-analysis to determine how existing operations can adapt to meet objectives. The CALEA program acknowledges the implementation of policies and procedures that are conceptually sound and operationally effective. Achieving the standards reflects professionalism and raises the department's performance through. Accreditation will prove to the consolidated police department and all concerned, especially the residents, that the consolidated police department is an effective and professional law enforcement agency.

ICMA recognizes that the process to gain accreditation will be arduous and take time, but when the consolidated police agency is successful in this endeavor, it will be able to demonstrate its ability to carry out its mission effectively and efficiently and to manage itself. The program:

- Increases the law enforcement agency's ability to prevent and control crime through more effective and efficient delivery of law enforcement services to the community
- Establishes standards that reduce liability for agency members
- Provides the agency with recognition of excellence and accountability and an opportunity to receive insurance-premium discounts in relation to such an achievement
- Establishes standards that make an agency and its personnel accountable to the constituency they serve

Implements standards that do not conflict with national standards.

L. Communications Center

The basic function of the communication system is to satisfy the immediate information needs of the police agency in the course of normal daily activities and during emergencies. The communications system conveys information from the public through communications personnel, to the officer who responds to the call for assistance, to other law enforcement and public service agencies, and to information storage facilities and retrieval systems.

Most routine communications and all emergency communications are routed through the communications center. There are three interrelated means of communication in place: telephone, radio, and computer. All services demand immediate attention, forcing a dispatcher to choose one call over the other. The communications center console positions are capable of receiving telephone calls and dispatching.

The new police department must demonstrate a high degree of professionalism with the dispatchers when interacting with police

officers on the radio and or interacting with the citizens over the phone. The communications center has to be adequate for the civilian dispatchers. Emphasis on response time has to be incorporated with the new consolidated dispatch center. This communication unit is should also be responsible for managing the computer-aided dispatch/ records management system (CAD/RMS).

A proper RMS/CAD technology will provide the proper information relating to workload, deployment, response times, and especially times spent on CFS.

M. Facility, Vehicles, and Equipment

Facility

The commission will have to select a building that is suitable to retrofit for the consolidated agency. There is an adage in law enforcement that “a police facility is a tool, not just a shelter.” The commission should address and prioritize this aspect of the consolidation keeping in mind workspace, and storage issues as soon as financially practical.

N. Additional Observations and Recommendations

Civilianization

All three police departments like most police departments are confronting increasing demands for services with limited resources. One remedy for the dilemma is the greater use of civilian employees. Civilianization enables more officers to answer calls requiring full police powers.

To determine whether a position could be civilianized, the following questions must be asked:

- Does the position involve responding to police emergencies?
- Does the position require police officer status or arrest powers?

To ensure the success of the program, prudent personnel selection and effective training are essential. Hiring retired officers with job knowledge and the respect of the current staff may be a choice in filling civilian positions. Police acceptance is also critical to the success of the process. All levels of management must support civilianization.

O. Recommendations

ICMA recommends that the police committee on the consolidation and the new police administration identify civilian positions. (i.e. records management, property and evidence management and control, crime scene identification/processing technicians and police aides to assist within the facilities)

Records Management

All police agencies have some level of records management—even if only supporting the personnel function. There are basic standards that must exist and be adhered to, thereby ensuring a quality system.

CALEA has established a series of standards in the area of records. The standards are basic to meeting the management, operational, and information needs of the agency; however, it is not the intent of the reference to detail the CALEA standards. The standards, which are readily available from numerous resources, are considered good record management practices based on nationally accepted baseline indicators of quality.

Records provide an important link to all three municipalities' record management system. The records provide a service to citizens and all three municipalities, law enforcement entities, and other agencies that provide service to the residents. The system is supposed to convey information from the public to the department's record management's system so that data can be entered and retrieved.

With the consolidation, the police administration may experience some issues regarding storage and continuity of records. The consolidation police committee has to ensure that the personnel that are selected are qualified, skilled, and addressed the public in a customer-friendly, service-oriented manner to ensure the efficiency, effectiveness and performance in this function.

V. Data Analysis

A. Introduction

ICMA Consulting Services analyzed a potential combination of three police departments in the region of Ossining, New York. The municipalities involved were Briarcliff Manor, the Town of Ossining, and the Village of Ossining. The analysis focused on three main areas: workload, deployment, and response times. These three areas are almost exclusively related to patrol operations, which constitute by far the bulk of the three police departments' personnel and financial commitment.

All information in this report was developed directly from data recorded in each department's dispatch center. The purpose of this report is to provide the involved parties with our findings.

The majority of the first section of the report, concluding with Table 9, uses the call and activity data for the entire year. For the detailed workload analysis and the response time analysis, we have used two 4-week sample periods. The first period was the month of February 2009 (February 1 to February 28), or *winter*, and the second period was the month of August 2009 (August 1 to August 28), or *summer*.

B. Workload Analysis

As we have found in similar cases around the country, we encountered a number of issues when analyzing the data supplied by the police departments. We made assumptions and decisions to address them. We describe these issues, assumptions, and decisions below.

- Two departments (the Village of Ossining and Briarcliff Manor) did not accurately record their patrol-initiated activities. As a result, the department did not document all of its traffic activities.

- In addition, even when patrol-initiated activities were recorded, no units or times were shown. Since a significant percentage of calls had no recorded units or times, we decided to include them within our analysis as *zero-on-scene* calls. Without any recorded time information for these calls, our choices were limited.
- However, we made a concerted effort to improve the record of these calls during August 2009. We did this by reviewing the calls more closely to fill in missing information, and by estimating the workload in many cases where no better information was available.
- Data accuracy improved during July and August 2009. This is reflected in a larger number of calls per day and by a drop in the number of zero-on-scene calls.
- A significant percentage of calls involving patrol units had zero time on scene (37 percent). In this case, these calls had no time on-scene because their times were not recorded accurately. This also improved somewhat in the latter portion of the analysis.
- The computer software generates a large number of call codes. This led to 297 different call descriptions, which we reduced to 17 categories for our tables and 10 categories for our figures.
- A significant proportion of calls (25 percent or 12,600 calls for the year) were missing arrival times. For these, we could not calculate a valid response time or on-scene time.

Our study team often has worked with many of these problems with call-for-service data in previous studies. To identify calls that were

canceled en route, we assumed zero time on scene to account for a significant portion of them. Any call with an on-scene time of less than one minute was labeled *zero on scene*.

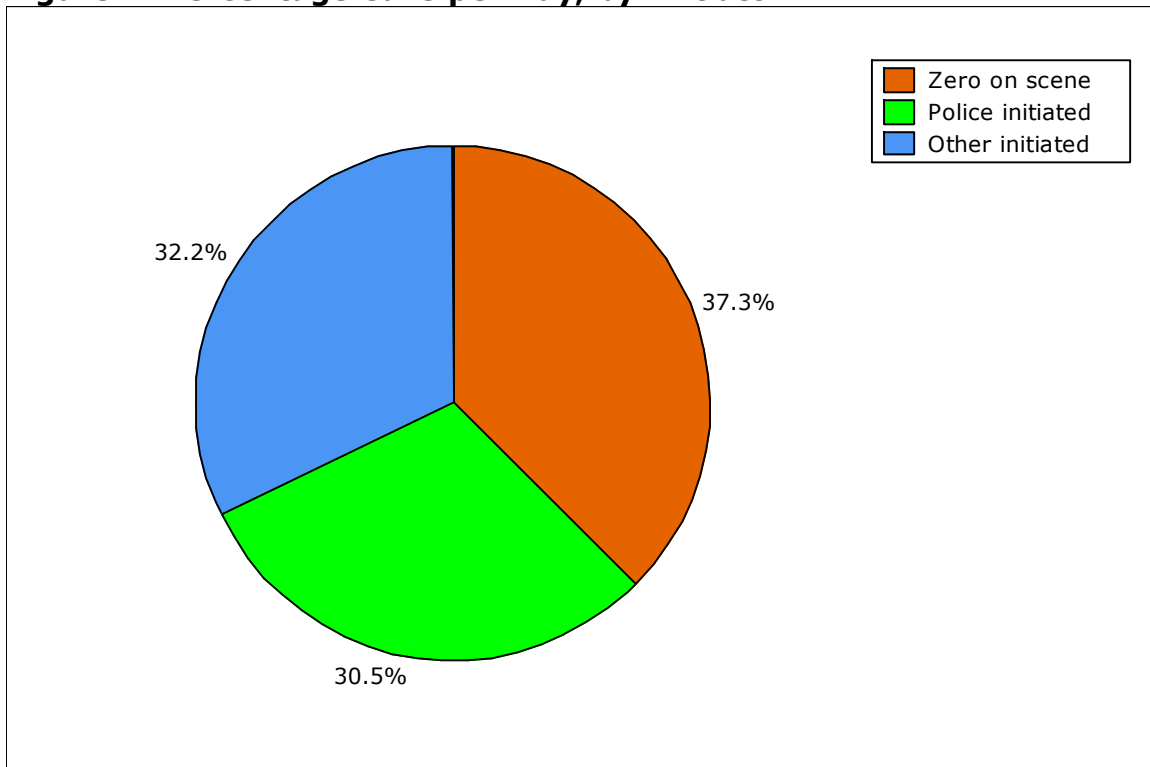
Before describing the workload analysis, we briefly review the data received. In the period from September 2008 to August 2009, there were approximately 10,750 calls for service. Of the total, almost all (50,749 calls) included a patrol unit either as the primary responder or as a secondary unit. When focusing on our 4-week periods, we analyzed 3,753 (patrol-related) calls in February 2009 and 4,697 (patrol-related) calls in August 2009. In addition, when analyzing workloads and response times, we ignored calls with incorrect or missing time data. The inaccuracies included elapsed times that either were negative or exceeded 8 hours. For the entire year, this excluded less than 80 calls from our analysis.

In the period from September 2008 to August 2009, the police department reported 139 calls for service per day. As mentioned, about 37 percent of these calls (51 per day) showed no officer time spent on the call.

In the following pages we show two types of data: activity and workload. The activity levels are measured by the average number of calls per day, broken down by the type and origin of the calls and categorized by the nature of the calls (e.g., crime and traffic). Workloads are measured in average work-hours per day. We routinely use up to 17 call categories for tables and 10 categories for our graphs. We show our categories chart on the next page. For this study, we included one additional category for our tables to distinguish medical calls. We show our (modified) categories chart on the next page. The categories that were not used in this report are shown in *italics*.

Table categories	Figure categories
Accidents	Traffic
Traffic enforcement	
Alarm	Investigations
Check/investigation	
Animal calls	General non-criminal
Medical	
Miscellaneous	
Assist other agency	Assist other agency
Crime—persons	Crime
Crime—property	
Directed patrol	Directed patrol
Disturbance	Suspicious incident
Suspicious person/vehicle	
Juvenile	Juvenile
Out of service—administrative	Out of service
<i>Out of service—personal</i>	
Prisoner—arrest	Arrest
Prisoner—transport	

Figure 1: Percentage Calls per Day, by Initiator



Note: Percentages are based on a total of 50,749 calls.

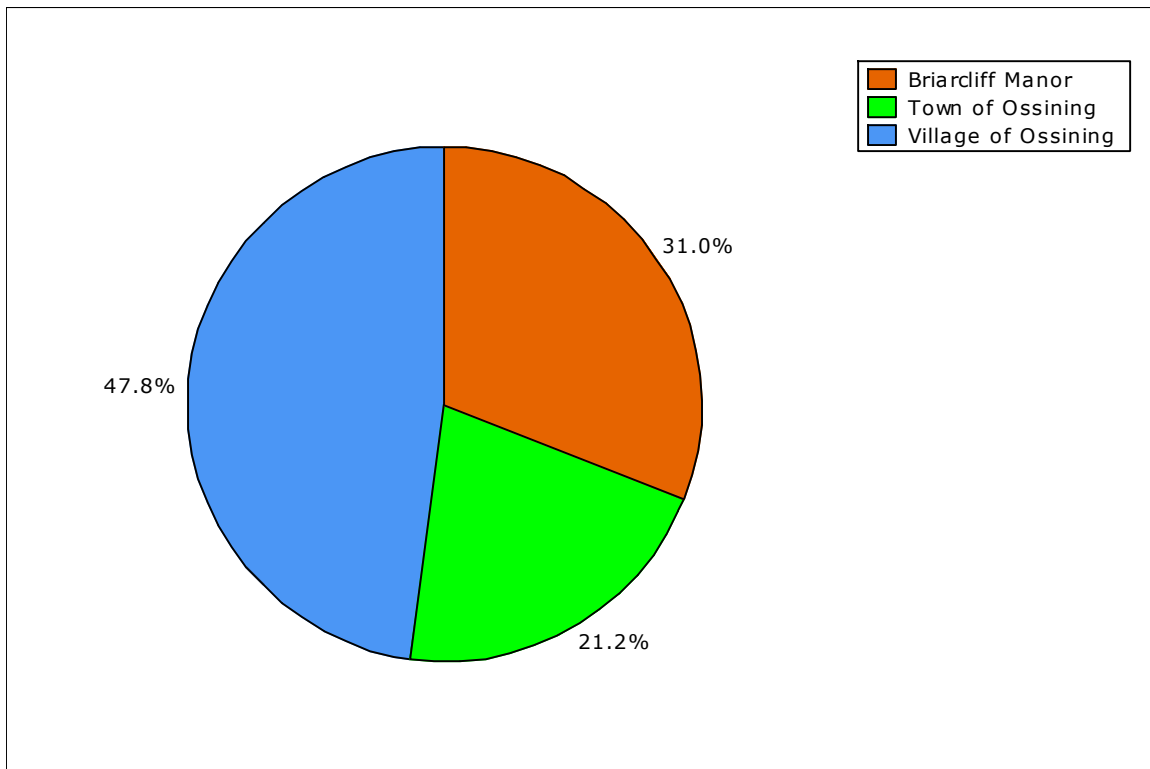
Table 1: Calls per Day by, Initiator

Initiator	Total calls	Calls per day
Zero on scene	18,951	51.9
Police initiated	15,481	42.4
Other initiated	16,317	44.7
Total	50,749	139.0

Observations:

- 37 percent of the calls involved zero on-scene time and are included in these numbers as well as the next figure and table. Later, we will exclude calls with zero on-scene time.
- There were a total of 139 calls per day, or 5.8 per hour.
- There were 42 police-initiated calls per day which was 31 percent of all calls.

Figure 2: Percentage Calls per Day, by Department



Note: Percentages are based on a total of 50,749 calls.

Table 2: Calls per Day, by Initiator and Department

Initiator	Calls per Day			
	Briarcliff Manor	Town of Ossining	Village of Ossining	Combined
Zero on-scene	8,629	825	9,497	18,951
Police initiated	3,391	8,117	3,973	15,481
Other initiated	3,725	1,798	10,794	16,317
Total	15,745	10,740	24,264	50,749

Observations:

- Nearly half of all calls were handled by the Village of Ossining.
- More than half of all police-initiated calls were handled by the Town of Ossining. This is largely due to the fact that the Town of Ossining carefully recorded its traffic stops.

Figure 3: Percentage Calls per Day, by Category

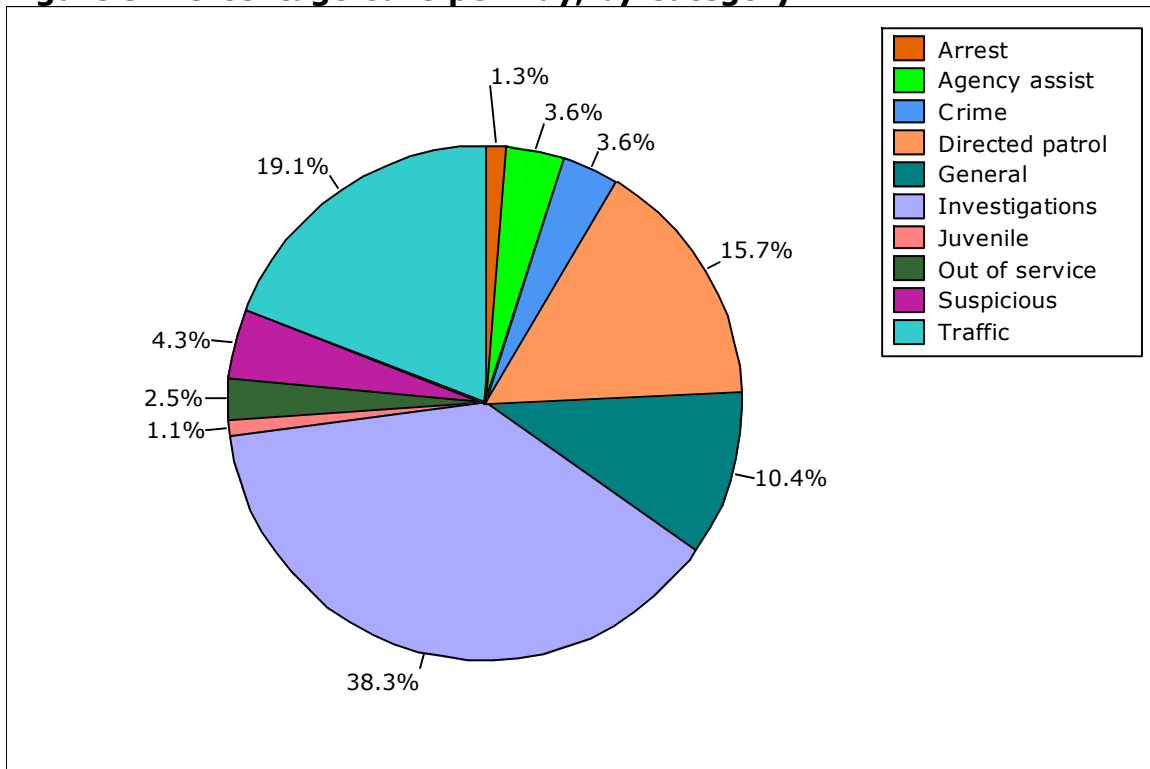


Table 3: Percentage per Day, by Category

Category	Total calls	Calls per day
Accidents	1,332	3.6
Alarm	1,763	4.8
Animal calls	496	1.4
Assist other agency	1,845	5.1
Check/investigation	17,668	48.4
Crime—persons	911	2.5
Crime—property	917	2.5
Directed patrol	7,982	21.9
Disturbance	1,293	3.5
Juvenile	552	1.5
Medical	2,352	6.4
Miscellaneous	2,409	6.6
Out of service—administrative	1,293	3.5
Prisoner—arrest	295	0.8
Prisoner—transport	363	1.0
Suspicious person/vehicle	901	2.5
Traffic enforcement	8,377	23.0
Total	50,749	139.0

Observations:

- The top 3 categories (investigations, traffic, and directed patrol) accounted for 73 percent of activities.
- 38 percent of calls involved investigations (including checks and alarms).
- 19 percent of calls were traffic related (traffic enforcements and accidents).
- 16 percent of calls constituted directed patrol.
- 4 percent of calls involved crimes.

Figure 4: Percentage Nonzero In-Service Calls per Day, by Category

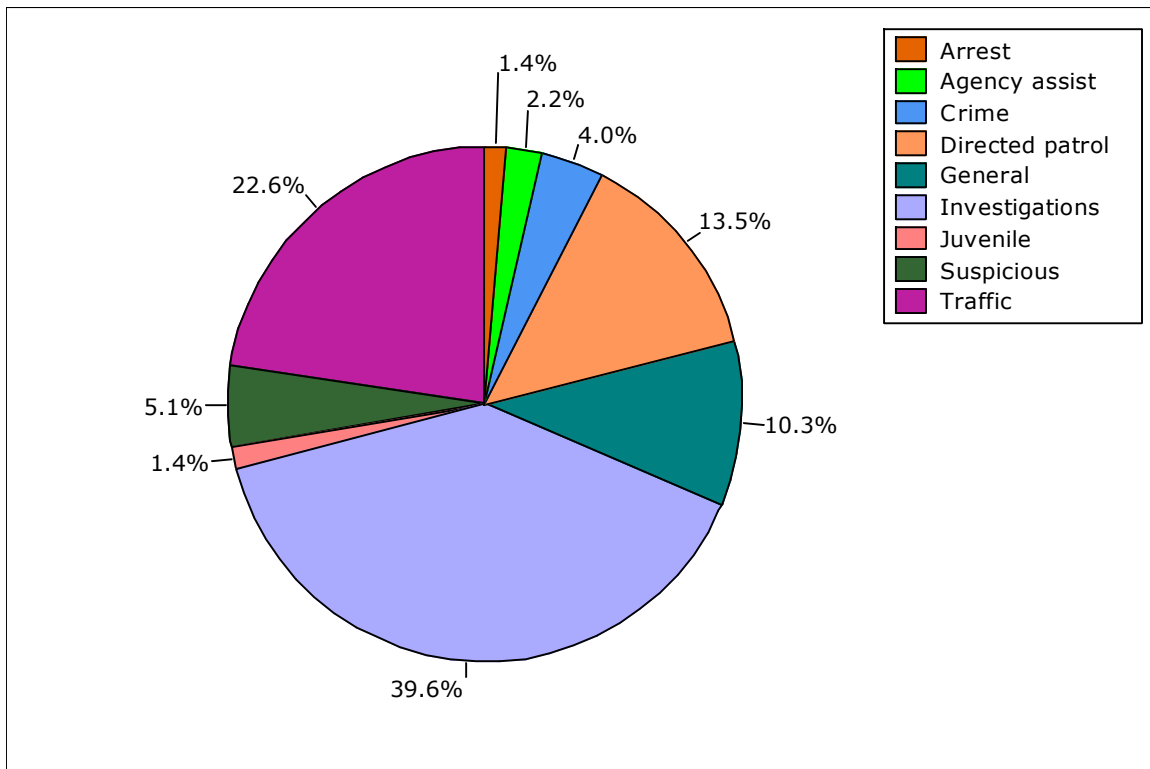


Table 4: Nonzero In-Service Calls per Day, by Category

Category	Total calls	Calls per day
Accidents	1,057	2.9
Alarm	1,387	3.8
Animal calls	359	1.0
Assist other agency	686	1.9
Check/investigation	11,010	30.2
Crime—persons	583	1.6
Crime—property	666	1.8
Directed patrol	4,237	11.6
Disturbance	930	2.5
Juvenile	433	1.2
Medical	1,538	4.2
Miscellaneous	1,334	3.7
Prisoner—arrest	185	0.5
Prisoner—transport	241	0.7
Suspicious person/vehicle	667	1.8
Traffic enforcement	6,023	16.5
Total	31,336	85.9

Observations:

- When zero-on-scene calls and out-of-service records are excluded, there are 86 calls per day, or 3.6 per hour.
- Three categories (investigations, traffic and directed patrol) accounted for 77 percent of calls.
- Only 4 percent of calls were crime-related.

Figure 5: Calls per Day, by Initiator and by Months

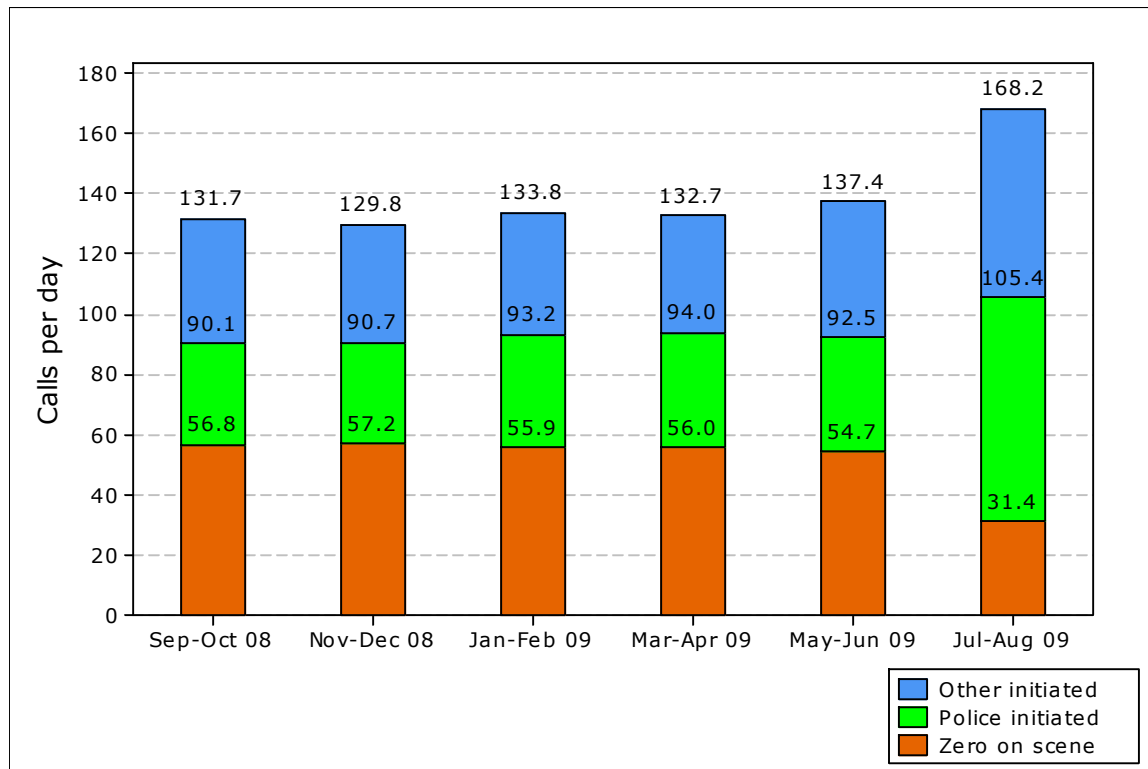


Table 5: Calls per Day, by Initiator and by Months

Initiator	Sep.- Oct.	Nov.- Dec.	Jan.- Feb.	March -April	May- June	July- Aug.
Zero on scene	56.8	57.2	55.9	56.0	54.7	31.4
Police initiated	33.3	33.4	37.2	38.0	37.8	74.0
Other initiated	41.6	39.1	40.6	38.7	44.9	62.8
Total	131.7	129.8	133.8	132.7	137.4	168.2

Observations:

- The number of calls was smallest from November 2008 to December 2008.
- The number of calls was largest from July 2009 to August 2009.
- The largest months had 30 percent more calls than the smallest. This reflects an improvement in documentation rather than an increase in police activity.

- Similarly, when documentation improved, we note a decrease in the number of zero on-scene calls. There are now 168 calls per day. 44 percent of these calls are police-initiated, while 38 percent are other-initiated.

Figure 6: Calls per Day, by Category and by Months

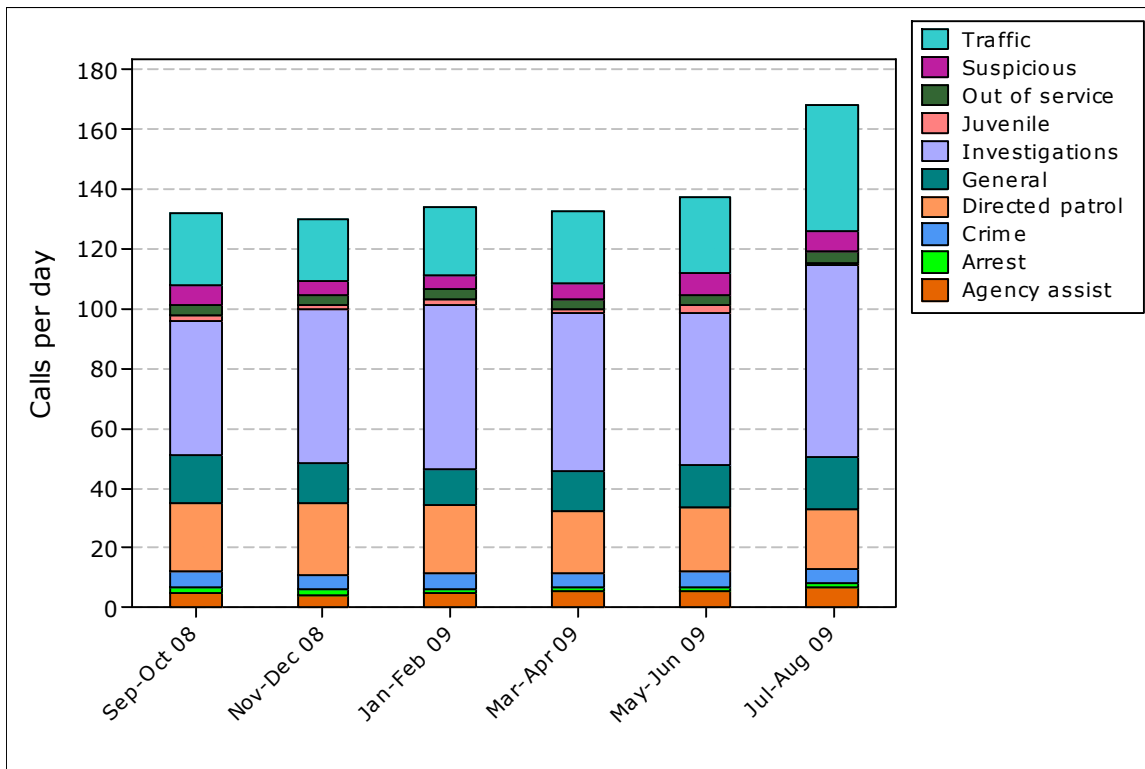


Table 6: Calls per Day, by Category and by Months

Category	Sep.- Oct.	Nov.- Dec.	Jan.- Feb.	March -April	May- June	July- Aug.
Accidents	4.2	4.5	3.4	3.1	3.4	3.3
Alarm	4.9	4.8	4.7	4.8	4.0	5.8
Animal calls	1.3	1.1	0.9	1.5	1.7	1.6
Assist other agency	4.7	4.3	4.4	5.2	5.1	6.5
Check/investigation	40.0	46.8	50.3	47.6	47.1	58.6
Crime—persons	3.0	2.1	2.3	2.2	3.0	2.4
Crime—property	2.5	2.3	3.0	2.3	2.5	2.4
Directed patrol	22.6	24.2	22.8	20.9	21.0	19.8
Disturbance	3.8	3.0	2.8	2.7	4.7	4.2
Juvenile	1.9	1.2	1.4	1.5	2.1	0.9
Medical	7.0	6.9	6.0	6.2	6.1	6.3
Miscellaneous	7.9	5.3	5.1	5.7	6.3	9.2
Out of service—administrative	3.3	3.1	3.8	3.4	3.8	3.8
Prisoner—arrest	0.8	0.8	0.9	0.5	0.8	1.0
Prisoner—transport	1.1	1.0	1.0	1.1	1.0	0.8
Suspicious person/vehicle	3.0	2.1	2.0	2.7	2.4	2.6
Traffic enforcement	19.8	16.1	19.0	21.1	22.3	39.0
Total	131.7	129.8	133.8	132.7	137.4	168.2

Observations:

- Investigations followed by directed patrol and traffic-related calls were the most common types of activities throughout the year.
- Traffic-related calls (enforcements and accidents) averaged between 16 and 39 per day throughout the year.
- Investigations (alarms and checks) in general averaged between 40 and 59 per day throughout the year.
- Directed patrol calls averaged between 21 and 24 per day throughout the year.
- Together, investigations, directed patrol traffic-related calls were consistently between 63 and 70 percent of all calls.

Figure 7: Average Occupied Times, by Category and Initiator

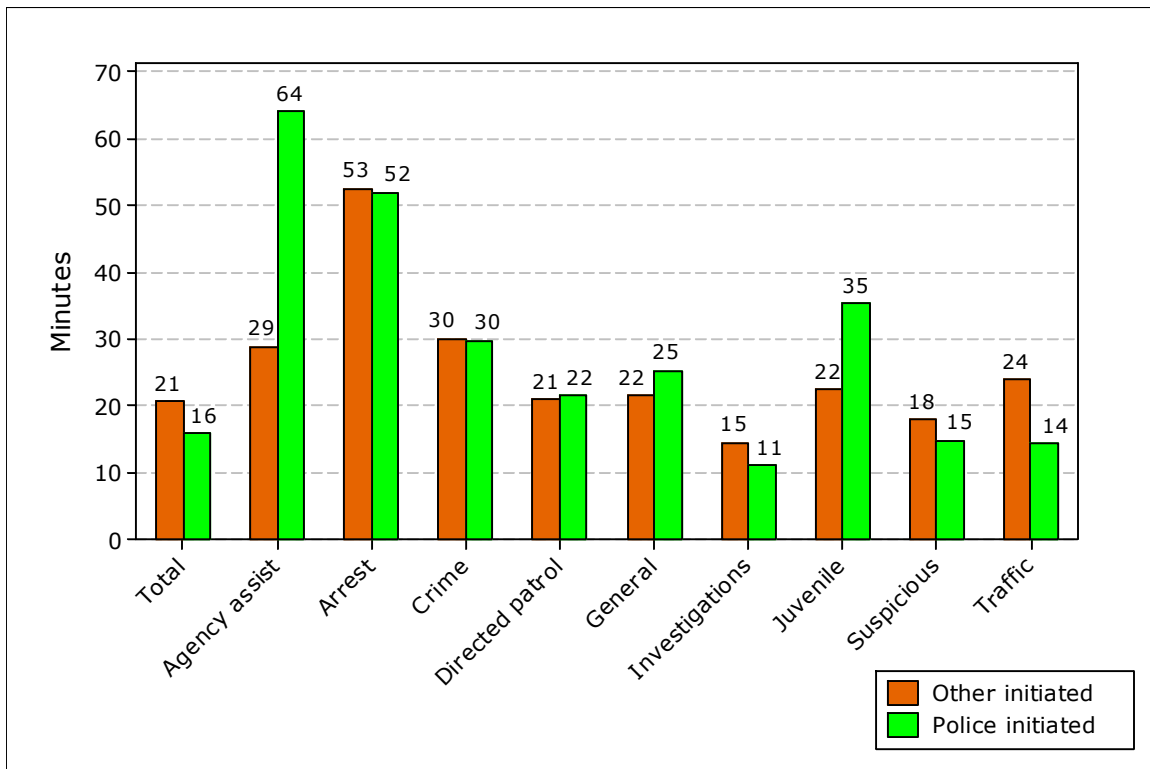


Table 7: Primary Unit's Average Occupied Times, by Category and Initiator

Category	Police initiated		Other initiated	
	Total calls	Minutes	Total calls	Minutes
Accidents	70	30.1	985	29.7
Alarm	15	11.9	1,372	14.7
Animal calls	18	13.4	340	18.6
Assist other agency	252	64.0	404	28.8
Check/investigation	7,511	11.2	3,491	14.4
Crime—persons	41	19.5	541	26.8
Crime—property	190	32.0	475	33.6
Directed patrol	2,097	21.5	2,140	20.8
Disturbance	45	15.6	885	17.6
Juvenile	201	35.2	225	22.4
Medical	35	17.4	1,503	22.7
Miscellaneous	316	26.7	1,003	20.8
Prisoner—arrest	108	48.0	77	43.1
Prisoner—transport	65	58.5	174	56.8
Suspicious person/vehicle	65	14.3	602	18.5
Traffic enforcement	4,108	14.1	1,905	21.0
Total	15,137	15.8	16,122	20.6

Note. Figure 6 and Table 6 exclude zero-on-scene and out-of-service calls and calls missing occupied times.

Observations:

- A unit's occupied time is measured as the time from when it is dispatched until it becomes available.
- The times shown above are the average occupied times per call for the primary unit, rather than the total occupied time for all units assigned to a call.
- A category's average time spent on a call ranged from 11 to 64 minutes overall.

- The longest average times spent were on prisoner transports. These averaged almost than an hour.
- Police-initiated traffic-related calls averaged 14 minutes per call, whereas other-initiated traffic calls averaged 24 minutes.
- Crime calls averaged 30 minutes for both police-initiated and other-initiated calls.
- Prisoner arrests and transport averaged almost an hour for both police-initiated and other-initiated calls.

Figure 8: Number of Responding Units, by Initiator and Category

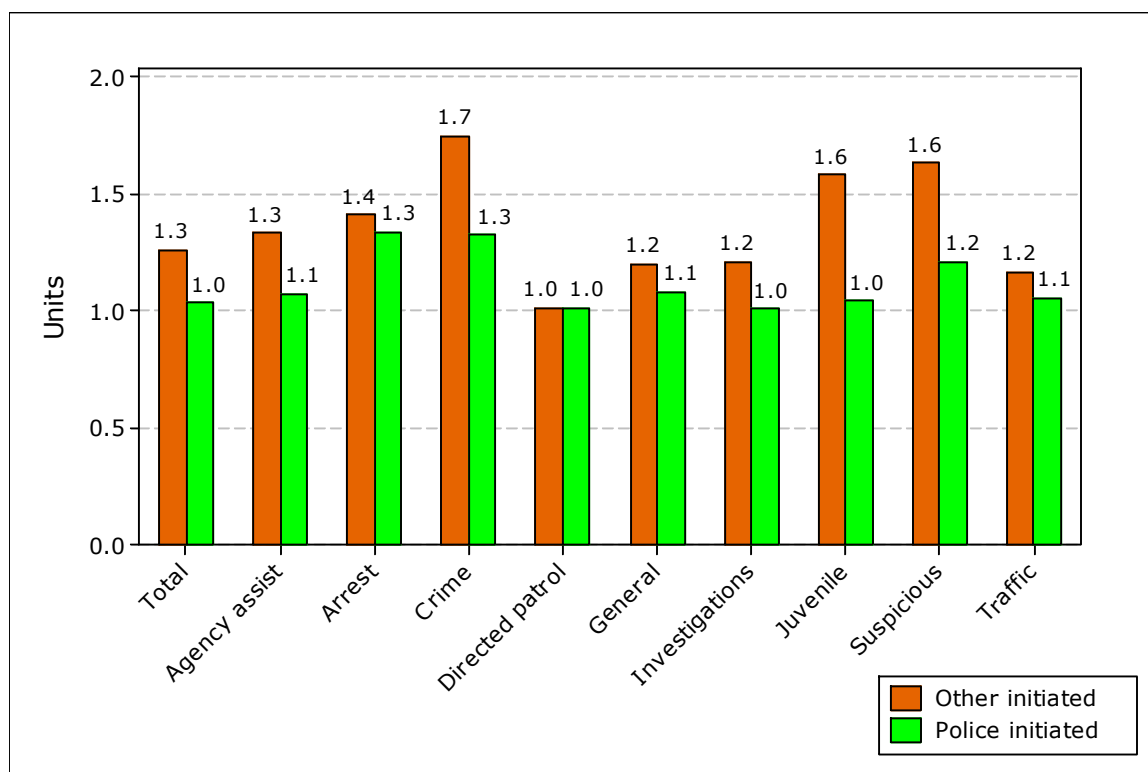


Table 8: Number of Responding Units, by Initiator and Category

Category	Police initiated		Other initiated	
	Average	Total calls	Average	Total calls
Accidents	1.3	70	1.3	987
Alarm	1.1	15	1.4	1,372
Animal calls	1.1	18	1.1	341
Assist other agency	1.1	253	1.3	433
Check/investigation	1.0	7,512	1.1	3,498
Crime—persons	1.4	42	2.0	541
Crime—property	1.3	190	1.4	476
Directed patrol	1.0	2,097	1.0	2,140
Disturbance	1.1	45	1.7	885
Juvenile	1.0	201	1.6	232
Medical	1.2	35	1.2	1,503
Miscellaneous	1.1	316	1.2	1,018
Prisoner—arrest	1.4	108	1.5	77
Prisoner—transport	1.2	65	1.4	176
Suspicious person/vehicle	1.3	65	1.5	602
Traffic enforcement	1.1	4,109	1.1	1,914
Total	1.0	15,141	1.3	16,195

Figure 9: Number of Responding Units, by Category

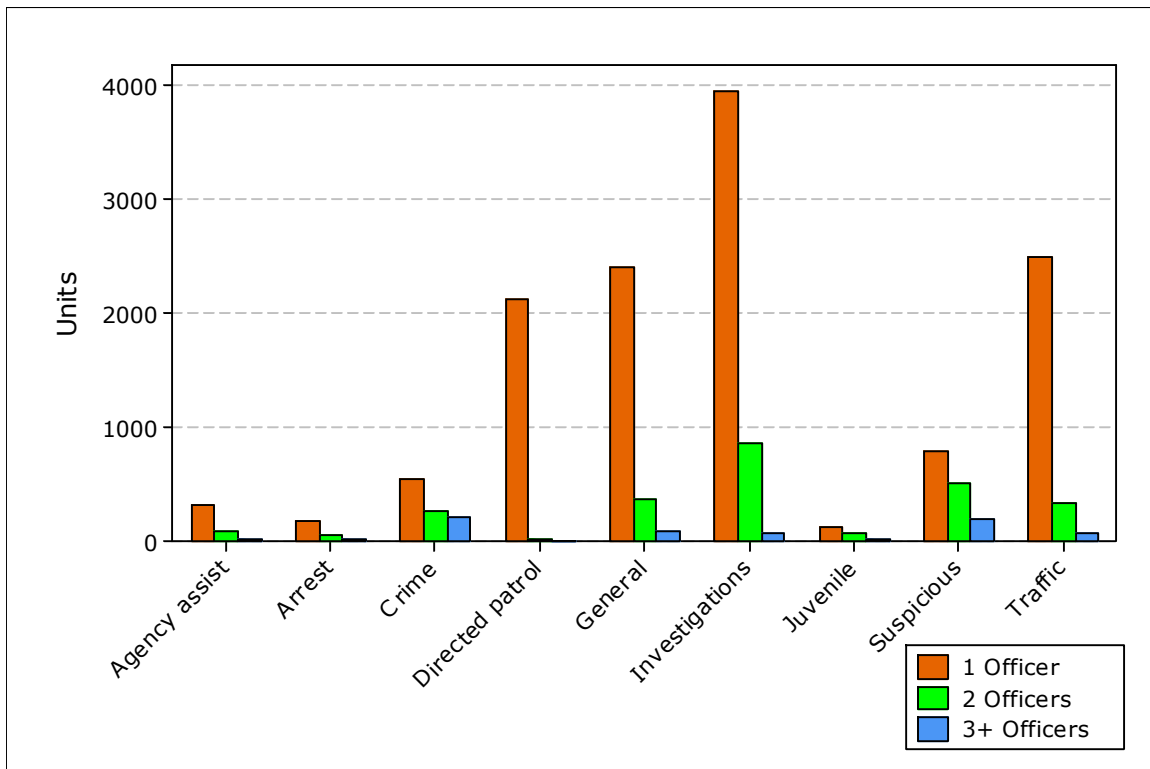


Table 9: Number of Responding Units, by Category

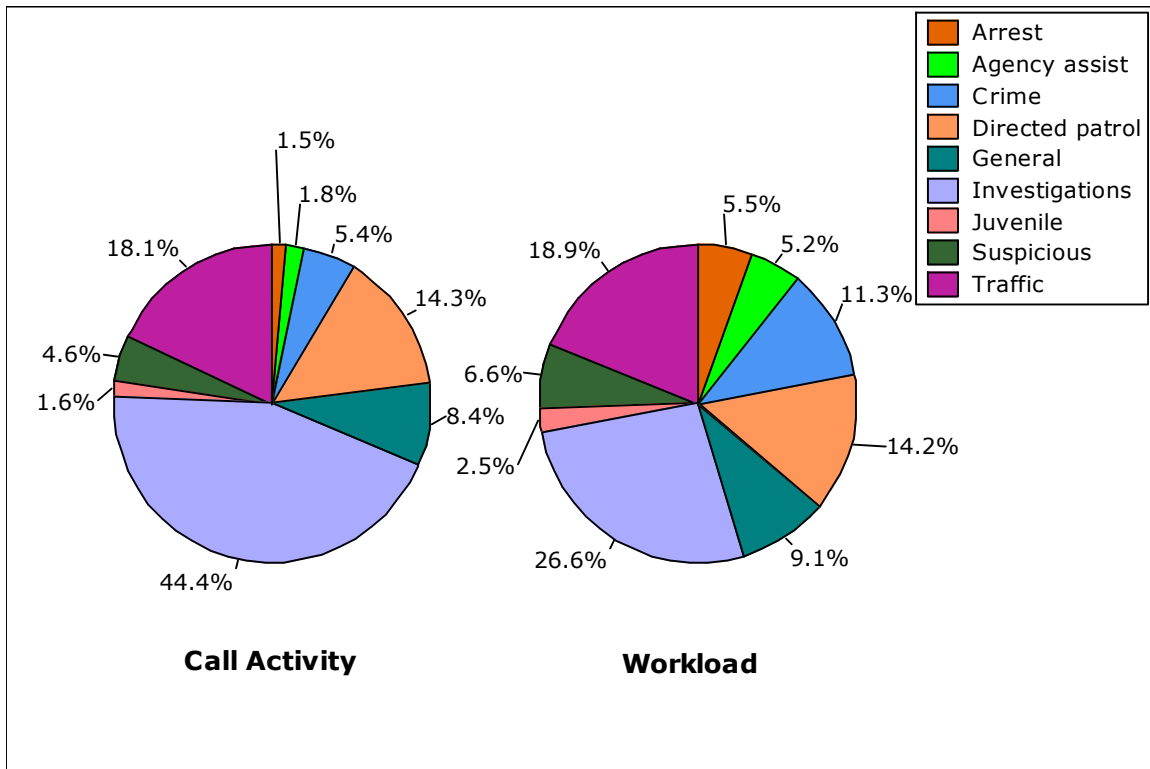
Category	Responding units		
	One	Two	Three or more
Accidents	739	202	46
Alarm	777	575	20
Animal calls	313	27	1
Assist other agency	324	84	25
Check/investigation	3,170	278	50
Crime—persons	210	166	165
Crime—property	329	94	53
Directed patrol	2,119	17	4
Disturbance	426	328	131
Juvenile	128	79	25
Medical	1,234	216	53
Miscellaneous	858	125	35
Prisoner—arrest	46	25	6
Prisoner—transport	132	32	12
Suspicious person/vehicle	360	179	63
Traffic enforcement	1,759	137	18
Total	12,924	2,564	707

Note. Figure 8 and Table 8 include other-initiated in-service calls.

Observations:

- The overall mean number of responding units was 1.0 for police-initiated calls and 1.3 for other-initiated calls.
- The mean number of responding units was a maximum of 2.0 for other-initiated calls involving person crimes.
- Other-initiated calls were most likely to involve 1 responding unit (80 percent).
- 4 percent of other-initiated calls involved three or more units.

Figure 10: Percentage Calls and Work-hours, by Category, in February 2009



Note. Calculations include only nonzero on-scene in-service calls.

Table 10: Percentage and Work-hours per Day, by Category, in February 2009

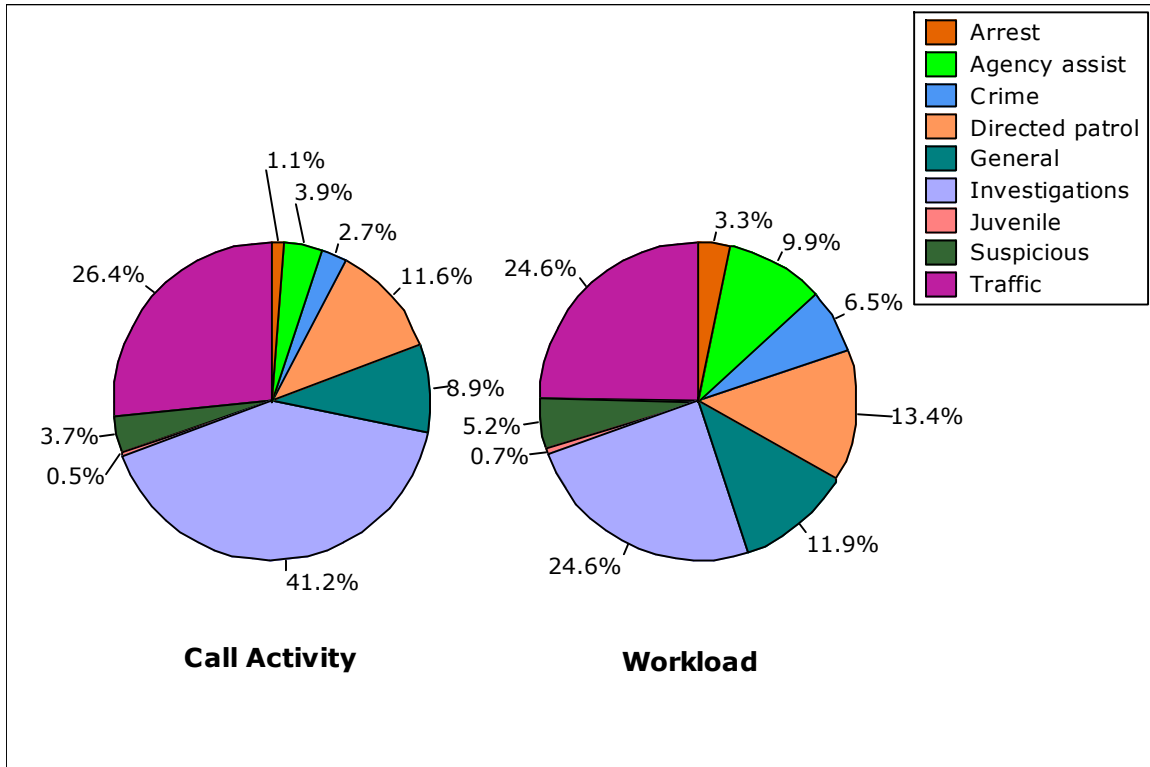
Category	Per day	
	Calls	Work-hours
Arrest	1.2	1.6
Assist other agency	1.5	1.6
Crime	4.4	3.3
Directed patrol	11.5	4.2
General non-criminal	6.8	2.7
Investigations	35.9	7.9
Juvenile	1.3	0.7
Suspicious incident	3.7	1.9
Traffic	14.6	5.6
Total	80.8	29.6

Observations:

- Total calls were 81 per day, or 3.4 per hour.
- Total workload includes the occupied time of responding (patrol) units for every call throughout the month. When a call involves multiple responding units, we measure the call's workload to include these additional units.
- Total workload was 30 work-hours per day. This meant that an average of 1.25 personnel per hour were busy responding to calls.
- Traffic-related events constituted 18 percent of calls and 19 percent of workload.
- Investigations constituted 44 percent of calls but only 27 percent of workload.
- Crimes constituted 5 percent of calls and 11 percent of workload.
- It is important to recall that the department did not accurately record self-initiated activities during February 2009. A better

estimate of workload is available in the next figure, table and observations.

Figure 11: Percentage Calls and Work-hours, by Category, in August 2009



Note. Calculations includes only nonzero on-scene in-service calls.

Table 11: Percentage and Work-hours per Day, by Category, in August 2009

Category	Per day	
	Calls	Work-hours
Arrest	1.6	1.4
Assist other agency	5.5	4.2
Crime	3.8	2.7
Directed patrol	16.5	5.7
General non-criminal	12.6	5.0
Investigations	58.6	10.4
Juvenile	0.8	0.3
Suspicious incident	5.3	2.2
Traffic	37.6	10.4
Total	142.3	42.4

Observations:

- In August, the total calls and workload were more than in February. This reflects the improved recording of the times associated with self-initiated activities that began in June 2009.
- Total calls were 142 per day, or 5.9 per hour.
- Total workload was 42 work-hours per day, or 1.75 personnel per hour.
- Traffic-related events constituted 26 percent of calls and 25 percent of workload.
- Investigations were 41 percent of calls but only 25 percent of workload.
- Crimes constituted 3 percent of calls and 7 percent of workload.

C. Deployment

Patrol units operated on three 8-hour shifts starting at 7 a.m. (morning), 3 p.m. (afternoon) and 11 p.m. (midnight). In addition, some patrol units operated on a 10-hour shift starting at 10 p.m. and ending at 8 a.m. This leads to an overlap between shifts from 7 to 8 a.m. and from 10 to 11 p.m.

Along with regular patrol officers, we included additional units that performed patrol-related duties. Specifically, we included units assigned primarily to traffic duty. Within the patrol unit, we included both officers and supervisors. In other words, we included within our analysis all officers and supervisors from the rank of sergeant and below. At the same time, we did not include the patrol officers located within dispatch centers as part of the patrol force, as these officers would not be available to respond to calls for service.

The department deployed an average of 9.5 and 10.5 patrol officers, respectively, during the 24-hour day in February 2009 and August 2009. When including the additional traffic units, the department deployed an added average of 0.1 officers during the 24-hour day in February 2009 and August 2009 respectively. There was only limited variability in deployment by season and between weekends and weekdays. Deployment varied significantly by time of day.

Figure 12: Deployed Officers, Weekdays, in February 2009

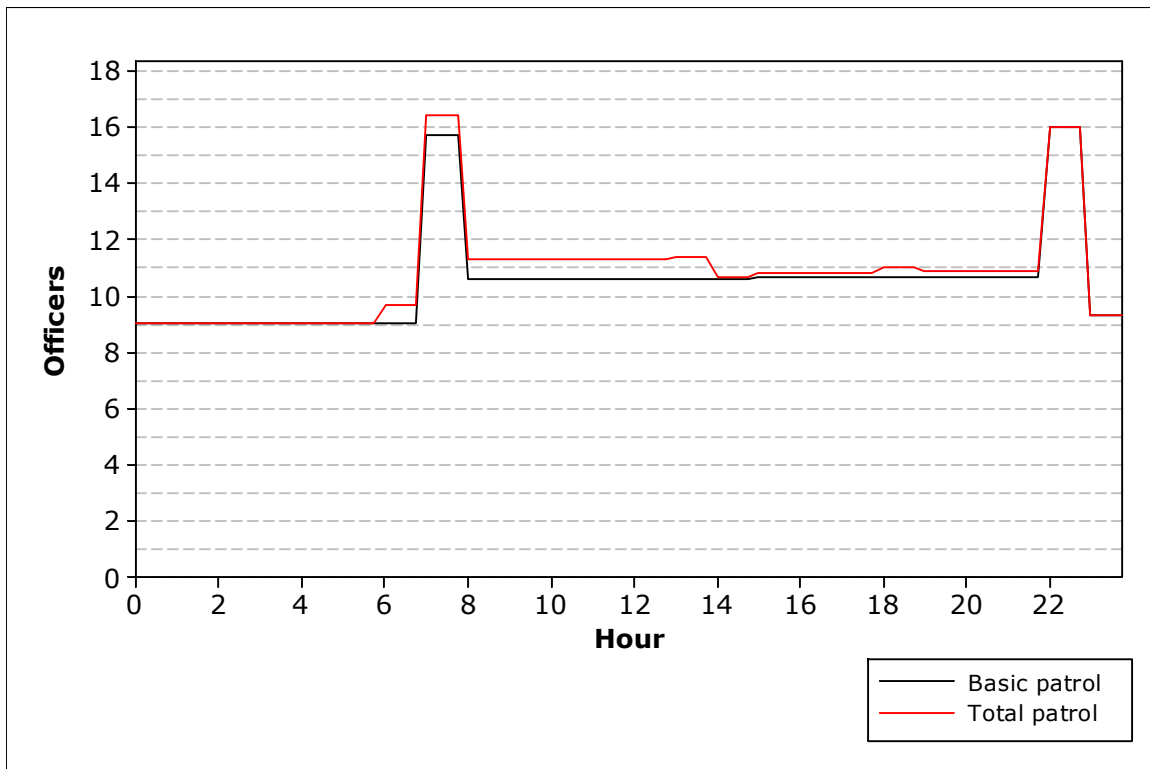
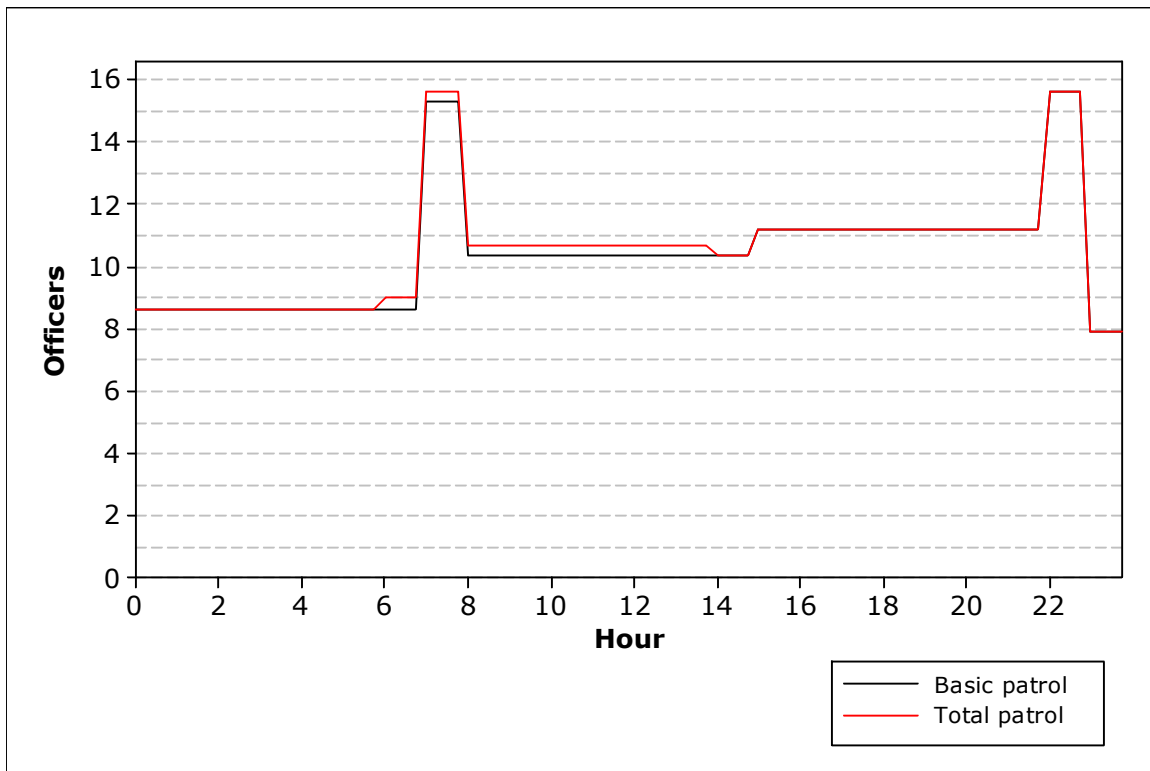


Figure 13: Deployed Officers, Weekends, in February 2009



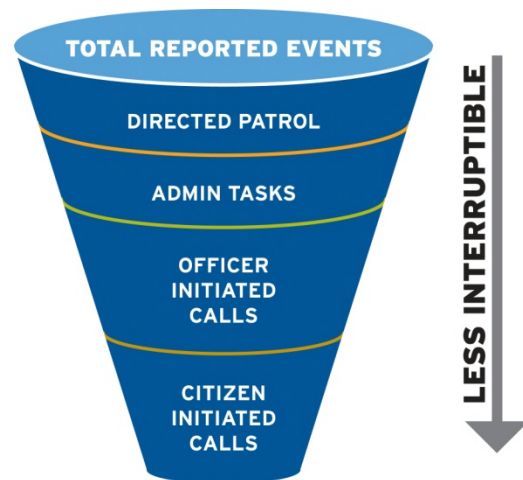
Observations:

- The average patrol deployment was approximately 10.5 officers during the week and 10.4 officers on weekends.
- During the week, deployment reached as high as 16.0 officers during the afternoon shift between 10 p.m. and 11 p.m.
- During the week, deployment dropped as low as 9.0 officers during the midnight shift between midnight and 7 a.m.
- On the weekends, deployment reached as high as 15.6 officers during the afternoon shift between 10 p.m. and 11 p.m.
- On the weekends, deployment dropped to an average of 7.9 officers during the midnight shift between 11 p.m. and midnight.

D. Workload

To understand actual workload (that is the time required to complete certain activities) it is critical to review in detail total Reported Events as separate events into different categories, such as directed patrol, administrative tasks, officer initiated activities and citizen initiated activities. Doing this analysis allows identification of activities that are really “calls” from those other events.

Understanding the difference between the various types of police department events and the staffing implications is critical to determining actual deployment needs.



Data Analysis

This portion of the study looks at the total deployed hours of the combined police department with a comparison to the time being spent to currently provide services.

Figure 14: Deployment and Workload-Weekdays, February 2009

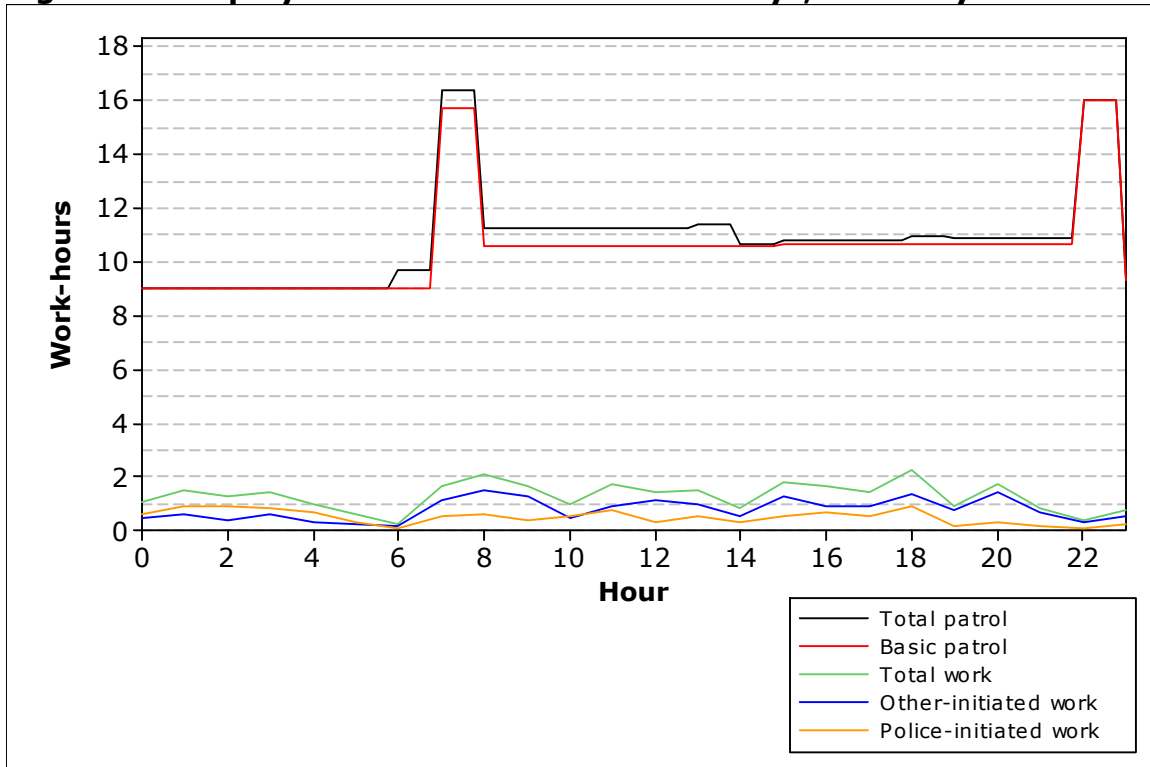
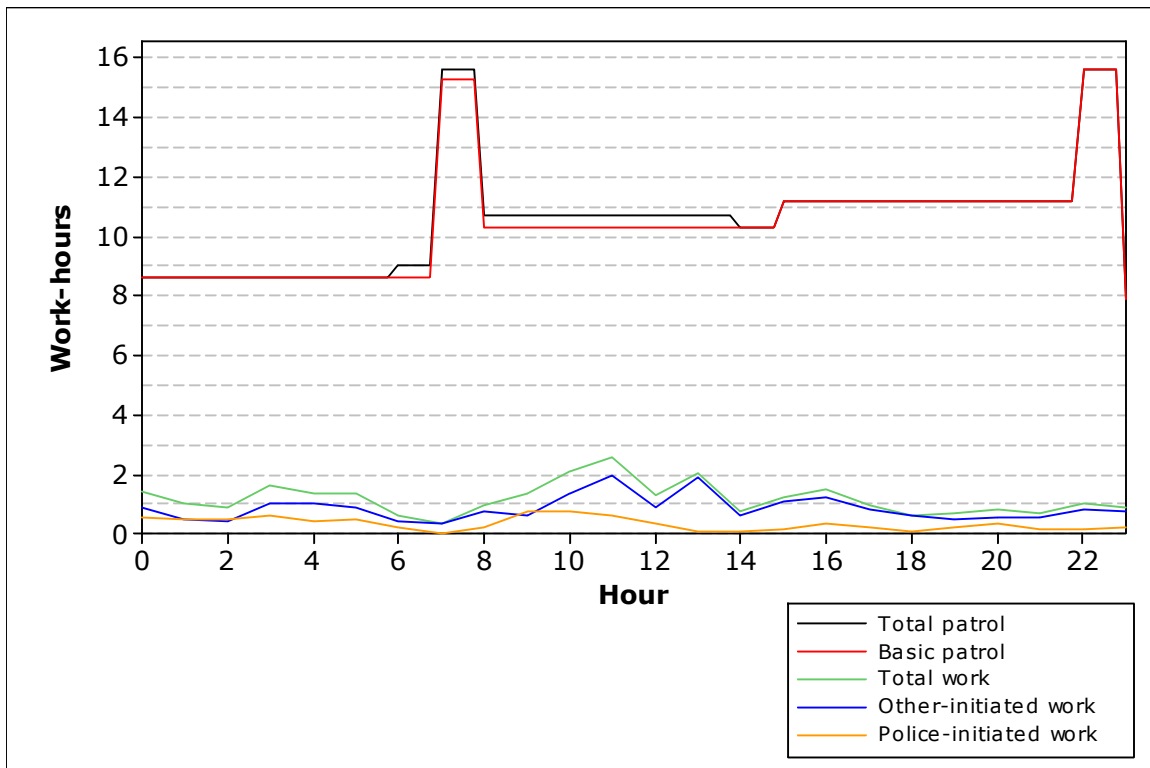


Figure 15: Deployment and Workload-Weekends, February 2009



Observations:

- During the week, patrol workload averaged 1.3 personnel per hour.
- This was 12 percent of deployment, meaning that patrol officers spent 12 percent of their time on patrol-related activities.
- During the week, patrol workload dropped as low as 2 percent of deployment between 6 a.m. and 7 a.m. It was as high as 21 percent of deployment between 6 p.m. and 7 p.m.
- On the weekends, patrol workload averaged 1.2 personnel per hour which was 11 percent of deployment.
- On the weekends, the patrol workload dropped as low as 2 percent of deployment between 7 a.m. and 8 a.m. and rose as high as 24 percent of deployment between 11 a.m. and noon.

Figure 16: Deployed Officers, Weekdays, August 2009

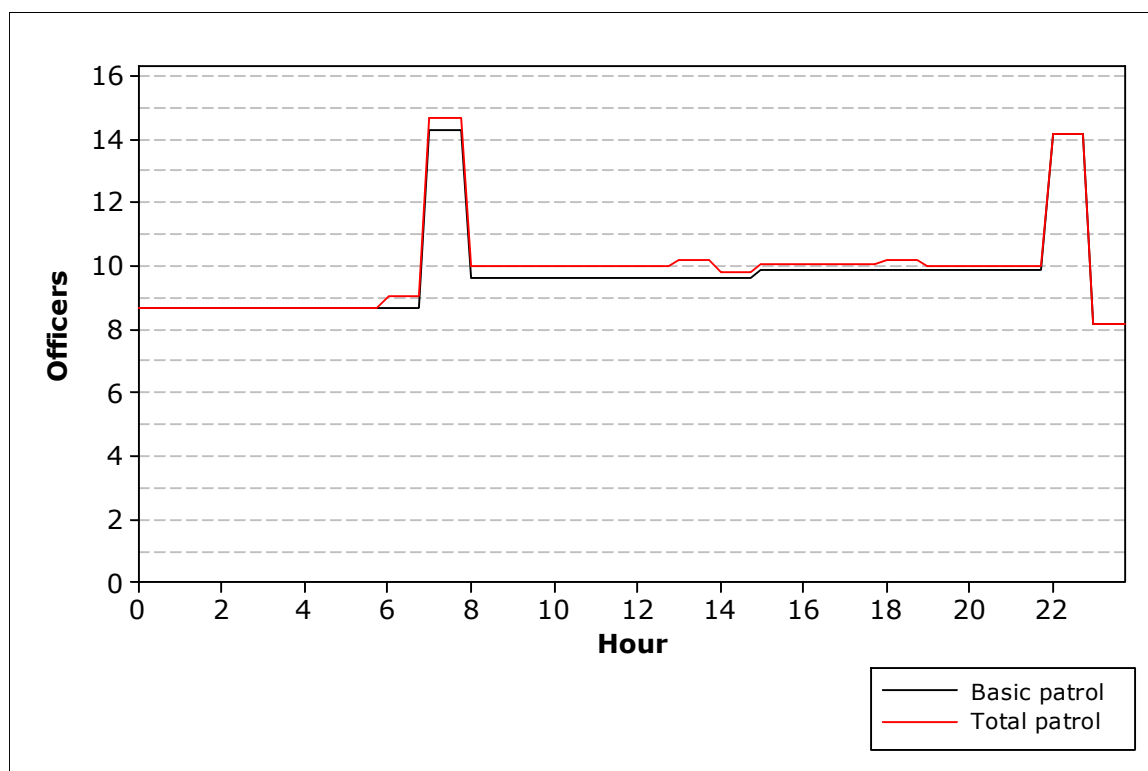
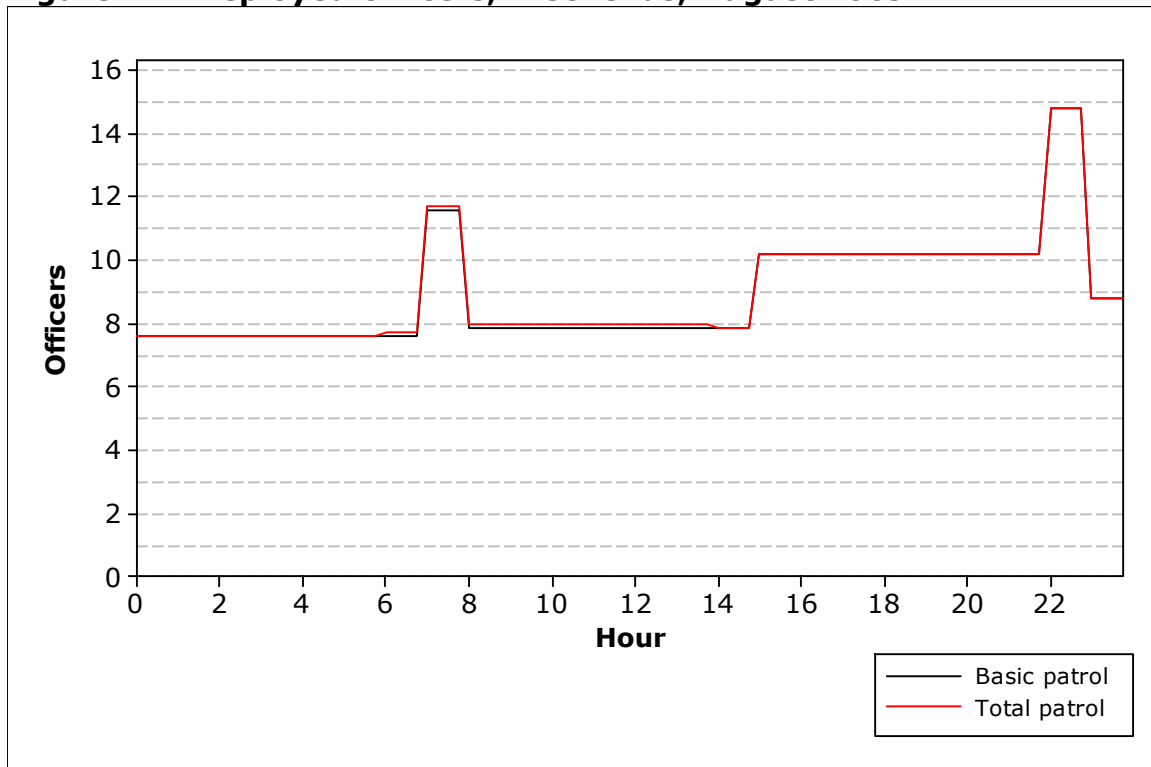


Figure 17: Deployed Officers, Weekends, August 2009



Observations:

- The number of officers deployed was lower in August than in February.
- There was an average of 9.7 officers deployed during the week and 8.9 officers deployed on weekends in August.
- Deployment rose as high as 14.2 officers during the morning shift between 7 a.m. and 8 a.m., and dropped as low as 8.1 officers during the midnight shift between 11 p.m. and midnight on weekdays.
- Deployment rose as high as 14.8 officers during the afternoon shift between 10 p.m. and 11 p.m., and dropped as low as 7.6 officers during the midnight shift between midnight and 7 a.m.

Figure 18: Deployment and Workload-Weekdays, August 2009

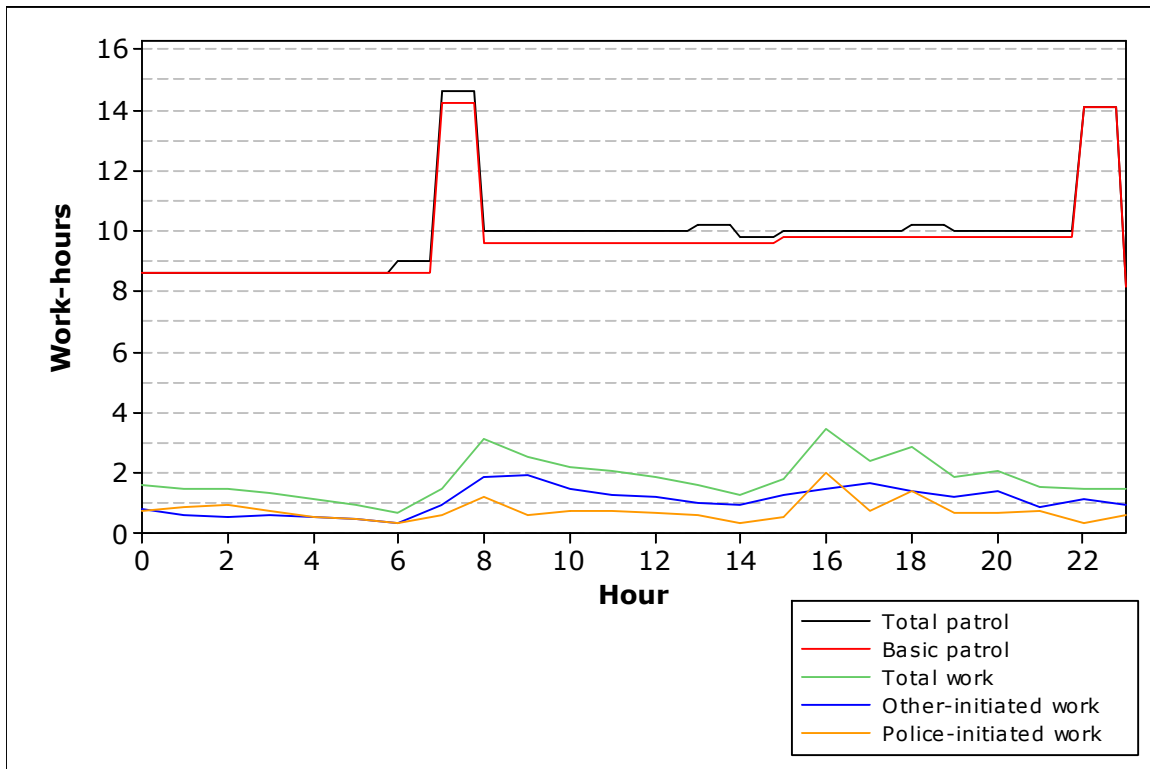
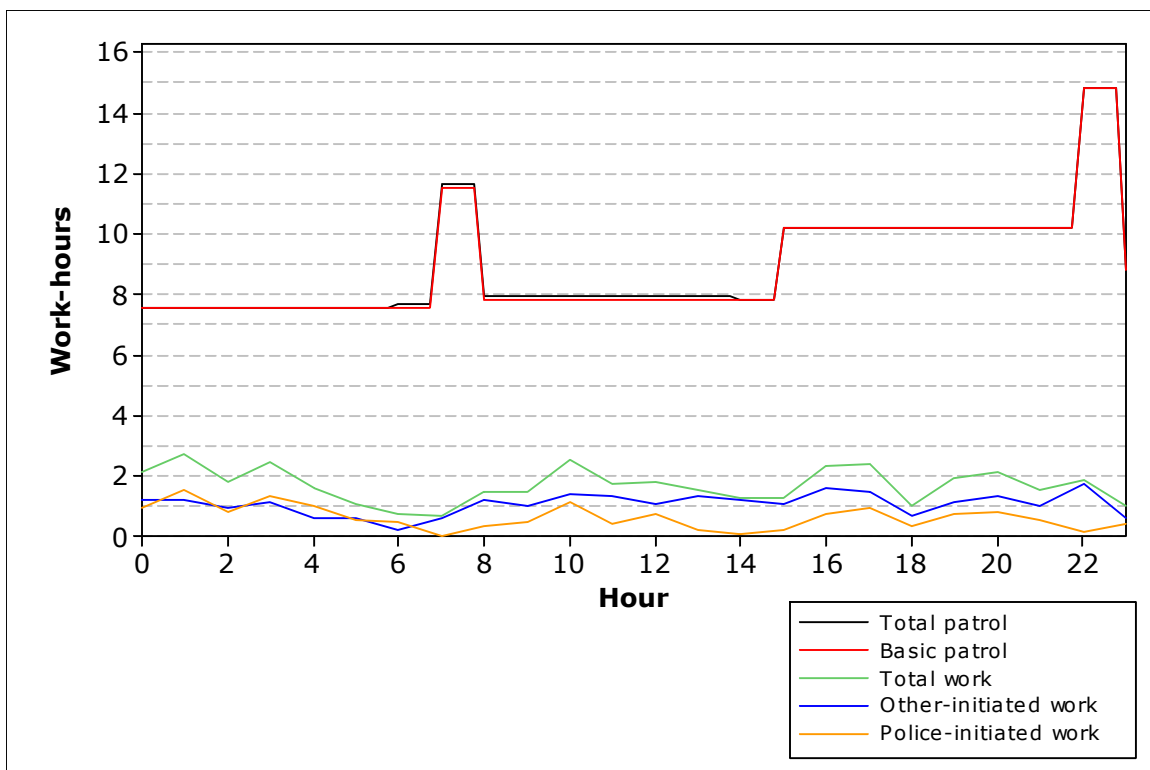


Figure 19: Deployment and Workload-Weekends, August 2009



Observations:

- During the week, patrol workload averaged 1.8 personnel per hour.
- This was 18 percent of total deployment, meaning that patrol officers spent 18 percent of their time on patrol-related activities.
- During the week, patrol workload dropped as low as 7 percent of total deployment between 6 a.m. and 7 a.m.
- During the week, patrol workload rose as high as 34 percent of total deployment between 4 p.m. and 5 p.m.
- On the weekends, average workload was 1.7 personnel per hour, which was 19 percent of total deployment.
- On the weekends, the patrol workload dropped as low as 5 percent of total deployment between 7 a.m. and 8 a.m., and rose as high as 36 percent of total deployment between 1 a.m. and 2 a.m.

E. Response Times

We analyzed the response times to various types of calls, separating the duration into dispatch and travel times. We begin the discussion with statistics that include all calls combined. We analyzed several types of calls to determine whether response times varied by call type. To better understand the response-time issue, the study team calculated the cumulative distribution function (CDF) of response time for three types of calls. We calculated the dispatch delay, travel time, and the total response time.

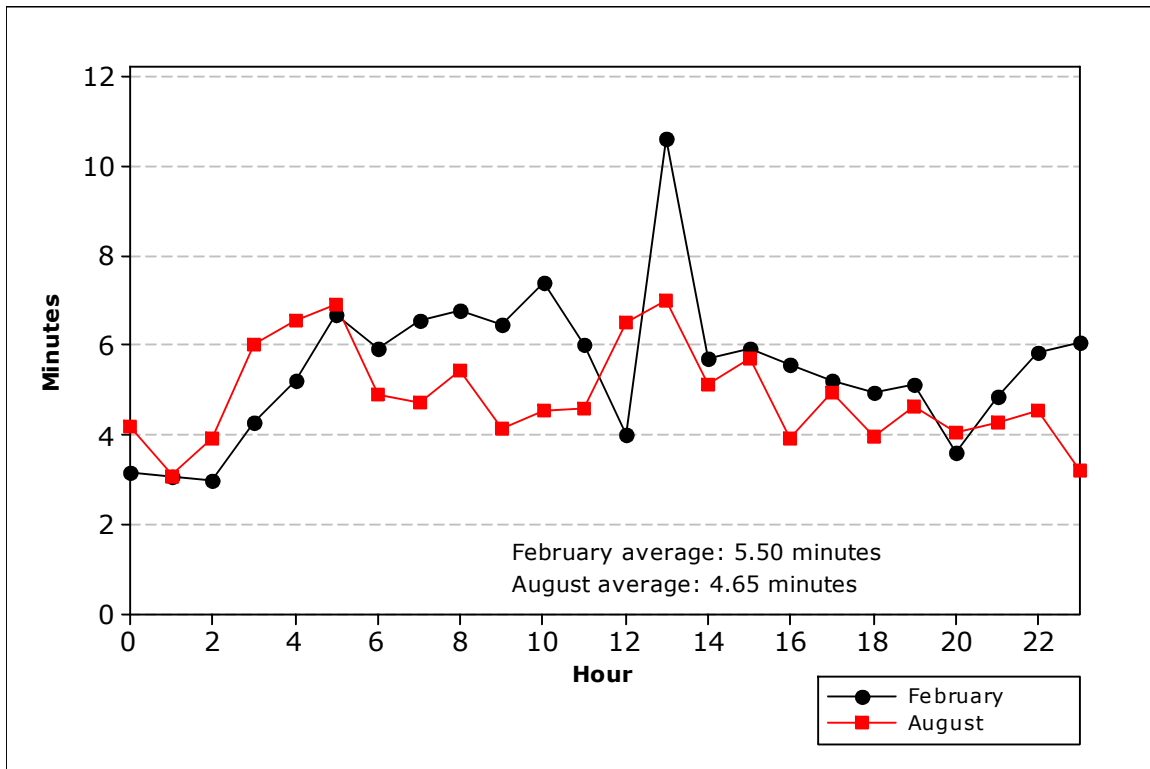
Before presenting the specific figures and tables, we summarize all of the observations. We started with 3,753 and 4,697 calls for February 2009 and August 2009, respectively. We limited our analysis to calls that were other-initiated with nonzero on-scene times. We also

encountered some calls without arrival times that we were forced to exclude from our analysis due to lack of information. This left 1,159 calls in February 2009 and 1,628 calls in August 2009.

Response time is measured as the difference between when a call is received and when the first unit arrives on scene. This is separated into dispatch delay and travel time. Dispatch delay is the time from when a call is received until a unit is dispatched. Travel time is the time from when the first unit is dispatched until the first unit arrives.

Due to variations in the individual departments' data recording practices, these results have a much higher margin of error than usual.

Figure 20: Average Response Time, by Hour of Day, for February 2009 and August 2009



Observations:

- Average response times vary significantly by hour of day.
- The overall average of 5.5 minutes in February was higher than the average of 4.7 minutes in August. In February, the longest response times were between 1 p.m. and 2 p.m., with an average of 10.6 minutes.
- In February, the shortest response times were between 2 a.m. and 3 a.m., with an average of 3.0 minutes.
- In August, the longest response times were between 1 p.m. and 2 p.m., with an average of 7.0 minutes.
- In August, the shortest response times were between 1 a.m. and 2 a.m., with an average of 3.1 minutes.

Reading the Cumulative Distribution Function (CDF) Chart

The vertical axis is the probability or percentage of calls. The horizontal axis is time of dispatch delay, travel time, or total response time. For example, approximately 80 percent of the calls in August experienced a dispatch delay of 1 minute or less. (The 80-percent line intersects the curve at the 1-minute mark.)

Figure 21: Dispatch Delay Cumulative Distribution Function

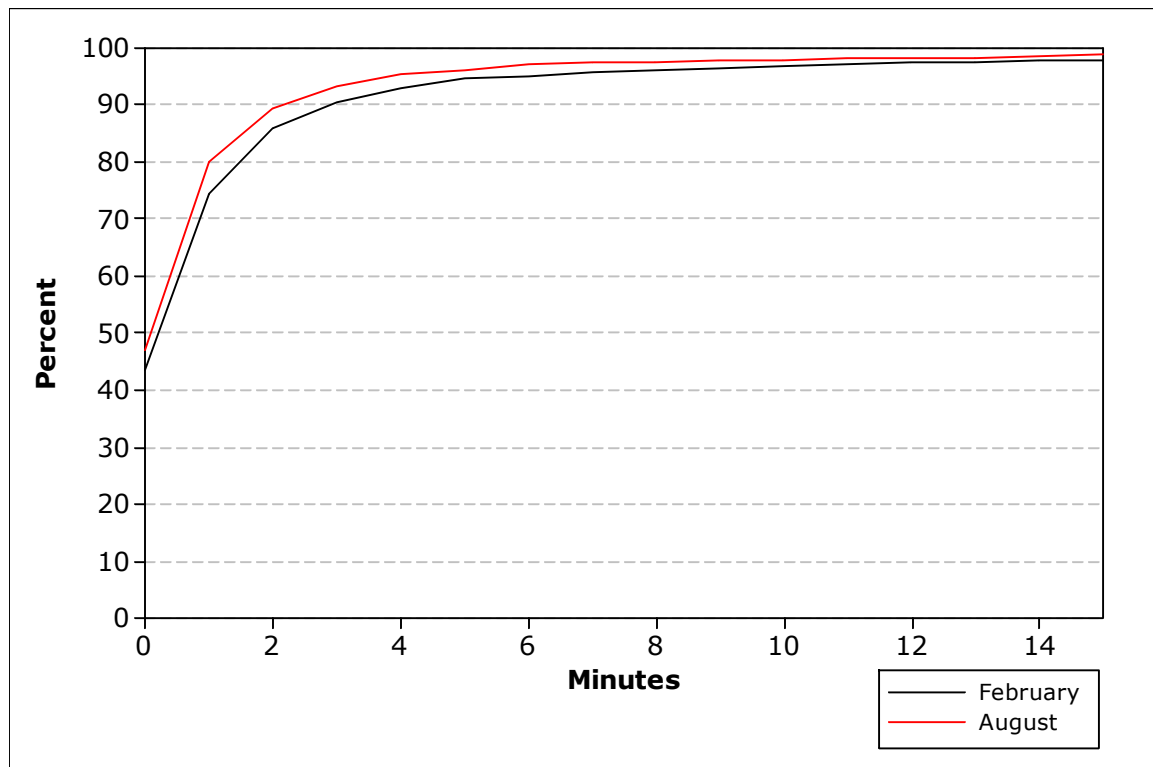


Figure 22: Travel Time Cumulative Distribution Function

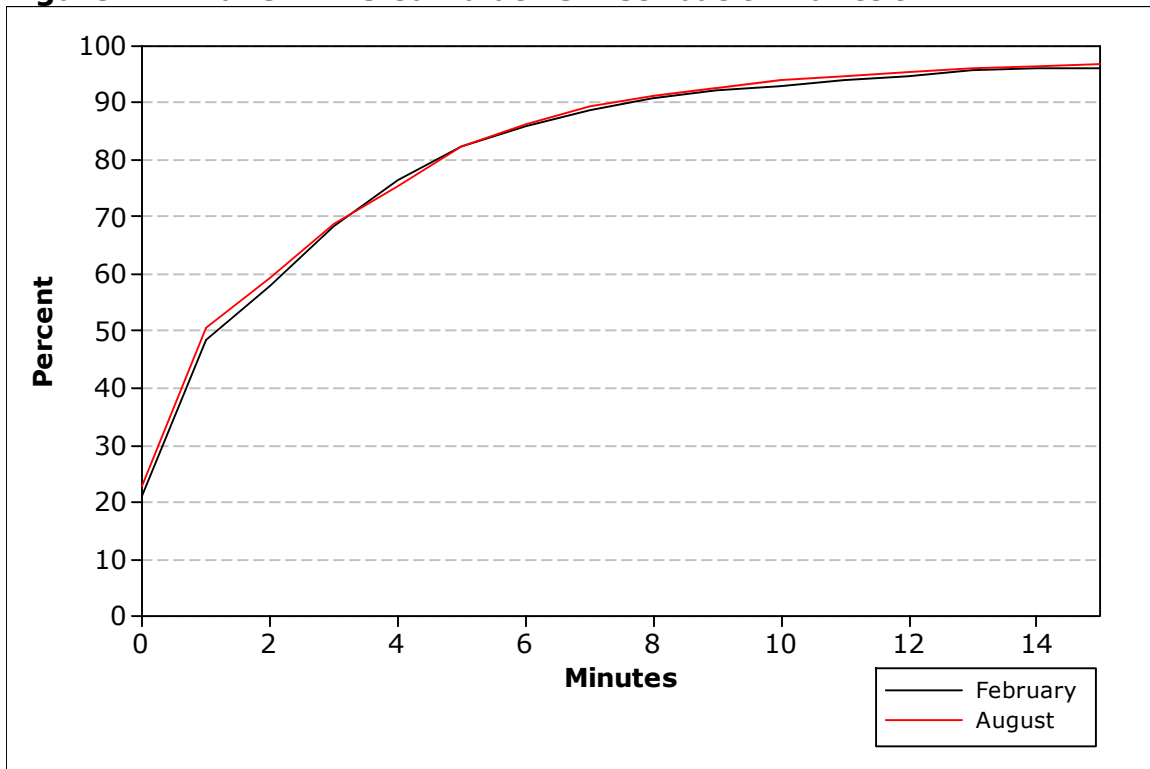


Figure 23: Response Time Cumulative Distribution Function

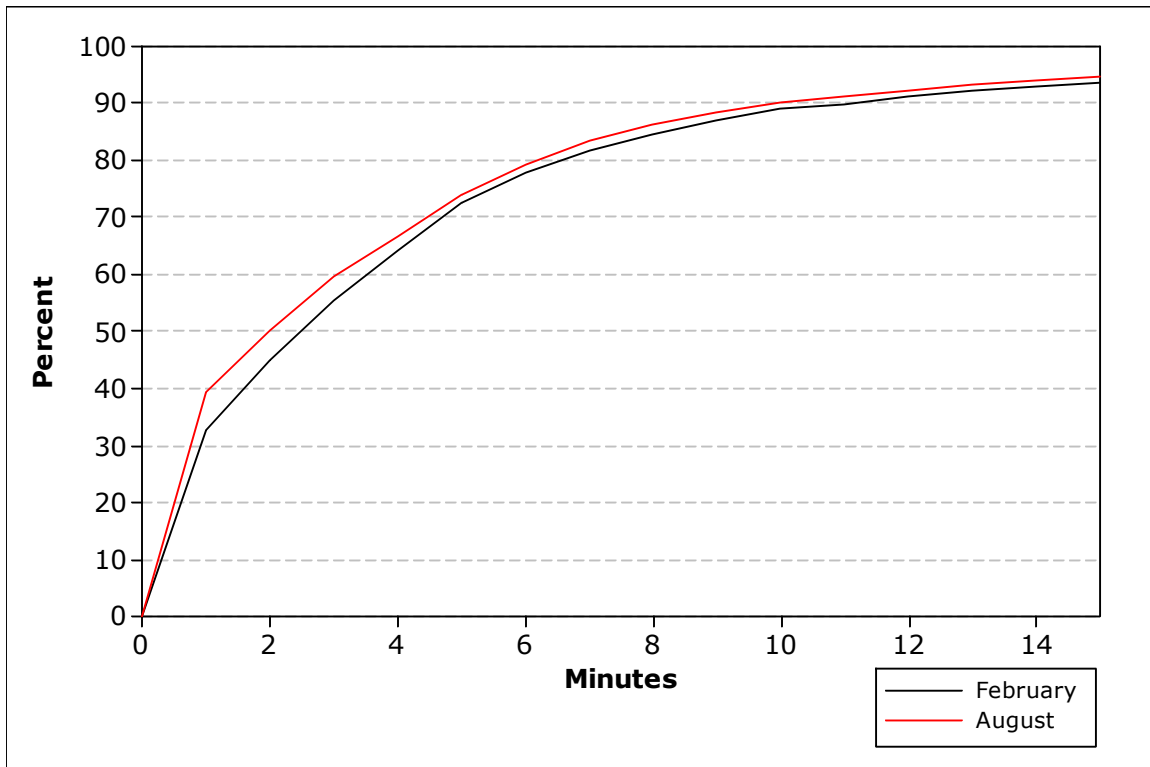


Figure 24: Average Response Times by Category in February 2009

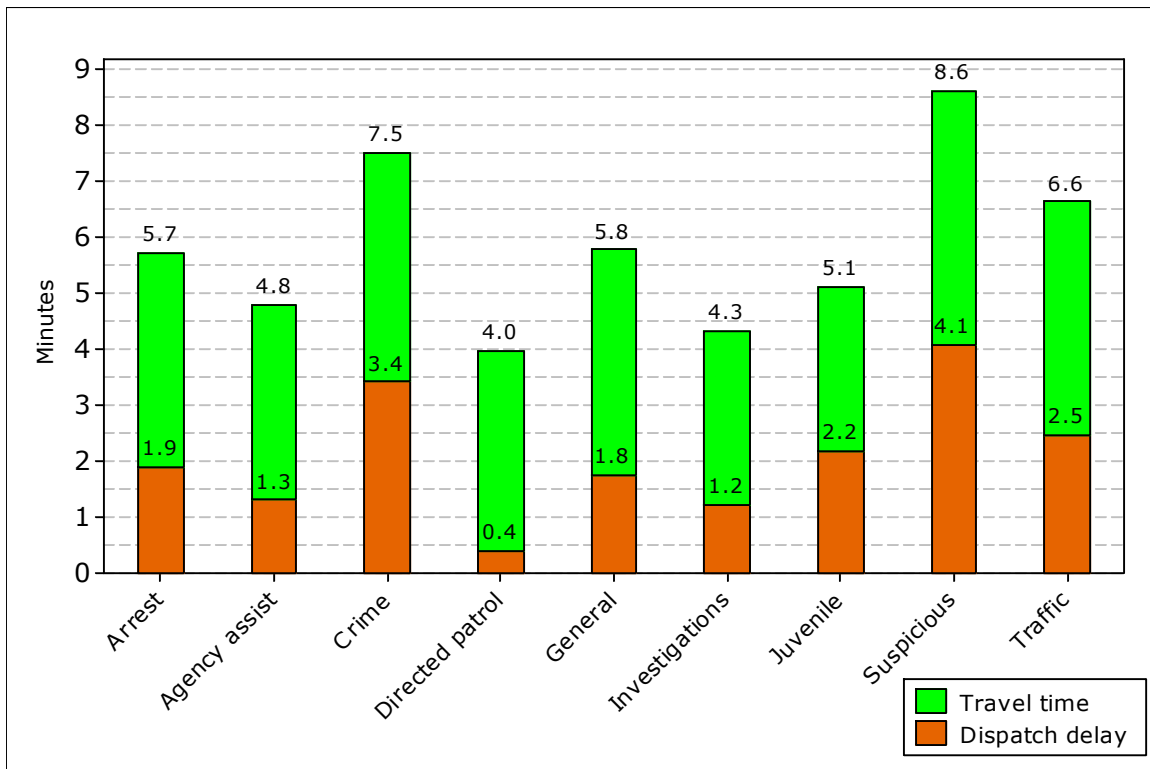


Figure 25: Average Response Times by Category in August 2009

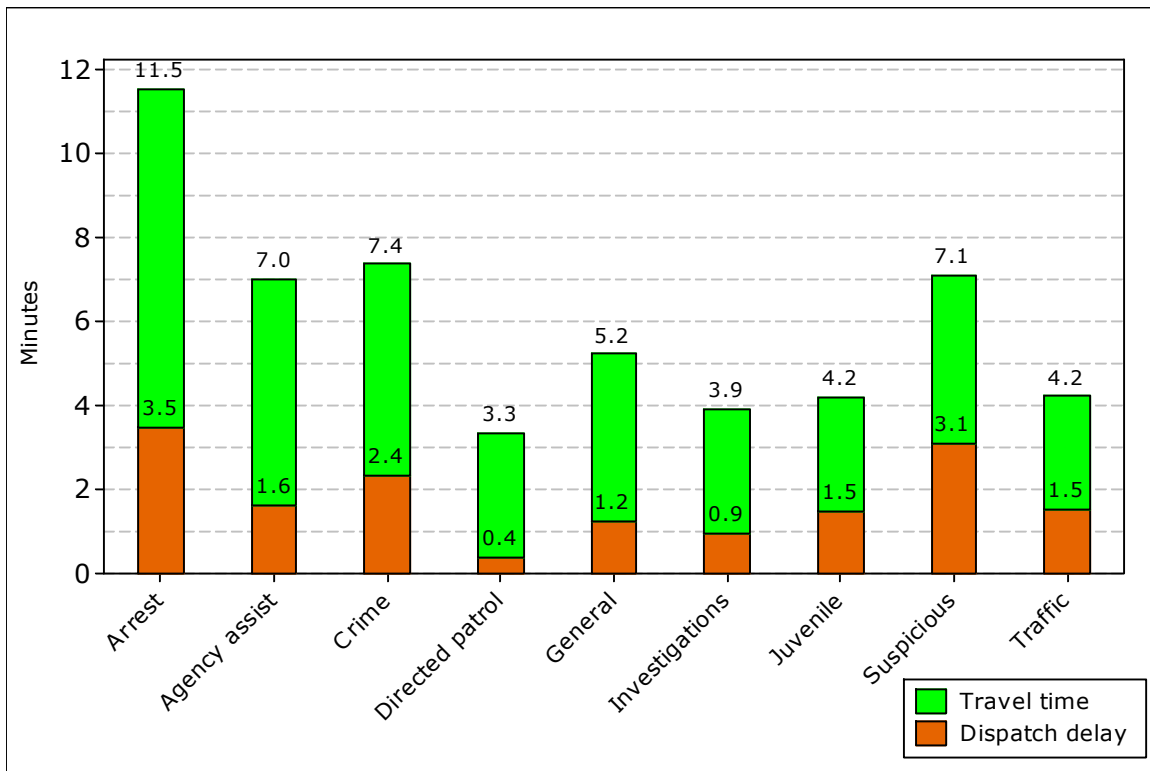


Table 12: Average Response Time Components by Category

Category	February 2009			August 2009		
	Dispatch	Travel	Response	Dispatch	Travel	Response
Agency assist	1.3	3.5	4.8	1.6	5.4	7.0
Arrest	1.9	3.8	5.7	3.5	8.1	11.5
Crime	3.4	4.1	7.5	2.4	5.0	7.4
Directed patrol	0.4	3.6	4.0	0.4	2.9	3.3
General	1.8	4.0	5.8	1.2	4.0	5.2
Investigations	1.2	3.1	4.3	0.9	3.0	3.9
Juvenile	2.2	2.9	5.1	1.5	2.7	4.2
Suspicious	4.1	4.6	8.6	3.1	4.0	7.1
Traffic	2.5	4.2	6.6	1.5	2.7	4.2
Total	1.8	3.7	5.5	1.3	3.3	4.7

Table 13: 90th Percentiles for Components by Category

Category	February 2009			August 2009		
	Dispatch	Travel	Response	Dispatch	Travel	Response
Agency assist	4.6	7.0	9.0	4.0	19.0	19.2
Arrest	5.3	8.9	22.5	11.4	30.0	33.8
Crime	5.0	9.4	17.4	4.0	12.2	15.0
Directed patrol	1.0	7.0	9.6	1.0	8.0	9.0
General	3.0	8.0	10.0	3.0	8.0	10.0
Investigations	3.0	7.0	10.0	2.0	7.0	8.0
Juvenile	8.4	11.1	13.0	4.0	5.6	8.2
Suspicious	9.5	9.0	17.0	6.5	9.0	17.5
Traffic	4.6	11.0	14.0	2.0	7.0	10.0
Total	3.0	8.0	12.0	3.0	8.0	10.0

Observations:

- Response times varied significantly by call category.
- Averages based upon small sample sizes are unreliable.
- In August, average response times were as short as 3.3 minutes (for directed patrol calls) and as long as 11.5 minutes (for arrests).
- In February, average response times were as short as 4.0 minutes (for general directed patrol calls) and as long as 8.6 minutes (for calls involving suspicious persons and/or vehicles).
- Average response times for crimes were between 7 and 8 minutes for both months.
- In August, average dispatch delays stayed below 3.5 minutes for all categories.
- In February, average dispatch delays stayed below 4.1 minutes for all categories.
- In August, officers responded to 90 percent of calls within 10 minutes.
- In February, officers responded to 90 percent of calls within 12 minutes.