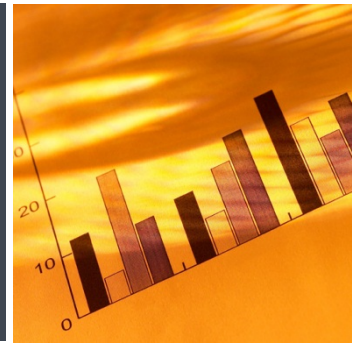


## RESEARCH SUMMARY

# An Overview of Resource Allocation Models in a Selection of Large Canadian Police Services



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BUILDING A SAFE AND RESILIENT CANADA

## BACKGROUND

Over the years police work has become increasingly complex and diverse. Canadian communities as well as police services need to know how many police officers are required to ensure public safety and help their agency to most cost-effectively meet the demands placed on it. An increasing number of Canadian police organizations try to improve their approach to determine human resource requirements and allocate adequate human resource levels in order to offer appropriate policing services, based on their vision of policing, their mandate and expected roles.

Several police staffing models that are being applied across the country were examined at the *Canada Police Staffing Symposium* hosted by the *Ontario Provincial Police* (OPP) in Ottawa on November 2-3, 2015. According to the symposium report, there is a need to conduct evaluations of the initiatives underway to test alternative staffing models and it is critical to learn about their strengths and weaknesses (Weiss, 2015). The Community Safety and Countering Crime Branch of Public Safety Canada aims to complement this symposium with a study which examines the advantages and limitations of the major police staffing and deployment models used in Canada. The current exploratory research involves an examination of the approaches of the Royal Canadian Mounted Police (RCMP), the OPP, the *Sûreté du Québec* (SQ), and the *Service de Police de la Ville de Montréal* (SPVM). The approach of the *Ministère de la Sécurité publique du Québec* (MSP) who approves the minimum permanent staffing level of police organizations is also described. This study aims to answer the following research questions among others:

- How are police officers allocated across units?
- Which staffing and deployment models are being applied?

- How do police departments take into account operational demand, strategic direction, crime, demographic and economic factors?

## METHOD

Presentations done at the OPP's 2015 symposium were complemented by a comprehensive set of public documents (annual plans and reports, environment scans, research studies, etc.) and other research documents to build a deep understanding of the models implemented or in development. Structured questionnaires were designed to collect complementary data from research directors, managers and analysts working in these organizations. Face-to-face meetings, phone calls and e-mail exchanges were used to develop a better understanding of staffing models.

## FINDINGS

In recent years, police organizations have undertaken a reflective process to improve planning for and deployment of police officers. The first step is to determine the nature of the services to provide given the mandate, the definition of work and the role expected of police officers. The human resources aspects are essential elements of the planning process. In addition, the scope, nature and trends in crime are critical factors. Lastly, the social and historic context, along with the characteristics of the population and territory, generally influence the allocation of resources. The relative importance assigned to these various parameters, and their treatment in the model varies.

The RCMP computerized simulation, the General Duty Police Resourcing Model (GDPRM), is one of many tools that are used to analyze the workload. The model helps to estimate the staffing levels required to provide general duty, frontline policing services in detachments and enables the organization to respond more

effectively to community needs while using resources as efficiently as possible.

The Deployment Model used by the OPP, which is an adaptation of the Illinois State Police's computerized model, assesses the effect of devolutions upon detachment staffing requirements based on factors such as characteristics of the detachment; officer availability; CFS/Response standard; officer's safety standards; and patrol standards. The model strives to manage the tension created by the application of consistent standards within a diverse environment. It adequately estimates requirements for urban as well as rural areas.

In Quebec, the MSP approves a permanent minimum staffing level for each police organization based on the analysis of police organization plan that have been submitted. However, the staffing and staff deployment processes are achieved by each police service. The analysis is based on factors such as the implementation of the community approach; the territory and population served; criminality; the organization of the police services; and the characteristics of calls for service. As part of the modernization of its service offerings and to better meet the needs, the SQ has developed a model for assessing the workload (actual and past) of patrol officers in order to distribute resources more objectively and fairly. A new resource deployment model is currently being proposed to stakeholders involved in the renewal of service agreements. The SQ determined how to potentially reduce differences between the individual and provincial utilization rates, and still respect the service agreements and minimize negative consequences that might result from overly draconian changes. The SPVM has optimized its resource allocation between neighbourhood stations to properly implement its policing model (*Police de quartier*) given the observed variability in the volume and complexity of calls. The SPVM increased the minimum number of police officers. The criteria for personnel allocation were updated and their weights were revised. A unique aspect of its approach involved changes to the administrative and operational structure. Some stations were grouped and their function changed for some of them.

All of those models are based on evidence-based data in keeping with the current trend. The basic forecasting approach uses an objective methodology, and

quantitative data is often analyzed to extrapolate past. The qualitative aspects of policing are also taken into account. The human resources aspects are essential elements, while crime characteristics are critical factors as well as the socio-economic and geographic contexts, demographic trends, and historical agreements. The relative importance assigned to these factors.

## IMPLICATIONS

A research approach to workforce allocation facilitates the development of a flexible, objective model that could adapt to the environment and properly anticipate needs. The following recommendations are provided to police services that would like to improve their approach:

1. Design of a model showing the factors that determine service offering and workload.
2. Assessment and comparison of the current approach with the approach of other police organizations.
3. Development of a model that includes: actual and past workload data; human resource aspects; crime; legislative, historic, demographic, and geographic parameters.

## SOURCE

Labiberté, D. (2017). *An Overview of Resource Allocation Models in a Selection of Large Canadian Police Services*. *Journal of Sexual Aggression*, 19(1), 17-31. Research Report 2017-R004, Public Safety Canada.

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