

Determining Police Staffing & Deployment

Police agencies routinely speak about “recommended officers per 1,000 population” or a “National Standard” for staffing, or comparisons to other municipalities.

There are no such standards. Nor are there “recommended numbers of “officer per thousand”. Nor is it useful to make comparisons with other communities.

The International Association of Chiefs of Police (IACP) states; “Ready-made, universally applicable patrol staffing standards do not exist. Ratios, such as officers-per-thousand population, are totally inappropriate as a basis for staffing decisions.”

Joseph Brann, the first Director of the COPS Office and retired chief of police in Haywood, California wrote in “Officer’s per Thousand and other Urban Myths” appearing in ICMA’s *PM Magazine*,

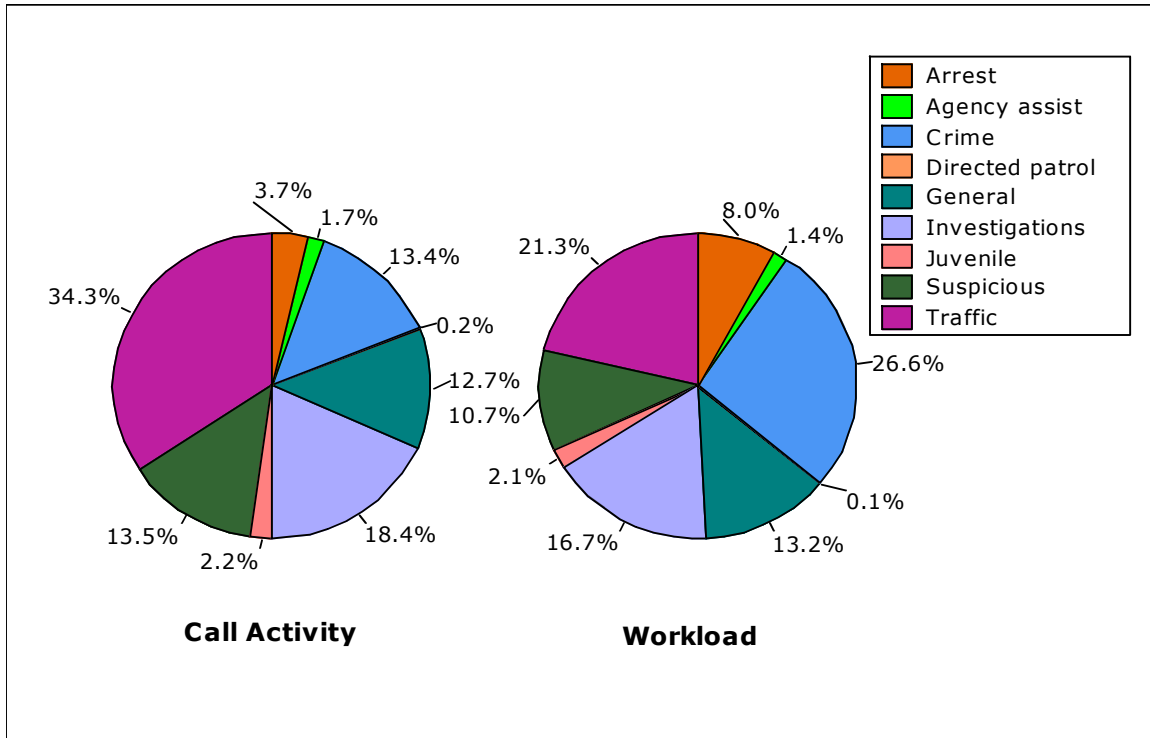
“A key resource is discretionary patrol time, or the time available for officers to make self-initiated stops, advise a victim in how to prevent the next crime, or call property owners, neighbors, or local agencies to report problems or request assistance. Understanding discretionary time, and how it is used, is vital. Yet most departments do not compile such data effectively. To be sure, this is not easy to do and, in some departments’ may require improvements in management information systems.”

Staffing decisions, particularly in patrol, must be made based upon actual workload and very few police agencies have the capability of conducting that analysis. Once an analysis of the actual workload is made, then a determination can be made as to the amount of discretionary patrol time should exist, consistent with the community’s ability to fund.

ICMA’s team of doctoral level experts in Operations Research in Public Safety have created in **The ICMA Patrol Workload & Deployment Analysis System** the ability to produce detailed information on workload even in those agencies without sophisticated management information systems. Using the raw data extracted from the police department’s CAD system our team converts calls for service into police services workload and then effectively graphs workload reflecting seasonally, weekday / weekend and time of day variables. Using this information the police department can contrast actual workload with deployment and identify the amount of discretionary patrol time available (as well as time commitments to other police activities).

Police service workload differentiates from calls for service in that calls for service are a number reflecting the incidents recorded. Workload is a time measurement recording the actual amount of police time required to handle calls for service from inception to completion. Various types of police service calls require differing amounts of time (and thus affect staffing requirements). As such, call volume (number of calls) as a percentage of total number of calls could be significantly different than workload in a specific area as a percentage of total workload. The graph following sample graph demonstrates this difference in units.

Calls for Service vs. Workload



ICMA has found that the most effective way to manage operations, including public safety, is to decisions based upon the interpretation and analysis of data and information.

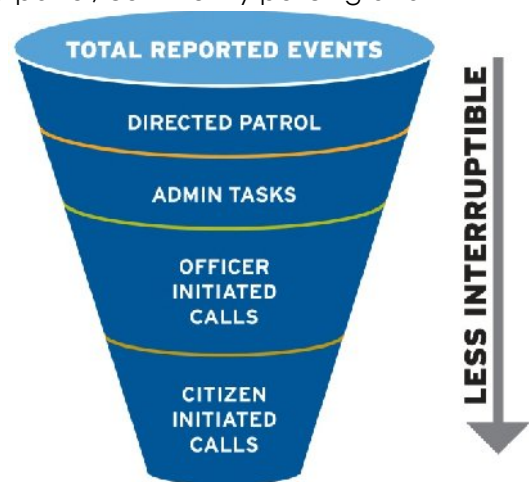
To achieve this, a data analysis of police department workload, staffing and deployment will be conducted. By objectively looking at the availability of deployed hours and comparing those to the hours necessary to conduct operations, staffing expansion and/or reductions can be determined and projected. Additionally the time necessary to conduct proactive police activities (such as directed patrol, community policing and selected traffic enforcement) will be reviewed to provide the city with a meaningful methodology to determine appropriate costing allocation models.

Further, we will review existing deployment, particularly of the patrol force, to determine appropriate staffing levels throughout the day with particular attention to the size and number of patrol zones or beats.

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

Data Analysis

This portion of the study will look at the total deployed hours of the police department with a comparison to the time being spent to currently provide services. The analysis will



review response times both cumulative as well as average for all services. In addition, a documentation request will be issued to the police department outlining information needed for a full operational review.

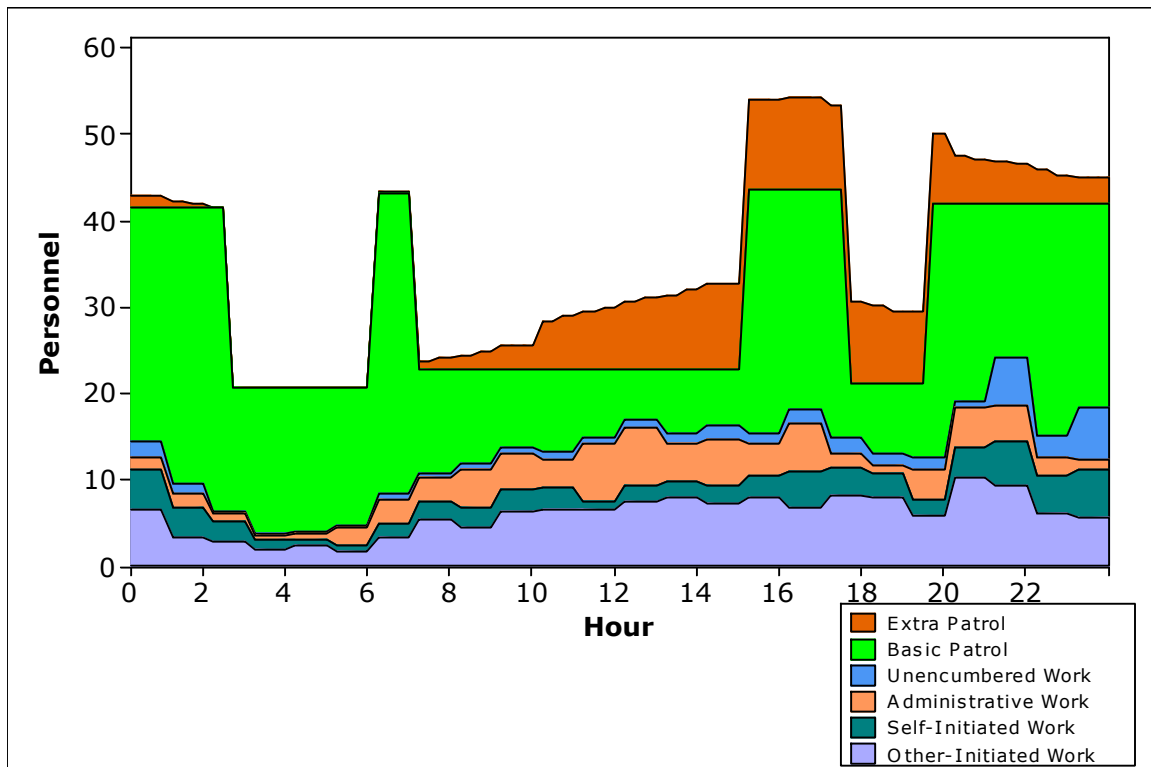
The ICMA has assembled a team of experts that are uniquely qualified to extract raw data from Computer Aided Dispatch Systems and conduct comprehensive analysis. The Team will utilize operations research methods in conducting the analysis. This approach is unique in the consulting field and was developed specifically by ICMA.

Workload vs. deployment analysis sample

This is one of the ways we show the amount of available, non-committed patrol time compared to workload. As you can see we break out the various activities, convert them to time and then compare to available manpower. The deployment is based upon actual hours worked.

So in this example, at noon there are approximately 17 hours of work (including citizen initiated & officer initiated calls for services, including traffic) and administrative activities (meals, vehicle, reports, etc.). There are approximately 30 man hours of available resources meaning that at that hour, on average, of the 30 officers on duty 16 are busy on activities.

The area shown in green and brown is uncommitted time. This is the area where staffing decisions impact – it becomes a policy issue as to how much uncommitted time a city wants, and is willing to pay for.



For more information contact Leonard Matarese, Director of Research & Project Development, ICMA Center for Public Safety Management:

Lmatarese@icma.org or 716-969-1360