

Final Report Police Operations and Data Analysis

Wyoming, Michigan

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ICMA CENTER FOR PUBLIC SAFETY MANAGEMENT



Submitted by:

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ICMA

Leaders at the Core of Better Communities

Background

About ICMA

The International City/County Management Association (ICMA) is a 100-year-old, non-profit professional association of local government administrators and managers, with approximately 9,000 members located in 28 countries.

Since its inception in 1914, ICMA has been dedicated to assisting local governments in providing services to its citizens in an efficient and effective manner. Our work spans all of the activities of local government: parks, libraries, recreation, public works, economic development, code enforcement, brownfields, public safety, and a host of other critical areas.

ICMA advances the knowledge of local government best practices across a wide range of platforms including publications, research, training, and technical assistance. Our work includes both domestic and international activities in partnership with local, state and federal governments as well as private foundations. For example, we are involved in a major library research project funded by the Bill and Linda Gates Foundation and we are providing community policing training in El Salvador, Mexico and Panama with funding from the United States Agency for International Development. We have personnel in Afghanistan assisting with building wastewater treatment plants and have teams in Central America conducting assessments and developing training programs for disaster preparedness working with SOUTHCOM.

ICMA Center for Public Safety Management

The ICMA *Center for Public Safety Management* (ICMA/CPSM) is one of four Centers within the ICMA's U.S. Programs Division, providing support to local governments in the areas of police, fire, emergency medical services (EMS), emergency management, and homeland security. In addition to providing technical assistance in these areas, we also represent local governments at the federal level and are involved in numerous projects with the U.S. Department of Justice and the U.S. Department of Homeland Security.

ICMA/CPSM is also involved in police and fire chief selection, assisting local governments in identifying these critical managers through original research and the identification of core competencies of police and fire managers and by providing assessment center resources.

Our local government technical assistance includes workload and deployment analysis, using operations research techniques and credentialed experts to identify workload and staffing needs as well as best practices. We have conducted approximately 140 such studies in 90 communities ranging in size from 8,000 population Boone, Iowa, to 800,000 population Indianapolis, Indiana.

Thomas Wieczorek is the Director of the Center for Public Safety Management. Leonard Matarese is the Director of Research & Project Development.

Methodology

The ICMA Center for Public Safety Management team follows a standardized approach to conducting analyses of fire and other departments involved in providing services to the public. We have developed this standardized approach by combining the experience sets of dozens of subject matter experts in the areas of police, fire, and EMS. Our collective team has more than one hundred years of conducting research in these areas for cities in and beyond the United States.

The reports generated by the operations and data analysis team are based upon key performance indicators that have been identified in standards and safety regulations and by special interest groups such as the International Association of Fire Chiefs, International Association of Fire Fighters, Association of Public Safety Communication Officials International, and through the Center for Performance Measurement of ICMA. These performance measures have developed following decades of research and are applicable in all communities. For that reason, comparison of reports will yield similar reporting formats, but each community's data are analyzed on an individual basis by the ICMA specialists and represent the unique information for that community.

The Public Safety Management team begins most projects by extracting calls for service and raw data from a public safety agency's computer aided dispatch system. The data are sorted and analyzed for comparison to nationally developed performance indicators. These performance indicators (e.g., response times, workload by time, multiple-unit dispatching) are valuable measures of agency performance regardless of departmental size. The findings are shown in tables and graphs organized in a logistical format. Due to the size and complexity of the documents, a consistent approach to structuring the findings allows for simple, clean reporting. While the categories for the performance indicators and the overall structure of the data and documents follow a standard format, however, the data and recommendations are unique to the organization under scrutiny.

The team conducts an operational review in conjunction with the data analysis. The performance indicators serve as the basis for the operational review. The review process follows a standardized approach comparable to that of national accreditation agencies. Prior to the arrival of an on-site team, agencies are asked to provide the team with key operational documents (e.g., policies and procedures, asset lists, etc.). The team visits each city on-site to interview fire agency management and supervisory personnel, rank-and-file officers, and local government staff.

The information collected during the site visits and through data analysis results in a set of observations and recommendations that highlight strengths, weaknesses, opportunities, and threats of the organizations and operations under review. To generate recommendations, the team reviews operational documents, interviews key stakeholders and observes physical facilities, reviews relevant literature, statutes and regulations, industry standards, and other information and/or materials specifically included in a project's scope of work.

The standardized approach ensures that the ICMA Center for Public Safety measures and observes all of the critical components of an agency, which in turn provides substance to benchmark against localities with similar profiles. Although agencies may vary in size, priorities, and challenges, there

are basic commonalities that enable comparison. The approach also enables the team to identify best practices and innovative approaches.

In general, the standardized approach adopts the principles of the scientific method: We ask questions and request documentation upon project start up; confirm accuracy of information received; deploy operations and data analysis teams to research each unique environment; perform data modeling; share preliminary findings with the jurisdiction; assess inconsistencies reported by client jurisdictions; follow up on areas of concern; and communicate our results in a formal, written report.

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Executive Summary

ICMA was commissioned to review the operations of the Wyoming Police Department (WPD). While this analysis covered all aspects of the department's operations, particular focus was on identifying the appropriate staffing of the agency given its workload, community demographics, and crime levels.

We utilized operations research methodology to analyze departmental workload and compared that workload to staffing and deployment levels. We reviewed other performance indicators, which allowed us to understand service implications on current staffing. We reviewed the department's organizational design to determine if the various functions of a modern police agency were appropriately staffed.

The study incorporated several distinct phases: data collection, interviews with key police and administration personnel, on-site observations of the job environment, data analysis, comparative analyses, alternatives and recommendations, and submission and oral briefings.

Based on our review, it is our opinion that the WPD is a highly professional, well-managed police agency. The recommendations listed below will help improve an already well-performing organization. They offer cost-effective ways of providing service through streamlining and organizational development.

- The WPD should change its current patrol staffing model. Employing 10-hour tours in the current configuration is inefficient and should be abandoned in favor of a more flexible model that matches personnel resources to demand. A more efficient work schedule has the potential to save approximately 15 percent in personnel costs.
- The department should create a CFS Task Force to examine all facets of demand management. This task force should explore the overall time and assignments dedicated to CFS and analyze major categories of CFS with an eye toward eliminating or reducing patrol response to these calls.
- The WPD should eliminate the sworn officer position at the public walk-up window at headquarters and return this officer to full duty enforcement functions.
- The WPD should develop and implement an integrated "data dashboard" that combines multiple performance measures into a single usable system or template. In essence, this dashboard can serve as an activity report or performance assessment for the entire agency and can be consulted daily by police supervisors. A data dashboard system can record and track crime; traffic; quality-of-life conditions; personnel data, such as training, sick leave, overtime/budget; community complaints; and the like.
- The department should establish an internal technology task force. This body should be comprised of supervisors, line officers, and civilian members of the department, should meet regularly, and should: (1) identify the department's current technology needs; (2)

identify any deficiencies in the department's current communications and records management systems; (3) revise and update the department's website (which should be designated as a priority); (4) identify technology training needs and recommend additional training; and (5) make specific recommendations for improvement, where necessary.

- It is strongly recommended that call-taking and dispatch procedures be reexamined by the WPD to uncover the contributing factors behind high dispatch times and that steps be taken to reduce these delays where possible.
- The department should immediately identify, train, and support the following positions:
 - **Crime analyst:** The department's crime analyst should review all crime reports to identify patterns and trends; work with the investigative units to assist in investigations and intelligence activities; prepare statistical analyses of crime, traffic, and enforcement activities; develop crime maps; and attend crime strategy meetings.
 - **Chief information officer (CIO):** This individual would be responsible for creating, maintaining, and retrieving data from the police department's various databases, files, and records. The CIO would serve as chair of the technology task force.
 - **Professional standards officer (PSO):** The department should consider combining the internal affairs (IA) function with the function of maintaining professional standards and accreditation. The professional standards officer would perform a variety of proactive integrity control, audit, and inspections duties. Specifically, the PSO would be responsible for receiving, reviewing, and investigating internal and external complaints against members of the service.

ICMA staff thanks the city and police administrations of Wyoming for their assistance in completing this project. In particular, ICMA commends City Manager Curtis Holt and Police Chief James Carmody for their enthusiasm and cooperation with ICMA staff regarding documentation requests and the overall project

Methodology

Data Analysis

This report utilizes numerous sources of data to support conclusions and recommendations for the Wyoming Police Department. Information was obtained from the FBI Uniform Crime Reporting (UCR) Program, Part I Index, crime and police officer head counts, and numerous sources of WPD internal information, including data mining from the computer-aided dispatch (CAD) system for information on calls for service (CFS).

Interviews

The study relied extensively on intensive interviews with WPD personnel. On-site and in-person interviews were conducted with all division commanders regarding their operations. Similarly, the Police Officers Association representative was also interviewed to get an understanding of the labor-management climate in the Wyoming Police Department.

Focus Groups

A focus group is an unstructured group interview in which the moderator actively encourages discussion among participants. Focus groups generally consist of eight to ten participants and are used to explore issues that are difficult to define. Group discussion permits greater exploration of topics. For the purposes of this study, focus groups were held with representatives of the department.

Document Review

ICMA consultants were furnished with numerous reports and summary documents by the Wyoming Police Department. Information on strategic plans, personnel staffing and deployment, evaluations, training records, and performance statistics were provided to ICMA.

Operational/Administrative Observations

Over the course of the evaluation period, numerous observations were conducted. These included observations of general patrol, special enforcement, investigations, and administrative functions. ICMA representatives engaged all facets of department operations from a “participant observation” perspective.

Implementing the Report’s Recommendations

ICMA’s conclusions and recommendations are a blueprint for both the city and police administrations. The city administration should have periodic meetings with the WPD to ensure that ICMA’s recommendations are implemented. It is strongly recommended that the chief identify and task one individual with responsibility for implementing these recommendations. This person should establish a liaison with the chief of police and should be given the authority and responsibility to effectuate the changes recommended. This includes ensuring the recommendations are executed in a timely fashion and evaluating the department’s progress every six months for efficiency, effectiveness, and performance.

All of ICMA's recommendations are practical and sensible and should be implemented by the police administration within a reasonable period of time. If the city desires, ICMA can provide a service to periodically review, monitor, and reevaluate the department's progress and ensure that the recommendations are implemented properly. If the police administration continues to have difficulty implementing the recommendations, ICMA can assist with implementation.

Community Overview

Policing involves a complex set of activities. Police officers 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 have 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.

The Wyoming Police Department provides a full range of police services, including responding to emergencies and calls for service, performing directed activities, and solving problems.

Administration and Operations

The Wyoming Police Department has 99 employees serving a population of approximately 72,000 residents. The department is staffed as follows:

- 86 sworn personnel:
 - 1 Chief
 - 2 Captains
 - 5 Lieutenants
 - 11 Sergeants
 - 67 Officers

- 13 nonsworn personnel:
 - 1 Fleet
 - 3 Records
 - 1 Manager
 - 2 Secretary
 - 1 Administrative secretary
 - 4 Crime scene technicians
 - 1 Account clerk

The ratio of sworn to civilian personnel is 6.7 to 1, which is high. Civilianization in police organizations is seen as an important way of shifting administrative responsibilities from full-duty, sworn officers to civilians. This permits officers to focus on crime, traffic, and public safety issues. The average ratio of sworn to civilian personnel is approximately 4.5 to 1, so a ratio of 6.7 to 1 would signify a low degree of civilianization in the WPD. Undoubtedly, this high ratio (low civilianization rate) is due to budget cuts impacting the agency during the recent past. It is clear

that the struggle to maintain service levels to the community has taken a toll on the administrative and support function.

Wyoming Demographics

When determining the appropriateness of the deployed resources—both current and future—a key factor to consider is the demographic characteristics of the community. According to the 2010 U.S. Census, the city's total area is 24.6 square miles and the city's population is 72,125, thus the city has a population density of 2,927 persons per square mile. The racial makeup of the city is estimated to be 75.8 percent white, 7.2 percent black, 19.4 percent Hispanic, and 2.8 percent Asian.

There are approximately 27,000 households in Wyoming, with a per capita income of \$20,583 and a median household income of \$44,491. Both of these income measures are lower than the overall Michigan measures. Also, the percentage of persons living below poverty level between the years 2006-2010 was 16.3 percent; this was higher than the Michigan average.

Uniform Crime Report/Crime Trends

As defined by the FBI's Uniform Crime Reporting (UCR) Program, Part I crimes are the seven major crimes used to measure the extent, fluctuation, and distribution of serious crime in geographical areas. Part I crimes are the seven most serious offenses: murder, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft.

In 2010, the city of Wyoming reported 1,816 Part I crimes, compared with 1,957 in 2009, for a 7.2 percent decrease. Appendix A displays the seven categories of Part I crimes for 2010 and puts the reported crimes into proper context (2011 UCR data were not available at the writing of this report). In addition to raw numbers, serious crime is converted to rate per 100,000 residents and compared with cities in Michigan of similar size as Wyoming as well as national and state crime rates.

This exhibit demonstrates that the rate of serious crime in Wyoming is comparable to other communities of similar size. Among the ten cities in Michigan presented, (Farmington Hills, Westland, Southfield, Kalamazoo, Shelby Township, Waterford Township, Pontiac, West Bloomfield Township, and Battle Creek), Wyoming has the sixth highest rate of violent crime. Additionally, the city's violent crime rate is about 18.6 percent lower than the national rate and 33.1 percent lower than the violent crime rate in Michigan. Similarly, Wyoming has a relatively comparable property crime rate, ranking sixth highest out of the ten cities. According to the data in Appendix A, the property crime rate of 2,199 crimes per 100,000 residents is 25.3 percent lower than the national average and 19.0 percent lower than the state average.

This analysis is intended solely as an illustration of how Wyoming compares with other communities with regard to rates of crime.

Larceny in Wyoming is the highest reported crime and the one crime that drives the overall rate of crime in the community. In 2010, Wyoming experienced 911 of these crimes and this represented 50.2 percent of all serious crime. At the same time, since 2001, the rate of property crime in Wyoming has decreased by about a third. In 2001 the rate of property crime was 3,357 crimes per

100,000 residents. This rate decreased 34.5 percent over the next decade to 2,199 crimes per 100,000 residents at the end of 2010.

Figures 1 and 2 depict the violent crime and property crime trends in Wyoming between 2001 and 2010. As Figure 1 illustrates, violent crime has been on a steady decline, ranging from a low of 380.6 (2010) to a high of 518.2 (2007). As mentioned above, the property crime rate in Wyoming decreased by about one-third over the last decade. It must be recognized that the WPD has made great strides in improving the character of the community and addressing serious crime.

FIGURE 1: Wyoming Violent Crime Rate: 2001-2010

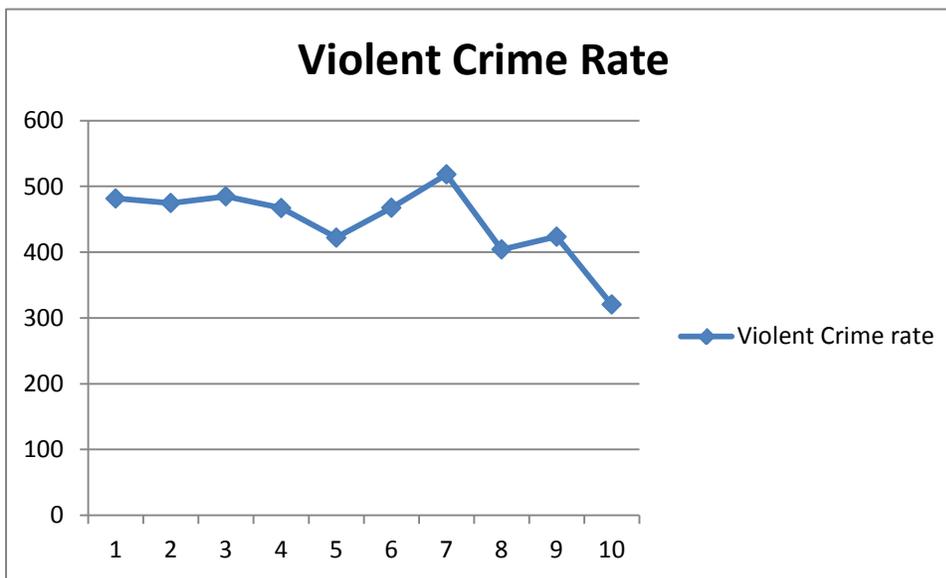
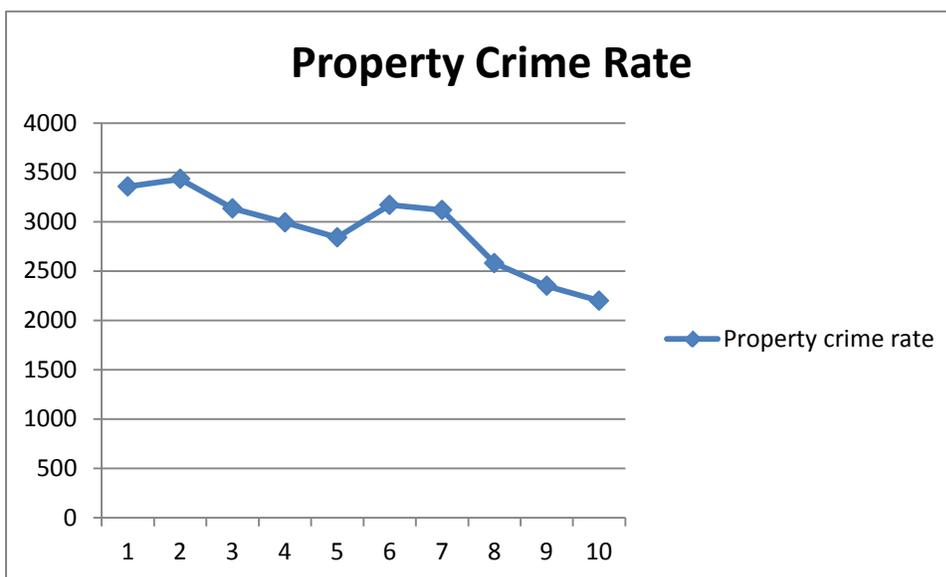


FIGURE 2: Wyoming Property Crime Rate: 2001-2010



Comparisons/Benchmarks

In order to put this information into perspective it is important to compare the WPD with other police departments of similar size. The IBM report *Smarter, Faster, Cheaper*¹ looks at several financial, organizational, and demographic variables in order to assess the relative efficiency of police departments. This study looked at 100 major U.S. cities in a wide range of regions and sizes. Keeping in mind that each community has characteristics that govern the style and size of its police department, these characteristics and comparisons are useful in understanding the relative condition of the WPD. Additionally, this analysis looks at data from the Census of State and Local Law Enforcement Administration (CSLLEA) and the Law Enforcement Management and Administrative Statistics (LEMAS) reports prepared by the Bureau of Justice Services.²

The benchmarks that are illustrative of police department performance are the amount of spending per capita on police services, spending per serious crime, and officers per capita.

The WPD spends approximately \$208 per capita on police services. This compares favorably to the \$243 per capita spent in the comparison cities. With a crime rate of 2,518 serious crimes per 100,000 residents in 2010, Wyoming has a much lower rate than the average crime rate of 5,000 in the cities studied. However, spending per crime in Wyoming is about \$8,248 per serious crime, which is approximately 23.1 percent more than the average expenditure per crime of \$6,702. Also, the WPD employs 87 sworn officers, or 121 officers per 100,000 residents, which is lower than the average per capita deployment of 190 officers per 100,000 residents.

A similar perspective on operational efficiency can be gained by inspecting the amount of money spent on overtime costs as a percentage of overall spending. In fiscal year 2011, the WPD budgeted \$611,314 on police overtime. This expense represents approximately 4.1 percent of the overall budget. This is considered low and demonstrates limited overtime expense and/or close management of overtime accrual.

TABLE 1: WPD in Perspective

Benchmark Area	WPD	Benchmark	Versus Benchmark
Per capita police spending	\$208	\$243	Lower
Crime rate	2,518	5,000	Much lower
Spending per serious crime	\$8,248	\$6,702	Higher
Officers per capita	121	190	Much lower
Overtime (% of budget)	4.1%	5%	Lower

¹ IBM, *Smarter, Faster, Cheaper: An Operational Efficiency Benchmarking Study of 100 US Cities*, 2011.

² CSLLEA published July 2011 for calendar year 2008; LEMAS published December 2010 for calendar year 2007.

Review of the information in Table 1 shows that the WPD operates in an efficient and cost-effective manner. The per capita cost of operation is lower than the benchmark, although the spending per serious crime is higher. This is a reflection of the low crime rate in Wyoming. The department's effective cost containment is undoubtedly due to an extended period of personnel cuts, efficiency savings, and sound financial management during the recent past that puts the WPD in such a favorable position compared to other communities in the United States.

The key to operational efficiency is not necessarily in financial austerity, however. The size and style of a police department and the types of services that it provides are a reflection of the character and demands of that community. The challenge is to determine how many police officers are necessary to meet that demand, and how to deploy those personnel in an effective and efficient manner. The above analysis demonstrates that the WPD is financially efficient in its personnel deployment. The analysis that follows will attempt to build upon this discussion and answer the "how many" and "how to deploy" questions that are fundamental to police operational and personnel resource decisions.

Performance Measurement and Strategic Planning

The department demonstrates the ability to retrieve and use timely and accurate performance data to support its crime fighting and administrative decisions and strategies.

The department utilizes a properly formatted and indexed manual of rules and regulations that appears consistent with those of similar police agencies. This manual is reviewed on an annual basis and revised, as necessary.

Goals and Objectives

The department has prepared and followed strategic plans since 1996. The current three-year strategic plan covers the period 2012-2015. The current plan lists a variety of specific goals, objectives, staff and units responsible, and target dates. Goals and objectives are reviewed semiannually. The goals appear to be straightforward and generally deal with internal administrative issues (such as the replacement of equipment and facility maintenance).

Those goals related to crime reduction and community outreach efforts do not have measurable performance targets. For example, the objective of goal 5 is to “impact regional crime trends.” The strategic plan does not provide specificity regarding the types of crime being targeted or the degree or percentage to which these crimes are intended to be reduced. ICMA has been informed that more specific crime reduction and performance goals have been set recently and are being measured at this time.

Similarly, the objective of goal 4 is to “improve customer service,” but the plan does not describe how such improvement will be measured. For example, the department might choose to “reduce citizen complaints by 5 percent” or “decrease the total time it takes to perform a background check for a gun permit application by 10 percent.” Specific performance targets such as these should be chosen by department personnel, as any external benchmarks would not be relevant or particularly useful.

The department also prepares and distributes annual goals and objectives and issues “year-end reviews.” Goals are set forth for each division and many are readily measurable (e.g., to “increase traffic stops by 10 percent over 2010 figures.”). Outcomes and criteria for measuring outcomes are provided for several of these goals. Some of the stated goals do not include criteria for measurement. (For example, goal 1 of the technical support unit is to “use the New World Systems bar-coding system to update all current property in the system.” A narrative indicates that this process has begun, but fails to indicate whether this goal is now either partially or substantially complete.

ICMA was informed that the formulation of long-term department goals has been complicated by the department’s fiscal challenges since 2005.

The department also issues annual reports, which are published on the department’s website. The 2011 annual report has not yet been published. The annual reports are comprehensive and well-structured. They contain a variety of useful information including, but not limited to, the following:

an organizational chart; a listing of department personnel; UCR crime data; arrest and offender data; a summary of civilian complaints and internal investigations; and traffic accident data.

Meetings and Briefings

The department holds monthly command staff meetings. These meetings address both administrative matters and crime analysis. These meetings are attended by all uniformed personnel at or above the rank of sergeant, the records manager, and the chief's secretary. Agendas are prepared for these meetings and notes are taken. Minutes are also taken and circulated. Supervisors take turns serving as the chair or moderator of the meetings. ICMA views this as an effective means of ensuring active participation, collaboration, and accountability. Moderators will solicit potential agenda items prior to the meeting.

These meetings provide an opportunity to review and discuss reported offenses. Calls for service by type and patrol area apparently are not reviewed at these meetings.

The department also holds monthly "lieutenants' meetings," for all supervisors at or above the rank of lieutenant. ICMA was informed that these meetings are used for "drilling down more into administrative and policy issues." An agenda is also prepared for these meetings, but they are apparently not as formal as the monthly command staff meetings.

The department also holds quarterly patrol sergeants' meetings. This involves only members of the patrol division.

There is also an annual departmentwide briefing regarding annual goals and objectives. This occurs during scheduled training days and is used to provide an update regarding the strategic direction of the department.

The chief participates in monthly meetings with the city manager. The department's two captains also attend regularly. These meetings take place at the department's headquarters. The overall purpose of these meetings is informational.

Crime Analysis and Performance Tracking

At present, there is no one assigned to the crime analyst position. The department's criminal intelligence unit was dissolved in 2006.

The department utilizes a command notification system for all personnel at or above the rank of sergeant. Pattern recognition occurs when supervisors from patrol, or any other unit in the department, recognize a particular trend or pattern and use the e-mail system to notify other units. ICMA was informed that all supervisors in all units are accountable for recognizing trends or patterns in their assigned areas.

Monthly reports are prepared indicating the total number of reported offenses, by type. This report does not indicate the number of calls for service received, by patrol sector. Weekly reported offenses reports are posted in the department's briefing room and all reported offenses are pin

mapped. Daily crime bulletins listing criminal incidents, along with their time and location of occurrence, are also prepared and circulated throughout the department.

Patrol officers prepare daily activity reports by hand. These reports record patrol activities such as arrests, citations, etc. Sergeants will enter the daily performance information into a monthly work record and evaluation. Patrol sergeants also fill out a monthly activity report for the entire squad, indicating total number of arrests, citations, vehicle stops, etc. Additional statistics for each squad, such as total stops per patrol hour and number of arrests per patrol day are calculated. Separate activity sheets are used by community policing and school liaison officers. Additional activity categories, such as juvenile court referrals and lectures delivered, are included.

Crime reports or daily crime bulletins are generated by patrol sector(s). Geographic locations, time of occurrence, and event summaries are provided.

The department records *Terry* stops (i.e., stop, question, and frisk) via field investigation reports. While information concerning the encounter and the individual stopped is recorded, these reports are not regularly tracked and reported. In other words, the department is generally unaware of how many individuals of a certain age or race were stopped in a particular area over a particular period of time. The department is currently recording positive citizen contacts and attempting to capture information regarding the nature of these contacts.

The department recently instituted a program of soliciting and responding to FLARE reports from the community. These reports are requests for service; they alert the department of criminal and noncriminal community conditions that should be addressed (such as a speeding condition on a certain street). These reports are logged, tracked, and assigned to patrol for necessary action, such as directed patrols or enforcement. Individuals submitting these reports are provided information regarding specific action(s) taken and the outcome. The department received and responded to eighty-two FLARE reports during 2011. The department has already addressed sixty in the first six months of 2012. The department also performs routine business checks throughout the community. These efforts are indicative of a community- and problem-oriented policing philosophy.

During 2012, the department developed and implemented a performance measurement system for detectives. The system records total cases, cases assigned, cases cleared by arrest, warrants denied (not warrants applied for and/or executed), and cases referred to other agencies. Totals are analyzed by shift, team, squad, and detective. Daily activity reports with narratives are prepared for each detective by the detective bureau's secretary. Monthly recapitulations are prepared for the entire detective bureau. ICMA was informed that the new system utilizes an "evolving" set of performance indicators.

A quarterly report issued by the community services unit in November 2011 indicated that the unit "established community policing districts based upon need."³ ICMA commends the unit for doing so and suggests that districts be reviewed regularly in this manner going forward. This quarterly report also highlighted community concerns, such as extensive calls for service history at a

³ Memorandum, November 28, 2011, page 1.

particular bar, as well as specific action plans to address these concerns. This demonstrates an effective sense of response capability on the part of this unit and the department.

The department is regularly preparing a number of useful analyses to guide departmentwide and unit performance. For example, the department now tracks the number of vehicle stops per hour (both those that do and do not actually result in the issuance of a citation). This is a useful performance measure that is often overlooked in other police agencies.

Patrol lieutenants are now preparing monthly performance patrol indicator reports. These reports appear to be quite useful in informing patrol decisions.

Specific “patrol objectives” have been identified for 2012 and data is being tracked accordingly.

The department has been developing a template of performance indicators for the Detective Bureau.

The department does regularly track the amount of overtime expended, both departmentwide and by officer. This is obviously useful from a fiscal standpoint, but the tracking of overtime expenses must be combined somehow with the analysis of other performance indicators, such as the amount of directed patrols or “special” deployments. For example, if the department identifies a spike in residential burglaries in a certain neighborhood, directed patrols are likely to result. This would undoubtedly result in more arrests and more field investigations, as well as increased overtime expenditures that are attributable to this initiative. Overtime costs should not be tallied and viewed separately, as if they were unrelated to enforcement efforts. There is obviously great value in viewing the dynamic interactions of these performance indicators.

The command staff meetings should therefore not be used or understood solely as a “crime fighting” or exclusively an “administrative” meeting. They should entail both.

Recommendations:

- The department should continue to promulgate and regularly monitor progress towards annual goals and objectives. Semiannual or quarterly reports should be made.
- Each objective contained in the strategic plan should include a specific means of measuring performance toward that objective. The department should not use dichotomous variables such as “completed” or “not completed.” Rather, the department should include performance scales based upon actual percentages or, at minimum, a choice of “not yet begun,” “partially completed,” “substantially completed,” and “completed.”
- To ensure uniformity of practice, command staff, lieutenants’, and patrol sergeants’ meetings should all follow standardized agendas. That is, the agendas should include the same categories from month to month and the meetings should follow the same format from meeting to meeting. Additional agenda items can be added, as necessary.
- In order to optimize the discussions and analysis that take place at these meetings, it is recommended that all such information be combined into a [single] usable performance measurement system or template. If all such data (or accurate and timely recapitulations)

are readily accessible from one central database or data dashboard, the information is more likely to be retrieved, consulted, and used to actively manage daily operations. In essence, this dashboard can serve as an activity report or performance assessment for the entire agency, and can be consulted daily by police supervisors. A central source of key performance data is critical. Multiple sources and locations of information hinder the department's ability to engage in proactive management. The department should be commended for the degree to which it currently uses data for decision support. The administration clearly values and regularly uses timely and accurate data. The present recommendation is intended merely to facilitate the department's use of multiple data sets, reports, etc. and to provide administrators with a comprehensive source of critical performance metrics for the entire agency (patrol, investigations, training, etc.).

- A data dashboard system can record and track any or all of the following performance indicators:
 - The total number of training hours performed, type and total number of personnel trained;
 - The type and number of use-of-force reports prepared, personnel involved, time and place of occurrence, and general description of circumstances;
 - The geographic location (i.e., zone) and time of all arrests;
 - The geographic location and time of citations issued;
 - The type and number of civilian and internal complaints (and dispositions);
 - The type, number, location, and time of civilian vehicle accidents;
 - The type, number, location, and time of department vehicle accidents, both "at fault" and "no fault" accidents;
 - The type, number, location, and nature of all firearm discharges;
 - The results of systematic and random audits and inspections of all police operations (i.e., calls for service response and dispositions, property receipt and safeguarding, etc.); and
 - The type, location, and number of any *Terry* stops performed, as well as a description of all individuals involved and a description of all actions taken.
- An effective performance dashboard should also include traditional administration and budgetary measures, such as monthly and annual totals for sick time, comp time, and overtime.
- The department should immediately undertake a study to determine how and why overtime is being incurred. The department should continue to track total and unit overtime costs going forward, to determine baseline or "normal" levels, seasonal variations, and interactions that overtime costs have with other activities, such as directed patrols and special events.
- The specific performance measures to be tracked and reported at command staff meetings is entirely up to the department. All police agencies have unique missions, challenges, and

demands. Outside performance benchmarks or measures should not be imposed upon the department—the measures should be derived from within. It is recommended that all members of the department (and perhaps the community) be consulted to develop a comprehensive set of organizational performance indicators that accurately describe the type and quantity of work being performed. Certain tasks, such as residence checks or traffic duty, are likely performed frequently enough that they should appear as regular (i.e., monthly) entries.

- It is imperative that baseline levels be established for all performance categories. This entails measuring a category over a period of months, calculating percentage increases and decreases, computing year-to-date totals, and averaging monthly totals in order to determine seasonal variation and to obtain overall performance levels for the agency. There is likely to be much seasonal variation in the work of the Wyoming Police Department. Such analysis can also include sector and individual officer performance review. For example, discrete patterns can emerge from analyzing when and where department-involved vehicle accidents occur. This performance information is invaluable in terms of determining optimum staffing levels.
- The department should be vigilant in identifying new performance indicators. The department should review its current indicators and solicit input from all levels of the agency. “Key” performance indicators should be identified, with an understanding that they can always be expanded or modified at a later date. These indicators should always form the basis of discussions at command staff meetings.
- Any substantive changes to the current performance management framework must be communicated to, understood by, and acted upon by all members of the department.
- ICMA recognizes that nonsupervisory personnel generally should not participate in management meetings. Nevertheless, monthly command staff meetings should include and involve rank-and-file personnel (police officers) whenever possible to obtain their perspectives concerning current patrol operations, community relations, and organizational challenges and opportunities. Authentic and spontaneous dialogue should be encouraged at these meetings.
- The department should immediately identify, train, and support one member of the department to serve as crime analyst. This can be a nonsworn position.
- The department’s crime analyst should attend and actively take part in command staff meetings. All meetings should include a formal overview and discussion of reported crime, summons, and arrest activity. Mapping and graphs should be used to display data. The crime analyst should work closely with the detective supervisor to present this information and respond to comments and inquiries from supervisory staff. The analyst could also report upon the results of directed patrol operations and information gleaned from analysts at other agencies.
- Command staff meetings should utilize simple data visualization tools, such as graphs, maps, and histograms.
- It is recommended that the department utilize a standard template to convey pertinent performance information to city officials. This would include primarily budgetary and

administrative information, such as sick time, comp time, and overtime expenditures, as well as any other measures that the chief and city officials agree to include.

- ICMA recognizes that both the city and the department have this information. But mere access is not sufficient. This information must be shared, analyzed, and used as the basis of substantive discussions about performance.
- The exact list of performance indicators should be determined by the chief and city officials. The important thing is that: (1) regular monthly meetings take place; (2) timely and accurate performance information is conveyed on a regular basis to city officials; and (3) performance discussions follow a uniform/standardized template or format.
- The detective division should continue to utilize and develop its new performance measurement system for the detective bureau. This system should integrate with, but be separate and apart from, the department's overall performance measurement data dashboard. The division should be required to continually develop, maintain, and provide performance data indicating the quantity and quality of work performed by the division. This should be done via a standardized form/template (i.e., Monthly Detective Activity Report) that includes (but is not necessarily be limited to) the following performance indicators:
 - Total number and type of active cases
 - Number/type of new cases received/initiated each month
 - Number/type of cases closed each month
 - Number/type of arrests made
 - Number/type of summonses issued
 - Number/type of warrants applied for
 - Number/type of warrants executed
 - Type/amount of stolen property reported
 - Type/amount of stolen property recovered.
- The specific performance indicators for the detective division should be developed by the chief and the detectives themselves.
- The department should "operationalize" each objective contained in its annual reports. When implementing a new program or initiative, rather than stating "pending" or "completed," reports should utilize a scale that can include such categories as "initiated," "partially completed," "substantially completed," etc.
- When a performance target is set by the department management plan, it should be tracked weekly or daily as a performance indicator. By continually selecting, tracking, and revising such indicators, the department can deliver on its stated commitment of fostering a culture of accountability.
- The daily and monthly activity sheets prepared by the community policing and school liaison officers should be reviewed carefully. The department should analyze both the

quantity and quality of work being performed by these units in order to establish baseline performance levels and to determine operational effectiveness. Clear performance measures should be created for these units and the ongoing activities should be tracked and addressed at all command staff meetings.

Patrol Operations

The WPD provides the community with a full range of police services, including responding to emergencies and calls for service (CFS), performing directed activities, and solving problems. The WPD is a service-oriented department providing a high level of service to the community. According to the WPD organizational chart (dated 11/17/2011), Field Operations is divided into the Detective Bureau and Patrol Squads A and B (each squad supervised by a lieutenant). The scope of this analysis will focus on the patrol operations, deployment, and staffing of Patrol Squads A and B.

ICMA's general assessment of this element of the WPD is that it is not organized in an optimal manner, resulting in staffing inefficiencies that are costly and detract from maximizing service delivery. The following discussion and recommendations are offered to improve this division.

Patrol Deployment

Uniformed patrol is considered the backbone of American policing. Bureau of Justice statistics indicate that more than 95 percent of police departments in the United States in the same size category as the WPD provide uniformed patrol. Officers assigned to this important function are the members of the department most visible to the public and occupy the largest share of resources committed by the department. Proper allocation of these resources is critical in order to have officers available to respond to calls for service and provide numerous law enforcement services to the public.

Although some police administrators suggest that there are national standards for the number of officers per thousand people, no such standards exist. The International Association of Chiefs of Police states that ready-made, universally applicable patrol staffing standards do not exist. Furthermore, ratios such as officers-per-thousand-people are inappropriate to use as the basis for staffing decisions.

Staffing decisions, particularly in patrol, must be based on actual workload. Only after the actual workload is analyzed can a determination be made as to the amount of discretionary patrol time that should exist, consistent with the community's ability to fund it.

To understand *actual workload* (the time required to complete certain activities) it is critical to review in detail total reported events as separate events in different categories, such as directed patrol, administrative tasks, officer-initiated activities, and citizen-initiated activities. Performing 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. This portion of the study looks at the total deployed hours of the police department with a comparison to the time being spent to currently provide services.

Rule of 60

In general, a “Rule of 60” can be applied to evaluate patrol staffing. This rule has two parts. The first part states that 60 percent of the sworn officers in a department should be dedicated to the patrol function (patrol staffing), and the second part states that no more than 60 percent of their time should be committed to calls for service (CFS). The 60 percent of time committed to CFS is referred to as the patrol saturation index. This is not a hard-and-fast rule, but rather a starting point for discussion on patrol deployment.

Resource allocation decisions must be made from a policy and/or managerial perspective through which costs and benefits of competing demands are considered. The patrol saturation index indicates the percentage of time dedicated by police officers to public demands for service and administrative duties related to their jobs. Effective patrol deployment would exist at amounts where the saturation index was less than 60.

This Rule of 60 for patrol deployment does *not* mean the remaining 40 percent of time is downtime or break time. It is a reflection of the extent that patrol officer time is saturated by calls for service. The remaining 40 percent not committed due to CFS demands should be committed to management-directed operations. This is a more focused use of time and can include supervised allocation of patrol officer activities toward proactive enforcement, crime prevention, community policing, and citizen safety initiatives. It also provides ready and available resources in the event of a large-scale emergency.

From an organizational standpoint, it is important to have uniformed patrol resources available at all times of the day to deal with issues such as proactive enforcement, community policing, and emergency response. Patrol is generally the most visible and available resource in policing, and the ability to harness this resource is critical for successful operations.

From an officer’s standpoint, once a certain level of CFS activity is reached, the officer’s focus shifts to a CFS-based reactionary mode. Once a threshold is reached, the patrol officer’s mindset begins to shift from one that looks for ways to deal with crime and quality-of-life conditions in the community to one that continually prepares for the next call for service. After point of CFS saturation, officers cease proactive policing and engage in a reactionary style of policing. The outlook becomes “Why act proactively when my actions are only going to be interrupted by a call for service?” Uncommitted time is spent waiting for the next call. Sixty percent is believed to be the saturation threshold.

The ICMA data analysis in the second part of this report provides a rich overview of CFS and staffing demands experienced by the WPD. The analysis here looks specifically at patrol deployment and maximizing the personnel resources of the WPD to meet the CFS demands and engage in proactive policing to combat crime, disorder, and traffic issues in the community.

According to the WPD organization chart dated 11/17/2011, Patrol Squads A and B are staffed by six sergeants and forty-four patrol officers, for a total of fifty sworn officers assigned to CFS response. These officers account for 57.5 percent of the eighty-seven sworn officers in the department. This percentage is slightly lower than the 60 percent benchmark for patrol staffing for

an agency the size of the WPD. This indicates that the patrol function in the WPD is from slightly understaffed according to this prong of the Rule of 60.

WPD’s Deployment Schedule

General patrol operations are staffed using 10-hour shifts. The WPD has two platoons, each supervised by a lieutenant. Each platoon (A and B) works four days in row and has three days off. One squad will work Monday, Tuesday, Wednesday, and Thursday, with Friday, Saturday, and Sunday off, and the other squad will work Thursday, Friday, Saturday, and Sunday, and have Monday, Tuesday, and Wednesday off. Each week both squads work on Thursdays, and the on-off rotation changes every twenty-eight days. This results in all patrol officers working Thursdays, and every twenty-eight days one squad of officers must work eight days in a row, and the other squad has six days off in a row as the rotation switches.

This patrol deployment schedule has many advantages and disadvantages. On the positive side, the schedule is enjoyed by the officers. It is also the envy of patrol officers in the surrounding departments. Also, the double squads present on Thursdays permits the WPD to train regularly without incurring overtime costs or impacting patrol coverage. Furthermore, the overlap of personnel on Thursdays allows the department to conduct specialized enforcement operations, also without impacting patrol operations negatively. The disadvantages of the schedule include substantial personnel costs, lower patrol coverage than possible given the available personnel resources, and an inefficient use of schedule overlap to meet community demands.

The WPD has established a mandatory minimum personnel headcount that it does not go below. This “hard-minimum” personnel level is considered one fewer than the total number of officers scheduled to work. When the hard-minimum is breeched, the department authorizes an officer to be called in (or held) on overtime to maintain the pre-established personnel strength. For example, during the day shift, seven officers are scheduled to work each day (fourteen on Thursdays). If one officer is on vacation, and another officer calls in “sick,” only five officers will be available. Thus, overtime is authorized to restore the shift strength to six officers.

In its totality, the patrol deployment plan in the WPD has substantial costs and patrol inefficiencies that make it undesirable. This substantial downside overshadows any advantages the system offers and serious consideration must be given to altering the current schedule.

TABLE 2: WPD Deployment Plan

Squad	Shift	Hours	Sergeants	Officers
A	Day	0600x1600	1	7
B	Day	0600x1600	1	7
A	Afternoon	1500x0100	1	8
B	Afternoon	1500x0100	1	8
A	Night	2100x0700	1	7
B	Night	2100x0700	1	7

Saturation Index

Figures 3, 4, 5, and 6 graphically represent the saturation of patrol resources in the WPD during February and August, 2011. The amount of available patrol resources is denoted by the dashed green line at the top of each figure. The 100 percent value indicates the total police officer hours available during the 24-hour period. This amount varies during the day consistent with the staffing of the shifts, but at any given hour, the total amount of available manpower will equal 100.

The red dashed line fixed at the 60 percent level represents the saturation index (SI). As discussed above, this is the point at which patrol resources become largely reactive as CFS and workload demands consume a large portion of available resources. It is ICMA's contention that patrol staffing is deployed optimally when the SI is in the 60 percent range. A SI greater than 60 percent indicates that the patrol manpower is largely reactive and overburdened with CFS and workload demands. A SI of less than 60 percent indicates that patrol manpower is optimally staffed. SI levels much lower than 60 percent, however, indicate underutilized patrol deployment and an opportunity for reducing patrol resources or reallocating police personnel.

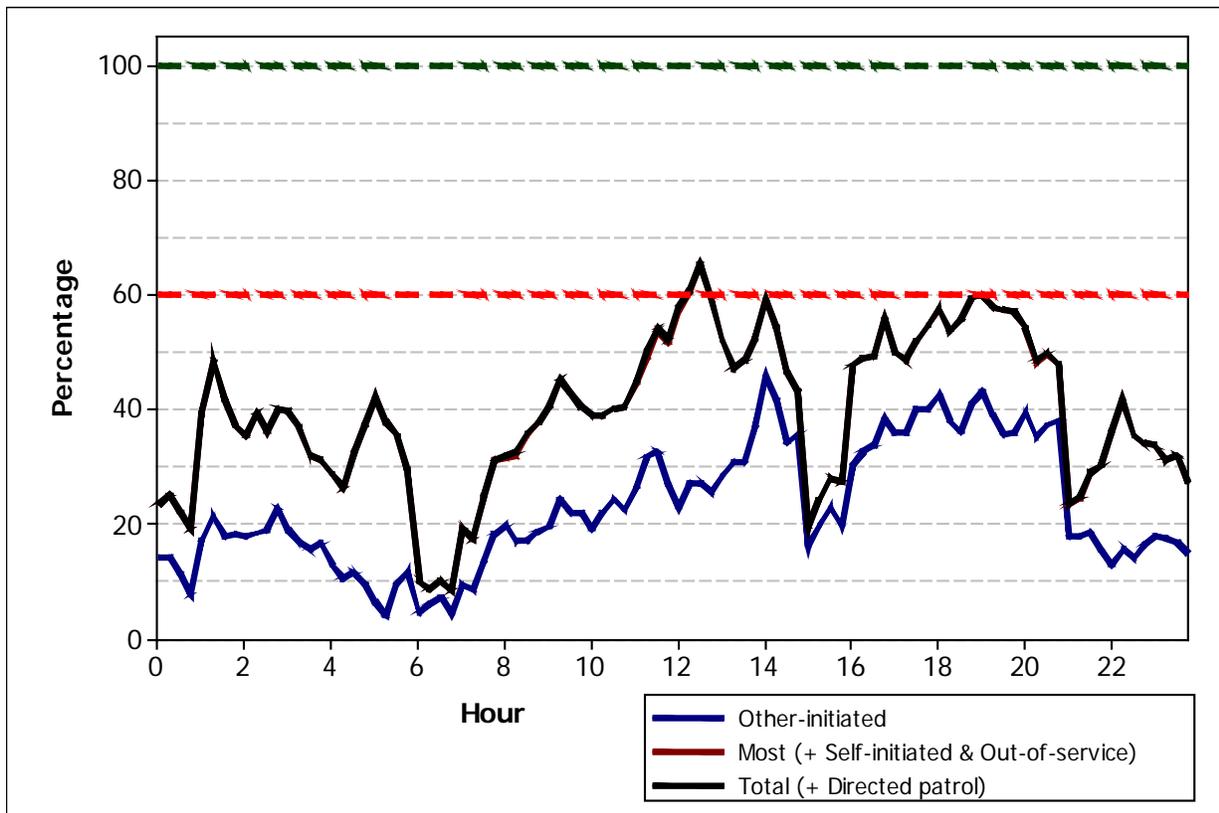
Departments must be cautious in interpreting the SI too narrowly. The rule is not meant to conclude that the SI can never exceed 60 percent at any time during the day or that in any given hour, no more than 60 percent of any officer's time be committed to CFS. The SI at 60 percent is intended to be a benchmark to evaluate service demands on patrol staffing. When SI levels exceed 60 percent for substantial periods of a given shift or at isolated and specific times during the day, decisions should be made to reallocate or realign personnel to reduce the SI to levels below 60. (The data analysis section of this report goes into great detail of the exact elements of this information).

The four figures represent the patrol saturation index during weekdays and weekends during the months of February and August, 2011. Examination of these four figures permits exploration of the second prong of the Rule of 60. Again, the Rule of 60 examines the relationship between total work and the total amount of patrol officer time available, and to comply with this rule, total work should be less than 60 percent of total resources available.

The blue line at the bottom of each figure represents the workload generated by CFS from the public through 911. The black line represents a combination of activities, including out-of-service time, which could be for administrative duties related to CFS, personal time, and all other activities not related to service provision. This black line also includes time spent on police-initiated calls for service, which can include traffic stops and CFS received directly by the officer on patrol. These various activities are represented cumulatively on the graph so each activity adds to the other. The total workload is represented by combining other-initiated, officer-initiated, out-of-service, and directed patrol times, and this is represented by the solid black line in each of the figures. Keep in mind that the black line does *not* represent just workload; it is the percentage of workload related to the amount of available manpower. So at any given hour of the day during these four representative months, workload is compared to available manpower and the result is the patrol saturation index.

In order to evaluate patrol staffing, the second prong of the Rule of 60 can be applied here. In this case, the most effective use of patrol resources occurs when officers are not committed to CFS activities greater than 60 percent of total available time.

FIGURE 3: Patrol Saturation Index, February 2011, Weekdays



Average workload: 3.3 officers per hour

Average % deployed (SI): 37%

Low SI: 8%

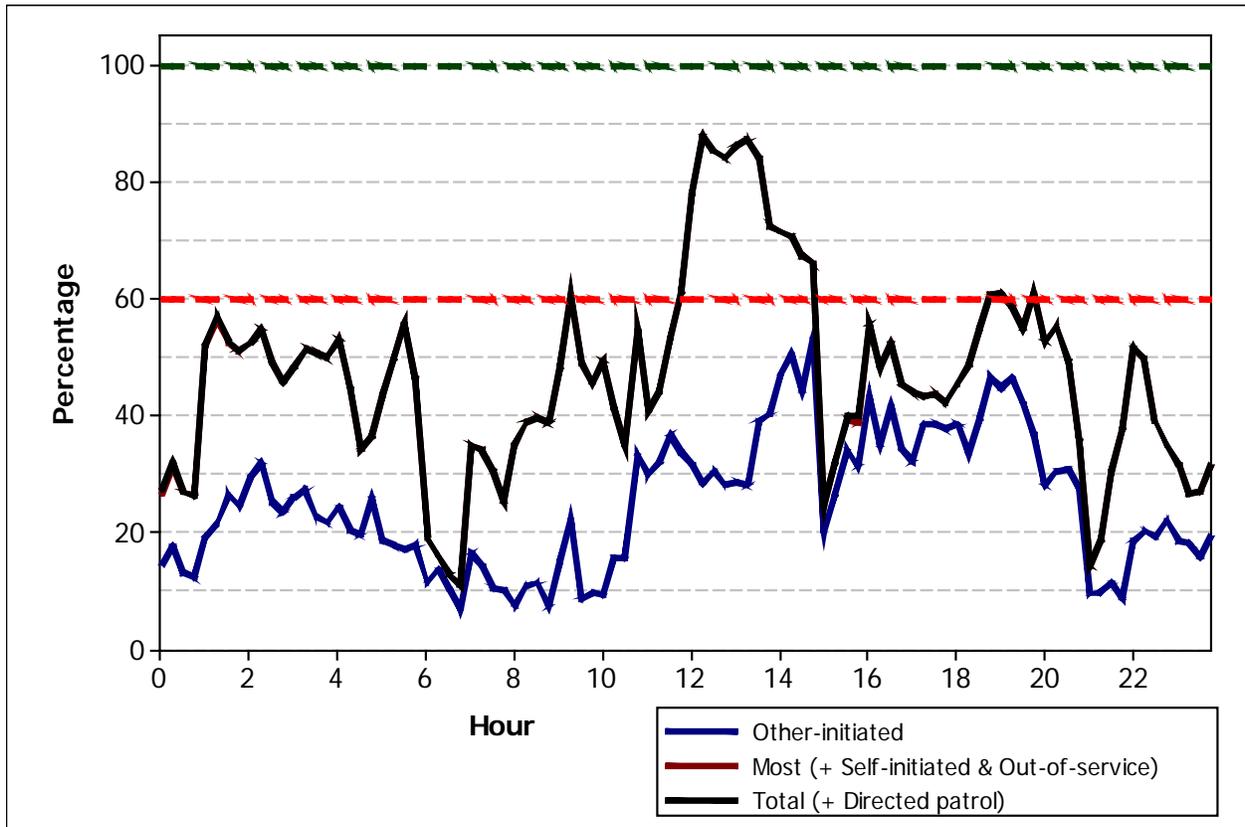
Low SI time: 0645 hours

Peak SI: 65%

Peak SI time: 1230 hours

Figure 3 presents the patrol SI for weekdays in February 2011. As the figure indicates, the SI exceeds 60 percent briefly at 12:30 P.M. and returns below the threshold for the remainder of the day. The SI ranges from a low of approximately 8 percent at 6:45 A.M. a high of 65 percent at 12:30 P.M., with a daily average of 36.75 percent. Note that direct public demand for services indicated by the solid blue line (other-initiated) demonstrates that at all times during weekdays in February, the WPD had adequate patrol resources to meet that demand.

FIGURE 4: Patrol Saturation Index, February 2011, Weekends



Average workload: 3.2 officers per hour

Average % deployed (SI):43%

Low SI: 11%

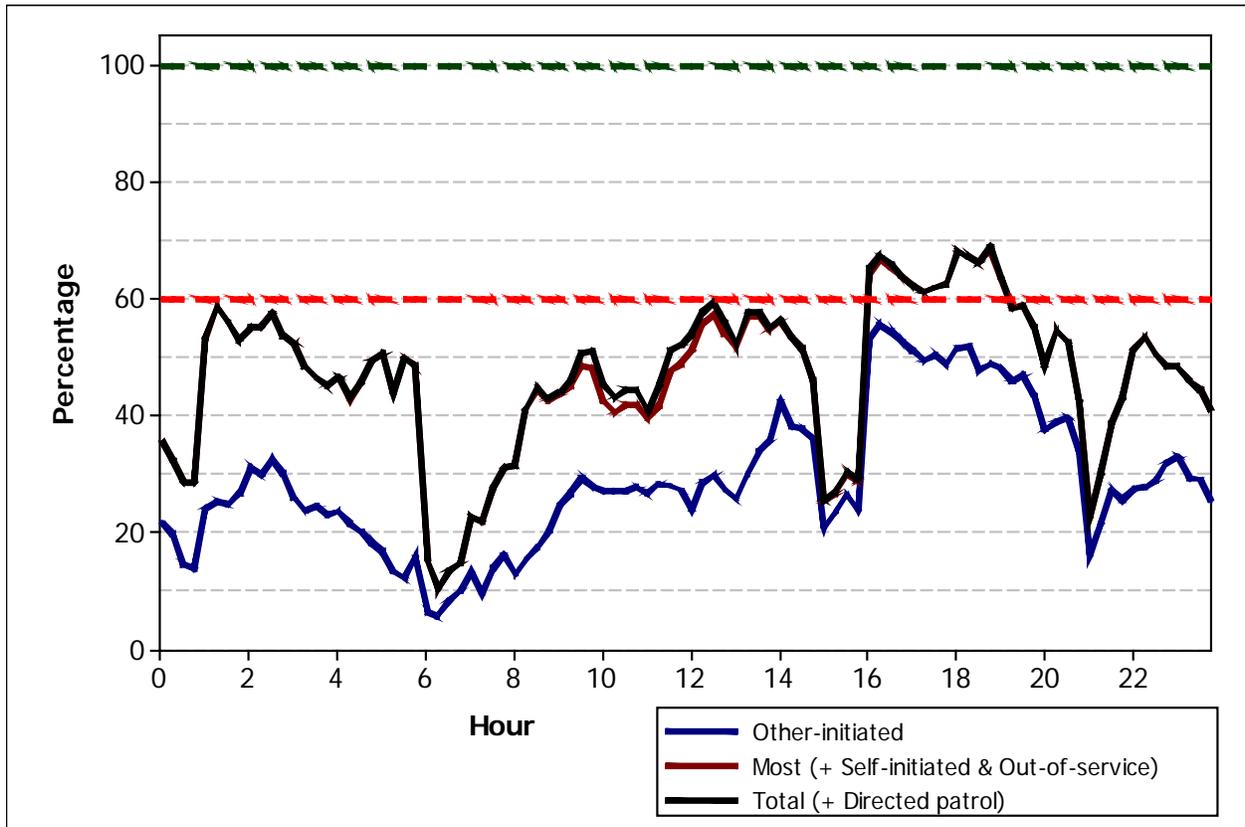
Low SI time: 0645 hours

Peak SI: 88%

Peak SI time: 1215 hours

Figure 4 represents patrol SI for weekends in Feb. 2011. This figure shows that the SI exceeds 60 between 11:45 A.M. and 3:00 P.M. The SI ranges from a low of about 11 percent at 6:45 A.M. to a high of approximately 88 percent at 12:15 P.M., with a daily average of approximately 43 percent. This indicates that there are adequate patrol resources to meet demand during the weekends in February. CFS volume peaks during the early afternoon hours and the WPD struggles to meet demand, but the remainder of the day is covered easily.

FIGURE 5: Patrol Saturation Index, August 2011, Weekdays



Average workload: 3.7 officers per hour

Average % deployed (SI): 44%

Low SI: 10%

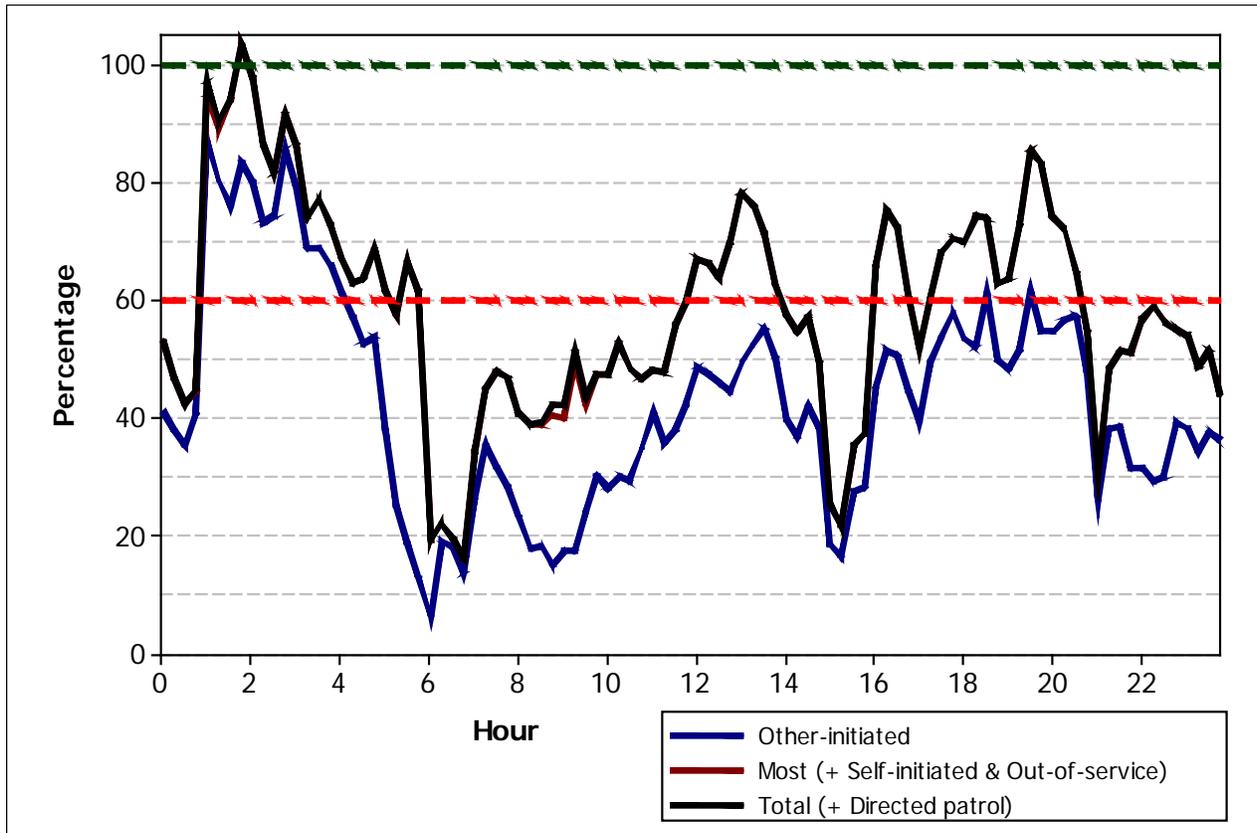
Low SI time: 0645 hours

Peak SI: 68%

Peak SI time: 1845 hours

Figure 5 presents the patrol SI for weekdays in August 2011. The SI ranges from a low of approximately 10 percent at 6:45 A.M. to a high of 68 percent at 6:45 P.M., with a daily average of 44 percent. Again, patrol resources are more than adequate to meet service demands with SI remaining well below the 60 percent threshold for most of the day.

FIGURE 6: Patrol Saturation Index, August 2011, Weekends



Average workload: 4.1 officers per hour

Average % deployed (SI): 55%

Low SI: 16%

Low SI time: 0615 hours

Peak SI: 103%

Peak SI time: 0145 hours

Figure 6 presents the patrol SI for weekends in August 2011. The SI ranges from a low of approximately 16 percent at 6:15 A.M. to a high of approximately 103 percent at 1:45 A.M., with a daily average of 55 percent. The SI exceeds the 60 percent threshold for most of the weekend time periods.

Close inspection of Figure 6 indicates that from about 11:30 A.M. until 6:00 A.M. on weekends in August the WPD struggles to handle CFS volume; patrol is almost entirely reactionary. There are periods when SI dips below the 60 percent threshold within this timeframe and these periods coincide when shifts are doubled-up due to the natural overlap of the 10-hour shifts. This struggle to meet demand indicates chronic stress on patrol resources and an inability of the WPD to do anything other than reactive CFS response.

Note that when the SI exceeds 60 percent it is not meant to imply that police resources are not available to meet service demands. This situation would occur when the SI exceeded 100 percent during extended time periods. (An individual value of greater than 100 percent indicate that all available resources are being used and patrol officers are assigned to multiple CFS at one time. This would indicate a CFS backlog, with resources completely committed. According to the figures presented here, this situation occurs only during a brief time period, and that is weekends in August at 1:45 A.M. This would only be cause for concern if the 100 percent SI threshold was exceeded at numerous and frequent times during the day.)

There are clearly sufficient resources available throughout the day (SI levels consistently less than 100). However, at critical and extended times during the day the 60 percent SI is passed and in all likelihood proactive patrol ceases. This is not desirable from a police personnel deployment perspective, and it is recommended that steps be taken to ameliorate this condition.

Several conclusions can be drawn from evaluating the patrol saturation graphs presented above:

- During February 2011 and weekdays in August 2011 patrol resources are adequate to meet service demands from CFS and police officer-initiated activities. However, during several times during these periods service demands peak and patrol resources struggle and resort to a reactive approach.
- During weekends in August 2011 there was a chronic shortage of personnel and the WPD struggled to keep up with demand. Clearly, this condition is created by a shortage of personnel associated with vacations, holidays, etc., as well as a less-than-optimal deployment of personnel through inefficient scheduling.
- Patrol resources are not deployed in a manner that matches demands for service. The SI figures indicate wide swings in demand throughout the 24-hour period. Ideally, the overall SI should be maintained as close to 60 percent as possible by adjusting schedules to mirror demand. The current work schedule in place in the WPD does not match up well with the workload. Personnel resources should be deployed when they are most needed, and personnel made available at the right levels throughout the day not only to meet the demand but also to have discretionary time available to address other important issues.

Recommendations:

- The WPD should revisit its current patrol staffing model. Employing 10-hour tours in the current configuration is inefficient and should be abandoned in favor of a more flexible model that matches personnel resources to demand.

Alternative Scheduling

As discussed above, the current work schedule in place in the WPD has several positive and negative attributes. An efficient deployment of patrol resources would have more officers assigned during busy times and fewer officers assigned when it is slow. A simple modification of the work schedule in the WPD has the potential for deploying patrol resources in a more efficient manner. Through the examination of patrol saturation during the sample months presented above, it is clear that a modification of the patrol work schedule in Wyoming is warranted.

Deploying three 10-hour shifts, overlapped in the current manner, is inefficient and must be reexamined. Granted, there will be training and scheduling disruptions caused by a work schedule change, but in the overall analysis, the WPD shift model is inefficient as it does not adequately meet service demands. The scheduling plan is expensive, as it requires overtime and it has built-in overlaps when they are not necessarily needed.

There are examples of 10-hour work plans that appropriately model service demands and which can be put into place in Wyoming. These alternative models will likely save money in overtime expenses, and would lead to a reduction in personnel necessary to staff patrol. ICMA recommends that the WPD explore alternative work schedules similar to the schedule in place in neighboring jurisdictions and throughout Michigan. These models propose four start times (not three) and are flexible and can be changed easily as the conditions change. The basic concept behind the alternative scheduling models is the use of four shifts, and beginning and ending those shifts to take advantage of natural overlap during the times and days when that overlap is most beneficial to the community. Additionally, the four sets of 10-hour shifts work in pairs, with two shifts sharing start/end times, thus creating two 20-hour coverage groups that can be “dialed” forward or backwards to maximize coverage.

Appendix B contains a sample 10-hour shift plan that is in use in numerous police departments across the country. The schedule presented in Appendix B maintains 10-hour shifts, but adds an entire shift, and structures the start and end times to meet demand levels throughout the day. Matching demand levels over the average 24-hour period for the busiest times of the day (busiest hour of either weekend or weekday in either February or August), with the required number of patrol officers leads to the configuration of the 10-hour work chart as depicted in Appendix B. According to this 10-hour plan, thirty-nine patrol officers are required to work one of the four structured shifts. This is just a sample plan and can be adjusted to accommodate a number of different configurations. The point here is that an alternative work chart can be constructed that more appropriately matches demand with officer scheduling and maintains the current 10-hour shift length currently in place.

Recommendation:

- Strong consideration should be given to abandoning the current patrol work schedule in favor of one that more efficiently matches officer schedules with demand.

Demand Management

In calendar year 2010, the WPD responded to more than 36,000 CFS. Examination of data extracted from the CAD system and detailed in the data analysis section of this report indicates that out of these 36,000 CFS, approximately 19,000 are actual calls for service generated by public demand and 17,000 are police-initiated assignments. Table 3 lists the major categories of assignment and the average amount of time spent on each one of those assignments during 2011.

TABLE 3: WPD Calls for Service, 2011

Category	Police-initiated			Other-initiated			Total CFS		
	Total Calls	Units per Call	Minutes	Total Calls	Units per Call	Minutes	Total Calls	% of Total	Rank
Accidents	323	1.3	52.2	2,043	1.4	54.2	2,366	6.5	6
Alarm	53	1.9	14.7	1,255	2.1	15.5	1,308	3.6	9
Animal calls	29	1.2	18.3	375	1.2	23.7	404	1.1	13
Assist other agency	73	1.9	52.3	345	1.9	52.7	418	1.2	12
Check/investigation	211	1.1	33.1	360	1.5	61.6	571	1.6	11
Crime—persons	280	1.5	62.5	868	1.7	43.5	1,148	3.2	10
Crime—property	174	1.9	63.1	2,970	2.1	58.2	3,144	8.7	4
Disturbance	501	1.5	74.0	3,260	1.5	60.9	3,761	10.4	2
Juvenile	169	1.7	35.5	2,228	2.0	28.4	2,397	6.6	5
Miscellaneous	1,103	1.3	32.7	2,482	1.5	31.6	3,585	9.9	3
Prisoner—arrest	1,041	1.5	69.9	293	1.9	86.5	1,334	3.7	8
Suspicious person/vehicle	204	1.7	25.6	1,542	2.0	27.6	1,746	4.8	7
Traffic enforcement	12,864	1.1	14.4	1,248	1.2	23.5	14,112	38.9	1
Total	17,025	1.2	23.5	19,269	1.7	42.9	36,294		

The information in Table 3 illustrates several important points about CFS demand in Wyoming. The table breaks down the volume of calls by category and shows the amount of time necessary to handle each CFS. The “traffic enforcement” category has the highest number of other-initiated CFS, with 14,112 CFS. Disturbance is the next highest with more than 3,700 CFS, and miscellaneous is third, with 3,585.

Traffic enforcement accounts for almost 40 percent of all CFS in Wyoming, with more than 90 percent of these calls police initiated. This indicates a very aggressive level of traffic enforcement conducted by officers in the WPD, and a highly motivated patrol function. Traffic enforcement is an excellent tactic to improve traffic safety and create a visible presence to reduce other categories of crime.

Total CFS volume as a percentage of population is low. There were 36,300 calls for service between November 1, 2010 and October 31, 2011. The population of Wyoming is approximately 72,125. This indicates that during the 12-month period under observation there was approximately 0.50 CFS per person (or 500 CFS for every 1,000 residents).

While there is no appropriate standard ratio between CFS and population, the lower the ratio means the better managed the CFS function is in an organization. ICMA studies of communities similar in size to Wyoming show the CFS/population ratio ranges between 0.4 and 1.1 CFS per person, per year. A value of 0.50 CFS/person/year indicates that there is an effective “triage” system in place and call-takers are screening out frivolous and/or “nonpolice” related calls. The management of the WPD should be commended for outstanding performance in this area. ICMA experience indicates that without effective management, the 911 system can become a “catch-all”

for community demands. Being open 24 hours, 365 days each year, 911 is often the “go-to” resource for community concerns. If not properly managed, this can result in the misuse or ineffective deployment of valuable police resources. The data from the WPD indicate that police resources, as reflected by CFS/population ratio, are being deployed effectively.

Reducing Responses to Certain Calls

The WPD handles a high number of CFS that have limited or no relationship to law enforcement, and consideration should be given to evaluating responses to these calls. This evaluation would be performed by a committee of WPD personnel to look at the volume of CFS and seek to eliminate, downsize, and streamline responses by units on patrol.

The quantity and quality of certain calls deserve closer scrutiny, as reducing response to these calls holds enormous potential for improving operational efficiencies. Three of these categories (burglar alarms, traffic crashes–property damage only, and miscellaneous) are types of CFS that might not warrant the response of a sworn police officer. For example, at motor vehicle accidents involving only property damage, the police role is largely administrative: preparing and filing reports. Similarly, industry experience also tells us that more than 98 percent of all burglar alarms are false alarms and that CFS labeled miscellaneous are typically just nuisance-type calls without any police purpose. The bottom line here is that many CFS dispatched to officers in the WPD could be eliminated.

For example, in 2011, the WPD responded to more than 1,308 burglar alarms, which represented 3.6 percent of all public CFS. At 15.5 minutes per call (with 2.1 officers responding), this equates to more than 700 hours spent on this one type of call (15.5 minutes x 2.1 officers x 1308 alarms). Experience dictates that response to these calls is a waste of valuable police resources.

In order to address this problem, a double-call verification program is recommended. Currently, the alarm industry is working with police departments across the country to reduce alarm types of calls. This industry is a strong advocate of developing ordinances and procedures to address police responses to false alarms and will work closely with any agency exploring this issue. It should be noted that nationwide, 98 percent of alarm calls are false and caused by user error that can often be addressed by alarm management programs⁴. Alarm reduction needs to be addressed aggressively. Adopting an alarm callback program has the potential to reduce CFS volume by hundreds of calls that come from the public.

In 2011, the WPD responded to 3,586 reports of “miscellaneous,” which are types of calls that in all likelihood are not crime related. At 31.6 minutes per call (with 1.5 officers responding to each call), WPD’s response amounts to more than 2,800 hours each year of officers handling calls that have limited relevance to police services. During interviews, focus groups, and patrol observations, officers raised the issue that a bulk of their time is spent responding to calls that have no police purpose. Calls in this miscellaneous category are likely to capture many of these assignments, and this represents approximately 9.9 percent of all calls.

⁴ Information about burglar alarm statistics and reduction strategies can be found at the Center for Problem-Oriented Policing publication entitled *False Burglar Alarms, 2nd Edition*, (2007) by Rana Sampson.

Traffic crashes also represent almost 6.5 percent of the total CFS workload. Here as well, police departments across the nation are removing property-damage traffic crashes from the emergency police responsibility. Response by a sworn police officer to a routine traffic crash that involves only property damage is a questionable use of emergency police resources.

Combined, these three categories of CFS represent 20 percent of the patrol CFS workload in Wyoming, and the need for a police response at the large majority of these incidents is not likely necessary. These categories of CFS must be examined carefully and a determination must be made whether or not a police response should be continued. It is recommended, therefore, that a committee be established by the WPD that includes all the principal stakeholders in this process. The committee would have the responsibility of evaluating the CFS workload with an eye toward reducing nonemergency CFS response. This committee should begin with these three major categories of CFS response and formulate the response (or nonresponse) protocols for these assignments.

Time Spent on Calls

The data presented in Table 3 show that, in 2011, the average other-initiated CFS took 42.9 minutes to complete. ICMA research in similar jurisdictions on CFS indicates that the average for CFS completion is approximately 30 minutes.⁵ This means that it takes 43 percent longer to handle a CFS in Wyoming than in other police departments of similar size in the U.S. The variables that drive CFS completion time are numerous and beyond the scope of this analysis. However, the data indicate that CFS completion time is far greater in Wyoming than elsewhere in the U.S., and the agency must take a hard look at the factors driving this excessive completion time.

Similarly, the data from Table 3 indicate that the WPD dispatches approximately 1.7 officers to the average CFS. ICMA research in this area indicates that the average number of officers dispatched to CFS is approximately 1.6. This indicates that the WPD sends slightly more officers per CFS than expected.

To put these statistics into perspective, during the 12-month period of CFS observation, the WPD average time per call was 42.9 minutes, with an average of 1.7 officers per call to an “other-initiated” CFS. To handle 19,269 CFS, the WPD employed 23,428 police hours (42.9 min x 1.7 officers x 19,269 CFS = 23,421). This contrasts with the number of hours that would be employed using the average values from previous ICMA research. Using 1.6 police officers per call, and 30 minutes per call, it would take 15,415 hours to handle 19,269 CFS (30 min x 1.6 officers x 19,269 CFS = 15,415). Therefore, in the typical community studied by ICMA, it would require 34.2 percent fewer police officer hours to handle the 19,269 CFS than currently deployed in Wyoming (15,415-23,421/23,421 = -34.2 percent).

The factors associated with number of officers required to handle a CFS and the amount of time spent on each CFS are beyond the scope of this report. However, the patrol commanders and supervisors should inspect the response to CFS and seek ways to improve efficiencies. For example, in the WPD it takes an average of 54.2 minutes to handle a traffic accident, and more than an hour

⁵ 30-minute response time based on ICMA data analyses of jurisdictions with similar demographics.

to handle the average disturbance. Clearly, these categories of calls, and several others, require closer inspection with an eye toward eliminating unnecessary delays in handling the CFS.

The combination of time per CFS and officer assigned per CFS in Wyoming indicates that more officers are assigned to the average CFS and it takes longer than anticipated to handle each CFS than other communities studied by ICMA. Looking at these data in context with the discussion on the saturation index presented above leads to several important conclusions. First, Wyoming already adopts an aggressive CFS management process, but this process can be fine-tuned even more by closer examination of the CFS categories of alarms, miscellaneous, and traffic crash–property damage only. Second, the surplus of officers assigned to the patrol division (as indicated by Figures 1-4), indicate that more officers are assigned to CFS for longer periods than would otherwise be necessary. In other words, the excess supply of police personnel resources and the paucity of CFS demand are resulting in many officers responding to CFS and remaining on the scene CFS longer.

Pulling all these variables together gives support to the conclusion that the patrol field services in the WPD has a surplus of personnel and reductions in this area are possible without negatively impacting service delivery. More aggressive CFS management and tighter supervision of officers actually deployed, added to the cushion in the saturation index, means it may be possible to reduce personnel assignments in patrol field services.

The data analysis supports the notion that a thorough examination by the WPD of CFS response can eliminate CFS, downsize patrol staffing, and streamline CFS response. Furthermore, a detailed analysis must be made of the variables associated with CFS completion time, with an eye toward streamlining officer duties and responsibilities at these incidents.

Recommendation:

- Create a CFS task force to examine all facets of demand management. This task force should explore the overall time and assignments dedicated to CFS and analyze major categories of CFS with an eye towards eliminating them, or reducing them, from the response requirements of WPD patrol officers

Detective Bureau

The Wyoming Police Department's Detective Bureau is a full-service operation. Detectives handle all the investigations of all crimes reported to the department as well as other investigative issues assigned by the chief of police. The bureau is supervised by a lieutenant. The staff is comprised of three sergeants, eight general and major case detectives, and four crime scene technicians. There is one vacant technician position. The bureau also has two warrant officers who are responsible for the processing of court documents, prisoner transfers, and pursuing persons wanted by the department on active arrest warrants.

The three sergeant positions divide the supervisory responsibilities as follows:

- The first sergeant's position is responsible for administering the polygraph examinations, the fraud team, and two general assignment detectives.
- The second sergeant's position is responsible for investigations and assignments for three general assignment detectives and for the technical support unit (crime scene technicians).
- The third sergeant's position is responsible for three general assignment detectives. This position is also responsible for crime stoppers, business watch, and supervising the detective assigned to the Combined Auto Theft Team (CATT).

There were 1,842 cases assigned to detectives in 2011. These assignments resulted in a clearance rate of 37 percent. This includes clearance by arrest and exceptional clearances.

Multijurisdictional operations are an important part of the detective bureau operations. Any funds or assets gained from these joint operations are administered by the Metropolitan Oversight Board (MOB). The board is comprised of the department heads for the participating agencies.

Observations/Recommendations:

The detective division is well run and organized. There are clear lines of authority and responsibility. This small investigative organization is focused and the members understand their responsibility. Due to the small size of their organization there are limits on their investigative resources. The department participates in multi-agency investigative groups that can supply resources for long-term investigations. This seems to be a very positive countywide network of mutually beneficial operations that the county's larger departments are committed to supporting.

- The department should develop and regularly track a comprehensive set of performance indicators for the entire detective bureau.

Multi-agency Investigative Groups

There are several interagency groups that involve the WPD. These include:

Metropolitan Fraud and Identity Theft Team (MFITT): This countywide unit investigates all check fraud, credit card fraud, and other fraud-related cases that occur within the county. All of the participating departments forward these type cases to the unit for investigation. The member

jurisdictions are the cities of Wyoming, Grand Rapids, and Kentwood, and Kent County. The Wyoming Police Department provides office space for this unit. Wyoming contributes one sergeant and one detective to the unit.

Metropolitan Narcotics Enforcement Team (MET): This countywide unit investigates drug crimes that occur throughout the county. The member agencies are the cities of Wyoming, Kentwood, Grand Rapids, and East Grand Rapids; Kent County; and the Michigan State Police. This unit operates from an off-site location. Wyoming has one detective assigned to the unit.

The Wyoming Police Department does not have a dedicated drug and or vice crime investigations unit. The department currently relies on this countywide narcotics enforcement team to investigate drug crimes within the city limits. Patrol officers investigate street-level drug crimes that occur or are reported during their tour of duty. This primarily is limited to street-level activities that can be dealt with by utilizing aggressive patrol techniques. All other long-term or higher level criminal drug cases are turned over to the Metropolitan Narcotics Enforcement Team. This team works from an off-site location but does have space to work from within the Wyoming Police Department.

Combined Auto Theft Team (CATT): This unit investigates all auto thefts that occur in the member jurisdictions. The member agencies are Grand Rapids, Wyoming, Kentwood, and Kent County. Wyoming has one detective assigned to the team.

Kent Metropolitan Major Case Task Force: This team operates as a result of a major or protracted criminal case involving violent crime that involves multiple jurisdictions. The task force has a current operation investigating cases involving the use of firearms. The investigation is currently scheduled to operate for forty-five days. The member agencies involved are Kentwood, Wyoming, Kent County, and Grand Rapids. The operation members work out of the Grand Rapids Police Department.

Observations/Recommendations

The level of commitment to these specialized multi-agency organizations maximizes the effectiveness of all of the resources of the investigative operation within the department. These operations do require constant evaluation to make certain that all of the departments mutually benefit from the commitment they are making. The supervision of these units and the oversight by all of the police chiefs and the sheriff makes certain that all departments are treated fairly and receive attention to their local problems. All of the departments involved should receive positive recognition of these combined innovative programs that benefit the entire county.

Forensic Services/Crime Scene Technicians

The technical services unit sergeant in the Detective Bureau supervises the three crime scene technicians (one of four authorized positions is currently vacant and a search is now being conducted to fill it). These highly trained individuals respond to all major crime scenes to handle evidence identification and collection, fingerprint identification, and scene photography. Police officers are not trained to handle crime scene processing; however, the patrol officers do carry small digital cameras and do assist in photography on minor scenes. There is an identification technician available on duty twenty hours a day. They do not work from 4:00 A.M. to 8:00 A.M.

The crime scene technicians respond to approximately 800 crime scenes a year. Two of the three technicians are trained to classify fingerprints.

New hires are trained by current technicians in an in-house training program. They are also sent to specialized training schools. All of the current crime scene technicians possess four-year degrees.

The crime scene technicians do their print work such as lifting, fuming, and photographing within their building. They also prepare and submit fingerprints for comparison through an automated fingerprint identification system (AFIS). In 2011 there were 193 cases submitted for latent print examination. There were ninety-one cases from these submissions that either eliminated the fingerprint or identified the fingerprint as belonging to a suspect.

The department also utilizes the State of Michigan Crime Laboratory for all DNA, firearms, and drug analysis. This facility is located in Grand Rapids.

The department has the ability to analyze video surveillance footage and provide still photographs and assist in the replaying of video evidence.

The ICMA analysis team visited the forensic lab area and found the facility to be orderly and in compliance with department policy.

Evidence/Property

The Wyoming Police Department has an evidence and property storage facility located within the police department. The facility was visited by the ICMA analysis team. The property storage areas were orderly and in compliance with department policy. The evidence and property room currently contains approximately 25,000 pieces of property and evidence.

Observations/Recommendations

The operations and supervision of the crime scene technicians is excellent. The fact that trained professionals handle all major crime scenes adds a great deal to the professionalism within the department and the probability of identifying perpetrators. In these difficult economic times leaders often look at civilian positions like crime scene technicians to reduce budgets. Reducing personnel in these positions can create very difficult situations if major crimes go unsolved because of the lack of attention to a crime scene. The department has an open position currently that should be filled as quickly as possible. As was stated before this is an excellent operation that is operated by very talented and dedicated personnel. No deficiencies were noted in the forensic investigation operation or the property and evidence facility.

Administration

The Wyoming Police Department offers a wide range of services to the city and the citizens it serves. The department has also continued to maintain staffing levels despite the continuing economic downturn. The city has asked ICMA to take an in-depth look at the department and to make recommendations on organizational changes that will assist in meeting budgetary goals.

The Administrative Services Bureau is comprised of the following divisions, sections, and units:

- Administrative Services Division
 - Records section
 - K-9 unit (Composed of four sworn officers. For patrol purposes, they report to the supervisor of whichever squad they are assigned to. For administrative and training purposes, they all report to a designated lieutenant.)
 - Community services unit community liaison officers
 - Fleet maintenance
 - Accounting.
- Support Services Division
 - Planning and research section
 - School resource officer (SRO) unit
 - Professional standards unit
 - Training/firearms unit
 - Volunteers (RSVP).

One lieutenant is assigned as administrative lieutenant and is responsible for, among other things, professional standards, fleet maintenance, quartermaster, purchasing, and grants.

One lieutenant is assigned as support services lieutenant and is responsible for training, community liaison officers, school resource officers, the K-9 unit, selective enforcement, volunteers, crossing guards, communications liaison, hiring and recruitment, public relations, and the field training program. The selective enforcement unit was disbanded approximately two to three years ago as a result of staffing cuts. The unit was staffed by a sergeant and three police officers. Senior administrators report no noticeable drop off in overall productivity (i.e., summons activity) since the time that the selective enforcement unit was disbanded.

Three police officers are assigned as community liaison officers to perform community policing duties. One community liaison officer is presently assigned to a task force. Two police officers are assigned as liaisons to the city's high schools. The community services unit has worked to establish community watch groups in each community policing district and has conducted bicycle patrols in city parks and neighborhood districts.

The crime analyst position was recently cut due to budget constraints. Crime maps are not being generated routinely for use by operational personnel. The department does, however, host monthly “detectives’ meetings” at headquarters. These meetings are a forum for information sharing and crime-fighting discussions among investigators and crime analysts. Personnel from several area police departments attend and participate in these meetings. Personnel from the Department of Parole also attend.

The department does not have a stand-alone traffic unit. Patrol squads and officers are generally responsible for traffic enforcement. ICMA was advised that a traffic officer is deployed to “hot spots” as necessary. Despite not having a formal traffic enforcement and analysis unit, the department does appear to take a data-driven approach to traffic safety. Senior management does review traffic data on a regular basis. The department conducts annual analyses of demographic data from traffic stops to identify any incidents or pattern of bias-based policing practices. The selective enforcement unit was formerly tasked with traffic enforcement and analysis. The State of Michigan provides the department with access to traffic and citation data for further analysis. The department is represented on a variety of regional traffic safety committees.

The crime prevention function is performed by the community liaison officers. Two detectives are assigned to youth crime and investigations. Four police officers are trained as K-9 patrol officers. K-9 teams perform tracking of persons, narcotics and area searches, and make public presentations, in addition to normal patrol activities. There are no domestic violence or DARE officers.

Approximately sixteen officers (of various ranks) are trained as special weapons and tactics officers. The department has its own stand-alone unit, known as the tactical arrest and confrontation team (TACT). It was noted that costs and training requirements for this unit have been increasing.

A lieutenant and a sergeant are assigned (among other things) as training officers. The department also has a number of trained general topics, firearms, and field training officers.

The department has applied for accreditation by the Commission on Accreditation for Law Enforcement Agencies (CALEA). A site visit was recently performed and the department received a very positive review from the on-site assessment team. It is anticipated that the department will be fully accredited shortly.

Recommendations:

- The department must designate or hire, train, and support one member of the service (either uniformed or civilian) to serve as the department’s crime analyst. Despite the department’s otherwise impressive ability to produce, analyze, and use crime data, there is a pressing need for one person to be accountable for this critically important function. If funding for a full- or part-time analyst position cannot be restored, the department should reassign a member of the service to perform this function on a part-time basis.
- The designated traffic officer should be responsible for reviewing and tracking accident reports and summons activity. Mapping software should be used for this purpose. This officer should work directly with the department’s civilian crime analyst and regularly

report all traffic-related activities to senior management through written reports and participation in command staff meetings. The traffic officer also should perform enforcement activities such as truck inspections, as necessary.

Information Technology (IT) and Records Management

ICMA did not perform a comprehensive IT inventory, as it was beyond the scope of this study. Nevertheless, ICMA was able to determine that the department utilizes a comprehensive, records-based software system. The system, which integrates CAD (computer-aided dispatch) and RMS (records management system) is known as LERMS, and was developed by New World Systems. Several police agencies in the state currently use this system. The department has been using this system since January 2011. The city of Kentwood recently purchased this system as well. Vendor training was provided to department personnel on site and a help line is available. Ongoing training for police personnel is not provided by records unit staff. The civilian records manager from Kentwood has met with Wyoming's records manager to assist in the transition to LERMS. The records manager is a member of a "user group" of similar police records professionals who informally get together to discuss work-related issues.

Patrol officers utilize a report writing system called Aegis Mobile Computing, also a New World Systems product. Patrol supervisors are able to access and review these reports online, either in the field, or at the headquarters building at the end of tour. Electronic citations and accident reports are recorded and processed through a separate system, IYETEK, which is a state-wide database. This system submits reports to the state in real time. Citations are submitted automatically to the courts. Another data management system is used citywide for payroll management (another New World product).

The records unit is part of the support services division and is staffed by a civilian records manager and three full-time civilian clerks. The clerks are cross trained, but each has specific administrative responsibilities. Freedom of information requests are addressed by the records unit.

The department does not operate its own dispatch system. The department presently utilizes the dispatch system of the Grand Rapids Police Department. The department uses a tool (PQT) to search the CAD database to retrieve calls for service data for Wyoming. PQT is not readily accessible to uniformed supervisors.

The records department opens weekdays at 7 A.M. and accesses all reports prepared during the overnight period. A patrol secretary prepares cumulative 24-hour overnight and weekend reports. The records department is open Monday through Thursday. Clerks work weekly shifts of thirty-eight hours; the supervisor works forty hours per week. Records unit staff assist in performing background checks for gun permit applications and handle citizen requests for incident and accident reports.

Records clerks review field reports for accuracy and completeness. Specifically, they look for missing information, coding errors, and/or bad dispositions. Clerks send out "friendly reminders" to patrol officers, as necessary. The records management program similarly looks for missing or

incorrect information. Records clerks scan documents such as warrants into specific case files within the LERMS system. The RMS has a capability (via ONBASE) for maintaining all related reports (such as a breathalyzer report) by case number. The department is attempting to be “paperless,” however several department forms are still in paper form.

ICMA was informed that some members of the department view the LERMS system as “complex” and that some find it “not to be user friendly.”

The records unit issues monthly reports that track vehicle accidents, crimes, arrests, and calls for service (by type/code). The records unit does not prepare reports regarding the monthly activity of individual officers. Daily activity reports are prepared by patrol officers and are maintained by the patrol secretary.

The department does not have a designated chief information officer (CIO). Neither does the department have a technology taskforce or committee. Thus, there is no coordinated or comprehensive means of internally assessing the department’s current and future information technology (IT) needs. The department has experienced a number of IT problems in recent years. The department does not have a designated (i.e., “in-house”) IT manager.

The department recently experienced trouble with regard to the installation of in-car video cameras. At the time of the last ICMA site visit, it was anticipated that all cameras would be installed and made fully functional within approximately one month.

The department has an alarm abatement program in place, which appears to be consistent with those of similarly sized agencies. Fines are imposed for chronic locations. Fees are charged for fingerprinting services.

The department does not maintain cameras situated in public places throughout the community.

Recommendations:

- The department should establish an internal technology task force, which would serve as a standing committee to perform the analysis described above. This body should be comprised of supervisors, line officers, and civilian members of the department, should meet regularly, and should: (1) identify the department’s current technology needs; (2) identify any deficiencies in the department’s current communications and records management systems; (3) revise and update the department’s website (which should be designated as a priority); (4) identify technology training needs and recommend additional training; and (5) make specific recommendations for improvement, where necessary. This task force would report directly to the chief.
- The department should designate one supervisor (uniformed or civilian) to serve as chief information officer (CIO). This individual would be responsible for creating, maintaining, and retrieving data from the police department’s various databases, files, and records. The CIO would serve as chair of the technology task force.
- The department should review and consider increasing the fees for the taking of fingerprints and/or the performance of background checks. This could prove to be a

significant source of income and could serve to offset other operational costs of the department.

- The department should review its website and consider making commonly used forms and reports more available to the public. More specifically, the department should identify those categories of calls for service that *do not require an immediate police response* and then make a coordinated effort to inform the public about nonemergency matters that can be handled in-person (at headquarters at a subsequent time) or via e-mail or U.S. mail. The department should build the capacity to regularly take certain nonemergency complaints via e-mail or U.S. mail, such as: lost property; petty thefts of property (e.g., bicycle); criminal mischief/minor property damage, etc. The precise list of such situations should be compiled by the department. Members of the public should have the ability to choose the method of reporting they are most comfortable with. The public needs to be fully informed about nonemergency reporting procedures. The department should take proactive steps to educate the public about these alternative reporting methods and include such instructions on its website. The department's support services lieutenant should be designated as the officer primarily responsible for the design and implementation of a citizen outreach program that would inform all members of the community about alternative reporting options. The results of this initiative should be reported via the department's annual reports.

Training

The department's training unit is staffed by a lieutenant and a sergeant. The unit reports to the captain of the administrative services bureau. The department provides all required recertification training for its personnel (such as firearms and tactics training, HAZMAT, etc.). Tactical training, such as "active shooter" training, is provided at off-site locations within the community.

The department's current training "plan" does not contain specific goals and objectives for all units and members of the department. Rather, its current plan simply sets out the rotation of training topics required for recertification, such as legal updates, less than lethal force, etc. Some specific training goals are included in the department's annual goals and objectives, such as goal 2 of the technical support unit to "keep its technicians certified and trained in all the latest forensic techniques."

The training unit is charged with developing and coordinating the department's master training plan. Supervisors from the training unit participate in command staff meetings and are expected to identify potential training issues and opportunities.

Department personnel attend both internal (i.e., on-site) training and external training delivered by commercial vendors or other law enforcement organizations. The department adequately tracks its training activities, materials, and equipment. Lesson plans are used for all training. Lesson plans include specific learning objectives and training aids/equipment. The department has a remedial training policy to provide additional training to personnel, as necessary. Due to the department's patrol schedule, training days are scheduled each week.

Several members of the department are trained and designated as general topics, firearms, and defensive tactics instructors. Additionally, personnel are trained as instructors in the following areas: traffic radar; K-9; field sobriety testing; CPR first aid; automated external defibrillator (AED); sexual harassment and rape prevention; defensive driving; etc. All trainers appear to have the training and certifications necessary to provide training in their respective areas.

Similarly, several members of the department are trained as field training officers (FTOs). The department has a formal field training protocol that appears to be well structured, comprehensive, and consistent (in terms of method and content) with those of other similar-sized agencies. The protocol is based on the San Jose Police Department model and requires probationary police officers to work with at least three different FTOs, as well as the preparation of daily observation reports. FTOs receive 160 hours of additional training and orientation.

Upon promotion to the rank of sergeant, officers attend a first-line, basic management course at an off-site staff and command college sponsored by Northwestern University. Supervisors are encouraged to attend additional training offered by commercial vendors and law enforcement organizations, such as the FBI's National Academy. The department does not conduct its own ("in-house") executive training program.

The department recently created a career development information program, whereby it encourages employees to further their professional development along distinct career paths that have been recognized within the department (400.T.10). These paths include: supervisory/management; criminal investigations; patrol; traffic; or technical specialist. Training is therefore linked to one's desired path. The stated purpose of this program is to aid "an employee to reach the highest level of skill, knowledge and ability possible in the field or area of expertise chosen." This program is incorporated into the WPD promotional process (400.P.3); tuition reimbursement program (400.T.10 sec.III.B.2); supervisory development program for newly promoted supervisors; and training program. ICMA commends the department for taking such an integrated and proactive approach to the career development of sworn personnel.

The training unit periodically issues training update bulletins. These updates are numbered and forwarded by e-mail to all members of the service. The department has the capacity to immediately communicate training information, when necessary.

The department allows personnel from the Kentwood Police Department to use the Wyoming Police Department's firearms training facility (range). The department also sponsors a citizens' police academy.

Recommendations:

- All police departments must develop, follow, and continually revise a training plan that identifies and tracks specific training goals and objectives. The department must supplement its current training plan by identifying and measuring distinct training goals and objectives for all units and personnel. The department must enhance its ability to develop and deliver *internal* (that is, in-service) training on emerging topics. In addition to providing a schedule of mandated re-certifications and routine updates (such as firearms training, driver training, periodic legal updates, etc.), the designated training officer must be

charged with identifying and responding to ongoing training needs that are unique to this department and community.

- One supervisor should be designated as the department's chief or primary training officer. This fosters continuity and accountability. The training officer's primary function is to review the department's ongoing processes (by actively participating in command staff meetings and reviewing relevant performance data) and proactively identifying any training issues or opportunities. Rather than just schedule and record training that is delivered, the training officer must continually work to identify and develop necessary training and measure and report its effectiveness.
- The training officer must be charged with identifying potential training issues at all command staff and lieutenants' meetings.
- Special attention should be given to the training needs of civilians and volunteers. The department's comprehensive training plan should include training goals for nonsworn employees and volunteers.

Professional Responsibility

All members of the department must perform their duties efficiently, professionally, and ethically. The department must have an internal system for the proactive enforcement of performance standards to ensure that these are followed at all times.

The department has one individual who performs the internal affairs (IA) function, as necessary. The department does not have a designated office of professional responsibility.

Any supervisor can receive and record a civilian complaint. Police officers are generally not authorized or directed to receive such complaints; they must direct a complainant to a supervisor. The department utilizes a standard citizens' complaint form. All complaints are investigated and a determination is made as to whether or not to assign an IA number to a particular case. Relatively "minor" complaints, such as alleged disrespectful conduct, will generally not receive an IA number. Additional training can be imposed as necessary. Final dispositions of complaints are: sustained, not sustained, unfounded, and exonerated. Complainants receive written notification of disposition. If they disagree with the outcome, they have the option of appealing the decision to the chief. IA numbers are assigned for more serious allegations of malfeasance and/or nonfeasance on the part of a department employee.

The department reported a significant reduction recently in the number of citizen complaints received. The department utilizes an employee contact sheet to record a supervisor's contact with an employee regarding either a complaint or recognition/commendation. It appears that contact sheets are primarily used for "minor corrections" concerning officer conduct and serve as "a reminder of department policies."

A lieutenant reviews all use-of-force reports in an effort to identify trends and/or provide early warning for possible employee misconduct. ICMA was advised that the department is developing a more comprehensive IA early warning system.

Annual performance appraisals are prepared for all sworn and civilian members of the department. Career counseling takes place at the time annual performance evaluations are performed. Discrete career paths have been identified by the department.

Evaluation forms and methods of appraisal are appropriate and consistent with those used by similar-sized police agencies. The forms contain narrative sections for an employee self-evaluation of relative personal strengths and weaknesses, career counseling, and evaluation. Performance review records are maintained properly in a secured location.

Uniformed members of the department may engage in authorized off-duty employment. A secondary employment form must be completed and approved. Officers may not, however, perform such work in uniform or with any other police department.

Recommendations:

- The department should merge the IA, professional standards and accreditation maintenance functions. The department should then designate a supervisor to serve as professional standards officer (PSO). This supervisor would report directly to the chief and would perform a variety of integrity control, audit, and inspections duties. Specifically, the PSO would be responsible for receiving, reviewing, and investigating internal and external complaints against members of the service.
- The PSO would review the department's policies and procedures and rules and regulations manuals on an annual basis and revise as necessary.
- The PSO should engage in a series of audits and inspections of equipment, department records, etc. For example, the PSO should determine on a random basis whether officers are checking their voice mail and e-mail accounts each tour.
- The PSO should track and report the number and type of referrals made by records clerks and/or supervisors for incomplete or inaccurate record entries.
- The PSO should develop and monitor a formalized employee suggestion program, whereby all uniformed and civilian members of the department would be able to offer suggestions for the purpose of increasing operational efficiency.
- All duties and responsibilities of this officer should be articulated clearly in the department's Rules, Orders and Regulations.
- The department should enhance its early warning system to support the IA function.
- The PSO must prepare annual and semiannual reports that convey meaningful data. At a minimum, these reports should track incidents and issues that may be related to police misconduct, such as: the type and relative number of use-of-force reports, civilian and internal complaints (and dispositions), department vehicle accidents, weapons discharges and use, arrest and summons activity (particularly charges relating to disorderly conduct and resisting/obstructing arrest), line-of-duty injuries, and the like, which originate within the department. Rather than simply presenting aggregate numbers of such things as use-of-force reports or complaints, the reports should include a breakdown of type, place of occurrence/origin, etc. These reports should utilize a standard template and be used as a

primary means of establishing a baseline and tracking progress towards stated organizational goals. The PSO should report these figures at monthly command staff meetings.

- The PSO should track all department vehicle accidents (not just “officer-at-fault” incidents), if only for retraining purposes.
- The department should develop, follow, and document a program of systematic and random audits and inspections of critical operations (calls for service response and dispositions, property receipt and safeguarding, line of duty and sick leave, etc.). One ranking officer (the PSO) should be designated to plan, conduct, and regularly report the results of such audits and inspections. This individual would also perform regular checks or audits for proper case/call dispositions.
- The PSO should develop a formal system for monitoring sick time, and electronically detecting and responding to sick leave abuse. The PSO should also track all off-duty employment performed by sworn personnel.
- The department should consider an ongoing process for periodically performing citizen satisfaction surveys. Surveys could be conducted and analyzed by an outside agency, such as a local college or university.

Communications

The Wyoming Police Department contracts for communication services with the Grand Rapids Police Department. The two cities merged their communication operations in September 2010. There is one console in the Grand Rapids communications center dedicated to the dispatching of calls received from the city of Wyoming. The cost of this service is determined by the number of calls received by the center. The cost to Wyoming for service in 2011 was \$891,526.

The two departments have a very solid working relationship. Grand Rapids Communications Bureau Manager Karen Chadwick meets routinely with Captain Kimberly Koster of the Wyoming Police Department to discuss the operation of the center and issues relating to Wyoming’s operations. The implementation a complaint tracking system allows for reporting, reviewing, and investigating complaints.

The Grand Rapids Communications Bureau is continuing to design and implement the new Motorola PremierOne Computer Aided Dispatch and the PremierOne Mobil Systems, which will go live in September 2012. The Grand Rapids Communication Bureau has also upgraded the 911 system to allow 911 calls to be rolled over to the Kent County Sheriff’s Department in the event of storms or a system failure. This interoperability allows each system to back up the other.

The city of Grand Rapids and the city of Wyoming’s merging of emergency dispatch operations is an example of what can be accomplished when jurisdictions cooperate with one another. The forward thinking of these two cities is to be commended. The agencies agreed that the primary goal of the merger of the systems was to improve service delivery and to reduce costs. The future plan for two identical systems that can communicate with one another and offer redundancy could become a model program for other communities to note.

Since the merger in September 2010 the Grand Rapids Communication Bureau has worked diligently to continue to upgrade and improve emergency communication services. The merger of these two systems required much consideration and study. Decisions relating to staffing, equipment, supervision, policy development, shift scheduling, and implementation were given very diligent consideration. The managers and emergency communications operators all agree that the system is working as planned. The system and its operations continue to be reviewed and monitored. There is no hesitancy by managers to take actions to continue to improve the effectiveness and efficiency of the communications operations.

ICMA would not recommend changing the current staffing levels. Due to the recent implementation of the system there is insufficient data to make such recommendations at this time. A review of the communications staffing would be appropriate during the next budget cycle. This will allow for sufficient time to review the effectiveness of the current operations.

The system is working as planned. According to system managers there have been very few complaints about the operation of the system. There is a complaint tracking process that allows managers to review and investigate complaints about the system or personnel. This complaint review seems to be effective in the handling of these matters.

The merging of the two police and fire dispatch centers took much planning and considerations. Due to the fact that the two cities have been in full operation only since September 2010 there is insufficient data to make a full assessment of the communication systems function. However, the implementation appears to be going well. Both departments are very anxious to address issues of concern. ICMA would encourage Grand Rapids and Wyoming to continue to work together and seek input from the system users to make certain that they are aware of any problems that might impact the safety of police officers and firefighters in the field.

Response/Dispatch Times

Table 4 shows average response times by priority in Wyoming. These averages include nonzero-on-scene, other-initiated calls throughout the year from November 2010 to October 2011. There were 6,430 other-initiated calls with valid response times. All of these calls were assigned a priority.

In order to calculate the response times to accidents, we used all the other-initiated calls classified as “WYPIAC” (Personal Injury Accident). Most of these were classified as priority 2 calls. Priority 1 calls were primarily calls classified as “crime-persons.”

TABLE 4: Average Dispatch, Travel, and Response Times, by Priority

Priority	Dispatch	Travel	Response	Total Calls
1	5.5	4.6	10.1	118
2	7.9	4.7	12.6	3,631
3	12.9	7.0	19.9	1,577
4	16.1	6.9	23.0	1099
5-10	23.6	6.5	30.0	5

Total	10.5	5.7	16.2	6,430
Injury accidents	4.8	5.0	9.8	188

Note: The total average is weighted according to the number of calls within each priority level.

Inspection of Table 4 reveals a deficiency in dispatching CFS. The column labeled “Dispatch” presents the average length of time in minutes to dispatch a CFS (time from call received to time call assigned to a patrol unit) for different priorities of CFS. Overall, there was an average dispatch time of 10.5 minutes for the 6,430 CFS where response times were calculated. This is high and indicates a protracted time between call and response. In addition, for priority 1 calls (crimes in progress, officer needing assistance, etc.) the dispatch time is almost six minutes.

Recommendation:

It is strongly recommended that call-taking and dispatch procedures be reexamined in order to uncover the contributing factors behind such high dispatch times and that steps be taken to reduce these delays where possible.

Police Facility

The Wyoming Police Department has a modern, well-designed police facility in an excellent location. The building contains 54,000 square feet of space and is situated on 4.5 acres. The public parking lot contains 200 spaces, and there are 45 parking spaces in the rear of the facility for police vehicles. The building contains space that is available for use by the public for gatherings and public meetings. The building was constructed to accommodate a maximum of 225 employees. During multiple ICMA site visits, the building was properly secured and access was controlled effectively. There is currently a considerable amount of available space within the building that could be used to accommodate additional administrative staff or to support the training function.

Recommendations/Observations

- The Wyoming Police Department has an excellent police facility that will serve the needs of its citizens well into the future. There were no deficiencies noted and there are no recommendations.

Rules, Regulations, Policies, and Procedures

ICMA reviewed the WPD rules, regulations, policies, and procedures manuals and found that the documents provide direction and guidance to the police officers and civilians in the department. An extensive review of each procedure is beyond the scope of this report. Examination of the most critical and frequent police policies and procedures reveals that the WPD has thorough and comprehensive policies in these critical areas which are consistent with respect to acceptable industry standards.

ICMA reviewed WPD policies on the use of force, domestic violence, vehicle pursuits, prisoner processing, and complaints against police officers. In general, these policies are current and accurately reflect current laws and accepted industry standards for dealing with these critical

areas. The WPD should be commended for adhering to such high standards and promulgating appropriate and relevant policies in these areas and regularly reported.

Summary

The Wyoming Police Department is an excellent organization. The quality of management and commitment of its personnel to public safety and improving the quality of life in the community is outstanding. The recommendations contained in this report should be viewed as improvement opportunities and possibilities for improving an already well-performing organization.

In general, ICMA believes that a modification of the current patrol schedule is essential and will result in substantial cost savings to the department. This, coupled with a thorough examination of the CFS demand, will result in better and more efficient delivery of police service. Additionally, adding/designating several critical positions, and creating an integrated system to manage performance, offer enormous potential to improve department operations and, therefore, improve the quality of life for the residents and businesses in Wyoming.

Appendix A

Crime Rates Reported by Wyoming Police Department, Michigan 2001–2010

Year	Population	Violent Crime	Murder	Rape	Robbery	Aggravated assault	Property crime	Burglary	Larceny theft	Motor vehicle theft
2001	69,734	482	3	95	75	310	3357	871	2150	337
2002	70,149	475	0	70	73	332	3433	1014	2100	319
2003	70,535	485	0	81	102	302	3133	893	1935	305
2004	70,432	467	3	85	89	290	2992	889	1833	270
2005	70,357	422	1	46	102	273	2841	809	1733	300
2006	69,947	468	0	87	92	289	3170	865	1934	370
2007	70,243	518	3	68	138	309	3118	829	1997	292
2008	70,552	404	3	75	116	210	2580	699	1627	254
2009	70,565	424	1	57	95	271	2350	599	1556	194
2010	72,125	320	1	56	64	200	2199	714	1263	222

Sources: FBI, Uniform Crime Reports, prepared by the National Archive of Criminal Justice Data.

Appendix B

Sample ICMA Plan

Chart			M	T	W	H	F	Sa	Su
Sgt									
	1	1100x2100			1	1	1	1	
	2	2100x0700	1	1	1	2	1	1	1
	2	0700x1700	1	1	1	2	1	1	1
	1	1700x0300	1	1	1				1
Weak		1100x2100							
	1	fss	1	1	1	1			
	1	ssm		1	1	1	1		
	1	smt			1	1	1	1	
	1	mtw				1	1	1	1
	1	twh	1				1	1	1
	1	whf	1	1				1	1
	1	hfs	1	1	1				1
	7	#officers	4	4	4	4	4	4	4
Strong		2100x0700							
	2	fss	2	2	2	2			
	2	ssm		2	2	2	2		
	2	smt			2	2	2	2	
	2	mtw				2	2	2	2
	2	twh	2				2	2	2
	2	whf	2	2				2	2
	2	hfs	2	2	2				2
	14		8	8	8	8	8	8	8
Strong		0700x1700							
	2	fss	2	2	2	2			
	2	ssm		2	2	2	2		
	1	smt			1	1	1	1	
	2	mtw				2	2	2	2
	1	twh	1				1	1	1
	2	whf	2	2				2	2
	1	hfs	1	1	1				1
	11		6	7	6	7	6	6	6

Weak		1700x0300								
	1	fss	1	1	1	1				
	1	ssm		1	1	1	1			
	1	smt			1	1	1	1		
	1	mtw				1	1	1	1	
	1	twh	1				1	1	1	
	1	whf	1	1					1	1
	1	hfs	1	1	1					1
	7	#officers	4	4	4	4	4	4	4	4
Total PO	39									

Example													
		Hour ==>											
Tour	# PO	0	1	2	3	4	5	6	7	8	9	10	11
1100x2100	4												4
2100x0700	4	8	8	8	8	8	8	8					
0700x1700	8								6	6	6	6	6
1700x0300	8	4	4	4									
		12	12	12	8	8	8	8	6	6	6	6	10
		Hour ==>											
	# PO	12	13	14	15	16	17	18	19	20	21	22	23
1100x2100	4	4	4	4	4	4	4	4	4	4			
2100x0700	4										8	8	8
0700x1700	8	6	6	6	6	6							
1700x0300	8						4	4	4	4	4	4	4
		10	10	10	10	10	8	8	8	8	12	12	12

APPENDIX: Wyoming Data Report

Introduction

This is the preliminary data analysis report on police patrol operations for Wyoming, Michigan, which was conducted by the ICMA Center for Public Safety Management. This report focuses its analysis on three main areas: workload, deployment, and response times. These three areas are related almost exclusively to patrol operations, which constitute a significant portion of the police department's personnel and financial commitment.

All information in this preliminary report was developed directly from data recorded by the city's dispatch center. The purposes of this report are to provide the city with our preliminary findings and to allow the police department to review and bring to our attention any dispatch information that may be inconsistent with other internal records of the agency.

The majority of the first section of the report, concluding with Table 10, uses the call and activity data for the entire year. For the detailed workload analysis and the response-time analysis, we use two four-week sample periods. The first period is from February 2011 (January 31 to February 27), or winter, and the second is August 2011 (August 1 to August 28), or summer.

We make no recommendations in this preliminary report. Our purpose here is to share information that we have developed from the source data to confirm its accuracy.

Workload Analysis

As with similar cases around the country, we encountered a number of issues when analyzing the dispatch data. We made assumptions and decisions to address these issues. We describe the issues, assumptions, and decisions below.

- A few (1 percent, or approximately 423) of events involving patrol units showed less than 30 seconds of time spent on scene. We call this zero time on scene.
- The CAD calls had 169 different event descriptions, which we reduced to fifteen categories for our tables and nine categories for our figures.
- All meals, other breaks, administrative tasks, and training time were classified as out-of-service events. Multiple units taking their breaks at one time might have been recorded as a single call in the CAD system, so the number of out-of-service events may be underestimated. However, the time taken by each unit was recorded individually, and the total workload is calculated correctly.
- Approximately 9 percent of the events for the year involving patrol units were missing arrival times. These events were still included in our workload analysis, but were not used when estimating average response times.
- Call received times were determined by combining information stored in the phone logs of the 911 system with times recorded by the CAD system. Records from each system were matched when they occurred at approximately the same time and involved the same phone number. The earliest of these times was taken as the call received time. As the phone log and the recorded phone numbers within the CAD system were incomplete, we were not able to match all calls. At the same time, the matched calls provide a sufficiently large sample to accurately estimate response times both in general and specifically in February and August.

Our study team has often worked with many of these problems with event data in other jurisdictions. To identify events that were canceled en route, we assumed zero time on scene to account for a significant portion of them. As stated, any event with an on-scene time of less than 30 seconds was labeled zero time on scene. Following the advice of the police department, we examined the information recorded in the "call station" and "dispatch station" data fields. Any event that had the same value in these two fields was considered self-initiated.

When we analyze a set of dispatch records, we go through a series of steps that we detail as follows.

- We first process the data to improve its accuracy. For example, we remove duplicate (identical) units recorded on a single event. In addition, we remove records that do not indicate an actual activity. We also remove incomplete data. This includes situations where there is not enough time information to evaluate the record.
- For calls that are closed and reopened, we tried to capture the time for each phase in the call, prior to and after the call was reopened.
- If a unit was found to be recorded on two separate events in the same time frame, we adjusted the workload to reduce the overlapping times.

- At this point, we have a series of records that we call "events." We identify these events in three ways.
 - We distinguish between patrol and nonpatrol units.
 - We assign a category to each event based upon its description.
 - We indicate whether the call is "zero time on scene," "police-initiated," or "other-initiated."
- Finally, we remove all records that do not involve a patrol unit to get a total number of patrol-related **events**. We focus on a smaller group of events designed to represent actual **calls** for service by removing all events with no officer time spent on scene, along with directed patrol and out-of-service activities.

In this way, we first identify a total number of records, and then limit ourselves to patrol events, and finally focus on calls for service.

To briefly review the data received, in the period from November 1, 2010, to October 31, 2011, there were approximately 234,500 calls recorded by the dispatch center. These included both Grand Rapids and Wyoming calls. Of that total, roughly 173,500 were dispatch events involving a unit. There were about 44,700 calls associated with Wyoming patrol and nonpatrol units. Of these calls, roughly 42,700 included an adequate record of a patrol unit as either the primary or secondary unit.

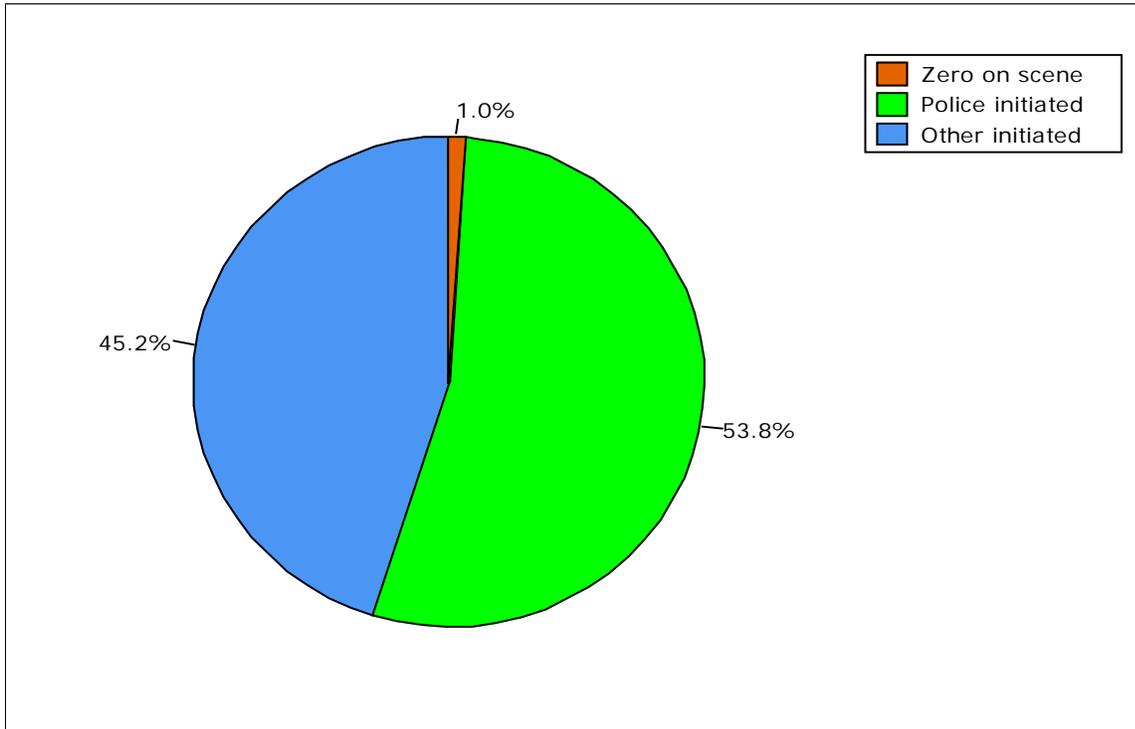
In the period from November 2010 to October 2011, the police department reported an average of 117 events for service per day. As mentioned, 1 percent of these events (1.2 per day) showed no unit time spent on the call.

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, traffic). Workloads are measured in average work hours per day.

We routinely used fifteen call categories for tables and nine categories for our graphs. These are shown in the following chart.

Table Categories	Figure Categories
Accidents	Traffic
Traffic enforcement	
Alarm	Investigations
Check/investigation	
Animal calls	General noncriminal
Miscellaneous	
Assist other agency	Assist other agency
Crime–persons	Crime
Crime–property	
Crime-other	
Directed patrol	Directed patrol
Disturbance	Suspicious incident
Suspicious person/vehicle	
Out of service	Out of service
Prisoner–arrest	Arrest

FIGURE 1: Percentage Events per Day, by Initiator



Note: Percentages are based on a total of 42,673 events.

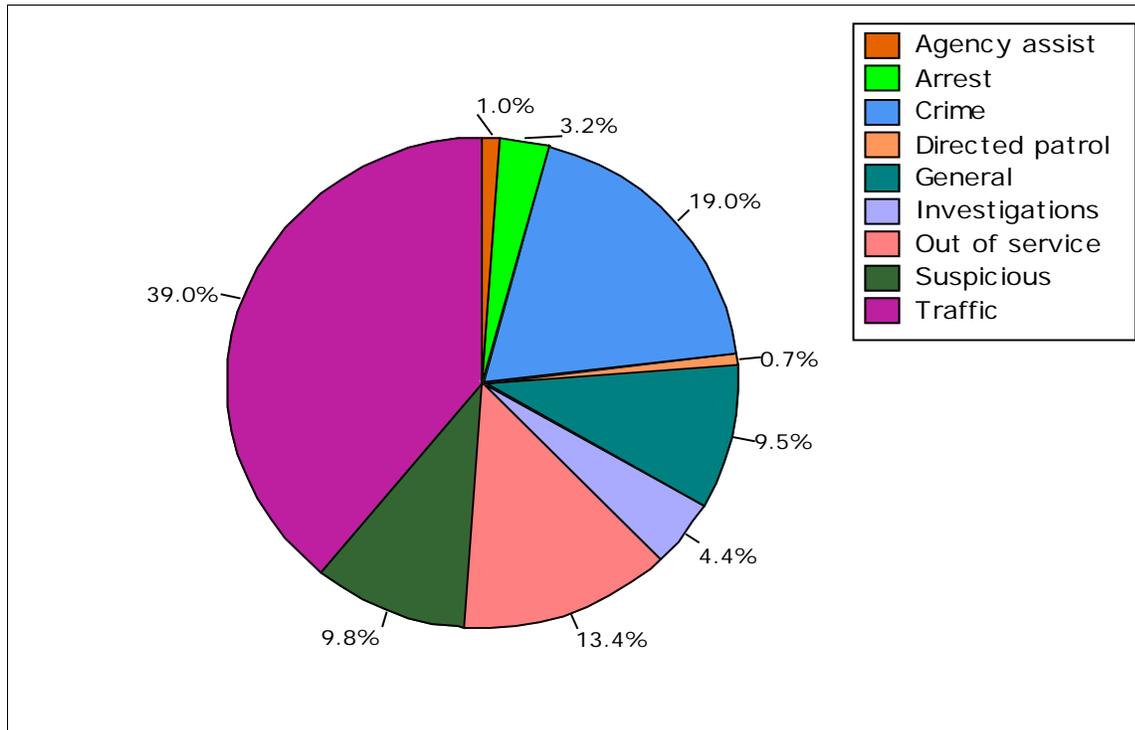
TABLE 1: Events per Day, by Initiator

Initiator	Total Events	Events per Day
Zero on scene	423	1.2
Police-initiated	22,976	62.9
Other-initiated	19,274	52.8
Total	42,673	116.9

Observations:

- 1 percent of the events had zero time on scene.
- 54 percent of all events were police-initiated.
- 45 percent of all events were other-initiated.
- There was an average of 117 events per day, or 4.9 per hour.

FIGURE 2: Percentage Events per Day, by Category



Note: The figure combines categories in the following table according to the description on page 4.

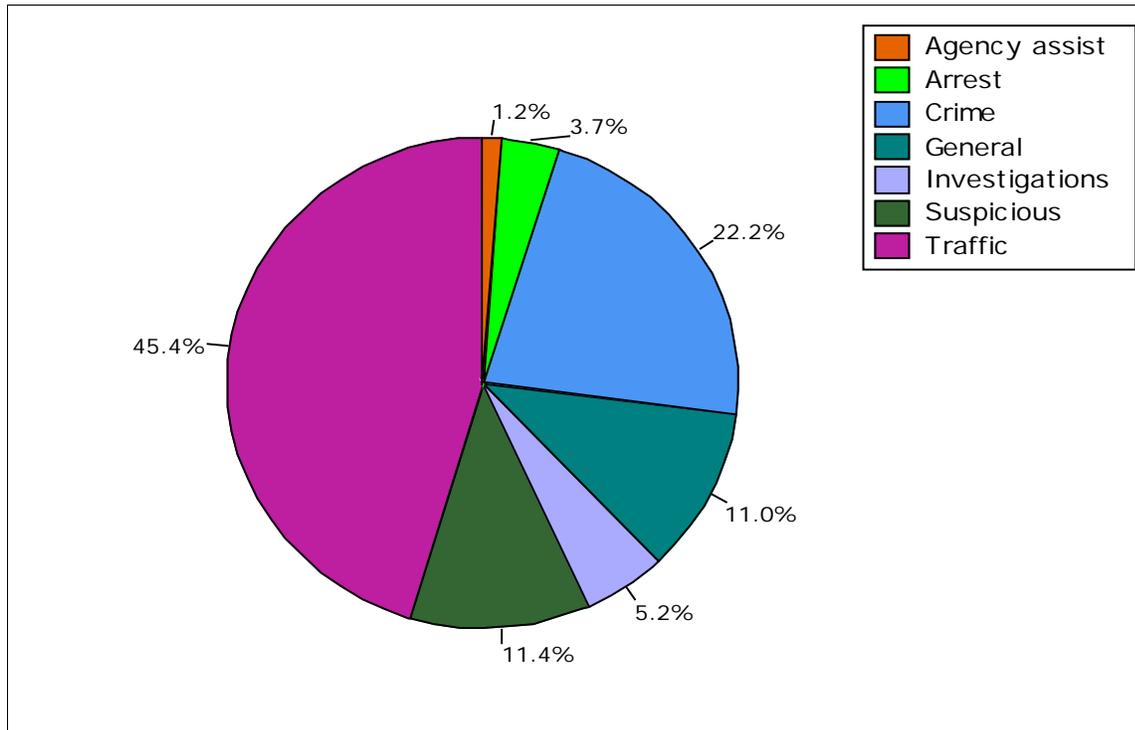
TABLE 2: Events per Day, by Category

Category	Total Events	Events per Day
Accidents	2,383	6.5
Alarm	1,317	3.6
Animal calls	408	1.1
Assist other agency	425	1.2
Check/investigation	574	1.6
Crime—persons	3,150	8.6
Crime—property	3,782	10.4
Crime—other	1,157	3.2
Directed patrol	299	0.8
Disturbance	2,430	6.7
Miscellaneous	3,635	10.0
Out of service	5,719	15.7
Prisoner—arrest	1,352	3.7
Suspicious person/vehicle	1,764	4.8
Traffic enforcement	14,278	39.1
Total	42,673	116.9

Observations:

- The top three categories (traffic, crime, and out-of-service activities) accounted for 71 percent of events.
- 39 percent of events were traffic-related.
- 19 percent of events were crime-related.
- 13 percent of events were investigations.

FIGURE 3. Percentage Calls per Day, by Category



Note: The figure combines categories in the following table according to the description on page 4.

TABLE 3: Calls per Day, by Category

Category	Total Calls	Calls per Day
Accidents	2,367	6.5
Alarm	1,308	3.6
Animal calls	404	1.1
Assist other agency	418	1.1
Check/investigation	571	1.6
Crime–persons	3,145	8.6
Crime–property	3,762	10.3
Crime–other	1,148	3.1
Disturbance	2,398	6.6
Miscellaneous	3,586	9.8
Prisoner–arrest	1,334	3.7
Suspicious person/vehicle	1,747	4.8
Traffic enforcement	14,112	38.7
Total	36,300	99.5

Note: We focus here on recorded calls rather than recorded events. This means we removed events with zero time on scene, directed patrol, and out-of-service events.

Observations:

- There were 99.5 calls per day, or 4 per hour.
- The top three categories (traffic, crime, and suspicious incidents) accounted for 79 percent of calls.
- 45 percent of calls were traffic-related (enforcements and accidents).
- 22 percent of calls were crime-related.
- 11 percent of calls were suspicious incidents.
- Similarly, 11 percent were general noncriminal calls.

FIGURE 4: Calls per Day, by Initiator and Months

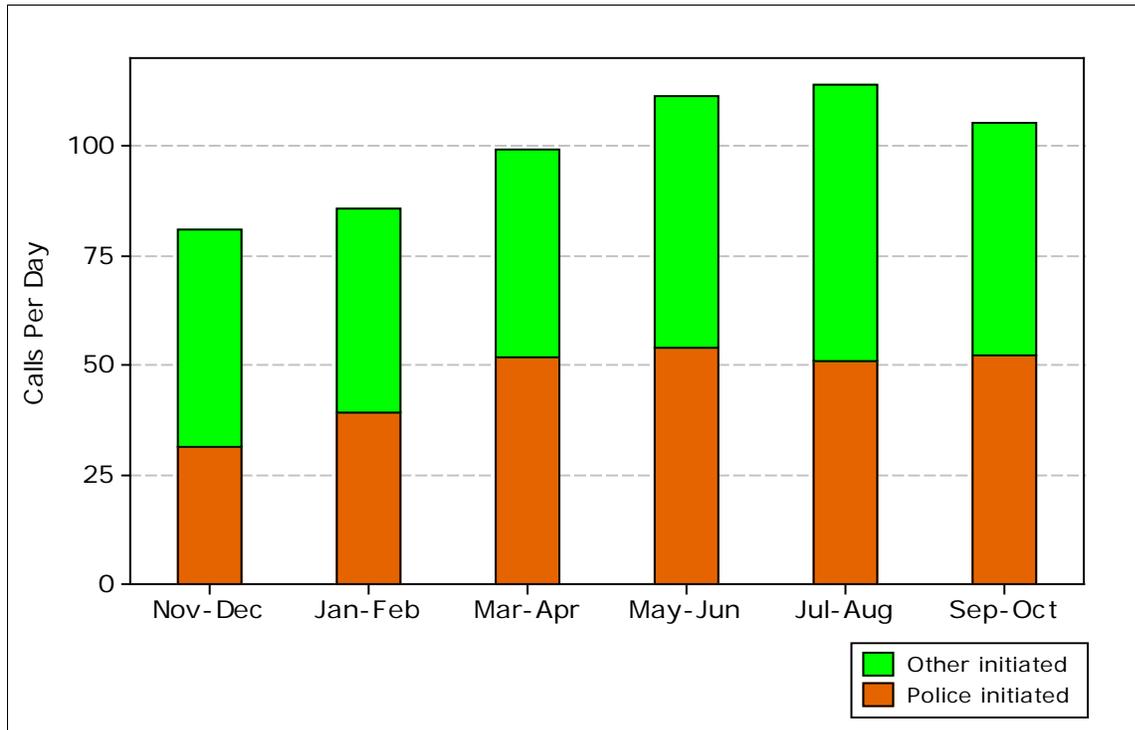


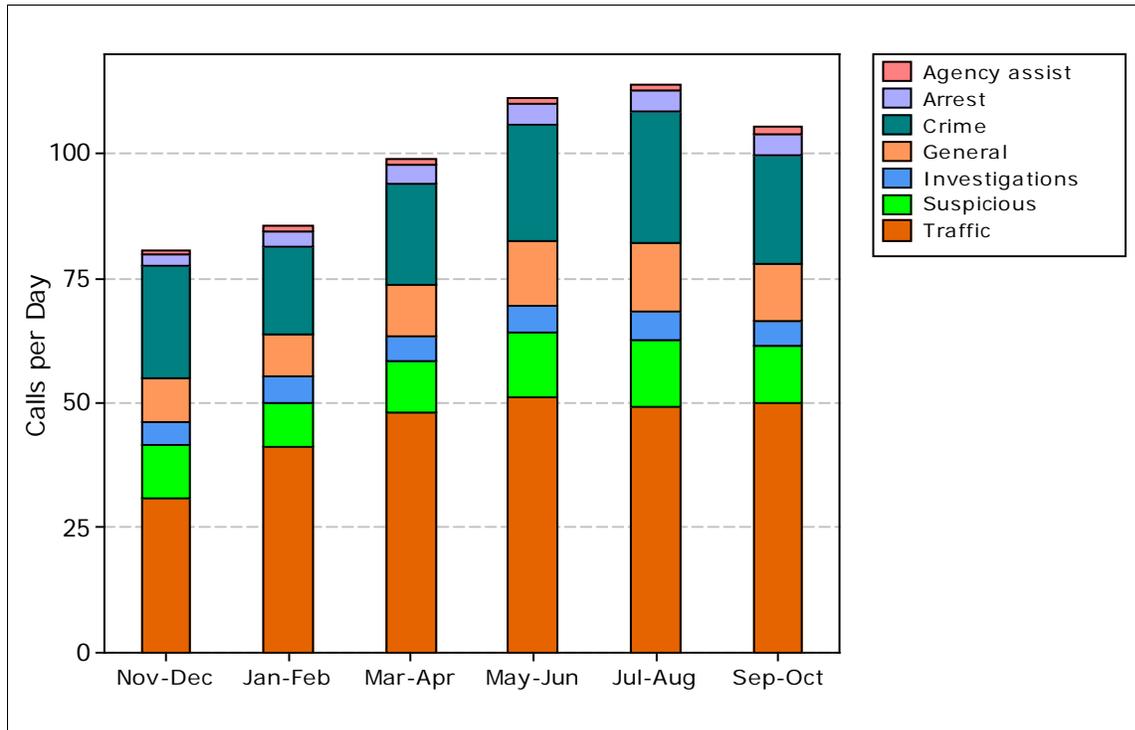
TABLE 4: Calls per Day, by Initiator and Months

	Nov.– Dec.	Jan.– Feb.	Mar.– Apr.	May– June	July– Aug.	Sept.– Oct.
Police-initiated	31.3	39.1	51.8	54.1	51.0	52.3
Other-initiated	49.4	46.6	47.3	57.2	63.0	53.0
Total	80.7	85.6	99.0	111.3	114.0	105.3

Observations:

- The number of calls per day was lowest in November–December 2010.
- The number of calls per day was highest in July–August 2011.
- The months with the most calls had 41 percent more calls than the months with the fewest calls.
- May–June 2011 had the most police-initiated calls, with 73 percent more than November–December 2010, which had the fewest.
- July–August 2011 also had the most other-initiated calls, with 35 percent more than January–February 2011, which had the fewest.

FIGURE 5: Calls per Day, by Category and Months



Note: The figure combines categories in the following table according to the description on page 4.

TABLE 5: Calls per Day, by Category and Months

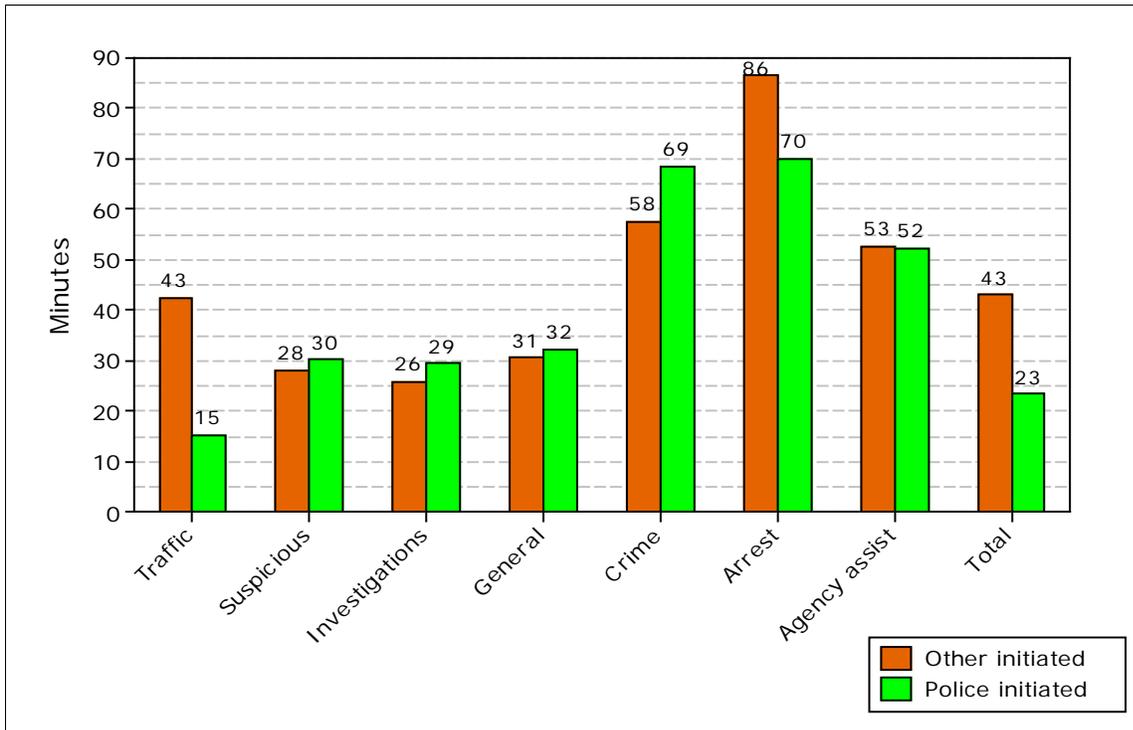
Categories	Nov.– Dec.	Jan.– Feb.	Mar.– Apr.	May– June	July– Aug.	Sept.– Oct.
Accidents	6.7	8.3	5.0	6.3	6.1	6.5
Alarm	3.5	3.7	3.3	3.6	3.9	3.3
Animal calls	0.6	0.6	1.3	1.5	1.3	1.2
Assist other agency	1.0	1.1	1.0	1.3	1.2	1.3
Check/investigation	1.3	1.5	1.7	1.6	1.6	1.6
Crime–persons	8.4	7.3	7.8	9.2	10.4	8.5
Crime–property	10.1	7.4	9.2	10.8	13.0	11.1
Crime–other	3.7	3.1	3.2	3.6	2.8	2.4
Disturbance	5.6	4.8	6.1	7.8	8.0	7.0
Miscellaneous	8.1	7.7	9.0	11.3	12.7	10.0
Prisoner–arrest	2.4	3.0	4.0	4.0	4.3	4.2
Suspicious person/vehicle	4.9	3.9	4.3	5.3	5.6	4.7
Traffic enforcement	24.3	33.1	43.0	44.8	43.1	43.4
Total	80.7	85.6	99.0	111.3	114.0	105.3

Note: Calculations were limited to calls rather than events.

Observations:

- Traffic calls (accidents and enforcement) were the most common type of activities throughout the year.
- Traffic calls averaged between 31 and 51 calls per day throughout the year.
- The top three categories (traffic, crime, and suspicious incidents) averaged about 80 percent of total calls throughout the year.
- Crime calls varied between 18 and 26 calls per day throughout the year. This was between 20 and 28 percent of total calls.
- Suspicious incidents varied between 9 and 14 calls per day throughout the year.

FIGURE 6: Average Occupied Times, by Category and Initiator



Note: The figure combines categories using weighted averages from the following table according to the description on page 4.

TABLE 6: Primary Unit's Average Occupied Times, by Category and Initiator

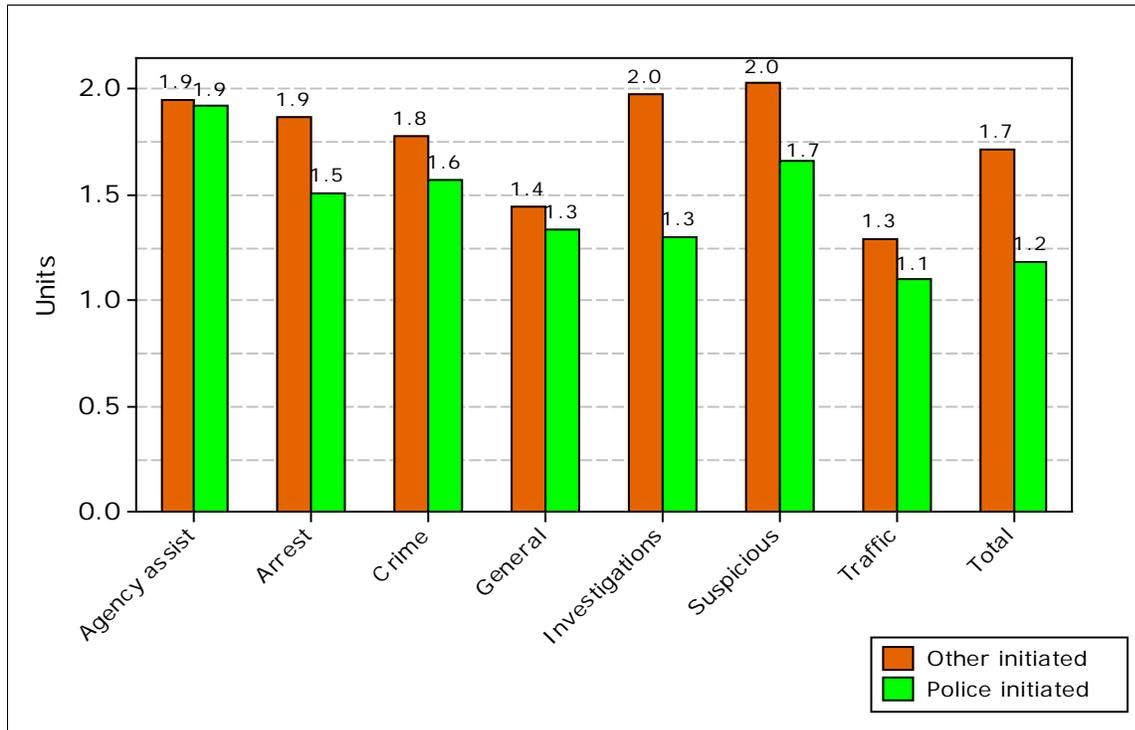
Category	Police-Initiated		Other-Initiated	
	Total Calls	Minutes	Total Calls	Minutes
Accidents	323	52.2	2,043	54.2
Alarm	53	14.7	1,255	15.5
Animal calls	29	18.3	375	23.7
Assist other agency	73	52.3	345	52.7
Check/investigation	211	33.1	360	61.6
Crime–persons	174	63.1	2,970	58.2
Crime–property	501	74.0	3,260	60.9
Crime–other	280	62.5	868	43.5
Disturbance	169	35.5	2,228	28.4
Miscellaneous	1,103	32.7	2,482	31.6
Prisoner–arrest	1,041	69.9	293	86.5
Suspicious person/vehicle	204	25.6	1,542	27.6
Traffic enforcement	12,864	14.4	1,248	23.5
Total	17,025	23.5	19,269	42.9

Notes: This information is limited to calls and excludes all events that show a zero time on scene. A unit's occupied time is measured as the time from when the call was received until the unit becomes available. The times shown are the average occupied times per call for the primary unit, rather than the total occupied time for all units assigned to a call. We removed 6 calls with inaccurate busy times.

Observations:

- A unit's average time spent on a call ranged from 15 to 86 minutes overall.
- The longest average times were for other-initiated calls that were arrest related.
- Police-initiated traffic calls (accidents and enforcement) averaged 15 minutes per call, whereas other-initiated traffic calls averaged 43 minutes per call.
- Average time spent on crime calls was 69 minutes for police-initiated calls and 58 minutes for other-initiated calls.

FIGURE 7: Number of Responding Units, by Initiator and Category

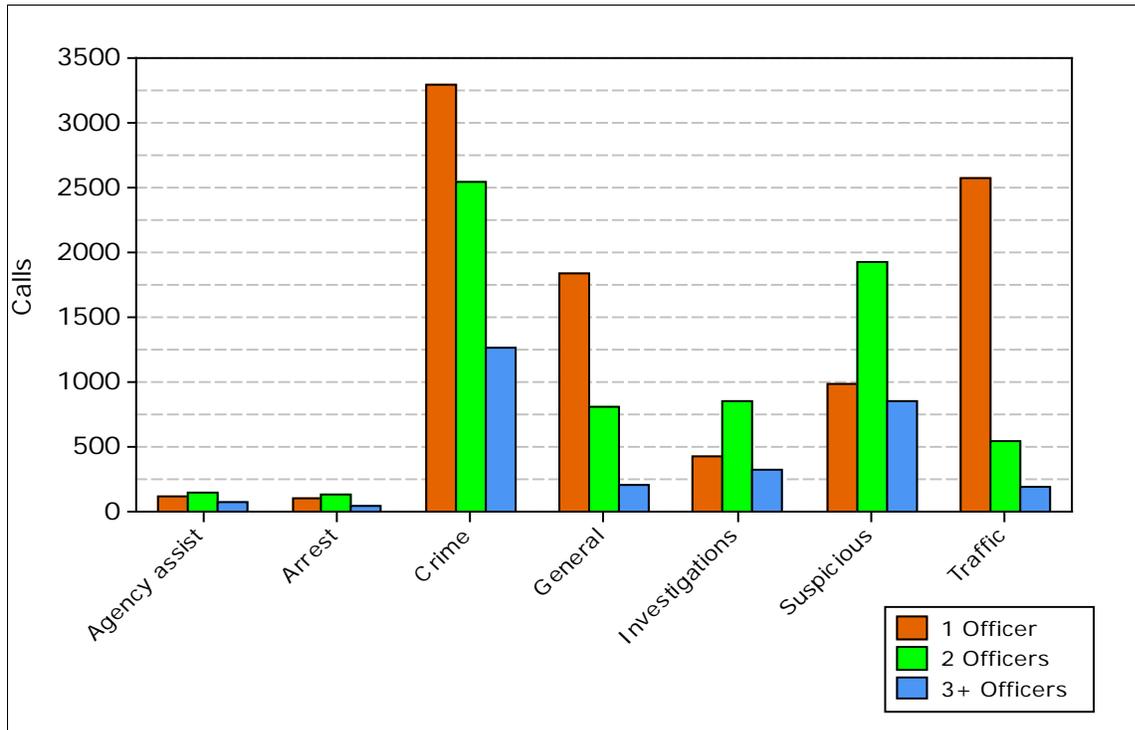


Note: The categories in this figure use weighted averages to combine those of the following table according to the description on page 4.

TABLE 7: Number of Responding Units, by Initiator and Category

Category	Police-Initiated		Other-Initiated	
	Average	Total Calls	Average	Total Calls
Accidents	1.3	323	1.4	2,044
Alarm	1.9	53	2.1	1,255
Animal calls	1.2	29	1.2	375
Assist other agency	1.9	73	1.9	345
Check/investigation	1.1	211	1.5	360
Crime—persons	1.9	175	2.1	2,970
Crime—property	1.5	501	1.5	3,261
Crime—other	1.5	280	1.7	868
Disturbance	1.7	169	2.0	2,229
Miscellaneous	1.3	1,103	1.5	2,483
Prisoner—arrest	1.5	1,041	1.9	293
Suspicious person/vehicle	1.7	204	2.0	1,543
Traffic enforcement	1.1	12,864	1.2	1,248
Total	1.2	17,026	1.7	19,274

FIGURE 8. Number of Responding Units, by Category



Note: The categories in this figure use weighted averages to combine those of the following table according to the description on page 4.

TABLE 8: Number of Responding Units, by Category, Other-initiated Calls

Category	Responding units		
	One	Two	Three or more
Accidents	1,496	394	154
Alarm	190	771	294
Animal calls	325	42	8
Assist other agency	119	148	78
Check/investigation	238	87	35
Crime—persons	607	1,582	781
Crime—property	2,263	648	350
Crime—other	424	310	134
Disturbance	557	1,158	514
Miscellaneous	1,517	763	203
Prisoner—arrest	109	133	51
Suspicious person/vehicle	433	768	342
Traffic enforcement	1,071	146	31
Total	9,349	6,950	2,975

Note: The information in Table 7 and Figure 7 is limited to calls and excludes events with zero time on scene, as well as out-of-service records. The information in Table 8 and Figure 8 is further limited to other-initiated calls.

Observations:

- The overall mean number of responding units was 1.2 for police-initiated calls and 1.7 for other-initiated calls.
- The mean numbers of responding units was the highest at 2.0 for investigations and suspicious incidents that were other-initiated.
- 49 percent of all other-initiated calls involved one responding unit.
- 36 percent of all other-initiated calls involved two responding units.
- 15 percent of all other-initiated calls involved three or more units.
- The largest group of calls with three or more responding units involved crime-related calls followed by suspicious incidents and investigations (alarms and checks).

FIGURE 9: Percentage Calls and Work Hours, by Category, Winter 2011

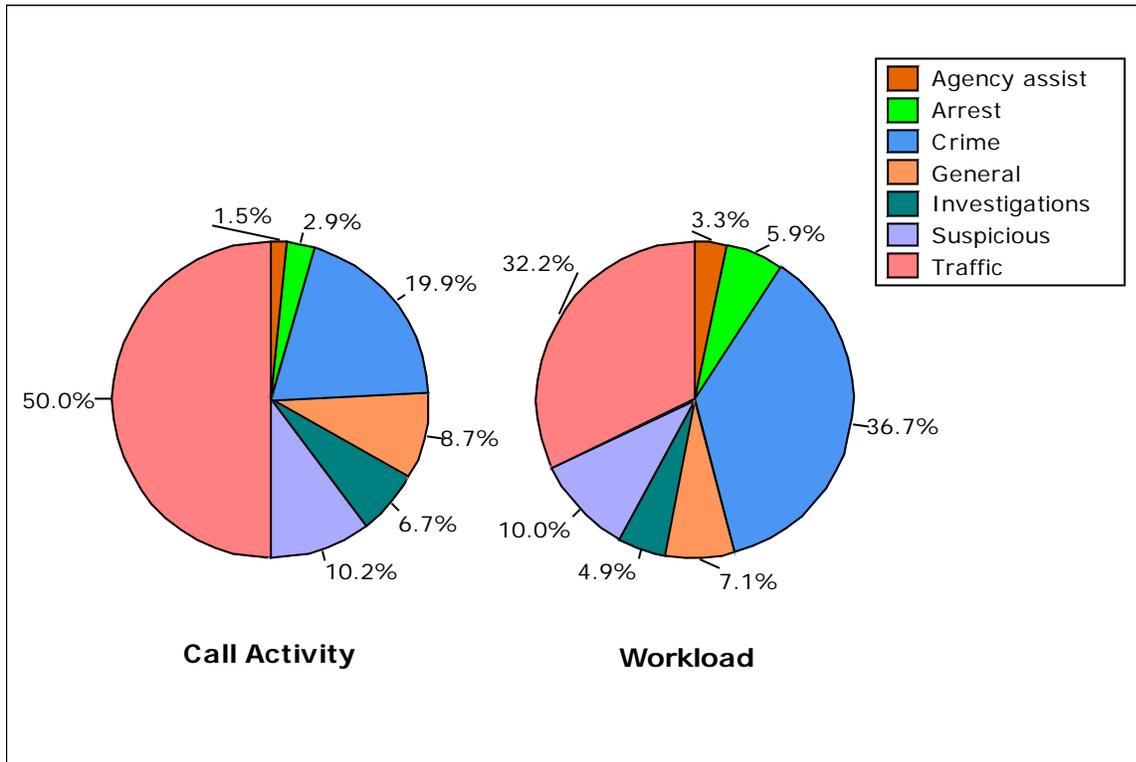


TABLE 9: Calls and Work Hours per Day, by Category, Winter 2011

Category	Per Day	
	Calls	Work Hours
Arrest	2.6	3.8
Assist other agency	1.4	2.2
Crime	17.8	24.2
General noncriminal	7.8	4.6
Investigations	6.0	3.2
Suspicious incident	9.1	6.6
Traffic	44.5	21.2
Total	89.0	65.8

Note: Workload calculations focused on calls rather than events.

Observations:

- Total calls in winter were 89 per day, or 3.7 per hour.
- Total workload was 66 work hours per day, meaning that an average of 2.8 officers per hour were busy responding to calls.

- Traffic-related calls accounted for 50 percent of calls and 32 percent of workload.
- Crimes accounted for 20 percent of calls and 37 percent of workload.
- Suspicious incidents accounted for 10 percent of calls and 10 percent of workload.
- The top three categories accounted for 80 percent of calls and 79 percent of workload.

FIGURE 10: Percentage Calls and Work Hours, by Category, Summer 2011

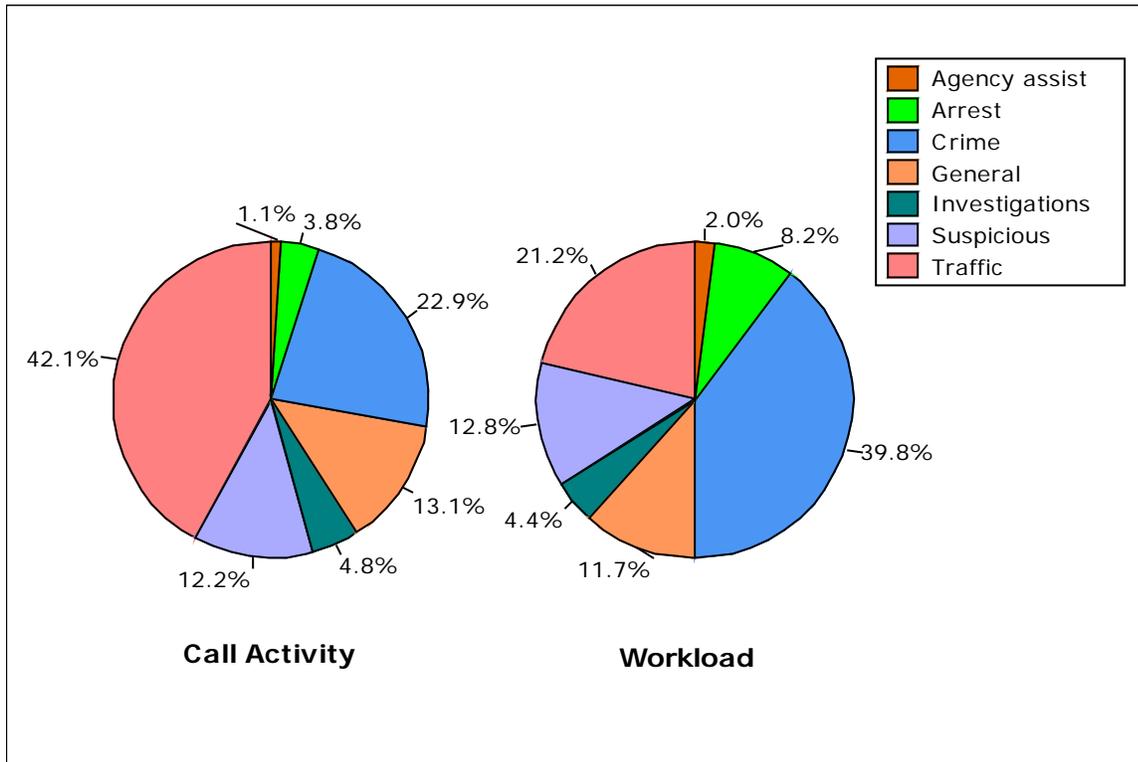


TABLE 10: Calls and Work Hours per Day, by Category, Summer 2011

Category	Per Day	
	Calls	Work Hours
Arrest	4.3	6.9
Assist other agency	1.2	1.7
Crime	25.4	33.7
General non-criminal	14.6	9.9
Investigations	5.3	3.7
Suspicious incident	13.5	10.8
Traffic	46.7	17.9
Total	110.9	84.6

Observations:

- In the summer, the total calls per day and workload were higher than in the winter.
- Total calls were 111 per day or 4.6 per hour.
- Total workload was 85 work hours per day, meaning that an average of 3.5 officers per hour were busy responding to calls.
- Traffic accounted for 42 percent of calls and 21 percent of workload.
- Crimes constituted 23 percent of calls but 40 percent of workload.
- General noncriminal calls accounted for 13 percent of calls and 12 percent of workload.
- Suspicious incidents accounted for 12 percent of calls and 13 percent of workload.
- The top three categories combined accounted for 78 percent of calls and 73 percent of workload.

Deployment

The police department's main patrol force includes patrol officers and sergeants. We only included these officers in the analysis. We examined deployment information for four weeks in winter (January 31 to February 28, 2011) and four weeks in summer (August 1 to 28, 2011).

The police department's main patrol forces are scheduled on ten-hour shifts starting at 6:00 a.m., 3:00 p.m., and 9:00 p.m. This causes deployment to peak during the hours between 9:00 p.m. and 1:00 a.m., 6:00 a.m. and 7:00 a.m., and 3:00 p.m. and 4:00 p.m.

The police department deployed an average of 8.5 officers during the 24-hour day in winter (February) and 8.1 officers during the 24-hour day in summer (August).

In this section, we describe the deployment and workload in distinct steps, distinguishing between summer and winter, and between weekdays and weekends:

- First, we focus on patrol deployment.
- Next, we compare the deployment against workload based upon other-initiated calls for service.
- Then, we draw a similar comparison while including police-initiated workload and out-of-service activities
- Finally, we draw a comparison based upon "all" workload, which includes other-initiated calls, police-initiated calls, directed patrol activities, and out-of-service activities.

Comments follow each set of four figures, with separate discussions for summer and winter.

FIGURE 11: Deployed Officers, Weekdays, Winter 2011

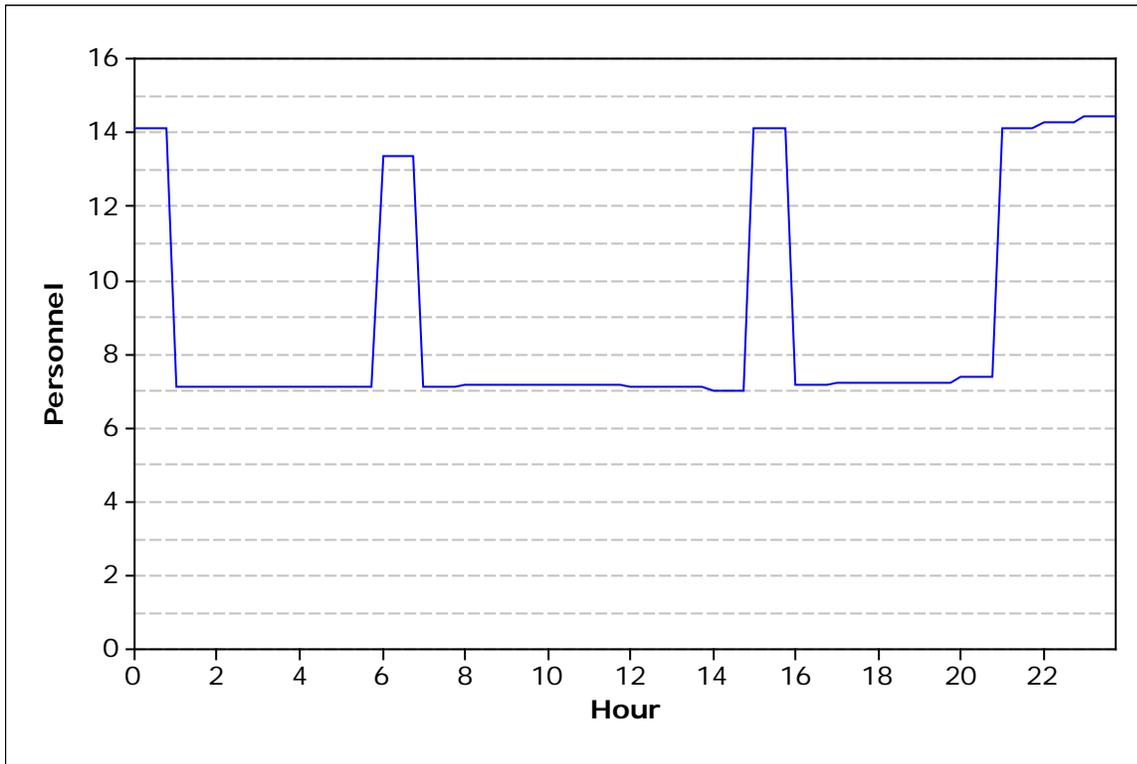


FIGURE 12: Deployed Officers, Weekends, Winter 2011

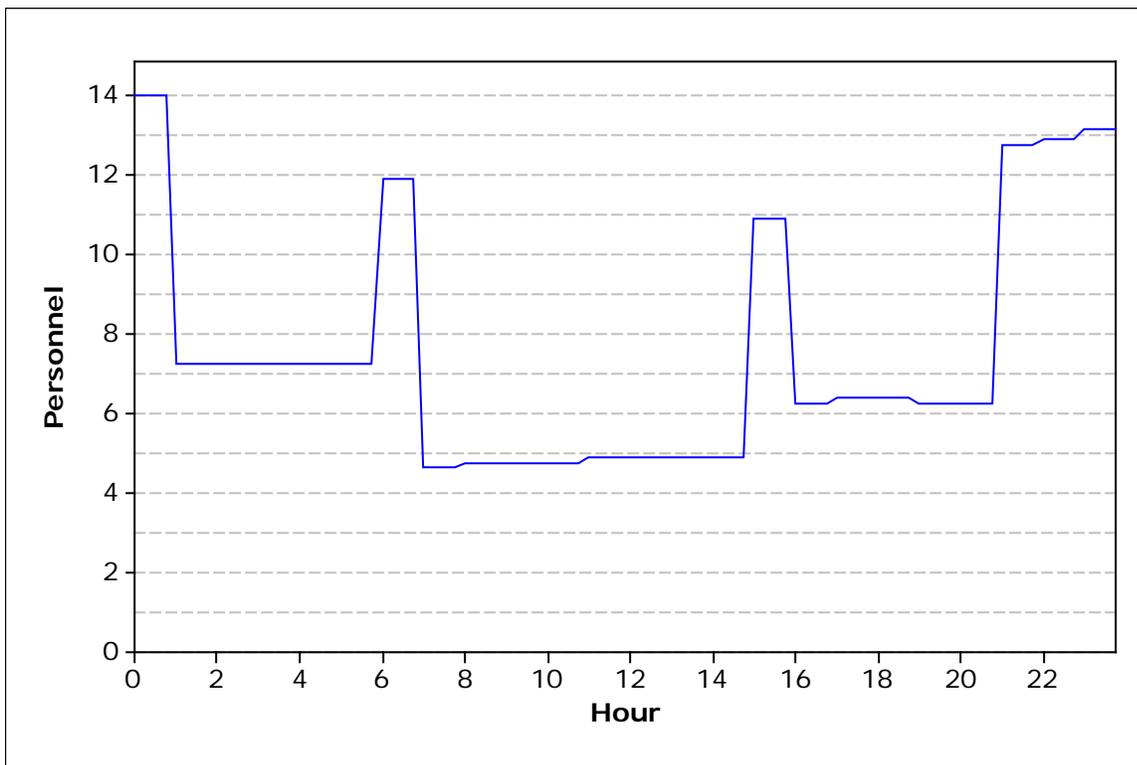


FIGURE 13: Deployed Officers, Weekdays, Summer 2011

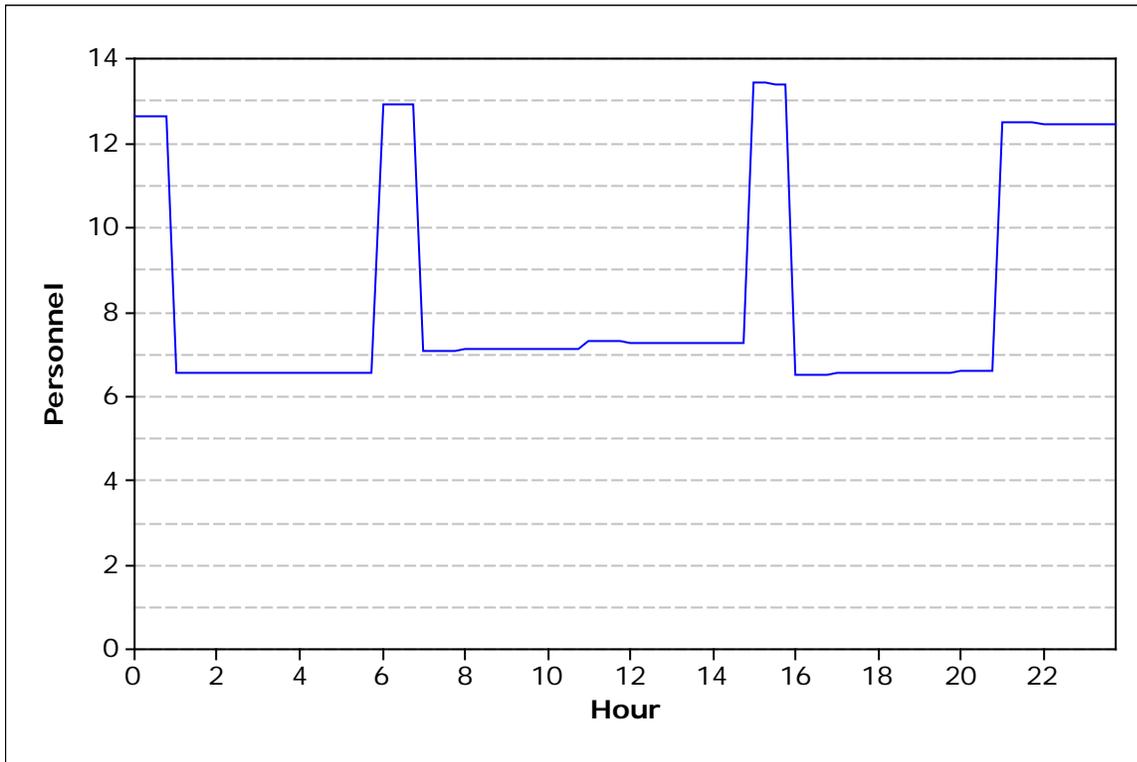
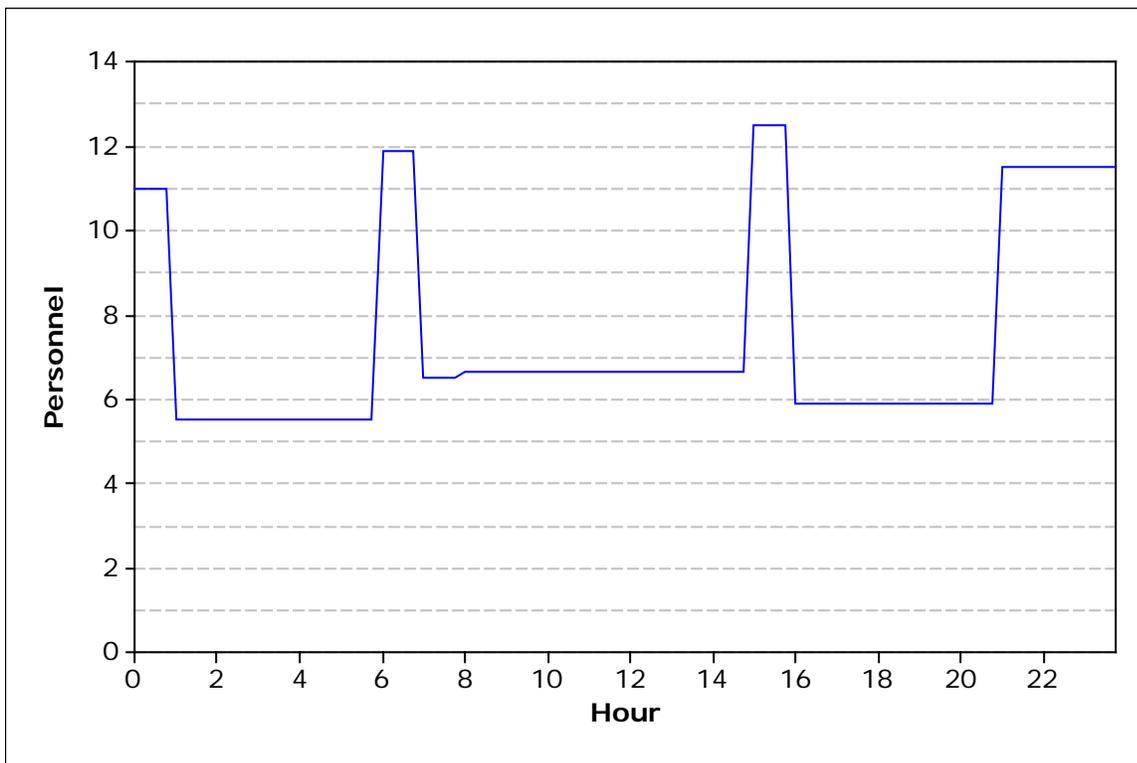


FIGURE 14: Deployed Officers, Weekends, Summer 2011



Observations:

For winter 2011:

- The average deployment was approximately 8.9 officers per hour during the week and 7.6 officers per hour on weekends.
- Deployment varied between 7.0 and 14.5 officers per hour on weekdays, and between 4.6 and 14.0 officers per hour on weekends.

For summer 2011:

- The average deployment was about 8.3 officers per hour during the week and 7.5 officers per hour on weekends.
- Deployment varied between 6.5 and 13.5 officers per hour on weekdays, and between 5.5 and 12.5 officers per hour on weekends.

FIGURE 15: Deployment and Other-Initiated Workload, Weekdays, Winter 2011

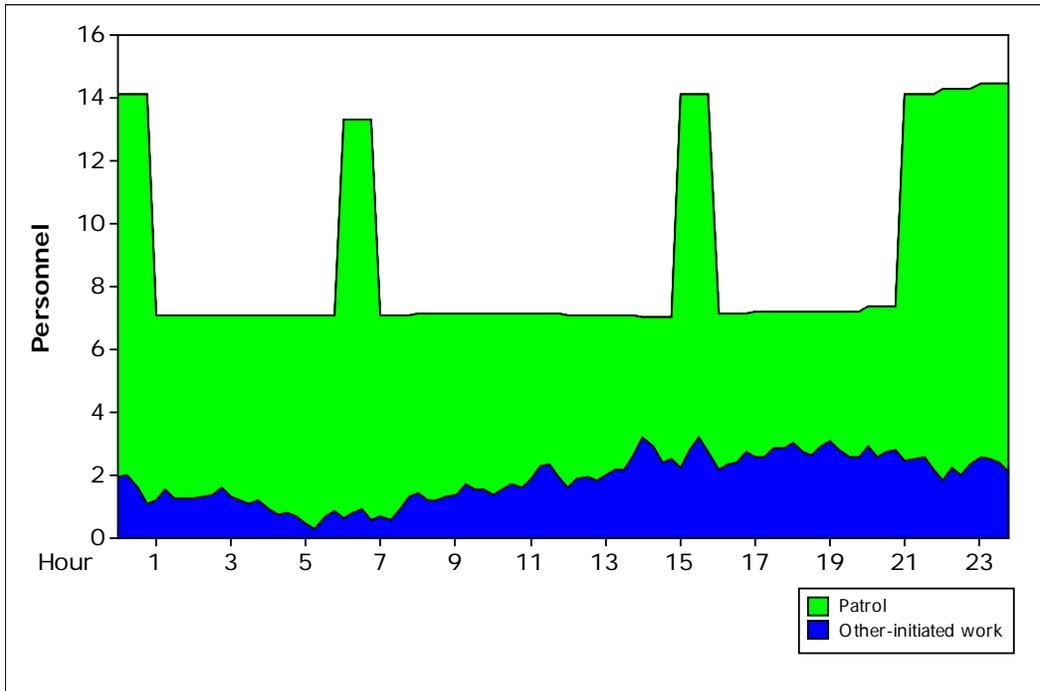


FIGURE 16: Deployment and Other-Initiated Workload, Weekends, Winter 2011

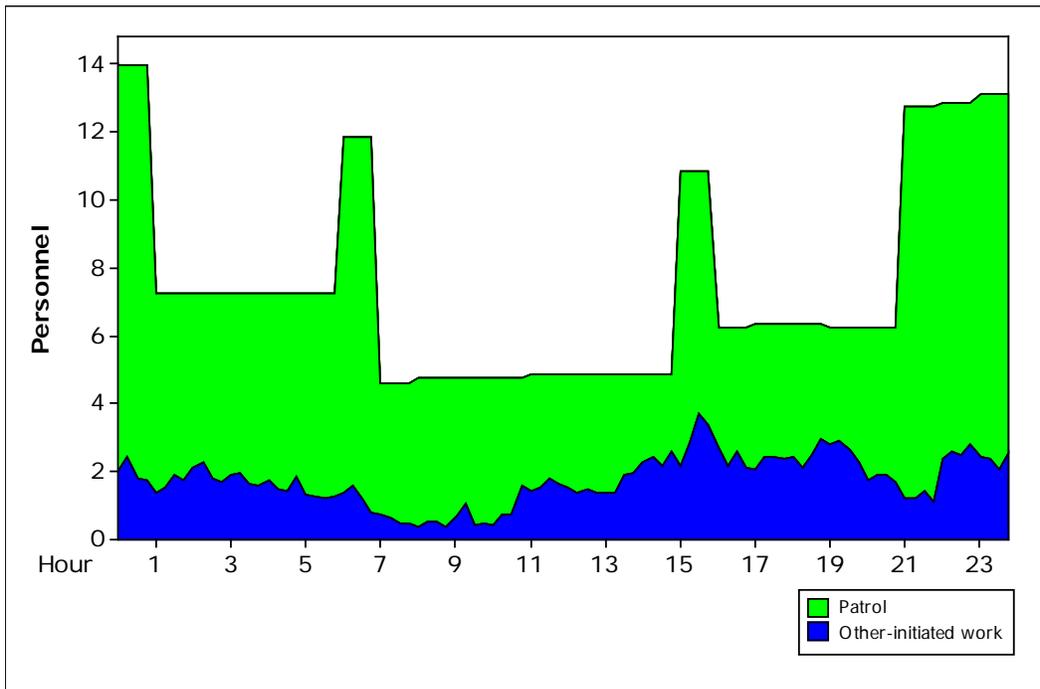


FIGURE 17: Deployment and Other-Initiated Workload, Weekdays, Summer 2011

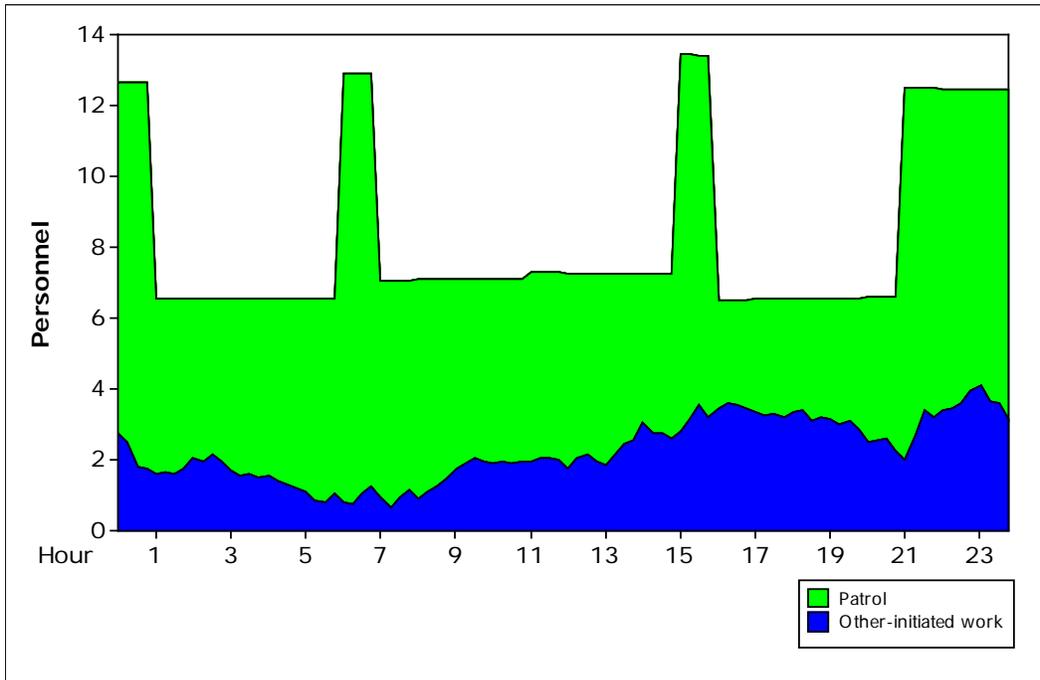
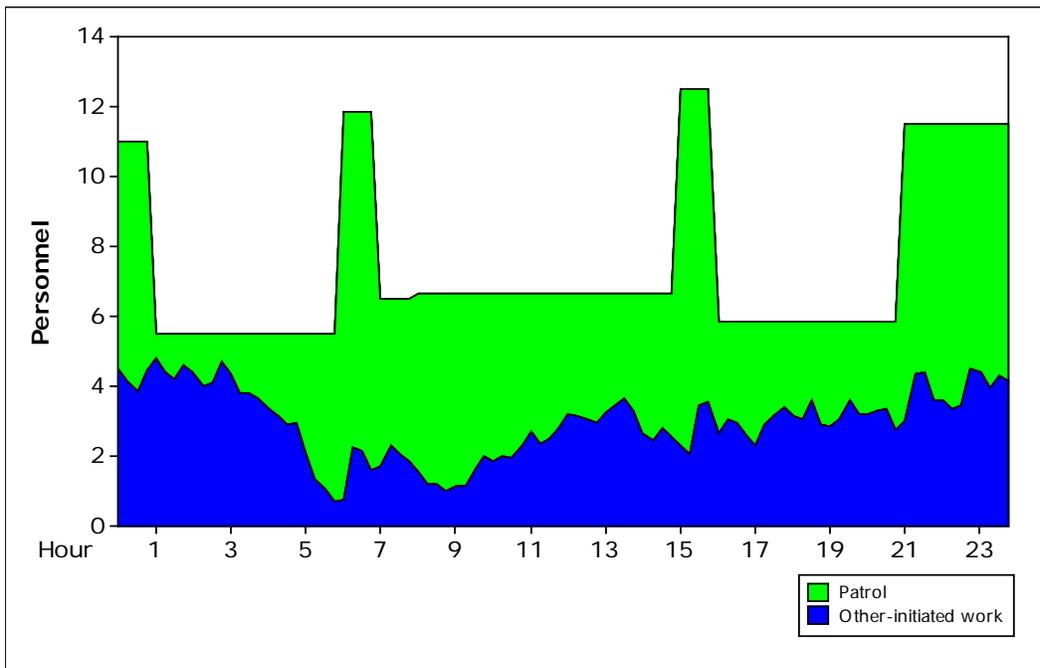


FIGURE 18: Deployment and Other-Initiated Workload, Weekends, Summer 2011



Observations:

For winter 2011:

- Average other-initiated workload was 1.9 officers per hour during the week and 1.8 officers per hour on weekends.
- This was approximately 21 percent of hourly deployment during the week and 23 percent of hourly deployment on weekends.
- During the week, workload reached a maximum of 46 percent of deployment between 2:00 p.m. and 2:15 p.m.
- On weekends, workload reached a maximum of 53 percent of deployment between 2:45 p.m. and 3:00 p.m.

For summer 2011:

- Average other-initiated workload was 2.3 officers per hour during the week and 3.0 officers per hour on weekends.
- This was approximately 27 percent of hourly deployment during the week and 40 percent on weekends.
- During the week, workload reached a maximum of 56 percent of deployment between 4:15 p.m. and 4:30 p.m.
- On weekends, workload reached a maximum of 87 percent of deployment between 1:00 a.m. and 1:15 a.m.

FIGURE 19: Deployment and Main Workload, Weekdays, February 2011

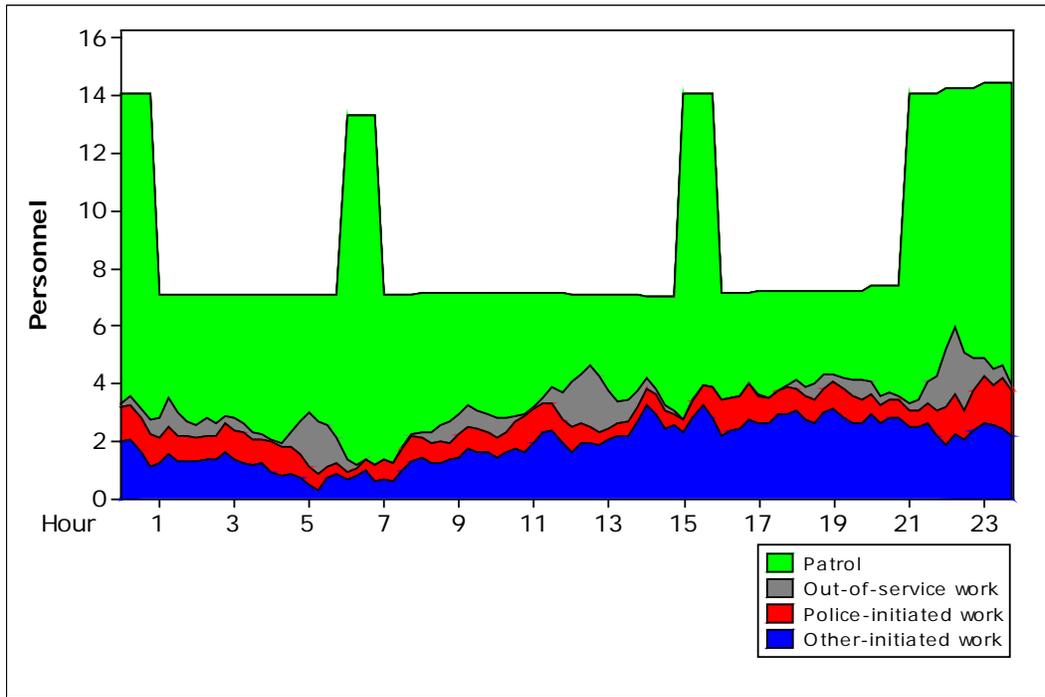


FIGURE 20: Deployment and Main Workload, Weekends, February 2011

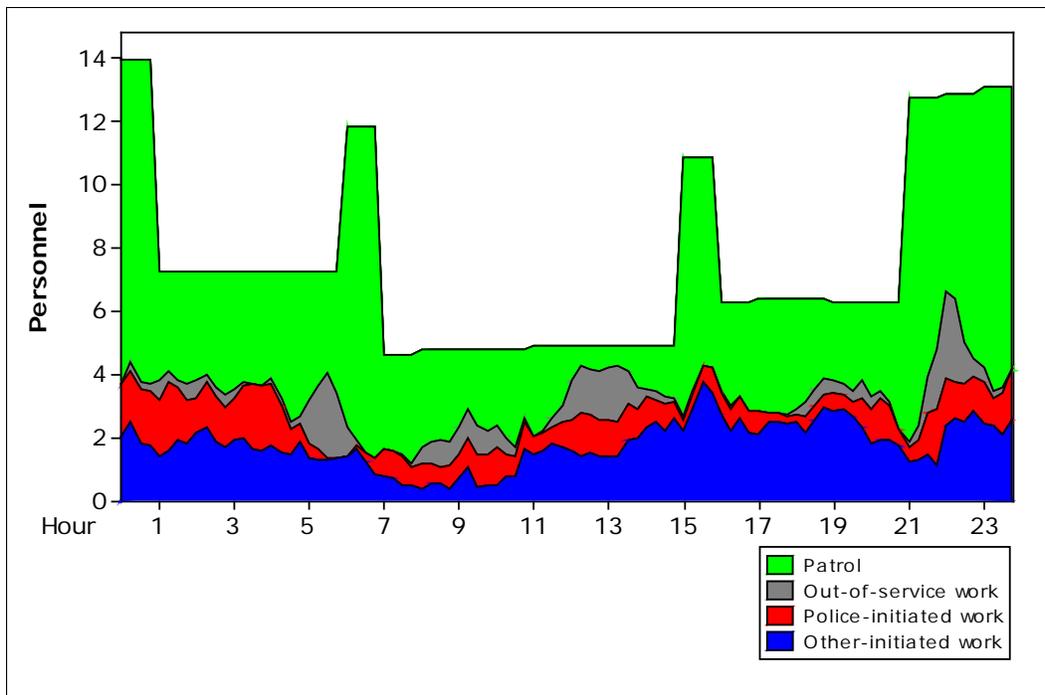


FIGURE 21: Deployment and Main Workload, Weekdays, August 2011

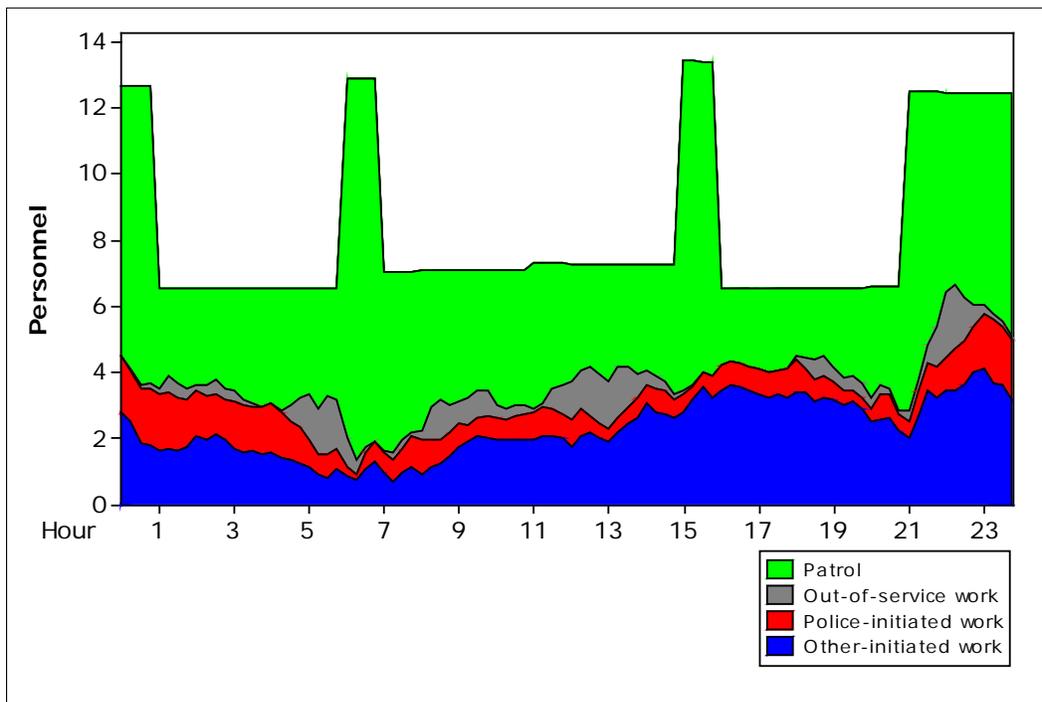
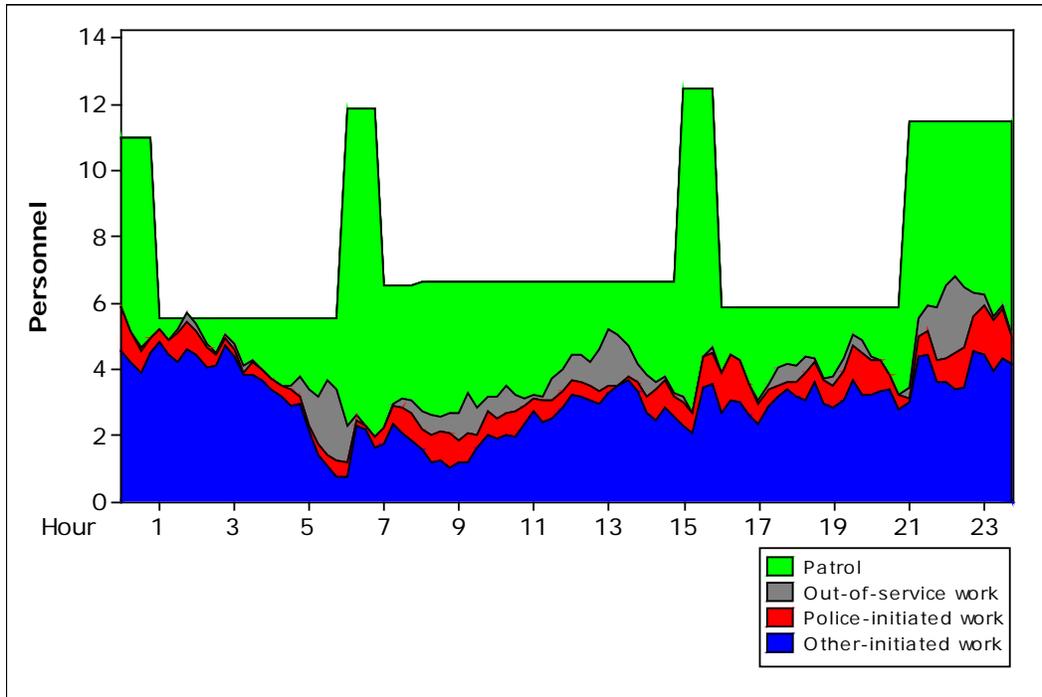


FIGURE 22. Deployment and Main Workload, Weekends, August 2011



Note: These figures include deployment along with workload from other-initiated, police-initiated, and out-of-service activities.

Observations:

For winter 2011:

- Average workload was 3.3 officers per hour during the week and 3.2 officers per hour on weekends.
- This was approximately 37 percent of hourly deployment during the week and 43 percent on weekends.
- During the week, workload reached a maximum of 65 percent of deployment between 12:30 p.m. and 12:45 p.m.
- On weekends, workload reached a maximum of 88 percent of deployment between 12:15 p.m. and 12:30 p.m.

For summer 2011:

- Average workload was about 3.7 officers per hour during the week and 4.1 officers per hour on weekends.
- This was approximately 44 percent of hourly deployment during the week and 55 percent on weekends.
- During the week, workload reached a maximum of 68 percent of deployment between 6:00 p.m. and 6:15 p.m. and between 6:45 p.m. and 7:00 p.m.
- On weekends, workload reached a maximum of 103 percent of deployment between 1:45 a.m. and 2:00 a.m.

FIGURE 23: Deployment and All Workload, Weekdays, Winter 2011

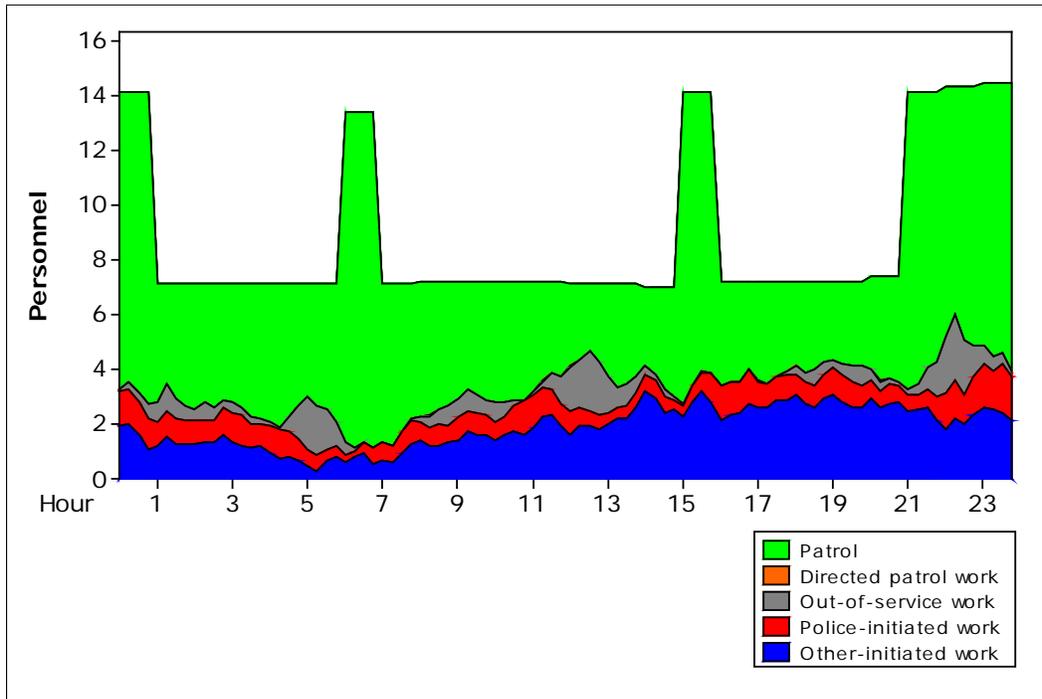


FIGURE 24: Deployment and All Workload, Weekends, Winter 2011

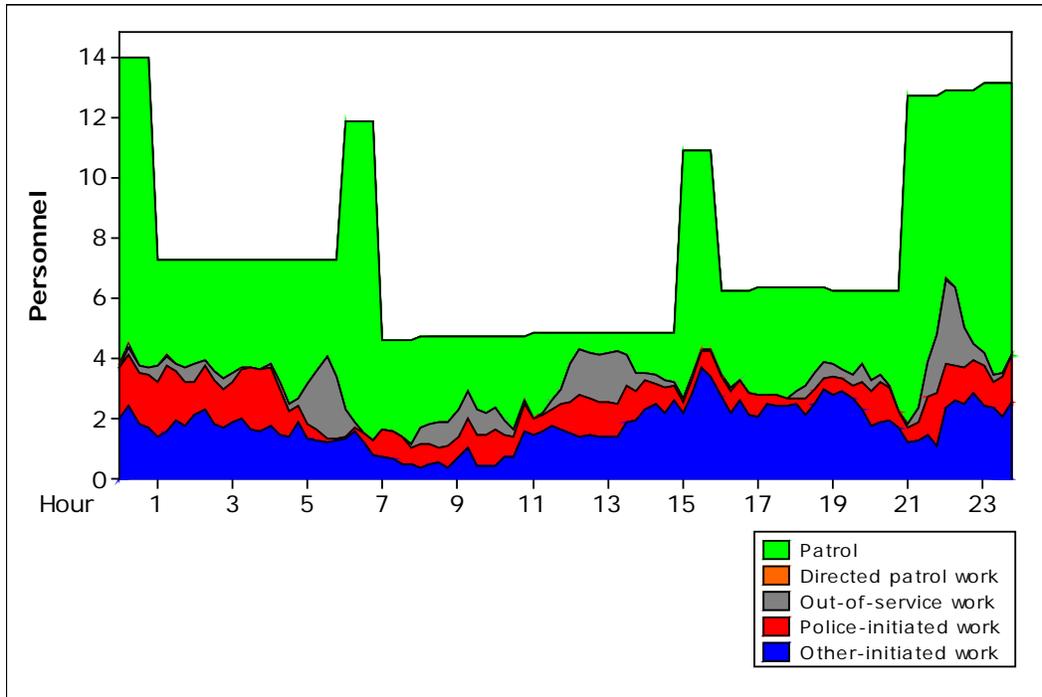


FIGURE 25: Deployment and All Workload, Weekdays, Summer 2011

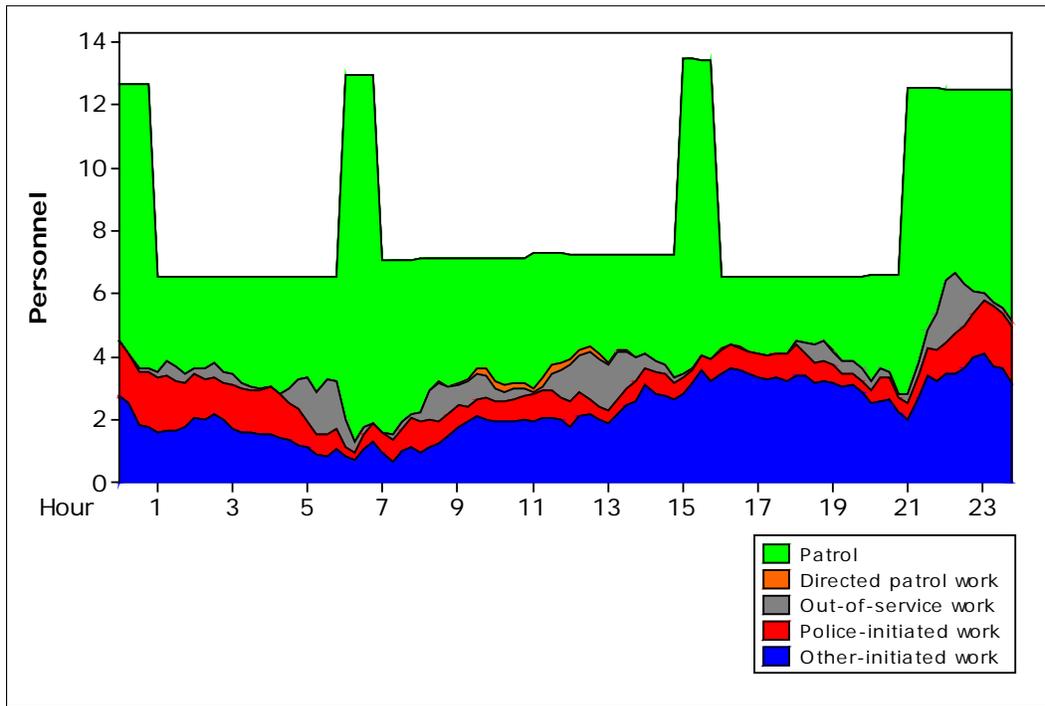
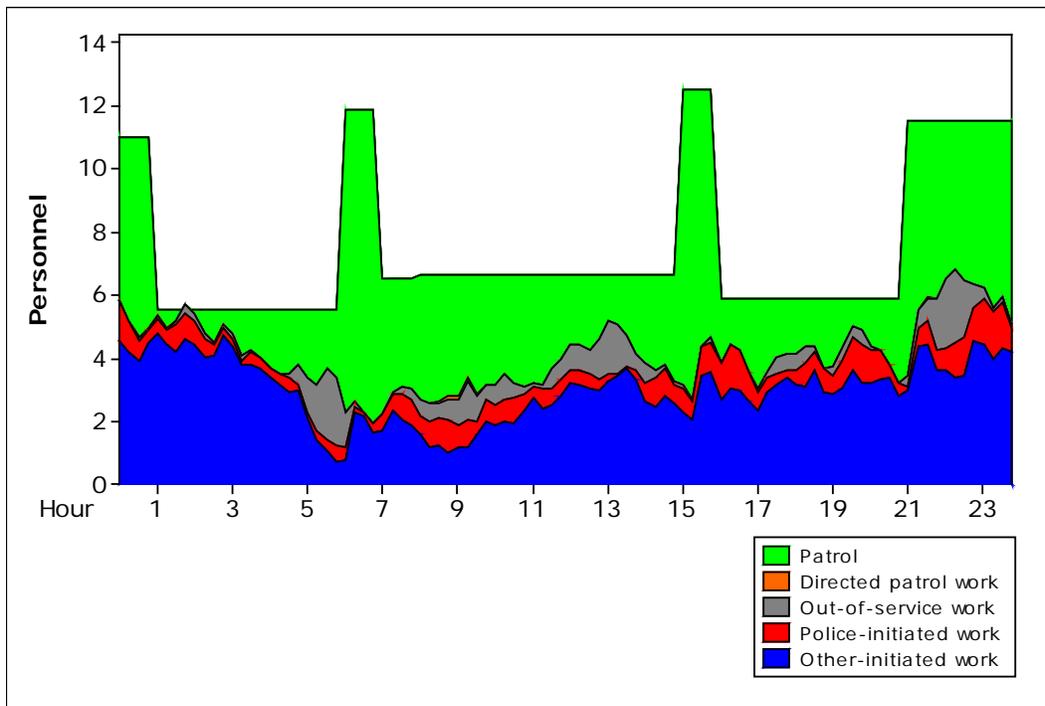


FIGURE 26: Deployment and All Workload, Weekends, Summer 2011



Note: These figures include deployment along with all workload from other-initiated, police-initiated, directed patrol, and out-of-service activities. The directed patrol calls are very few in comparison to the overall call volume.

Observations:

For winter 2011:

- Average workload was 3.3 officers per hour during the week and 3.2 officers per hour on weekends.
- This was approximately 37 percent of hourly deployment during the week and 43 percent on weekends.
- During the week, workload reached a maximum of 65 percent of deployment between 12:30 p.m. and 12:45 p.m.
- On weekends, workload reached a maximum of 88 percent of deployment between 12:15 p.m. and 12:30 p.m.

For summer 2011:

- Average workload was 3.7 officers per hour during the week and 4.1 officers per hour on weekends.
- This was approximately 42.6 percent of hourly deployment during the week and 43 percent on weekends.
- During the week, workload reached a maximum of 69 percent of deployment between 6:45 p.m. and 7:00 p.m.
- On weekends, workload reached a maximum of 103 percent of deployment between 1:45 a.m. and 2:00 a.m.

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.

Before presenting the specific figures and tables, we summarize all of the observations. We started with 3,540 events for summer 2011 and 3,021 events for winter 2011. We limited our analysis to other-initiated calls. We also limited our analysis to those calls that we could match against the center's phone logs to accurately determine the time that the call was received. We also encountered some calls without arrival times that we were forced to exclude from our analysis due to lack of information. This left 736 calls in summer and 559 calls in winter in our analysis.

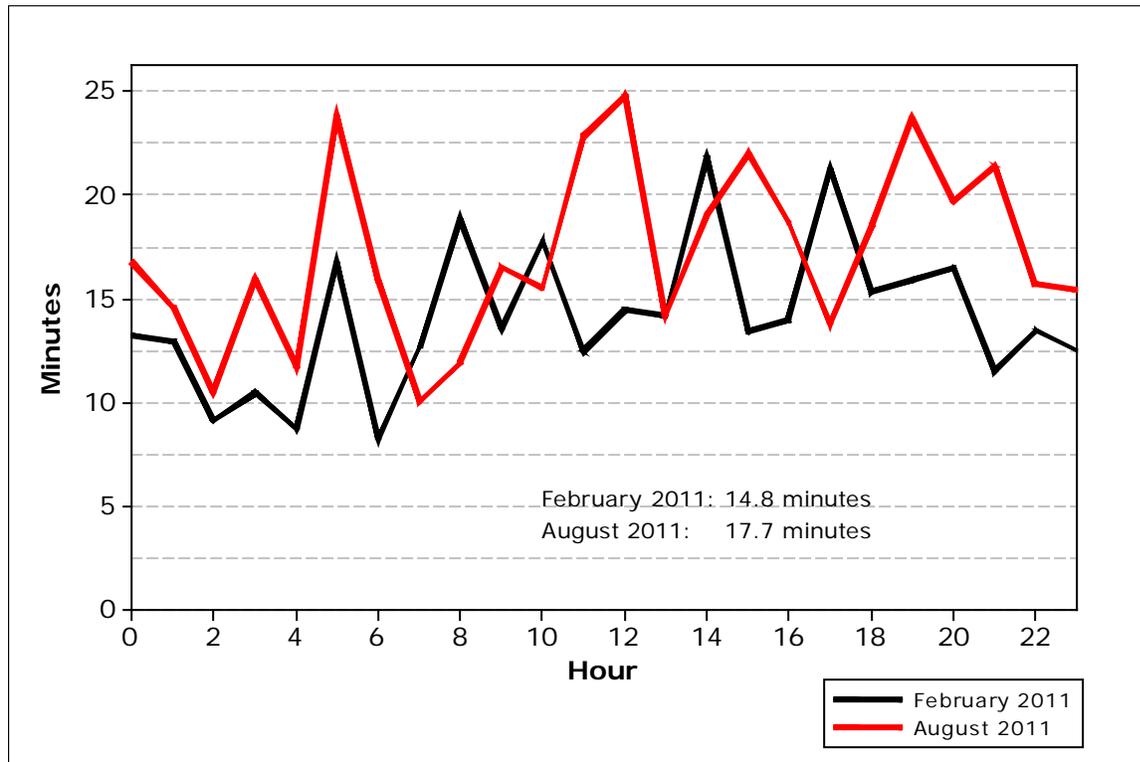
Our initial analysis does not distinguish calls based on their priority. Instead, it examines the difference in response by time of day and compares summer and winter periods. After the overall statistics, we present a brief analysis of response time for high-priority calls.

Response time is measured as the difference between when a call is received and when the first unit arrives on scene.

All Calls

This section looks at all calls received; we examine the differences in response by both time of day and season (summer versus winter).

FIGURE 27: Average Response Time, by Hour of Day, for Summer and Winter 2011



Observations:

- Average response times varied significantly by hour of day.
- The overall average response time was longer in summer than in winter.
- In summer, the longest response times were between 12:00 p.m. and 1:00 p.m., with an average of about 24.8 minutes.
- In summer, the shortest response times were between 7:00 a.m. and 8:00 a.m., with an average of 10 minutes.
- In winter, the longest response times were between 2:00 p.m. and 3:00 p.m., with an average of 21.8 minutes.
- In winter, the shortest response times were between 6:00 a.m. and 7:00 a.m., with an average of 8.3 minutes.

FIGURE 28: Average Response Time by Category, Summer 2011

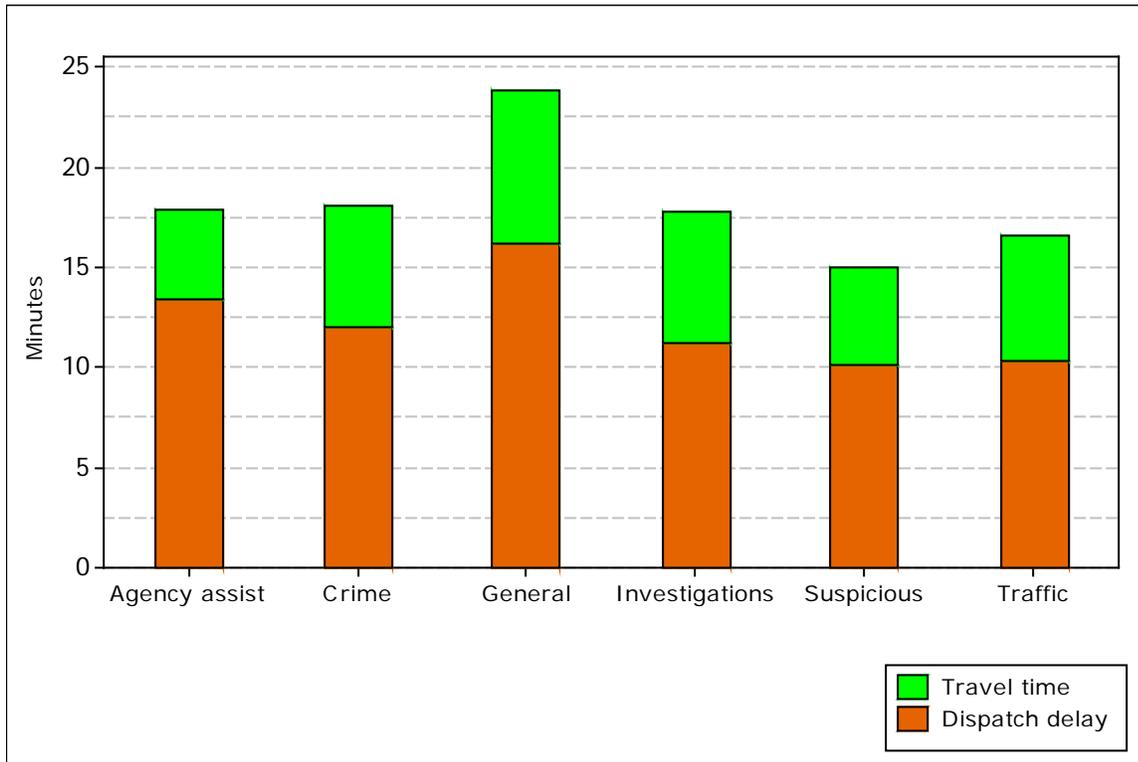


FIGURE 29: Average Response Time by Category, Winter 2011

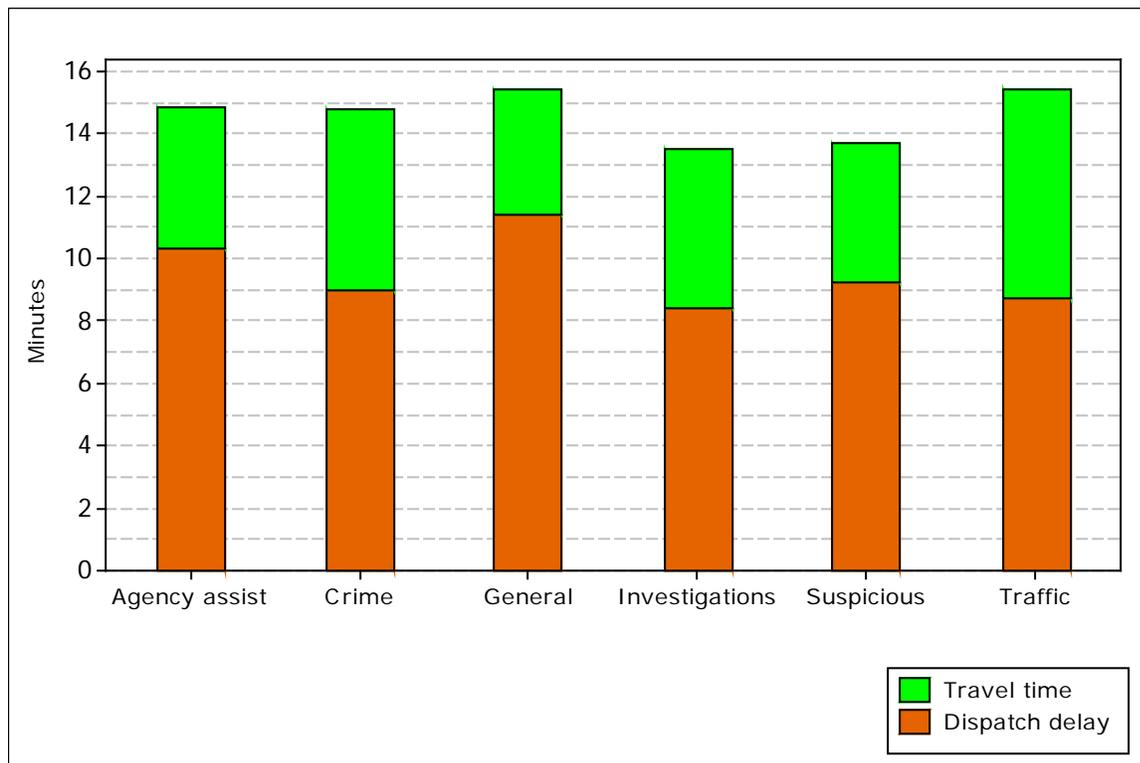


TABLE 11: Average Response Time Components, by Category

Category	August 2011			February 2011		
	Dispatch	Travel	Response	Dispatch	Travel	Response
Agency assist	13.4	4.4	17.8	10.3	4.5	14.9
Crime	12.0	6.1	18.1	9.0	5.8	14.7
General	16.2	7.6	23.8	11.4	4.0	15.4
Investigations	11.3	6.5	17.8	8.4	5.1	13.5
Suspicious	10.1	4.8	14.9	9.2	4.5	13.7
Traffic	10.3	6.2	16.6	8.7	6.7	15.4
Total	11.7	6.0	17.7	9.1	5.6	14.8

Note: The total average is weighted according to the number of calls per category. There were few other-initiated arrest calls and these have been excluded from the table.

Observations:

- In August, average response times were between 15 minutes (for suspicious incidents) and 24 minutes (for general noncriminal activities).
- In February, average response times were between 14 minutes (for investigations and suspicious incidents) and 15 minutes (for traffic-related calls).
- Average response times for crimes were 18 minutes in August and 15 minutes in February.
- In August, average dispatch delays varied between 10 minutes (for suspicious incidents) and 16 minutes (for general noncriminal activities).
- In February, average dispatch delays varied between 8 minutes (for investigations) and 11 minutes (for general noncriminal activities).

TABLE 12. 90th Percentiles for Response-Time Components, by Category

Category	August 2011			February 2011		
	Dispatch	Travel	Response	Dispatch	Travel	Response
Agency assist	38.7	8.8	42.0	34.3	8.5	41.9
Crime	31.2	10.7	41.3	22.2	10.3	29.0
General	33.5	15.6	50.6	33.7	7.3	35.9
Investigations	35.0	17.2	45.8	24.5	9.4	30.6
Suspicious	23.4	8.3	28.9	31.9	7.8	37.2
Traffic	25.4	12.8	33.4	22.5	12.8	30.0
Total	28.9	10.7	37.9	22.6	10.3	30.0

Note: A 90th percentile value of thirty-eight minutes means that 90 percent of all calls are responded to in fewer than thirty-eight minutes. For this reason, the columns for dispatch delay and travel time will not add to total response time.

Observations:

- In August, the 90th percentile values for response times in all categories were between 33 minutes (for traffic-related calls) and 51 minutes (for general noncriminal activities).
- In February, 90th percentile values for response times in all categories were between 29 minutes (for crime calls) and 42 minutes (for other agency assists).

High-Priority Calls – Motor Vehicle Accidents with Injury

A priority code was assigned to each call by the dispatch center. Priorities ranged from 1 to 10, with 1 as the highest priority. Calls with a priority of 0 were the lowest priority calls, used primarily for out-of-service events. Table 13 shows average response times by priority. These averages included nonzero-on-scene, other-initiated calls throughout the year from November 2010 to October 2011. There were 6,430 other-initiated calls with valid response times. All of these calls were assigned a priority.

In order to calculate the response times to accidents, we used all the other-initiated calls classified as “WYPIAC” (personal injury accident). Most of these were classified as Priority 2 calls. Priority 1 calls were primarily calls classified as “crime–persons”.

TABLE 13: Average Dispatch, Travel, and Response Times, by Priority

Priority	Dispatch	Travel	Response	Total Calls
1	5.5	4.6	10.1	118
2	7.9	4.7	12.6	3,631
3	12.9	7.0	19.9	1,577
4	16.1	6.9	23.0	1,099
5-10	23.6	6.5	30.0	5
Total	10.5	5.7	16.2	6,430
Injury accidents	4.8	5.0	9.8	188

Note: The total average is weighted according to the number of calls within each priority level.

Observations:

- High-priority calls (Priority 1) had a shorter average response time of 10.0 minutes compared with the overall yearly average of 16.2 minutes. The response time for accidents with injuries was approximately 9.8 minutes.
- Average dispatch delay was 5.5 minutes for high-priority calls, 4.8 minutes for accidents with injuries, and 10.5 minutes overall.

Appendix I. Comparison with Prior ICMA Study

ICMA Consulting Services conducted a prior study of the Wyoming Police Department in 2008. As this new study is the second by the ICMA for Wyoming, we would like to compare the two reports. We focus on the significant similarities and differences between the two reports and emphasize the following aspects. The dispatch data and the ICMA methodology has undergone a number of improvements since 2008. The patrol force has undergone a reduction in total personnel in the time between the two studies. Workload measures have not changed much when one accounts for the improved data incorporated into the new study. Finally, we have taken our current workload and deployment comparisons and converted them into the older format used in 2008 to allow for a visual comparison between the two studies.

The data that formed the basis for the current study is more comprehensive and complete than the data available for the study. The current data includes a full year of calls for service (approximately 42,700) rather than just two months of calls (approximately 5,700). It includes detailed time information for each unit that responded to every call, while the prior study only contained one set of timestamps for every call. The dispatch center furnished the following new items to allow for a more accurate analysis: more precise call start times, an assigned call priority, recorded out-of-service events, and identification of self-initiated activities.

Along with obtaining better data, we improved our analytical methods throughout the intervening years. We moved away from the six call categories used in 2008, to the larger and more descriptive set of categories that we employ at present. Our analysis carefully accounts for every minute spent by every unit on every call. Deployment and workloads are compared in quarter-hour increments when originally they were compared on an hourly basis. Internally, there have been enhancements to our measurement of response times and our reports now focus on averages and 90th percentile values rather than on the cumulative distributions that were provided in 2008.

The changes in deployment levels reported in this study when compared against the study in 2008 match the department's records. Between 2007 and 2011, the patrol force shrank by 3 officers. Estimating a 40 hour average work week, this amounts to a reduction of 120 work-hours per week. With 168 hours each week, this translates into 0.7 less personnel per hour. In the prior study which analyzed 2007, the department averaged 9.5 officers per hour in February and 9.1 officers per hour in August. In the current study, which analyzes 2011, the department averaged 8.5 officers per hour in February and 8.1 officers per hour in August. This is a consistent reduction of 1 officer per hour which tracks well with the reported reduction in personnel.

Call and workload volumes compare well with the prior study. Calls are easier to link as workloads now include greater detail regarding the time spent by secondary units on each call. During this comparison, we examine calls rather than events, thereby excluding out-of-service activities, directed patrol events, or zero-on-scene calls. In 2007, the department averaged 88 calls per day in February and 107 calls per day in August. In 2011, the department averaged 89 calls per day in February and 111 calls per day in August.

In 2010, we changed the graphs that we used to compare total patrol deployment and patrol workload. We believe our new graphs show a better visual representation of the different workload

components and how they combine throughout the day. Nevertheless, to better compare the two studies, we converted four major workload and deployment graphs, Figures 23 through 26, to an older format. The figures below contain the same labels as the original figures but are marked "Old" to reference our older graphing style.

FIGURE 30: Deployment and All Workload, Weekdays, Winter 2011 (Old)

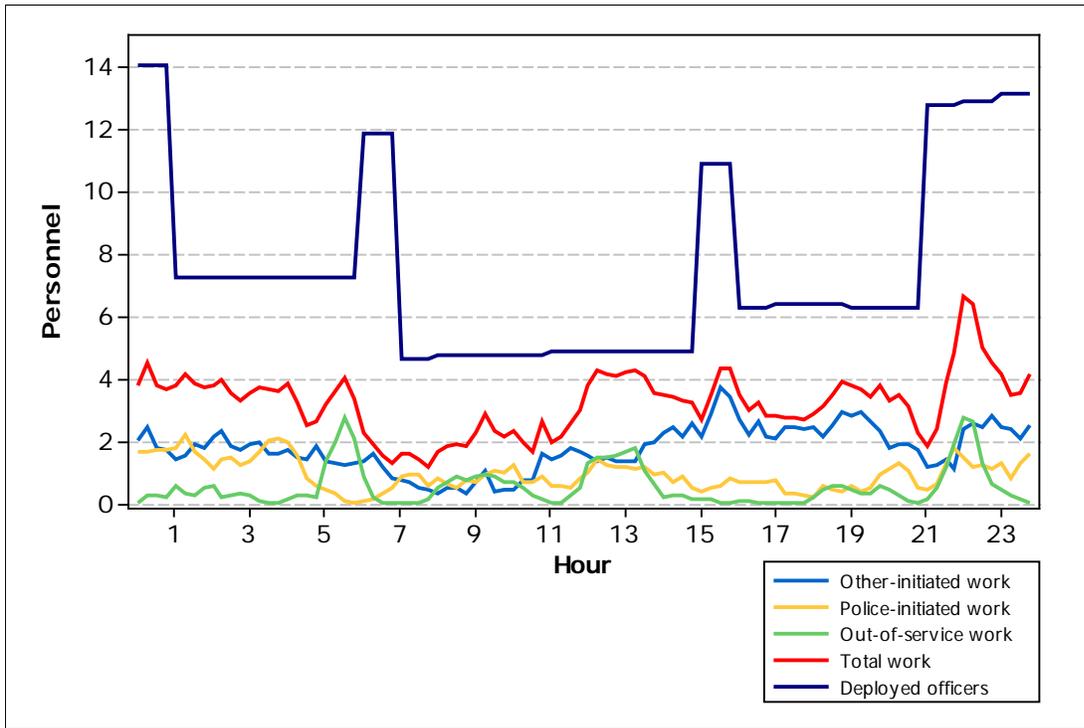


FIGURE 31: Deployment and All Workload, Weekends, Winter 2011(Old)

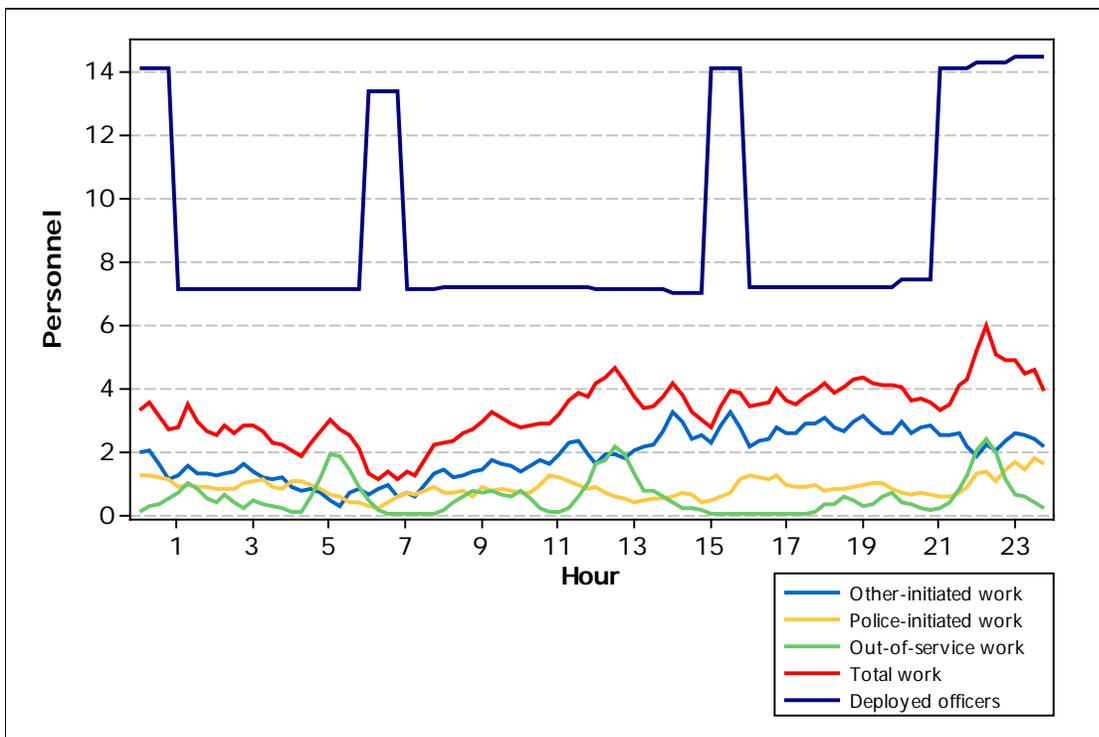


FIGURE 32: Deployment and All Workload, Weekdays, Summer 2011 (Old)

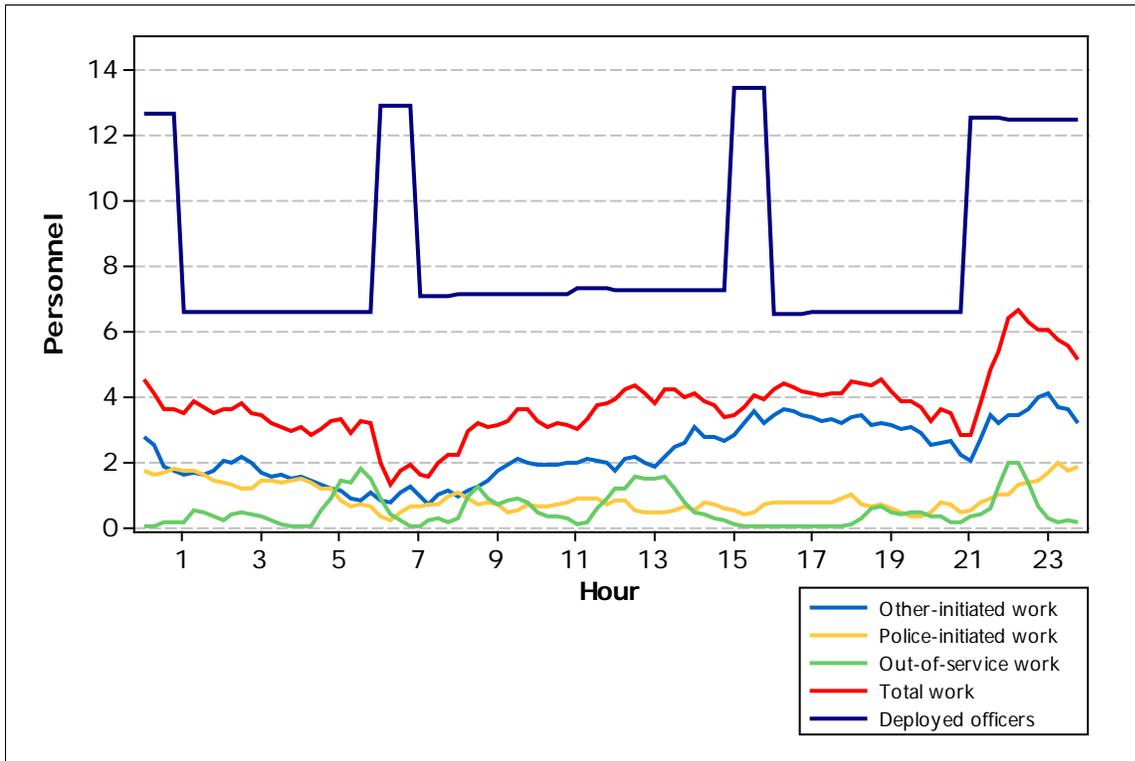


FIGURE 33: Deployment and All Workload, Weekends, Summer 2011 (Old)

