

A 30 YEAR ANALYSIS OF POLICE SERVICE DELIVERY AND COSTING: ‘E’ DIVISION

RESEARCH SUMMARY

Aili Malm
Nahanni Pollard
Paul Brantingham
Paul Tinsley
Darryl Plecas
Patricia Brantingham
Irwin Cohen
Bryan Kinney



**School of Criminology and Criminal Justice
University College of the Fraser Valley
(Abbotsford, B.C.)**



**Institute for Canadian Urban Research
Studies (ICURS)**

© ICURS
08/2005

**RESEARCH SUMMARY REPORT:
A 30 YEAR ANALYSIS OF
POLICE SERVICE DELIVERY AND COSTING**

Synopsis

Understanding current costs of police services requires an understanding of past costs and past demands for police services. This research explored how demands for police services from the RCMP in British Columbia varied over the past 30 years and whether the amount of work necessary to respond to calls for police services increased or decreased. This is a study of police capacity, that is, the quantity of cases that can be handled by police responding to calls for service. If overall police members' time to handle a call were to decrease, then police capacity would increase and the number of calls for police service could increase with the expenditures remaining the same. If the time it takes to handle a case were to increase then police capacity would decrease and fewer cases could be handled with the same number of police. If police capacity decreased at the same time that demand increased then serious operational decisions might have to be made, either limiting demand, or increasing the number of police, or reducing in the work done with respect to any given case.

This research used a series of different measures of demand for police service and police capacity (time required to respond to calls). These measures showed that over the last 30 years:

- There was an increase in demand for police services that exceeded increases in police;
- There were a series of court decisions that substantially increased the required number of steps and the amount of paperwork generated in handling cases that proceed to court;
- There was an associated increase in time for handling specific types of crimes as the legal requirements changed; and,
- There were increases in time required to handle cases administratively as computer systems were introduced.

Overall, there was a decrease in police capacity and an increase in demand for services. Not surprising, as the demand for police services in British Columbia increased, there was a decrease in the proportion of cases cleared by charge.

The amount of time required by police officers to handle a case from initial call to acceptance by crown increased substantially over the course of the last 30 years. For example:

- Break & Enter cases required 58% more time in 2003 than in 1983;
- Driving Under the Influence cases required 250% more time; and
- Domestic assault cases required 964% more time.

A substantial part of this time increase involves time spent to prepare a case for Crown acceptance.

Introduction

This costing of police services is an activity-time costing in which baseline line estimates of demand for police services, the steps required to handle a call and the time taken in responding to a call were researched for current operations and operations 10, 20 and 30 years ago. This approach provides estimates of changing levels of police capacity and, in periods of fixed resources, provides the basis for comparing expenditures over a fixed period.

Police services in British Columbia have traditionally been staffed and funded according to a formula grounded in part on provincial population. As the province has grown over the past three decades, so have the numbers of sworn police officers and their civilian support staff increased. Accordingly, policing expenditures have also increased.

This fact – that both police expenditures and the number of police officers and civilian support staff has grown as British Columbia’s population has grown – seems to stand in stark contrast to public concerns for the safety of both person and property in the province and to the concerns of senior police managers, who believe that there has been a substantial erosion in their capacity to respond to crime and calls for service over this same time period.

This perceived erosion of police capacity to respond to crime is reflected in many aspects of police service delivery. Crime clearance rates have declined substantially. Police forces and detachments have become far more selective about the crime reports to which they physically attend and about which crimes they will fully investigate. Anecdotally, we can point to one police agency that was recently forced to consider abandoning a homicide investigation because of the costs involved and to a police force in another city in which a six-figure fraud investigation was shelved because the losses involved were not considered big enough to justify the cost of investigation and prosecution support. It appears that increasing numbers of impaired drivers are being given 24 hour suspensions rather than being charged and increasing numbers of drug cases end with contraband seizures rather than charges. Moreover private security personnel still outnumber public police in Canada and have begun to act in matters such as investigating corporate fraud, preventing computer crime and conducting forensic analyses that have traditionally been done by public police.

At least part of the explanation for the current situation of increased police resources and declining police service can be found – in British Columbia at least - in a series of less visible changes in the relative position of police forces in relation to the crime burden and in the increasing complexity of the police job. Legislation and court rulings have resulted in increases in required steps in handling cases with associated increases in time for complete cases. Technical advancements and additions of computer systems may have increased some administrative work. For example, a DUI case or a domestic assault of 30 years ago is decidedly different, with current cases requiring substantial longer police time. Police case capacity is decreasing.

This ICURS Research Summary Report condenses and highlights the findings in an associated technical report.

Research Strategy

Discussion with senior police managers, NCO's and front line officers confirmed our initial assumption that there was a general feeling amongst police in British Columbia that they were working harder than they had in the past, but doing so less effectively. Further discussions supplemented by a systematic literature review suggested two likely reality-based explanations for this general feeling:

- Police resources allocated on the basis of residential population are inadequate to the tasks police are expected to accomplish.
- Changes in the legal and technical context in which police must operate have made the job more complex and therefore much more time consuming than in the past.

The implications of these two issues for understanding contemporary police resourcing needs are profound. To the extent that the first explanation is correct, too few police are available to do the job. To the extent that the second explanation is correct, those police who have been resourced have far less capacity to handle crimes and other calls for service than did police working 10, 20 or 30 years ago.

We addressed these issues in a series of interconnected ways. The first issue could be addressed by looking at BC police resources in comparison with other Canadian, Commonwealth, and Common Law jurisdictions and further examining BC police resourcing in relation to BC population and BC crime over time.

Addressing the second issue required examination of the evolving legal and technical requirements of the job over time and the development of police work process models describing the step-by-step handling of a variety of crimes both at the present time and in prior decades. We looked at things 10, 20 and 30 years ago for three different areas centered on – Surrey, Nanaimo, and Prince George – representing three different regions of the province.

We gathered information through:

- An analysis of case law and legislation touching on the police function over the period 1970 – 2004.
- Expert Focus Groups with long term service helped develop flow charts depicting the steps involved in handling different types of cases – break and enter, domestic assault, driving under the influence, drug trafficking, homicide – at present and 10, 20 and 30 years ago. They provided their own notebooks for historical analysis. They also helped us develop a time line depicting the technological changes that have influenced policing since 1970.

- Regional Focus Groups in the three study cities helped refine the crime handling flow charts from local perspectives and also helped provide timing data for understanding how long each step in the process takes currently and 10, 20 and 30 years ago. They provided their own logbooks for historical analysis.
- Analysis of historical operational records including case files and members' notebooks provided additional information for the flow charts and time estimates.
- A sample of members kept current time use logs, recording the time spent on various tasks as they handled cases involving the five types of crime under study. Analysis of these logs gave current estimates of the amounts of time needed to complete the different tasks need to carry the case to conclusion.
- An analysis of data derived from CAD and CIIDS was intended to supplement and refine the timing models developed from the sources mentioned above. A variety of obstacles have precluded our accessing these data to this project to date. This report will be supplemented when these data become available.

Finally, we utilized the information developed in this study to prototype a simple tool for estimating the impact of changing case handling times as the British Columbia policing context continues to evolve.

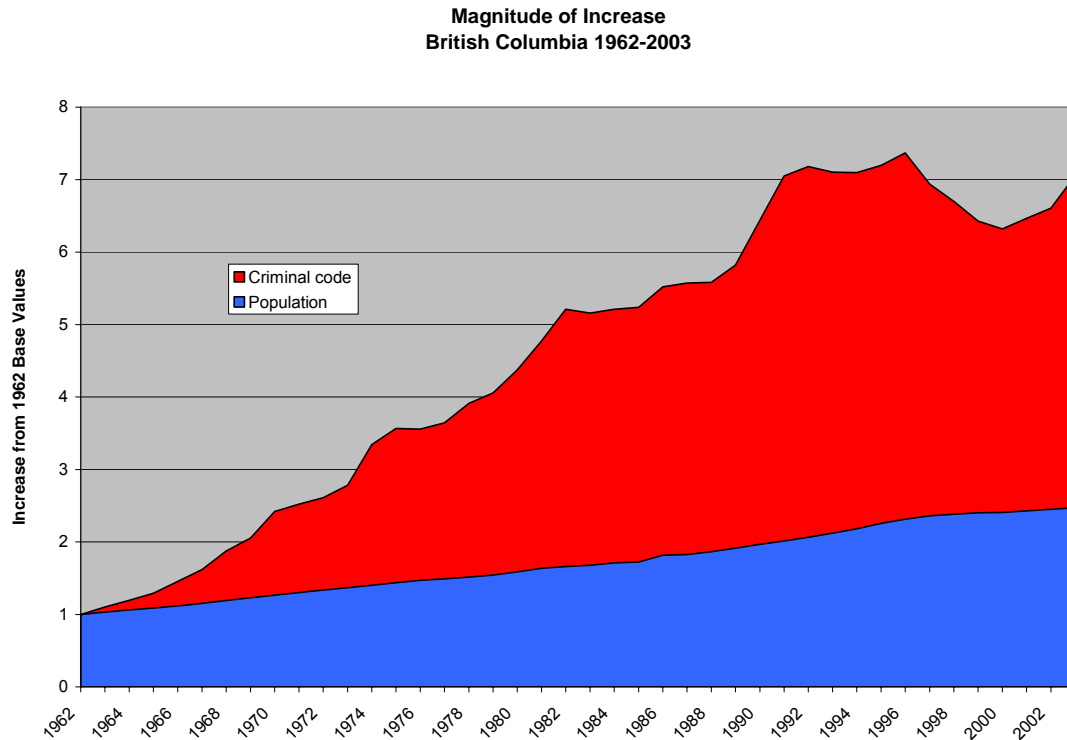
Overview of the British Columbia Policing Context

Canada is a relatively high crime nation. International victimization surveys and international compilations of crimes known to the police both indicate that Canada has high property crime levels and high assault levels relative to other developed nations. About one Canadian in four (25% of the population) is victimized each year by one of the 11 types of crime tracked by the International Victimization Survey. Canada has traditionally also been relatively lightly policed in comparison to other developed nations such as Australia, Britain, France, Ireland, Netherlands or the United States having far fewer police per capita than any of them. For instance in 2003, Canada's ratio of police to population was 19% lower than Australia's, 22% lower than that of the United States and 26% lower than that of England and Wales.

Within Canada, British Columbia is traditionally lightly policed compared to other provinces although it has consistently had among the highest provincial crime rates since at least the 1920's. In 2004, for instance British Columbia had more criminal code offences reported to the police than Quebec, although Quebec had almost double BC's population. British Columbia's crime rate was more than double that of Ontario. Yet Ontario and Quebec both had substantially more police per capita than British Columbia, which had lower police to population ratios than relatively low crime Nova Scotia and New Brunswick.

British Columbia, like the rest of Canada, estimates the number of police it needs on the basis population counts. Population in Canada more than doubled (2.3 times) between 1962 and 2003 while the number of police increased by only 1.7 times – falling behind what might be assumed to be needed if population were the best indicator of policing needs. The number of crimes reported to the police in Canada over this same time period increased seven fold. British Columbia's data tell a similar story: population more than

doubled (2.4 times) between 1962 and 2003, but the number of crimes reported to the police increased seven-fold. This means that although the increase in police resources kept pace with population growth over this forty-year period, each British Columbia police officer was expected to handle almost three times as many crimes in 2005 as his or her 1962 peer had been expected to handle. Police resources did not keep pace with the volume of crime British Columbians suffered. All things being equal, this fact alone indicates that police effectiveness must have declined relative to police effectiveness a generation ago.



Over this time police clearance rates have declined substantially. Break and Enter clearances have dropped from around 25% to around 8%; homicide clearance rates have dropped from around 90% to below 70%. British Columbia spends less per capita for police services than Quebec, Ontario, Manitoba, Saskatchewan, Alberta Yukon, Northwest Territories and Nunavut. British Columbia has 13% of Canada's population and 20% of Canada's criminal code offences, but accounts for only 10% Canada's spending for police services.

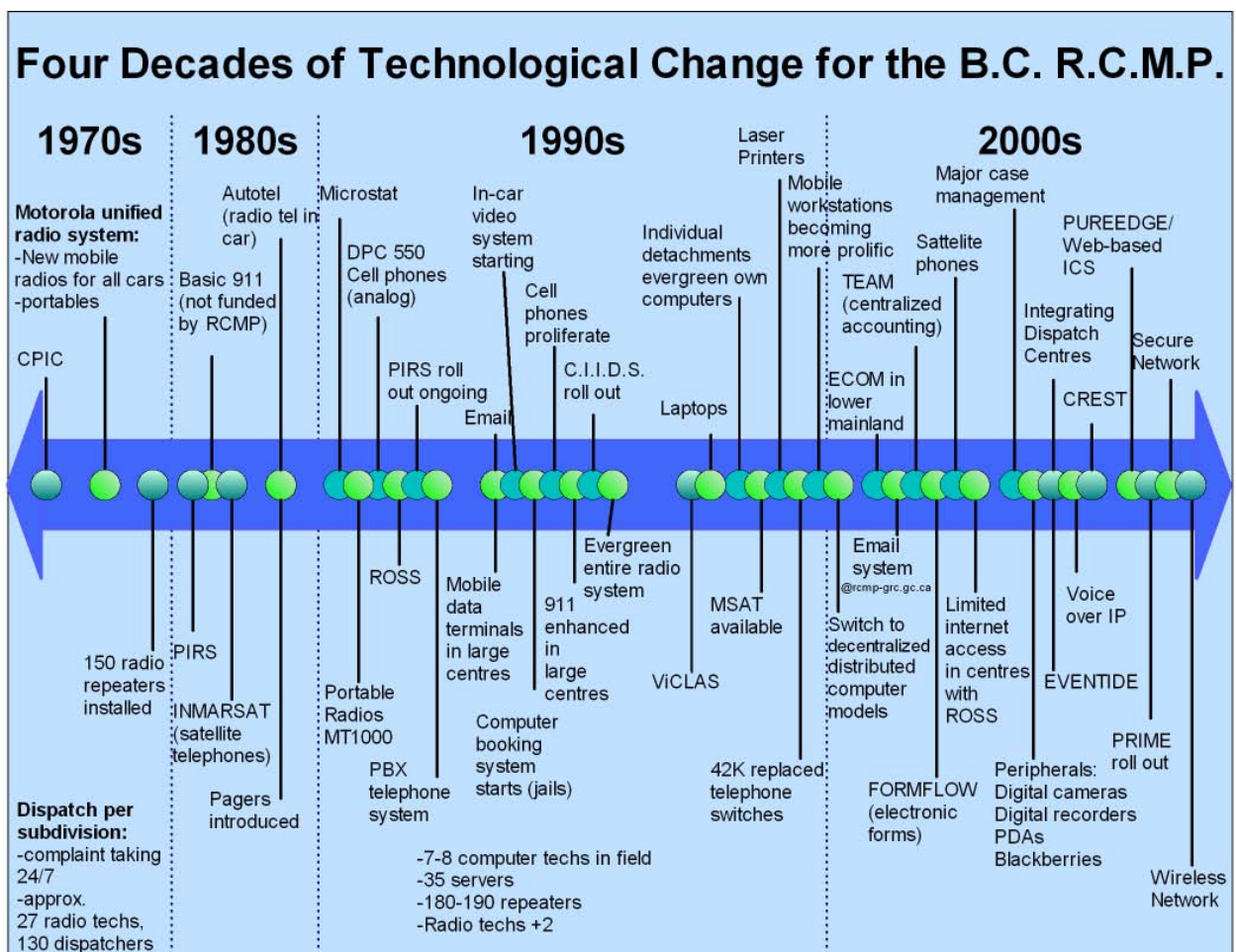
It appears that the answer to the first issue posed in this study is that police resources are funded more on the basis of residential population resulting in an insufficient quantity of police resources to accomplish the tasks police are expected to accomplish. Police resources funded on the basis of crime volumes could provide an increase in capacity that could better address the province's crime problems.

The Evolving Technical and Legal Environment

Technological Impacts

The R.C.M.P. in British Columbia have seen a number of technological impacts in the past three decades. The major technological influences are:

1. Computer aided dispatch
2. Records management system
3. Radio communications
4. Mobile workstations



New technology provides new and better systems for communication, dispatch, crime analysis, case management, prosecution support, and force administration and management. New technology also makes demands on members' time in terms of training and re-training in its use and in terms of connecting with and waiting for technical support when problems develop and glitches occur. There is another problem as well. New technical tools can be seductive, inviting members to spend more time working with the technology (polishing the text of reports or printing better looking

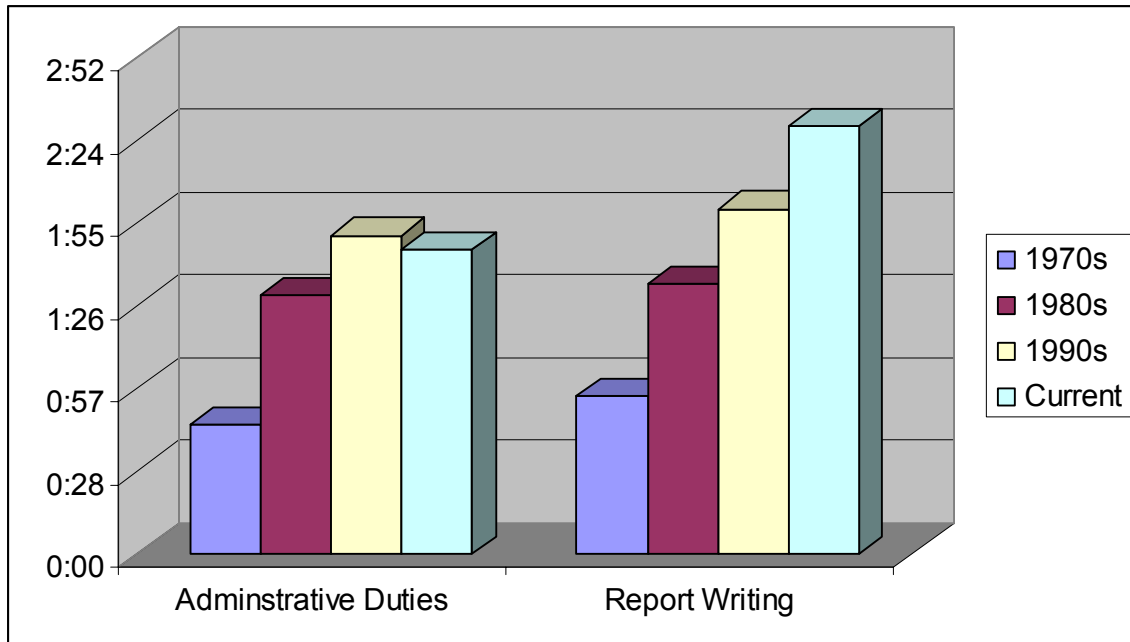
graphs, for instance) rather than working cases or implementing special projects. Improved technology often carries with it demands from others in the criminal justice system for new and increasingly time consuming activities on the part of police officers. As the diagram above indicates, a limited number of major technical advances in the 1970's and 1980's have been followed by an accelerating introduction of new technical hardware and systems in the 1990's and in the new century. The need for training and re-training in the use of technical systems is accelerating.

It should be noted that the introduction of technology in policing follows a path similar to the technology changes in government in general and in business as well. The increased technology provides the potential improving the availability of information, but for most has an associated increase in administrative work.

The time consuming use of these new technical systems continues to grow. This is illustrated in the amount of time members now put into administrative duties and report writing compared to the past. In the 1970's such tasks took a typical member about an hour and a half per day. Currently the typical member spends more than four hours a day, that is, about 40% of his or her time, at administrative duties and report writing. In addition, both our experts focus groups and our study of the daily time logs members kept for this study indicated that many members are putting in up to an hour of unpaid overtime every day to get through all the required paperwork.

Time per Day Spent on Paperwork-Related Tasks

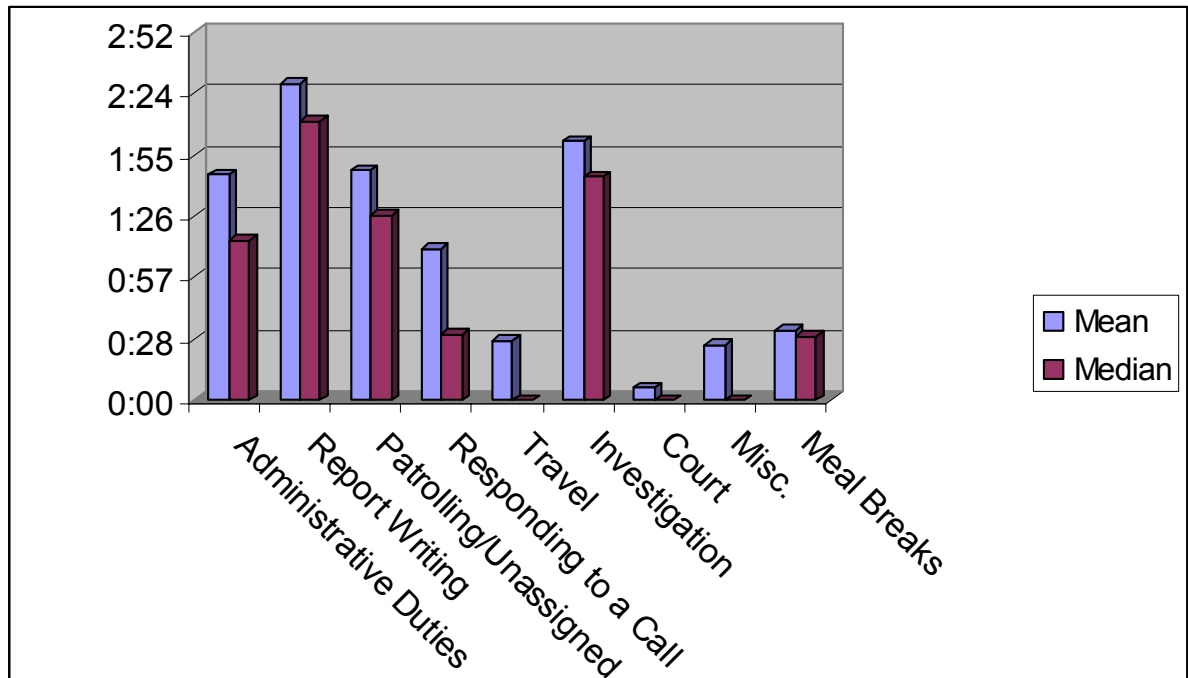
Now and in Past Decades



Study of the daily time logs members kept for this project indicates that general duty members spend more time on paperwork tasks than they spend on responding to calls for service and conducting investigations combined. They also told us that the introduction of mobile data terminals has made it possible to do paperwork in their police vehicles and

estimated that some 80% of their time on patrol when not actively responding to calls is spent doing paperwork over the mobile data terminals.

Current Time Logs: Average Number Of Hour Spent Per Task Category Per Day



The Impact of the Evolving Legal Context of Policing

The patterns and requirements of police work are defined by law and are continually redefined by new judicial decisions, new legislation, and new government policy initiatives. Since the Canadian Charter of Rights and Freedoms was entrenched in 1982, the Supreme Court of Canada has moved to redefine substantive, procedural, and evidentiary law in line with its requirements. As a consequence, demands on police operations have increased dramatically without a proportional increase in budget or person-power. In turn, these demands have had a significant workload affect on police organizations and their ability to serve the public.

Using the Charter as the starting point, there were four key steps taken in identifying some of the most significant judicial decisions, legislative changes and policy initiatives impacting on current police capabilities:

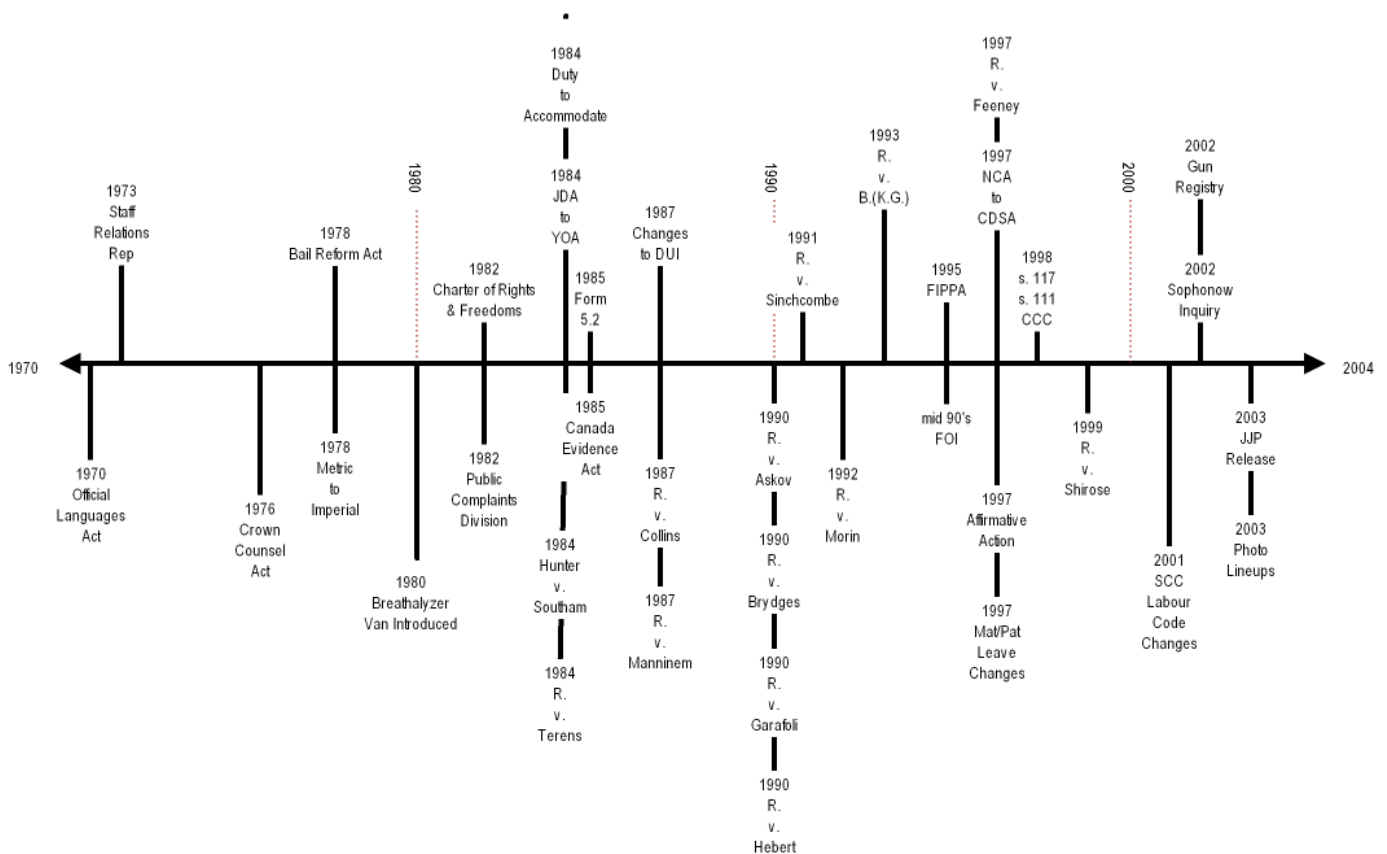
- Step one was a review of criminal law literature to identify the most frequently cited cases dealing with matters of criminal procedure and evidence (cross referenced to legislation and policy).
- The second step was to hold focus groups with a cross section of officers from the Royal Canadian Mounted Police (RCMP), where they were asked to identify the most significant judicial decisions, legislative changes, and policy initiatives that

have affected police operations (especially in British Columbia) in the last thirty years.

- The third step was to consult experts in the field of law and policing, including experienced police officers with law degrees (and/or who practiced law), Crown prosecutors, and lawyers in private practice.
- The fourth step involved establishment of a consensus list (based on steps one through three) of the judicial decisions, legislative changes and policy of greatest impact on police operations.

There was absolute agreement that the Charter has had the greatest effect on police operations and investigative practice in the history of Canadian policing.¹ Among judicial decisions, there was similar concurrence that judicially prescribed disclosure rules (see *R. v. Stinchcombe*²) have probably had the most profound effect on policing in terms of workload and economic cost.

Case Law and Legislation Timeline



¹ The reason being that the Charter gives the judiciary power to judicially review legislation and essentially rewrite criminal procedure.

² [1991] 3 S.C.R. 326.

Judicial Decisions

This study process identified eleven cases of major importance for their direct impact on police workload and costs:

- **Hunter v. Southam Inc., [1984] 2 S.C.R. 145**, focuses on search and seizure. The police must obtain search warrants in numerous situations where it had traditionally been considered unnecessary.
- **R. v. Therens, [1985] 1 S.C.R. 613**, defined “detention” and the right to counsel under s. 10 of the Charter with reference to impaired driving. Detention was defined liberally (e.g., psychological detention), imposing correlative Charter duties (informing of right to counsel, access, etc.) on the police in circumstances that are frequently ill defined, often causing great confusion.
- **R. v. Collins, [1987] 1 S.C.R. 265**, in which the Supreme Court adopted a liberal approach to the exclusion of evidence as a judicial remedy for a Charter breach, pursuant to s. 24. The Court stopped short of creating a presumptive exclusionary rule. *Collins* rejected the idea that the administration of justice could be brought into disrepute by public opinion or community shock, but rather it was to be assessed by “the reasonable man, dispassionate and fully apprised of the circumstances of the case”. With the exclusion of evidence an issue in almost every criminal trial, the police must try to avoid even the slightest and most technical Charter breach. Increase in case time handling has been significant.
- **R. v. Brydges, [1990] 1 S.C.R. 190**, in which the Supreme Court expanded the informational duties of the police under s. 10(b) of the Charter, requiring police to advise detained and arrested persons of the availability of legal aid and duty counsel under an existing legal aid scheme. This has had substantial impact on police case handling time. For instance, since *Therens*, impaired driving investigations have become more and more complex and often procedurally less certain. Notably, accused persons have the right to consult with legal counsel “without delay”, which means *before* providing a breath sample as required by the *Criminal Code*. Frequently, impaired driving investigations occur at night, when lawyer’s offices are closed. As a result, there are lengthy delays while the accused attempts to contact legal counsel (keeping all police officers involved waiting and preventing them from attending other duties). Historically, the police were required to obtain two breath samples, 20 minutes apart, within two hours of the “demand”, but in 1999 Parliament expanded the window to three hours (rf. s. 254 (3)). The result is that accused persons can now delay the investigation by up to three hours. This is important in light of this study’s finding that the length of impaired driving investigations has increased considerably over the last 30 years (see below).
- **R. v. Hebert, [1990] 2 S.C.R. 151**, in which the Supreme Court decided that s. 7 of the Charter (life, liberty, and security) guarantees the right to silence at the pre-

trial detention or investigative stage. In an example of moving the goalposts, by overruling itself in *R. v. Rothman*, [1981] 1 S.C.R. 640 (decided just before the enactment of the Charter), the Court extended its interpretation of s. 7 to mean that an accused person who is in custody and who exercises his or her right to silence cannot be engaged in conversation to “actively elicit” information by an undercover police officer (e.g., cell plant), as this would be a “police trick” that would deprive the accused of his choice to not provide a statement. Previously, the voluntary confessions rule applied to whether or not accused persons believed that they were talking to a “person in authority”. That information cannot be elicited from detained individuals through such “tricks” was subsequently extended to other prisoners or persons if they are acting on behalf of the police (*R. v. Broyles*, [1991] 3 S.C.R. 595). The effect has been that police must utilize other investigative techniques that may be less effective and more costly in terms of police officer time.

- **R. v. Duarte**, [1990] 1 S.C.R. 30, in which the Supreme Court decided that the police cannot rely upon the consent of one party to a conversation to record the communication of another party in that conversation without her or his consent. As a result, Parliament enacted amendments to the *Criminal Code* sections dealing with the electronic interception of communications. In addition to adding legislative requirements to utilize one party consents (i.e., by now obtaining judicial authorization) and the requirements for full scale interceptions, new provisions requiring “tracking warrants” (s. 492.1 of the *Criminal Code*) and dialed “number recorder warrants” (s. 492.2 of the *Criminal Code*) were also established. As a result, the time required for police to complete investigations and write affidavits to obtain judicial authorizations has increased significantly. Moreover, where supporting affidavits were historically once less than 50 pages, they have now increased to hundreds of pages. As a result, combined with disclosure issues, the economic effect on police operations is significant.
- In a series of cases highlighted by **R. v. Garofoli**, [1990] 2 S.C.R. 1421, the Supreme Court has steadily increased the evidentiary burden required to support electronic interception applications, and scope of subsequent review of affidavits at trial. Evidence of an informer’s tip by itself, for instance, is no longer sufficient to establish reasonable grounds for a warrant or wiretap and, although affidavits must be extremely detailed, they must not reveal an informer’s identity since indefinite sealing is no longer possible. The result is affiants must be prepared to draft and defend wiretaps and warrants in court based on exhaustive detailing. It now often requires police officers weeks just to draft an affidavit or information to obtain and affiants are often cross-examined in court for days, even weeks. The economic effect of this series of decisions on police operations is substantial: conducting intercepts, even in murder cases, is now sometimes considered cost prohibitive.
- Even without an economic analysis, there is unanimous agreement that **R. v. Stinchcombe**, [1991] 3 S.C.R. 326 has had the most profound, and in some instances debilitating, effect on police resources. In *Stinchcombe*, the Supreme

Court decided that the accused has a constitutional right to full and complete disclosure of the police investigation and the Crown's case. Disclosure has continued to evolve so that in *R. v. Duguay*, [2003] 3 S.C.R. 307, the Supreme Court stated that "little information will be exempt from the duty that is imposed on the prosecution to disclose evidence". As a result, the administrative time and cost for police to prepare copies of all information and evidence (whether relied upon or not) of all investigations has increased significantly. Police are now required to submit transcriptions (validated by the original investigator) of:

- all audio and video tapes,
- notebook entries from all officers,
- reports,
- all source debriefings,
- all tips (and outcomes of tips),
- all connected cases,
- all affiant material,
- all wiretap information,
- all operational plans,
- all surveillance notes,
- medical records,
- all analyses of phone records or other documents,
- undercover operation information,
- information relating investigative techniques considered whether used or not,
- Investigative team minutes of meetings or debriefings, etc.

In communication intercepts, a complete transcript is required for every recorded communication, relevant or not (e.g., one week of interception will result in one or two months of disclosure time for an officer).

This duty often falls to investigative officers and cannot be done by support staff, increasing investigative time and expense substantially. The cost (in terms of time and expense) of disclosure is becoming prohibitive, criminal investigative capacity is being imperiled. For example, the cost associated with disclosure for even one large-scale fraud can easily reach into the tens of thousands of dollars and sap the entire operational budget of an investigative unit or department, limiting its capacity to conduct other investigations.

- **R. v. B. (K.G.), [1993] 1 S.C.R. 740**, in which the Supreme Court ruled that for statements of witnesses or victims who recant at trial to be admissible, it is generally necessary that the police take such statements under oath and that they be videotaped. Although a mechanism now exists for previously inadmissible statements to be admitted as an exception to the hearsay, the effect on police procedures is that rather than taking a simple written statement, the statement must be taken under oath and video-recorded. This puts a significantly higher demand on police resources. For example, even in the digital age, for every hour of audio time, transcription time alone is two to three hours, which in turn must be validated word for word by the original investigator.

- The Supreme Court held in **R. v. Feeney**, [1997] 2 S.C.R. 13 that even though police have reasonable grounds to believe that a suspect is inside a specific dwelling and even if they have a valid warrant for arrest, absent exigent circumstances the police must obtain a separate special warrant authorizing entry in order to arrest the suspect. The result is that where one or two officers would make an arrest in less than 30 minutes (1 person hour), a “Feeney” warrant will require at least four or more person hours (4 or more times the resources) as in practice it generally takes three to five hours to obtain the entry warrant. The inability of the police to disengage from a residence while awaiting judicial authorization to enter in order to pursue the arrest can seriously tax limited resources. A correlative effect is that when resources are not available, absent a substantial risk to public safety, police may abandon the opportunity to effect the arrest.
- Finally, in **R. v. Campbell and Shirose**, [1999] 1 S.C.R. 565, the Supreme Court ruled that police involvement in a “reverse sting operation” conducted in the course of a drug investigation was illegal and not authorized at common law. The principles of this case apply to any police investigation, and most importantly, they apply to police officers committing illegal acts while engaged in undercover operations. The result has been development of a complex legislative scheme (s. 25.1 of the *Criminal Code* providing that in the absence of exigent circumstances, a “competent authority” (e.g., the Solicitor General of Canada in the case of the Royal Canadian Mounted Police) must designate a “senior official” who designates a “public officer” to commit an offence (under rigorously delineated conditions and reporting requirements) in aid of an on-going undercover operation.

This set of prominent cases has changed the policing environment. Increasing the number of Charter safeguards for suspects and accused persons has the often unacknowledged effect of reducing overall policing capacity to deal with crime as each police officer must commit more time to accomplishing policing tasks properly. The additional time spent on meeting evolving Charter requirements take time away from the police’s ability to respond to the next call for service, and the one after that.

Task Timing for Specific Crimes

In seeking to understand the time-activity cost of changes in police work over time, the project constructed detailed step-by-step flow charts of the handling of five kinds of crimes, from the time they come to the attention of the police until the time they are handed off to Crown Counsel in the form of a recommendation for charge. The objective of creating the flow charts is to produce a visual ‘walk through’ of an investigation in order to attach a range or estimate of timing associated with each step. The charts also indicate the evolution of the policing function by making it easy to see the addition or subtraction of steps over the course of time. The project examined detailed flow charts of the handling of homicides, break and enters, domestic assaults, driving under the influence cases, and drug trafficking cases 30 years ago, 20 years ago, 10 years ago, and

