



Canadian Police Staffing Symposium

November 2-3, 2015

Final Summary Report

**Prepared by Dr. Alexander Weiss
Alexander Weiss Consulting, LLC**

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Canadian Police Staffing Symposium

Summary Report

On November 2nd and 3rd, 2015, the Ontario Provincial Police hosted a national symposium on police staffing. The symposium, held in Ottawa, included representatives from several organizations including:

- Calgary Police Service
- Halton Regional Police Service
- Illinois State Police
- London Police Service
- Louisville Metro Police Department
- Ontario Provincial Police
- Ottawa Police Service
- Peel Regional Police
- Public Safety Canada
- Royal Canadian Mounted Police
- Royal Newfoundland Constabulary
- Waterloo Regional Police Service
- York Regional Police

Background

In the face of increasing costs and shrinking revenues, many communities are asking how many police officers are required to ensure public safety. Put another way, what number of officers would help an agency most cost-effectively meet the demands placed on it? This is a fundamentally different question than how many officers does a community want or can a community support. Yet answering the need question effectively frames a discussion about *want and affordability*.

Unfortunately, law enforcement administrators have few resources to guide them in determining the number of officers they need. To be sure, there are multiple approaches to answering this question, ranging from the simple to the complex each with a range of advantages, disadvantages, and assumptions.

Most police organizations are familiar with staffing models and methodologies—they are a key component of determining how many officers an agency needs, but these models are only a part of a much larger analytical framework. Consider the following schematic.



Many agencies use some form of **deployment model** to allocate resources. These models, however, have some limitations:

- Many of these models are very complex, require lots of data, and are based on problematic underlying assumptions. For example, some models require users to specify a “patrol interval”, or how frequently a patrol car should patrol a given location. When you ask citizens how frequently they would like to see a police car patrol their street they often suggest something like 30 minutes. Unfortunately, when you enter this parameter into the model, the resultant estimate might call for

significantly increasing the size of the organization. Moreover, the data used in these models is often problematic. Most use “calls for service data’ but every CAD system defines that differently. As we will observe later in this report there is significant variation in how law enforcement agencies define calls for service.

Work schedules are a critical component of resource allocation, but often they are treated as though they are not related. In many cases an agency may have adequate staffing but an inefficient work schedule creates real and perceived staffing shortfalls. Many agencies develop a work schedule based on the number of officers that they have rather than what they need.

Many agencies use **specialized units**, and this may impact deployment. Among the problems are:

- When vacancies occur in specialized units they are typically filled by officers assigned to patrol, even when the patrol division may be understaffed
- It can be difficult in some agencies to reassign officers in specialty units back to patrol
- If left unchecked specialized units may deploy resources in a manner that does not support patrol operations. For example, specialized units often adopt work schedules that do not comport well with their assignment

Policing in North America is decentralized and fragmented (although much less so in Canada). In recent years there has been considerably more discussion about **sharing services**, either through consolidation, merger, or contracting. These approaches are highly controversial, but provide extraordinary opportunity to reduce duplication of services, provide more career opportunities for officers and, in many cases, improve the quality of service delivery.

Much of the discussion about police deployment revolves around the supply side of the equation. Many agencies are finding much can be done to **manage demand**:

- For many years communities have sought ways to better manage the call intake process. Such efforts led to development of 311 as a number for non-emergency calls. The Baltimore Police Department was one of the first to adopt a 311 system. In the first year of the program, the department experienced a 25 per cent reduction in 911 calls, with those in the lowest priority category dropping 99.7 per cent.
- The Colorado Springs Police Department will not send an officer for
 - Traffic accidents with no injuries, vehicles that can be driven from the scene, and with each vehicle incurring less than \$1,000 in damage
 - Found property that does not pose a health or safety risk, and is not evidence in a crime
 - Offences that are not in progress and for which there is no evidence or suspect information (e.g., shoplifting)
 - Medical calls not requiring police intervention

- Each month the Portland Telephone Reporting Unit handles approximately 3,700 calls, 11 per cent of the police bureau's call load, and writes 1,800 reports, 17 per cent of all reports written by the police bureau.
- In Fairfax County, Virginia citizens can file on-line reports for the following:
 - Bicycle Theft
 - Civil Dispute
 - Destruction of Private Property/Vandalism
 - Larceny/Theft from Motor Vehicle or Parts
 - Larceny/Theft Under \$5,000
 - Lost Property
 - Suspicious Person/Vehicle
 - Solicitor Violations
 - Telephone Harassment/Threats
 - Trespassing
 - Unoccupied Hit and Run Accidents
- Many communities are taking an aggressive approach to reducing response to false alarms. For example, the Milwaukee Police Department implemented the Verified Response Policy for burglar alarms in September 2004. Under this policy the Milwaukee Police Department does not respond to the report of a burglar alarm activation that was not first verified by a Private First Responder Service. Milwaukee reduced the number of calls for service due to alarms from more than 30,000 to 620 in 2012 as a result of their policy change.

Agencies must closely examine their use of **non-sworn staff**. Many departments continue to use sworn officers to perform tasks that could and should be performed by non-sworn staff. Evidence suggests that:

- Increasing non-sworn staff frees up time for sworn officers to do community policing and other tasks
- Non-sworn staff often have skills more appropriate for the immediate task
- The cost of non-sworn personnel is typically less than that of sworn personnel.

Finally, it seems odd but every staffing study should include a discussion about **what the agency hopes to accomplish**. That is, if we are going to free up officer time by using on-line reporting, then what do we want the officers to do with that time. Put another way we should always ask five core questions:

- What does the department do?
- What does it want to accomplish?
- How does it do it?
- Are there better ways to do what they do now?
- How many people are needed to accomplish its mission?

Agency Presentations

Public Safety Canada

The Economics of Policing and Community Safety initiative at Public Safety Canada focuses on the efficient and effective delivery of police services, as police work becomes increasingly complex and diverse.

The National Policing Research Agenda outlines five policing research priorities. One of these priorities focuses on performance metrics and resource allocation. It includes:

- Cost of policing and crime
- Implications of a falling crime rate
- Operational response models and associated costs
- Private/tiered policing and cost efficiencies
- Policing and data collection

Public Safety Canada is advancing a number of research projects that are relevant to staffing and deployment modelling, such as:

- Improving and making more efficient the scheduling of officers for court
- Literature review of the factors in determining the optimum size of police services

Ontario Provincial Police

For a number of years the OPP has used a deployment model based on one developed for the Illinois State Police.¹ The Illinois model had the distinct advantage over previously introduced staffing models because it allowed agencies to estimate staffing requirements for rural areas.

The OPP model includes the following parameters:

- Detachment characteristics
- Officer availability (benefit time off)
- Calls for service
- Response standard
- Patrol Requirements
- Officer Safety

Of course, one of the key challenges faced by the OPP is the diverse environment of communities where it provides service.

¹ A method for allocating state police officers in Illinois / Richard A. Raub, George L. Sweat. Illinois Department of Law Enforcement, 1981.

One of the unique aspects of the OPP system is Daily Activity Reporting (DAR). The service uses this system to collect daily activities for all OPP employees. The members enter all of the information. The DAR is also linked to OPS payroll system and thus collects all the data needed for compensation. For frontline officers DAR captures calls for service, core workload, patrol time and supervision.

The OPP has launched a number of initiatives to enhance performance, including:

- Alternative shift scheduling and start times
- Civilian data entry to reduce report writing time for officers
- Citizen self-reporting
- Frontline support unit (differential response)
- Intelligence driven patrol at detachment level.

Calgary Police Service

The Calgary Police Service has taken a number of steps to manage both the supply and demand for police services. On the demand side they have launched a number of initiatives including:

- Introduced web-based citizen self-reports (average 3,000 per quarter)
- Increased citizen reports at police districts
- Introduced efforts to reduce 911 hang-ups and other differential responses
- Assigned CPS staff to communication center in order to:
 - Provide tactical support to call takers and dispatchers
 - Assist with crisis calls
 - Provide initial contact point for citizen complaints
 - Triage for call queue
- Patrol Support Team that handles about 1,300 web-based citizen reports and 30-40 low priority calls per month.

In order to more effectively utilize patrol resources the Calgary Police Service has used the Managing Patrol Performance (MPP) program. MPP is a queuing model/software by Police Management Advisors and is used for analyzing, assessing and reporting on various aspects of patrol performance. MPP Data includes:

- Response Units Fielded
- Call Rates Per Hour
- Number of Units Dispatched
- Service Time
- Administrative time
- Call Priority
- Travel times
- Dispatch Policy
- Square Miles
- Street Miles
- Patrol Speed

MPP is an analysis program that has been used in a number of agencies in Canada. It is useful in that it can be both descriptive (agency performance) and prescriptive (what an agency needs to meet performance objectives). Calgary, for example, uses the program to compare response times as predicted by the software with actual times. Their goal is to bring those times within one minute of each other. Admin time and number of response units are also calibrated. In addition, other data sources are used to evaluate staffing to workload.

Calgary's use of MPP has been instructive for other agencies. Among the lessons learned are:

- Systems analysis takes time
- Coding is important
- Data timeliness
- Data availability
- Data is "only part of the story."

Calgary launched a pilot project (2012-2013) in the North District based on a team concept. In this project the service emphasized greater efficiency, increased levels of supervision, and geographically based team cohesiveness. The North District didn't continue, but the team deployment concept is being implemented in other Districts.

Royal Canadian Mounted Police

In 2005, the RCMP officially implemented the Police Resourcing Model (PRM) a computerized simulation model designed to determine the number of frontline, general duty police officers required for a detachment. The PRM addresses a critical question in resource deployment. That is, it seeks to develop reliable estimates of how much time is devoted to calls for service that can be used as a national standard.

The challenge faced by the RCMP and other agencies (e.g. OPP) is the diversity of the communities that they police. Not only is the nature of the work different but also the amount of time officers spend on calls depends, in part, on the volume of work. For example, as the actual time spent on a call is not necessarily reflective of the required amount of time to be spent on a call, the RCMP holds time matrix workshops to develop time standards on a national level which can determine the best possible balance of time spent by frontline members responding to calls regardless of rural versus urban policing scenarios.

In the RCMP approach groups of officers are convened in workshops to provide estimates of the amount of time consumed on the following activities:

- Initial Investigation
- Follow-up
- Court
- Disposition

Using data obtained from the workshops, as well as other data from other data systems, a simulation is conducted that includes the following:

- Call priority and distribution
- Time required
- Zones and travel time
- General Duty work schedules
- Available hours
- Back-up assistance
- Call out

The advantage of the simulation approach is that users can test alternative scenarios.

Louisville Metro Police

The United States has one of the most fragmented policing systems in the world. There are well over 16,000 local, state, university and special law enforcement agencies. A substantial fraction of these agencies employ fewer than ten police officers. This system results in many inefficiencies and redundancies. In spite of this there have been relatively few efforts to merge agencies, and some of those efforts have not been successful.

One of the success stories has been the merger between the Louisville Police Department and the Jefferson County Police Department. With the consolidation of governments on January 6, 2003, came a merger of the Louisville Division of Police, a force of more than 700 sworn officers serving 262,000 persons over 66 square miles, with the Jefferson County Police, a force of more than 500 serving 402,000 persons over nearly 400 square miles. The city and county police had different perspectives on the merger. City officers worked in a higher-crime area and had their own academy as well as a thick policy manual often based on individual incidents. County officers, by contrast, covered a larger area and often lacked backup but had a broader range of equipment. They also had their own training academy but a thin policy manual that was more a list of guiding principles.

The new METRO department undertook a workload analysis that reduced the number of patrol divisions from ten to eight and the number of beats from 51 to 44. The department also pushed decentralization of some specialized units and sought to place civilian employees in more positions. The new department also had five different unions representing 11 bargaining units, many with pay discrepancies.

Among the lessons learned during the transition were:

- The selection of an outsider as chief, deflected potential criticism of favoritism towards the city or county department
- Planning could have been better in the 26 months between the time of the 2000 referendum and the 2003 creation of the metro government
- Being flexible can help the transition. The merger was “a chance to reinvent ourselves. We took a best practices approach to everything. We did adopt some old county ways and some old city ways but only if these were the best ways.”

York Regional Police

York Regional Police initiated three projects to examine staffing:

- Patrol Staffing Analysis Project (2012-2013)
- PIT Crew (2013-2015)
- Sector Model Policing (2015)

In 2012, York launched an effort to improve patrol staffing analysis to insure that management had reliable data to inform decision-making. A component of this initiative was the creation of business rules that defined the use of CAD data. For example, among the rules for calls for service were:

- The initial call type was used
- A call must have a dispatch record with a unit assignment
- Only units with an arrival time were included
- Excludes officer-initiated activity.

After establishing these rules York conducted a patrol staffing analysis. Among their findings were:

- Patrol shifts did not match workload
- There was little proactive time during periods of peak demand
- There were too many available patrol resources available in the early morning.

They also examined the nature of their calls and found:

- Too many dispatches for silent 911 calls and alarms
- Too many calls classified as Priority One Emergency and thus there were artificially high Priority One response times
- Incorrect prioritization and the resultant response posed unnecessary risk to officers and the public.

The second phase of the York project was creation of the Patrol Innovation Team, or as it was known in the service, the PIT Crew. The PIT Crew was a group of 13 that consisted of representatives of each District, IT, Crime Analysis, Communications, Investigative services, Training, and Planning. The group was co-chaired by a sergeant and staff sergeant. Although senior management did not participate directly with the group they endorsed it and there was a generally held consensus about the range of strategic initiatives available to the group.

Among the earliest efforts of the group were big changes in the way the service responded to silent 911 and alarm calls. These actions resulted in significant reductions in both types of calls. In addition the PIT Crew developed a new scheme for call prioritization.

Among the lessons of the PIT Crew initiatives were:

- The time commitment for the effort was significant, particularly challenging given the other duties of members

- Frontline officers added legitimacy to the effort and helped colleagues understand and better appreciate the proposed changes
- “Quick Wins” improved the visibility of the group and helped to sustain momentum
- Leadership is critical to success.

The final component of the York staffing project is the Sector Policing Model.

After having conducted a thorough analysis of each district they decided to launch a pilot project in a district. Among the strategies to be tested are:

- Larger zones with more officers assigned
- Team emphasis
- Groups of officers share work
- Staffing levels based on workload
- Balanced workload by time of day and day of week

Halton Regional Police Service

In 2014, the Halton Regional Police Service established the Office of Continuous Improvement and Strategic Management (OCISM), a clearinghouse for projects and data. In addition, the service has a Police Analytics (PA) unit that is responsible for organizational analysis and data reporting. They have launched a number of initiatives to better understand and use data to inform deployment.

One of the focuses of OCISM was measuring police officer activity. Most staffing analyses attempt to disaggregate citizen-generated calls for service from other activities. This can be a challenge because CAD systems are organized around events. In the events framework units are either “busy” or not. Halton found that this classification method was not reliable.

Halton adopted an approach which utilized events, rather than calls for service, as units of police work. They suggested that events allow agencies to track officer time, geography and involvement. To make this system more meaningful they created new event categories called BUSY and OUTS.

OUTS events included things such as:

- Lunch
- Bike Patrol
- Station Assignment
- Compliance Checks
- Desk Duty
- Follow up investigation
- Training
- Court

BUSY events included items such as:

- Proactive patrol
- Traffic radar
- Foot patrol

The service modified its in-car technology so that officers could easily indicate when they were on an event. Nonetheless it took considerable effort to motivate officers to use the

technology. Some were unaccustomed to accounting for their time so thoroughly, while others were concerned that this data would be used to increase accountability.

Some of the lessons learned from this effort include:

- Agencies should modify the tools they already own
- Welcome innovation
- Understand that changing business processes can have big impacts
- Change should be incremental and will take a long time
- Demonstrate successes to senior leadership.

Illinois State Police

On June 24, 1921, the General Assembly of the State of Illinois authorized the Department of public works and buildings to hire a "sufficient number of State Highway Patrol Officers to enforce the provisions of the Motor Vehicle Laws." The Illinois State Police was officially created in 1922, and today is comprised of over 2,000 sworn officers and civilians.

Over the years, the Illinois State Police has continually changed in size and organizational structure to provide an increased number of services. The Office of the Director through the Divisions of Operations, Forensic Services, Internal Investigation and Administration implements these services.

The ISP is facing significant staffing challenges for a number of reasons. First, the State of Illinois has been experiencing budget constraints for a number of years, due in part to the inability to fund the state's pension obligation. Legislative analysts project that the five retirement systems for which state government is responsible will need roughly \$131 billion to cover benefits already earned by public workers, with only \$46 billion in expected assets to cover the costs.² This situation has been compounded because the legislature has yet to pass a budget for the current fiscal year, and as a result many of the services and material necessary for operations cannot be procured.

The second constraint on resources, one that is experienced by many agencies, is an ever-increasing list of responsibilities. That is, it is often the case that law enforcement agencies are assigned more work but no additional resources. As part of a 2013 law allowing concealed carry in Illinois, for example, State Police were required to send notification letters to Firearm Owner's Identification Card holders when their cards are revoked. The cardholders have 48 hours to turn in the cards, transfer the firearms to the police or a valid FOID holder, or file a report with police saying how many guns they have, where they are and whether they plan to transfer ownership. If they don't follow the instructions, police can get a warrant and search their homes. However, the legislature did not provide any resources to ISP to conduct the follow-up investigations.

² <http://illinoisissues.uis.edu/archives/2010/02/pension.html>

This year the Illinois legislature passed a law that requires that whenever a law enforcement officer kills someone in the line of duty an outside agency must investigate. While it is not certain, it seems likely that the ISP will bear the brunt of those investigations, again with no additional resources.

Given these constraints the agency has introduced several strategies designed to improve efficiency:

- In the wake of several shootings on the Chicago expressway system (ISP has primary jurisdiction on these roadways) ISP altered staffing to provide more coverage in the critical areas. They also revised evidence collection procedures to reduce the time that the highway was closed
- ISP has launched a strategy to reduce crashes involving commercial vehicles, a significant contributing factor in serious injury and fatal accidents
- ISP is using intelligence-driven strategies to guide staffing and deployment in the East St. Louis metropolitan area, a region of the state that has experienced high levels of crime but has very limited local resources.

In many ways the ISP has adapted to the “new normal” of doing much more with much less.

Key Findings from the Symposium

The Canadian Police Staffing Symposium provided an extraordinary opportunity to examine how Canadian police organizations are addressing critical staffing issues. There are some key findings that will help to guide future efforts.

1. Based on the presentations at the symposium it is clear that the services are using data-driven and evidence-based strategies to inform their decision-making about resources. The approaches described were both thoughtful and comprehensive – the level of sophistication was quite remarkable. Importantly, even when some portion of the analytical work was done by individuals from outside the organization, the implementation was internal, often involving both frontline and staff personnel.
2. It is clear that the goal of establishing a set of metrics that can be used across Canada to measure what officers do will be very challenging. During the symposium we heard several different approaches to defining calls for service. For example, some agencies include officer-initiated activity as a call for service. One agency excludes some calls for service, while one has completely shifted from calls for service orientation to focusing on events. Importantly, the agencies have valid reasons for these decision rules and trying to make them use the same standard might be counter-productive.
3. There have been significant efforts to manage demand for police service. This is a favorable trend but requires close attention for two reasons. First, it is important to

monitor the effects of these changes on citizen satisfaction. Many citizens rarely, if ever, contact the police and it might be disconcerting to learn that the police no longer provide the service. Second, it is important for the agency to think strategically about these service cuts. That is, if the goal is to free up more officer time for proactive activity, the onus is on the agency to ensure that the new time is used productively.

4. Many services have done a good job of including frontline personnel in the staffing analysis process. There is strong evidence that this has facilitated implementation by creating ownership for the initiatives. It is also a good method to identify initiatives that are not likely to succeed even though they make good sense from an analytical perspective.
5. Finally, one of the big challenges of using a data-driven approach to staffing and deployment is to craft strategies that can be implemented in the context of labour agreements. Many agencies are constrained by these agreements and thus, even though their analysis suggests a clear deployment strategy, it must be softened to comply with a contract. To be effective in this environment the agency command must view this as a challenge rather than a roadblock. Ronal Serpas, former Chief of Police in Nashville and New Orleans, stated, “Far too much energy is wasted on considering what the police cannot do and what commanders do not have; valuable time and momentum are lost by focusing on these negatives. Our uses of valid and reliable data are fundamental to our efforts to direct positive change and to educate the public that we can and do make a difference.”³

Summary and Next Steps

Evaluations of the symposium were very favorable. Many suggested that it was long overdue. There are several action items that will help to carry this effort forward.

1. The staffing symposium should be an annual event hosted in different venues in Canada. There is a great deal of very good work being done by Canadian organizations, and there is little risk of redundancy.
2. There should be collaboration with other Canadian police organizations such as the Canadian Association of Chiefs of Police, the Canadian Police Association, and the Canadian Police College.
3. There should be an effort to conduct evaluations of the initiatives underway to test alternative staffing models. This could be done in collaboration with local universities, perhaps with funding from Public Safety Canada. It is critical that other communities learn about these projects and their strengths and weaknesses.

³https://www.iadlest.org/Portals/0/Files/Documents/DDACTS/Docs/DDACTS_Case_Study-Nashville.pdf

4. Finally, it would be useful to establish a website focused on staffing. This could serve as clearinghouse for reports, descriptions of new initiatives, and could also serve as mechanism to facilitate communication among the community of interest.