A 30 YEAR ANALYSIS OF POLICE SERVICE DELIVERY AND COSTING

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

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

International Centre for Urban Research Studies (ICURS)

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Executive Summary

In 2004, a research project was undertaken to examine the changes in the police’s capacity to respond to crime over the past 30 years. Using a variety of methodologies and data sources, this report concludes that the demands for police services in British Columbia has increased at a substantially disproportionate rate to the increases in population and that the amount of police time and resources spent responding, processing, and clearing criminal events has increased disproportionately to police budgets and staffing.

Over the past four decades, while British Columbia’s population has more than doubled, the number of reported crimes to the police has increased seven fold with a four fold increase in recorded drug trafficking offences. The overall net effect of this increase has been a general decrease in police clearance rates as police are ever more unable to respond either quickly or to follow-up sufficiently to certain crimes. The problem is compounded because police, during a routine day, are responsible for a wide variety of service, administrative/paper work, and court attendance functions which result in them being increasingly more selective in how they respond to certain criminal incidents. At the same time, expenditures on police services per capita in British Columbia have demonstrated a holding pattern over the past 20 years, consistently below the average for all of Canada’s other provinces.

The capacity of members to deliver the full range of police services has also been effected by many Supreme Court decisions, legislative policies, social policies, and technological advancements that, while extremely important in a liberal democratic society, have had the latent effect of substantially increasing the time and costs associated with investigating and clearing cases. This report highlights eleven Supreme Court decisions that have directly impacted police resources, several legislative policies that present challenges to the average police officer to effectively understand, apply, and operationalize such complicated legislative instrumentation, a myriad of policy initiatives that have been identified as having significant effects on police workload and operations since 1982, and a discussion of a large number of future trends that are important and likely to have significant economic effects on police operations. Moreover, the impact of technological advances, such as computer-aided dispatch, records management system, radio communications, mobile workstations, on police workloads and costs are reviewed.

All of the data reviewed for this report demonstrates that there has been an insufficient increase in the number of police and police budgets during the past 30 years. The resulting strain on police services, therefore, is based, in part, on: the general upward trend in reported crimes disproportionate to population increases; property crimes and nuisance crimes requiring disproportionate total costs compared to the most serious crimes; an increased need for technical education and training; decreased routine contact with the public; a four fold increase in administrative/paperwork loads; and evolving case law, statutory law, and
individual criminal justice agencies’ policies that have added enormous procedural complexity to police work.
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Chapter 1: Introduction

Over the past 30 years, demands for police services in British Columbia have increased at a substantially disproportionate rate to the increases in population. As well, the amount of police time and resources spent responding, processing, and clearing criminal events increased significantly. Since policing is a public service, it cannot utilize the standard business response to major increases in demand by simply increasing prices. The police even lack the latitude of other public service agencies to respond to demand for services by allowing either longer waiting periods or a substantial reduction in the quality of service. Some police agencies have resorted to either not responding to certain types of crimes, such as minor property crimes, increasing the average response time for other minor crimes, such as mischief offences, or limiting the effort to investigate minor property and order maintenance incidents generally. Another time saving strategy, but one of the most frequently reasons for public complaints about police services, is the lack of feedback to victims as their cases proceed through the various stages of the criminal justice system.

While it is more acceptable politically to limit police services in the aforementioned ways, these options are understandably improper for more serious criminal events. However, there is a growing body of theory and research that suggests the necessity of policing minor, but visible street crime. The “broken windows” theory of policing, while controversial, has been adopted by several police forces in the United States, most prominently, in New York.¹ Nonetheless, even if minor criminal events receive less police attention than more serious ones, policing the latter has become considerably more time consuming and costly.

To begin with, there is virtually no choice for the police to respond as rapidly as possible to serious crimes, both in progress and after their commission. Yet, during the past 30 years, a series of judicial decisions by the Supreme Court of Canada have generated an ever-evolving set of legal rules and requirements, such as R. v Brydges, which add considerably to police investigative procedures. Since it is Crown Counsel who makes the decision whether to proceed in the prosecution of suspects, the police must meet the strict procedural guidelines set by Crown. In addition, new laws, such as the Youth Criminal Justice Act, are enormously complex and require significant additional education and training of police officers in order to enforce its numerous provisions. As well, police resources have been extended by the introduction of community focused policing.

Beyond all of the challenges to the delivery of police services as a result of substantial population increases, changing crime rates, the development and implementation of innovative police strategies, ever changing case law, revised and new criminal laws, and a general lack of a proportional increase to police budgets,

¹ In short, this theory contends that responding to minor nuisance or social disorganizing behaviours, such as graffiti or public drunkenness, prevents more serious crimes from occurring.
the ethnic demography of British Columbia and the types of serious crimes have necessitated further experiments in policing. Since the late 1990’s, there has been major immigration from South Asia and China. In addition, there has been a significant increase in immigrants from Central America. One immediate police need, therefore, is to have a more diversified ethnic profile of officers to include members of the more recent immigrant groups. English as a second language has become prevalent in several cities in the lower mainland and, consequently, police detachments and departments have had to consider language and cultural barriers in delivering services in certain cases.

Organized crime has also evolved in British Columbia and, not only does it include more ethnic diversity, but it is also linked to other countries, such as China and several South Asian nations. More recently, marijuana grow operations and crystal meth labs are being developed and controlled by multi-layered organized crime organizations in British Columbia. And, organized crime has been augmented by indigenous organizations, such as the Hells Angels and Aboriginal groups from reserve communities. The complexity of organized crime in the current period and the procedures necessary to investigate and prosecute cases against organized crime members and groups has had a substantial impact on police workloads and costs.

Traditional white collar crime is drastically more complex since the introduction of the internet into banking and stock markets. Money laundering, for example, has become extremely sophisticated in its global reach. Credit card fraud and internet-based crimes require considerable police education, training, and expertise to uncover and assist in successfully prosecuting.

There is no doubt that the context for policing in British Columbia during the last 30 years has changed fundamentally. It is also obvious that policing and the delivery of police services has changed, however, it is not evident how much it has changed and what are the resource demands in terms of workloads and costs associated with the challenges facing police in the contemporary period.

This current study, therefore, explores the changes in time and resources required for handling of increasing number of calls for police service today compared to 10, 20, and 30 years ago. Existing records of the tasks and time spent with respect to calls for service over the last 30 years are compared to tasks, timing, associated resources, and costs currently required to deliver police services to British Columbia. This current study includes the context of changes in calls for service volumes, crime trends, clearance rates, population and demographic considerations, and regular member staffing volumes.²

The review is lead by ICURS-UCFV and includes consultancy services by ICURS-SFU. The review is undertaken with direct assistance by designates in the RCMP by “E” Division. The study required the participation of selected current and retired

² In part, this analysis was guided by the status report on workload changes 1993-2000 conducted by Inspector Doug LePard of the Vancouver Police Department.
RCMP officers in planned focus groups and the cooperation of civilian and regular members during visits to detachments around the province over the course of the study.

This report constitutes the summation and presentation of all data compiled as of June 30, 2005. At the time of writing, CAD/CIIDS record management data was not available to the researchers. A supplemental report will be produced once this data is received.

This report is divided into eight chapters. Following this introduction, Chapter 2 discusses the organization and methodology of the project. Chapter 3 provides a general overview of British Columbia’s crime trends over the past 30 years. Chapter 4 includes an overview of a general duty day and discusses the research literature on police time and cost analysis. Chapter 5 discusses many of the current trends and issues that have significantly increased the amount of time and resources that police must expend over the past decade in delivering police services. Chapter 6 provides a detailed analysis of several crime-types to demonstrate the contemporary complexity in providing police services within current fiscal constraints and legislative and judicial requirements. Chapter 7 presents pilot management models that may be used in scenario building. The final chapter consists of a general conclusion and recommendations for responding to the current crisis of police services losing their capacity to respond effectively to crime.
Chapter 2: Research Strategy and Methods

In order to explore the change in timing and resources required for police services over the past 30 years, a variety of research methodologies was used. Prior to designing the specific methodologies, an Advisory Committee was created. This group consists of an RCMP officer, who was the primary contact responsible for data access and availability, and the principal investigators. The primary RCMP contact changed in early 2005 due to retirement. The replacement officer was briefed regarding the project, and took over responsibilities for accessing data for research. The methodologies used for this research project included a literature review, expert focus groups, regional focus groups, and secondary data collection and analysis.

Expert Focus Groups

The objective of holding the Expert Focus Group (EFG) at the beginning of this project was to ensure a reliable direction for the remainder of the study. The ten members involved in the EFG had a cumulative service time of over 250 years. The EFG also served as the first confirmation of the research methodology by guiding the choice of data sources and the types of offences to be explored. The EFG’s most important contribution was the development of the offence investigation flow charts – a step-by-step presentation of how offences move through the criminal justice system, from call to court. The charts include an inventory of steps taken by officers 30 years ago, 20 years ago, 10 years ago and today. These flow charts became the basis for evaluating time spent on specific offences by each officer, and aided in creating a total average time per call per offence type.

Regional Focus Groups

The Regional Focus Groups (RFG) had two important objectives. The first was to verify and modify the flow charts originating out of the EFG. In order to have a valid instrument, it was advantageous to have as much corroboration as possible with respect to the task flow charts in order to enhance reliability. The second objective was to attach several general time frames to each of the steps associated with the five offence categories that the flow charts represent. Moving through the flow charts step by step with the RFG allowed the researchers the opportunity to gather ranges of timing for each step and to confirm that all necessary steps were included.

A unique focus group comprised of experts with specific knowledge of technological change in the R.C.M.P. over the past 30 years informed the Technology Changes chapter of this report. As mentioned above, this chapter includes a detailed timeline depicting when technological changes occurred and the impact they have had on timing and costing.
Data Collection

Several different types of data were analyzed for this research and a number of different research methods were employed in order to obtain and analyze measures from numerous sources. Data sources included members’ historical notebooks, current time log surveys of members, case files for the five offence types in three different geographic regions of the province, and a detailed CAD analysis. However, data was not available for all years or from all sources which is common with any historical study. For the file and notebook review, the analysis focused on five specific offence areas agreed upon with the EFG: (1) Break and Enter; (2) Spousal Assault; (3) Driving Under the Influence (DUI); (4) Criminal Homicide; and (5) Trafficking. The file review occurred in the same three geographic areas of British Columbia as the regional focus groups: Prince George, the Northern location; Nanaimo, the Vancouver Island location; and Surrey, the Lower Mainland location. These three locations were chosen with the guidance of the EFG.

File Review

The file review component was conducted in each of the three study regions. File queries were run for each region on each of the five offence types to develop a sampling scheme and to determine how far into the past available files were available as the RCMP is required to destroy completed files after a specified duration of time depending on the nature and type of offence. Upon review, few historical records of the five offence types were in fact retained. Despite this limitation, the description of timing associated with current policing practices is extremely useful.

Historical files from 10-30 years ago did not require a sampling scheme because the limited number of available files necessitated an examination of all available files for the five offence types. However, because of the large number of more recent files available, a sampling scheme was utilized. The file review coding sheet was derived from the flow charts originating out of the EFG and the RFGs. These flow charts represent all the steps undertaken by police services during a typical investigation for each of the five offence types. To construct the file review coding sheets, these steps were transferred into documents allowing for the input of the amount of time associated with each step, how many members were involved in the file, and the total amount of time spent on each incident in order to estimate a range of time for each major step of an investigation and a range of the total average time it takes to investigate these offences. The analysis of the files also provided a description of duties associated with the investigation. Comparisons were made between current offence investigations and historical investigations.

While examining the information contained in each file, it became apparent that determining the exact duration of events and activities associated with investigations would be difficult, as time elapsed for tasks and/or stages in investigations were not consistently recorded. Therefore, timing was only recorded when it could be determined without conjecture or supposition. Where available, timing from the file review validated the ranges presented in the flow charts.
**Historical Log Books**

Members participating in the EFG and the RFGs supplied all available log books for the time periods under study. Using a coding sheet similar to the time use logs (see Appendix B and C), all activities during a member’s day were logged into specific categories and the amount of time to complete the task was recorded. During log book coding, any reference to the five crime types was flagged. The five crime types were coded using the file review coding sheet to obtain historical data and timing for comparison with current investigation timing.

The information contained in the log books was combined, where appropriate, with the file review timing information. This data was used to verify estimates presented for particular steps in the investigations under study by the EFG and RFGs.

**Time Use Logs**

Time use logs were distributed to a sample of general duty members across several jurisdictions in British Columbia. The sample was chosen by the lead R.C.M.P. project contact. The objective of these logs was to ascertain what a general duty day entails and obtain any timing information associated with certain tasks, duties, or investigations. If members were involved with any investigations of the five selected crime types, the timing of these, and the extent of the member’s involvement, was recorded and compared to the historical log books. One of the hypotheses was that the increase in paperwork associated with legislative and case law changes has had a significant impact on a member’s day. The time use logs were used to analyze the amount of time a member spent on paperwork to assess how their ability to respond to calls and investigations may be impacted.

The results were compared to the results of the log book analysis, which utilized the same coding sheet, with the objective of exploring changes to duties in a ‘general duty day’. This comparison has its limitations, as the recording procedures for both types of data were different. As current members were instructed to record each duty of their day in small time increments, according to the duty codes provided on the coding sheet, an extremely detailed description of each member’s day was achieved. In the historical log books, however, members would often record only those events that were significant enough to warrant notation and omit general tasks while on patrol or other seemingly menial tasks. At times, this resulted in the overestimation of certain activities, such as patrol, as members may have recorded that they were on patrol for a long period of time during a shift, but would not elaborate on the details of events during that patrol.

**CAD/CDDS Analysis**
The R.C.M.P. in British Columbia uses two Computer Assisted Dispatch systems to hold calls for service data, CAD and CIIDS. Unfortunately, a comparison of timing over thirty years is not possible using R.C.M.P. CAD/CIIDS data. This is because CAD/CIIDS records for most crimes are purged every two years as per federal privacy legislation. However, current time spent responding to specific calls for service and time spent on scene can be assessed using this data. As of the report date, CAD/CIIDS data has not yet been received. Once this data is made available to the authors, a supplemental report will be produced.

Case Law Review

A review of relevant case law and legislation affecting the timing and costing of police services over the past 30 years was also completed. Many of these key changes were identified during the EFG, while others were based on commonly cited Supreme Court decisions. Of particular importance are changes to legal rights of individuals and disclosure requirements as set out in the Charter of Rights and Freedoms, and R. v. Stinchcombe.

Model Building

The data collected was built into a pilot model that could be used by management in evidence-based policy and planning. While time issues and associated costs are an inevitable concomitant of serious crimes, police managers do have some limited alternatives in deciding what to do in financially constrained times. The information from this study will be used to build a pilot modeling tool which can be expanded should management find this pilot scenario planning tool helpful.
Chapter 3: Historical Overview of Crime Trends in British Columbia

Over the past four decades, British Columbia’s population has more than doubled from approximately 1.7 million people in 1962 to more than 4.1 million people in 2003. An even faster growth in the number of reported crimes to the police has occurred over the same time period. Criminal code offences in British Columbia have increased seven fold, rising from about 72,000 known offences in 1962 to more than 513,000 known offences in 2003 (see Figure 1).

Figure 1: BC Population and Crime Growth

![BC Population and Crime Growth](image-url)
Crime trends are often measured in terms of rates per 1,000 population or per 100,000 population in order to control for changes in population from place to place and from year to year. The massive rise in crime evident in the crime counts for British Columbia is confirmed by a crime rate since the plot of crime count and the plot of the crime rate for the years 1962 to 1977 is very close. The substantial increase in the crime rate from the early 1960s leveled off in the early 1990s, and actually dropped substantially until 2001 when the rate began to rise again (see Figure 2).

There has been considerable theorizing about why this trend line occurred. Changing demographics was part of the explanation in most theories. The post-war "baby boom” children became teenagers and young adults in the 1960s and, therefore, the general population became much younger. Most crime is committed by males between their mid-teens and mid-twenties, consequently, it was not surprising that the crime rate escalated so sharply in the 1960s. However, that this rate continued to rise, even after the “baby boom” generation entered their thirties and fourties, requires additional explanations.
During the mid-1960s, Canadian society changed fundamentally and these changes have been theorized to partly account for increased crime and the fundamental changes in policing which accompanied it. The family structure changed when women began to enter the workforce in unprecedented numbers. Family sizes were reduced and housing mobility increased. No longer did extended families of grandparents, aunts, uncles, and cousins routinely reside in the same communities across several generations. Canada was becoming highly urbanized and suburbanized. Social and geographic mobility were the norm. For the police, it meant that the traditional form of “beat cop” or foot patrol was replaced by squad car patrols responsible for covering larger and larger jurisdictions. As well, smaller families with dual working parents resulted in the demise of the “routine monitoring” of youth, i.e. parents and extended family were not observing their children while they were with their peers. Young people had a much greater ability to move throughout the city and between cities on rapid transit. Both increases in property and violent crime, again, are associated with younger people being present in high density transportation areas, school vicinities, public parks, malls, and convenient stores. Again, this mobility increased the opportunity to commit crimes since it is impossible for the police to maintain a strong police presence in so many crime vulnerable areas.

A second part of the explanation for the sharp and continual rise of the crime rate for most of the past 30 years is also related to major lifestyle changes. Most critically, beginning in the mid-1960s, attitudes changed toward drug use. It is widely accepted that, in many cities, but especially in a major port city, such as Vancouver, substantial proportions of both property crimes and the more serious violent crimes, including homicide, are directly related to the high costs of certain drugs and the enormous profits from trafficking. Even a “soft drug”, such as marijuana, has been a major impetus behind organized crime expanding into the marijuana growing industry and cross-border trafficking of this drug into the United States. Similarly, the synthetic drug industry has grown dramatically.

Life-style trend changes in Canada, particularly in the major metropolitan areas, will cause more demands on police services for the foreseeable future. It is these very significant changes that required a parallel trend in changing policing’s strategy during the last three decades. However, as will be demonstrated in the following chapters, there are equally substantial changes in case law and the administration of criminal justice which have placed extraordinary and additional demands on policing. Again, it is this theme that is the focus of this report.
Another important trend is that not only has the traditional Criminal Code count risen substantially over the past 30 years, but so have violations of Federal statutes and other provincial offences (see Figure 3). In other words, the police have to respond to an ever increasing number of federal and provincial responsibilities. Again, these additional statute violations leveled off during the early 1990s, and then dropped in the late 1990s. However, they remain more than 5½ times the number in the 1990’s when compared to the 1960’s. Given the above lifestyle trends, especially in British Columbia, it is very likely that these additional statute violations will remain at high levels.
Specific types of crime require different amounts of police resources. As stated above, minor property crimes, such as shoplifting, result, typically, in a minimal expenditure of police processing time. In contrast, however, homicides involve extensive police resources, even if a case is cleared quickly (see Chapter 7).

Homicide levels were slightly outpaced by population growth, doubling over the past 40 years. Despite this increase, the numbers of homicides occurring in British Columbia remained relatively low (see Figure 4). Still, as will be described throughout this report, the resources needed to conduct an appropriate and thorough homicide investigation have escalated enormously over the past four decades. Improved technology, legal/procedural safeguards, and public concerns over wrongful convictions, such as David Milgaard, have required significant increases in the attention to evidentiary detail and documentation for each investigation. As a result, the impact of homicides on law enforcement resources for the prevention and investigation of other crimes is extensive, even though homicides have only doubled compared to the far greater increase in many other types of crimes.

Also, over the past four decades, the police in British Columbia have expended enormous resources investigating “mega cases” involving serial killers, terrorism, and organized crime. These types of cases will be discussed below in terms of resource expenditure, however, such mega cases appear to occur in sufficient numbers that they can cause major resource allocation difficulties for police services.
Sexual assault is another crime that has evolved in such a manner that the police have had to adapt to changing legal requirements and public expectations. The Criminal Code largely focused on sexual assaults in terms of rape until 1983. The Criminal Code was modified so that various levels of sexual assault replaced the rape category. These levels are far more inclusive in the types of aggressive, non-consensual sexual contacts to be prohibited. Case law has also added to the complexity of sexual assault since, for example, the issue of consent is now included between spouses. Similarly, what constitutes consent remains ambiguous and sensitive to the legal nuances regarding evidence of consent. As well, such changes in the Criminal Code have resulted in the police being increasingly involved in domestic violence incidents. These changes in law and the wide range of incidents associated with these different levels of sexual assault must be kept in mind when interpreting the trend for this crime in British Columbia (see Figure 5).

Reported levels of sexual assault increased six-fold between the early 1960’s and the early 1980’s. Following modification of the law in 1983, the annual number of reported offences increased another 250%. At their peak levels in the early 1990’s, reported levels of this serious offence were sixteen times higher than they had been in the early 1960’s. Still, despite the 40% reduction in reported levels of sexual assault since 1993, the 2003 levels were approximately 10 times higher than in the early 1960’s.
In terms of public perceptions of fear of crime in British Columbia, assault is the highest concern, especially for parents of adolescents. Swarming incidents, random attacks on transit systems, and school-based bullying are among the most frequent fears in British Columbia. The ability of the police to monitor, investigate, and assist in the prosecution of minor assaults is again limited. However, changes in public tolerance for minor assaults has lessened substantially in public spaces, especially within schools, as many schools have adopted a “zero tolerance” policy. Not surprisingly, this public fear is partly based on an approximately nine fold increase in assaults over the past forty years (see Figure 6). While the number counts of assault have levelled off since 1998, at approximately 42,000, this figure, nonetheless, is staggering compared to the 5,000 counts reported to police in 1962.
While the public is focused on assault generally, the police necessarily have to be concerned with the type of assault. Between 1983 and 2003, the rate of assault per 100,000 in British Columbia has fluctuated from a low of approximately 800 in 1983 to nearly 1,200 in 1993 and then down to 1,000 in 2003 (see Figure 7). However, the ratio of the different levels of assault have not varied significantly. Nonetheless, as stated above, public concern for assault has resulted in demands that police investigate and charge more level one incidents. Again, both statute and case law, along with the advent of legal aid for defence counsel in the late 1970s, has resulted in even minor assault cases requiring extensive police time resources. Most disturbing though is the change in the number of counts of assault against the police; they increased from slightly more than 700 per 100,000 per year in the early 1980s to a high of 1,200 in 1993 and then steadying to approximately 1,000 in 2003 (see Figure 7). The trend for ‘shoot with intent’ is similar to that of assaults against the police. These two types of events are important because of the resource strain they place on police to investigate incidents, but also because of the potential costs associated with medical and psychological treatment.

The police have had to cope with media sensationalization of violent crime and greater public demands that the police protect them more effectively. However, victim surveys and public opinion reveal that victims and the public are most frustrated with police response to property crimes, especially break and enter. Such crimes occur in every geographic and income area. Theft from autos in the lower mainland and Surrey has become epidemic and the police’s ability to respond, let
alone investigate, has been very limited by already strained manpower and budgets. Stolen goods are quickly moved to buyers and are extremely difficult to trace. The assumption is that individual break and enters often involve either drug addicts or young offenders, while large scale theft operations more likely involve sophisticated adult groups or gangs. Public perceptions that break and enters are more widespread in Canada is supported on a comparative basis with 11 other wealthy countries (see Figure 8). As with their general crime rate, Canada has a higher proportion of burglary victims than even the United States.

**Figure 8: Burglary Prevalence by Country**

Within Canada, through the decades, British Columbia has consistently been among the highest of the ten provinces in break and enters reported to the police. This crime type has increased three times faster than the population growth from the early 1960’s to the early 1990’s (see Figure 9). Break and enter numbers peaked in 1993 at more than 78,000 crimes. Since then, this crime type has declined by 35 per cent. Break and enters, however, remain a major problem for law enforcement agencies since more than 50,000 crimes are reported annually to the police. Disquietingly, break and enters have begun to increase again in 2003 and preliminary figures indicate an increase in 2004 as well.
The majority of break and enters in British Columbia involve residences. Residential crimes accounted for 53% of break-ins in the mid-1970’s and 49% in 2003. Business break-ins declined slightly from 35% of reported crimes in the mid-1970’s to 31% in 2003 (see Figure 10).
Figure 10: Types of Break and Enter

Breaking and Entering Types
British Columbia 1974-2003

One of the most difficult, complex, and costly police issues in British Columbia and Canada is drug use. While there is ambivalence about decriminalizing soft drugs, such as marijuana, there is a greater consensus that drug trafficking has several detrimental impacts. Most importantly, it has become a main source of income for organized crime. The four fold increase in recorded drug trafficking offences since 1974 (see Figure 11), confirms the enormous expansion of the drug problem confronting police in British Columbia. Again, it will be explained in subsequent chapters why drug trafficking cases require ever increasing amounts of police time and resources.

Equally important, though, is the long term challenge to the police posed by the expansion of organized crime in British Columbia and the introduction of cheap, yet highly destructive drugs, such as crystal meth and ecstasy. Regarding organized crime, it is evident that police are faced with a multi-level structure with separate, but connected ties to organized crime in different parts of the world. In addition, British Columbia faces ethnic concentrated street-level drug enforcer groups who use murder against their own members and their rivals. The danger is that the rapid expansion of profits from the enormous growth of high grade marijuana trafficking to the United States will provide further financial incentives for organized crime to diversify into other criminal enterprises, as well as legal businesses.
Another challenge related to marijuana trafficking is the perpetuation of large scale “grow-ops” in British Columbia. As a recent study has shown, there are few, if any, legal repercussions to being charged for such operations (Plecas, 2005). Equally concerning for the police is the increase in home evasions of residences thought to be grow operations by other criminals. These incidents often spawn violent retaliation by the organized crime “sponsor” of the invaded resident. Several mass murders in British Columbia have involved drug related home invasions and retaliations.
The increase in cultivation related offences in British Columbia is indicated in Figure 12; in 1977, there were 350 charges per 100,000 persons and this rose to approximately 425 per 100,000. Again, it is important to note that while possession and trafficking charges have not increased since 1977, this largely reflects fundamental changes in police charging, i.e., minor amounts of marijuana possession and trafficking gradually were no longer being charged. Instead, police have focussed their limited manpower on organized criminal enterprises involved with marijuana production and trafficking.
This increasingly limited manpower in British Columbia is evident in Figure 13; in 1977, there was approximately one police officer for 490 persons and, by 2003, there was one officer for every 550 persons. When crimes per authorized police officer is considered for this 26 year period, the trend line indicates a substantial increase from 60 in 1977 to a peak of 90 in the early 1990s, followed by a downward trend and a leveling off at approximately 75 police officers between 1999 and 2003. However, this improvement in the ratio was tempered by several concerns which will be discussed throughout this report. Most immediately, though, the authorized police complement typically was five percent or more below authorized strength because of injuries, retirements, and other causes.
An important measure of police effectiveness is the ability to clear cases, especially serious violent offences. Even for property crime, public expectations typically include the demand that police investigations result in these cases also being cleared routinely. These expectations likely increase when there are more police officers per crime. However, despite the recent increased ratio discussed above, the downward, though uneven, trends in clearance rates in British Columbia are evident for several important crimes (see Figure 15).

Most importantly, the homicide clearance rate of 80% in 1977 rose to 91% in 1987 then plummeted to 62% in 2003. Not surprisingly, drug clearance rates dropped from 91% in 1977 to 73% in 2003. Assault clearance rates were also reduced from 75% in the mid-80s to 60% in 2003. While the public obviously desires that the police protect them from violence, they also express considerable frustration with criminals who are not identified and charged with property offences, especially rampant ones, such as Break and Enters. Yet, the already very low clearance of 23% from Breaking and Entering in 1977 was reduced to the virtually rock bottom level of 8% in 2003. A different statistic better illustrates this decline; in 1977, one in four break-ins were cleared compared to one in 12 in 2003. Again, from a police investigation and charging perspective, the drop in clearance rates for serious drug cases was likely linked to the drastic drop in breaking and entering cases. Many drug addicts rely on property crimes to fund their drug habits, while others rely on drug trafficking in addition to property crimes.
Figure 15: Clearance Rates

Another explanation for the drop in clearance rates for these crimes is that the police are increasingly unable to respond either quickly or to follow-up sufficiently to certain crimes. Because police during a routine day are responsible for a wide variety of service, administrative/paper work, and court attendance functions, they simply have to be selective in how they respond to certain criminal incidents. Minor traffic accidents and property offences often cannot be attended at all or only in a perfunctory manner. Most detachments, especially in large cities, have to prioritize the amount of police resources they expend on certain crimes, as well as other service and order maintenance functions. Another consequence is that pro-active and more community based crime prevention effects often suffer. Again, a central theme of this report is that, for most crimes in the contemporary period, each case requires considerably more police resources to investigate properly.

It is also important to examine the different city contexts in British Columbia in which RCMP policing takes place. In the following section, Nanaimo, Prince George, and Surrey will be examined. While these three cities differ substantially in population size, crime in British Columbia does not correlate with city size (see Figure 16). Clearly, there are other variables that must be considered in explaining differences in crime rates and their consequent impact on policing strategies and resources.
Crime Trends in the Three Research Cities: Nanaimo, Prince George, and Surrey

Surrey is the second largest municipality after Vancouver in British Columbia. The Surrey RCMP detachment, however, is the largest in Canada. This city also has experienced large population growth during the last three decades with significant influx of South Asian immigrants. As well, major shopping mall developments, rapid transit stations connecting to Vancouver, massive middle and upper income housing developments, the creation of a new university, and high tech industries have all occurred. Given this growth and diversity, Surrey has posed significant challenges to policing during this period, and with continued growth anticipated, these challenges will be more acute.

Prince George is the largest city in the north central region of British Columbia and it is the region’s administrative centre. While it has not experienced the large population growth evident in other regions of British Columbia, it too has undergone several changes that affect policing. The main industry has been forestry, yet it has undergone major restructuring during the last three decades. Therefore, unemployment and more limited economic growth have had an impact on both the longer-term residents of Prince George and, more recently, migrants from rural areas, in particular, Aboriginal people.

Nanaimo, similarly, is the major urban centre in the centre to the north part of Vancouver Island. Unlike Prince George, however, Nanaimo has experienced a large influx of residents, particularly retirees, and a consequent housing boom, attendant shopping malls, and the increase in more specialized industries. It is also a major transportation hub to recreational areas on the centre west coast of the island and nearby resort towns to the immediate north. Tourism and trucking related industries are facilitated by Nanaimo being the only major British Columbia ferry terminal north of Victoria’s Swartz Bay. Again, fluctuations in economic development and job opportunities are related to crime as is migrations, especially of Aboriginal people and more recently immigrants from Asia and Central America. These factors likely contribute to the explanation of why there is no simple correlation between crime and population size.
Surrey consistently has had the lowest “actual crimes known to the police per 1,000 population”. While not substantially higher, both Nanaimo and Prince George have had periods where their crime rates were substantially higher than Surrey (see Figure 17). In 1992, for example, the former two cities has approximately 225 known crimes per 1,000 people, while Surrey registered slightly more than 150. However, there also were periods where the figures for all three cities were far closer, such as 1984 and 1989. In 2001, this gap narrowed again, but during the following two years, the gap began to widen suggesting another distinguishing trend might occur. Nonetheless, over the last 26 year period, Surrey’s crime rate only increased by 6% compared to a nearly doubling (45%) of Nanaimo’s rate and the more than one third (38%) rise in Prince George’s rate.
One explanation for this substantial gap is that only Surrey has experienced a major increase in authorized police officers (see Figure 18) despite significant population increases in all three cities. As discussed above, Prince George has a less stable economic growth rate and a different migration pattern than Nanaimo and Surrey with a greater movement back and forth of Aboriginal people from nearby reserves. Employment opportunities are more limited as is specialized training and post-secondary education opportunities.
This context and the virtual flat growth rate of additional authorized police officers since 1985 likely explains, partly, why crimes per police officer is so much higher in Prince George compared to not only Nanaimo and Surrey, but also “the large city average” (see Figure 19).
Figure 19: Crimes per Officer in Study Cities

The average for a large city in British Columbia is approximately 114 crimes per officer, while Nanaimo’s and Surrey’s averages are virtually identical at approximately 117. In contrast, Prince George’s average is nearly 130. Similarly, the Crime Location Quotient (LQC) is different for Prince George compared to Nanimo, Surrey, and the province-wide crime mixture pattern (see Figure 20).
Prince George had a relatively greater problem with homicide, attempted murder, residential breaking and entry, and shoplifting. Nanaimo had relatively greater problems with homicide, thefts from motor vehicles, bicycle thefts, and impaired driving offences than the province as a whole. Surrey had relatively greater problems with attempted murder, motor vehicle theft, and heroin offences, but had relatively few homicide or impaired driving problems compared to the province as a whole.

Expenditures and Salary Costs

The expenditures on police services per capita have generally seen a steady increase since the early 1980s throughout Canada. In British Columbia, expenditures have demonstrated a holding pattern and even a slight drop between 1994 and 1997; however, a 10% increase in expenditures between 1999 and 2000 served to increase the percentage of increases to expenditures to just over 80% from 1986 to 2002.
Similarly, Canada, as a whole, showed a low rate of change between 1992 and 1997, but increased substantially between 1999 and 2002 to bring up the total percentage increase nationwide to approximately 73% from 1986 (see Figure 21). While British Columbia has showed a higher percent of increase than Canada as a whole in the same time period, it consistently remains below the average for all provinces, excluding the territories, whose expenditures per capita are significantly above the national average.

The rate of change for expenditures in British Columbia illustrates the fluctuations across the time period. As mentioned, the largest increase was seen in 1999-2000, while expenditures during the mid-1990s showed little change and even a slight decrease in expenditures (see Figure 22).
Figure 22: BC Increase/Decrease Expenditures by Year

BC Percentage of Increase or Decrease in Expenditures by Year
1986-2002

A significant contributor to expenditures on policing are fluctuations in salary costs and member strength. While member strength has generally increased since the 1970s, the crimes per officer and population per officer have also increased, resulting in increased caseloads per officer and steadily increasing budgets. Salary costs associated with ever-increasing need for members has contributed to the overall expenditures; however, when controlling for inflation, member salaries are generally not far above CPI index increases for the year (see Figure 23).
Figure 23: Average Annual Salaries

The figures above denote the average annual salaries for ‘Officers’ and ‘NCO/Constables’. Included in the ‘Officer’ category are Inspector and Superintendent classifications, while the ‘NCO/Constables’ category include the previous classifications of Constables, Corporals, Sergeants and Staff Sergeants.\(^3\) Average salaries for both groups more than doubled in the time period between 1974 and 1983\(^4\), then increased at a rate near inflation until the period between 1998 and 2003, where members saw another substantial salary increase.

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\(^3\) As classification schemes changed in 2000, it was necessary to amalgamate the previous classifications to the broader scheme in order to conduct direct comparisons.

\(^4\) Data not available prior to 1974.
Figure 24: Annual Salaries and Inflation

Examining the rate of increase or decrease over the study period, while controlling for the expected increase due to inflation, shows a slightly more dramatic picture of police salaries, as it is not until the late 1990s that member salaries diverge substantially from the inflation rate (see Figure 24).
Figure 25: Inflation Estimates vs. Actual Increases

Inflation Estimates versus Actual Salary Increases
NCO/Cst

As is shown above, salary increases up until the late 1980s were just slightly above expected rates if salary schedules only increased according to inflation. However, the period between 1988 and 1998 showed that members were receiving salary increases that were less than the inflation rate. This effect appears to have been neutralized by the significant increase following 1998, as salaries raised above the inflation rate standard (see Figure 25).

Having examined the longer term context of offences, member strength and expenditures, and the more immediate relative crime mix context in British Columbia, it is important to examine a general duty day for police and to analyse the research literature on police time and cost analysis to demonstrate the increase time and cost associated with routine policing today as compared to the past 30 years.
Chapter 4: Overview of a General Duty Day and Literature Review of Police Time and Cost Analysis

General Duty Day

Due, in part, to workload increases, changes in technology, legislative demands, and the organizational structure of police services, a general duty day has changed dramatically over the past 30 years. The events that have shaped policing today are numerous and extensive. From the incorporation of mobile data computers in police cars to the requirements of disclosure under R. v. Stinchcombe, a typical duty day for a member today is very different from three decades earlier. However, what has not changed substantially is the public’s demand for efficiency and results from its police forces. The ability of members to respond to the need for justice in society has been both helped and hindered by the many technological and legislative changes. For example, while advances in telecommunication and computer technology have certainly afforded members’ greater access to information and faster response times, much of this technology requires additional specialized training and time utilization.

Legislation has also played a pivotal role in member activities and responsibilities while on duty. From disclosure requirements to the ever-lengthening list of procedural changes required by successful Charter challenges, members are now subject to greater scrutiny and limitations. However, despite the challenges outlined here and in the preceding chapters, there is the continued demand for high clearance rates, crime prevention, and increased identification, arrest, and prosecution of offenders.

In order to understand the substantial changes to a general duty day for members over the past three decades, long serving members of the R.C.M.P. were asked to recall their first years on the R.C.M.P. and to describe what their activities generally involved. The majority of members interviewed for this project had over 25 years of service each and, therefore, are in a unique position to provide anecdotal information about important changes. However, it is important to point out that participation was not based on a random sampling of officers, but an officer’s willingness to be part of a focus group.

One consistent change mentioned was the lengthier shifts – from eight hours in 1973 to twelve hours in more recent years. A related issue was the requirements regarding overtime which often included a minimum of one hour’s overtime (unpaid) at the end of a shift.

Another issue often mentioned was the substantial changes in technology, particularly how members were alerted to calls for service. For example, in some detachments, prior to the routine use or availability of radios, members would patrol past the detachment commander’s house to see if an alert for a call had been

General Duty Day
posted. Often this ‘alert’ came in the form of a marker or light. upon seeing the
marker, a member would obtain the relevant information and only then proceed to
the scene of the call. In addition, members stated that 30 years ago policing was
conducted overwhelmingly by active patrols. This facilitated the high public
visibility necessary for the general public to communicate with the police simply by
approaching their vehicle. However, policing today has limited both the general
visibility of the police and the non-crime related contact with the public.

The number of calls members handle in a typical shift also seems to have increased
over the past 30 years, although this increase varies considerably by detachment
location and size. Another common theme in the focus groups\(^5\) was the substantial
increase in paperwork per shift. In contrast, ‘paperwork’ can now be done in the
police vehicle because of the inclusion of mobile data terminals. When not actively
responding to a call, members estimate that 80% of their time is spent on
paperwork.

In order to objectively ascertain how a general duty day has changed over the past
three decades, log books were compared to current time use logs for over 60
members from 10 different detachments, both urban and rural. The current log
book review covered a 30 day period in March 2005.

Despite the limitations of the data\(^6\), an analysis of the time use logs produced valid
descriptive data of a current general duty day. This data can be examined in terms
of areas of substantial time commitments. In order to organize the specific
activities members engaged in during a shift for the purposes of statistical analysis,
participants were asked to code their activities into one of eight categories outlined
as follows\(^7\):

<table>
<thead>
<tr>
<th>Code</th>
<th>Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administrative Duties</td>
</tr>
<tr>
<td>2</td>
<td>Report Writing and File Review</td>
</tr>
<tr>
<td>3</td>
<td>Patrolling-Unassigned</td>
</tr>
<tr>
<td>4</td>
<td>Responding to Call</td>
</tr>
<tr>
<td>5</td>
<td>Travel Time to Call and/or Returning From Call</td>
</tr>
<tr>
<td>6</td>
<td>Investigation of Offence/Complaint</td>
</tr>
<tr>
<td>7</td>
<td>Attendance at Court</td>
</tr>
<tr>
<td>8</td>
<td>Other Duties</td>
</tr>
<tr>
<td>9</td>
<td>Meal Breaks</td>
</tr>
</tbody>
</table>

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\(^5\) See Chapter One for a description of focus group methodology.

\(^6\) Detailed in Chapter One.

\(^7\) See Appendix D for a full description of the codes.
Members were asked to record any activities or tasks that they undertook during a shift which took at least five minutes to complete. The five minute cut-off provided a detailed description of an officer’s routine daily activities. The breakdown of activities for members is presented in Figure 26.

**Figure 26: Average and Median Time Spent Per Task Per Day**

Investigation and report writing occupied 40% of a member’s time. In contrast, court time was minimal, however, this finding may fluctuate with a larger sample over a greater time period.

In terms of urban versus rural detachments, only one activity code, travel time, was significantly different. Surprisingly, urban detachments spent more time in transit than rural ones. It is likely that heavy traffic congestion in urban centres and increasing ‘suburban spread’ in the lower mainland offset the typically longer rural traveling distances.

Using the data from the current time use logs and the historical log books, Figure 27 illustrates the time spent on paperwork (i.e. administrative and report writing/file review tasks) per day for the past three decades. Members clearly spend far more time on these tasks since paperwork has more than doubled since the 1970s.
It is evident that both members’ interview data and log review data confirm that current policing has changed fundamentally from 30 years ago. These changes have had a profound effect on police education, training, moral, public expectations, and costs. The following section explores the critical police time and cost relationship more directly.

Research on Police Time and Cost Analysis

Police departments in Canada and other liberal democratic countries face the constant challenge of meeting the public demands for effective law-enforcement services and cost-effective approaches to investigations. Given the vagaries of publicly funded agencies, especially the many budget restriction periods during the past 30 years, police departments have had to adapt accordingly. Canadian police departments, for example, have had to produce the same rate of clearance for investigations they did when reported Criminal Code offences were five times lower (Canadian Centre for Justice Statistics, 1994:7).

Despite decreases in reported offences in the 1990s, over the past thirty years Canada has seen a general increase in reported crimes. It is important to examine how police departments have allocated their resources. Traditionally, police services have defined their costs of investigations within a more general organizational budget focusing on resource allocation, rather than actual measured resource expenditure (Greasley, 2000; Greasley, 2001). In essence, police services have not
monitored the actual cost of performing their separate investigational tasks beyond assuming that budgeted personnel costs were all directed toward investigatory work. It is necessary, then, to explore whether increases in the number of police personnel or hours of work per officer, and the specification of task by type of crime, can better describe and understand the changing nature of contemporary police costs.

The published literature regarding police costs and expenditures has traditionally focused on theoretical models and simulations for cost estimates, rather than actual police department budgets (Imbert, 1989). There is, therefore, a need to ascertain the actual cost of running a specific type of investigation (i.e. assault, drug trafficking, etc.). This analysis allows for the determination of general costing trends, investigation-related expenditures, and the proportions of annual budgets dedicated to these essential functions.

An exhaustive meta-literature search, unfortunately, revealed few studies of actual police budgets, with none conducted in Canada. One of the more complete studies involved the costs of responding to and enforcing prostitution laws in 16 major cities in the United States. Pearl (1987) contended that overall police expenditures for prostitution laws accounted for 40% of municipal budgetary funding. The costs were primarily associated with the amount of time it took to investigate incidents. In total, Pearl determined that, for all 16 cities combined, the number of police hours spent enforcing prostitution laws was 23,814 hours weekly. In effect, the related costs per week were estimated at $1,002,225. Compared to the time and cost associated with investigating violent crimes in these 16 cities, Pearl concluded that, regardless of successful convictions, all 16 cities spent more time and money enforcing prostitution laws than violent crime.

In an Australian study, Ffrench and Budz (1997) focused on the time and cost of first response by a police service. They estimated the cost of a single officer responding to an incident to be 82 cents per minute ($1.67/minute for two officers). Breaking down this figure into specific costs, Ffrench and Budz calculated that 63 cents was for labour (78%) and 19 cents for operating and capital (22%). Since, the average time per call was 48 minutes, an average cost per call was $76.90. Overall, aggregate costs in 1996-97 in this study were approximately $532,220 expended on 5,311 hours of first response time. For these calls, the greatest demand, as previously discussed, consisted of break and enters ($88,570), and other more serious property offences ($64,325) followed by minor property offences and traffic matters.

Regarding the police costs of investigating traffic accidents, Formby, Williams, and Hartin (1989) undertook a study in Tuscaloosa, Alabama. Over a three week period, 235 accidents were coded into minor, major, and serious accidents. The overall cost of investigating each type of accident was $21.90 for minor, $30.30 for major, and $51.86 for serious incidents/per accident. They reported that costs increased depending on the number of officers called to the scene.
In one of the more sophisticated studies of the investigation costs per type of crime, Greasley (2000) conducted a simulation model in the United Kingdom. He found that the more expensive criminal investigations involved sex crimes (£97.4/arrest), burglary (£82.3/arrest), and drug offences (£80.9/arrest). However, Greasley concluded that theft offences represented a disproportionate percentage of total police arrest costs and created a correspondingly unbalanced level of work for officers. Another informative British study directly examined the relationship between police costs and time utilizing an Activity Based Costing model (ABC). The data covered 50 days and 12 different categories of crime types. The average cost output was £56,837. The two highest cost crime types were theft (£18,600) and burglary (£7,172).

These few studies represent the ‘state of the art’ in academic peer-reviewed studies on police costing. All were relevant insofar as they considered the costs of investigating activities in the aggregate and by time and manpower dimensions. Still, these studies have important limitations. Not all police forces included in these studies kept accurate and complete records. Moreover, outcome measures may not be as detailed with respect to all of the components involved in investigating and responding to incidents. For instance, in the study conducted by French and Budz (1997), the costs estimates represented only related to first response and do not reflect the full cost of responding to a call for service, such as subsequent investigator’s time.

As mentioned above, all of this research is from the United States, the United Kingdom, and Australia. Unfortunately, only these five studies adhered to stringent search parameters regarding an analysis of police costs of investigation crime types and manpower hours through experimental and non-experimental methods. However, the limited research literature consistently suggest that police workloads have been increasing over the past 30 years, and so has the financial and human resource costs of enforcing and clearing charges. Public nuisance and minor crime offences, such as petty theft, prostitution, and traffic infractions, captured the highest total costs for police agencies. These types of offences required the most time dedication and financial expenditure.

The primary implication from this review is that additional research is needed in the area of costs for police investigations. It would be useful to engage in more costing and human resource studies with Canadian police forces in order to ascertain the degree to which police budgets are disseminated to the different fields of crime investigation. While certain government conducted research has occurred in Canada, it is yet to be published (see “Other Studies” in the reference list).

Even given the methodological limitations of the data and literature review presented in this and previous chapters, there is a consistent theme that emerges convincingly – police services have been increasingly strained over the past 30 years. While the explanations for the causes of this strain are necessarily tentative, they do include: the general upward trend in crimes; property crimes and nuisance crimes requiring disproportionate total costs compared to the most serious crimes; technical education and training; decreased routine contact with the public; a four
fold increase in administrative/paperwork loads; and variation in policing resource needs by evolving city crime contexts. As will be evident in the next chapter, the changing laws, including case law, has added even more demands on police investigative and other functions and resources.
Chapter 5: The Impact of Judicial Decisions, Legislative Changes, Social Policies, and Technological Developments on Police Workloads and Costing

Figure 28: Case Law and Legislation Timeline

"Fiat justice, ruat coelum"
(Let justice be done though the skies fall)
Friedman (2000, p. 22)
Service demands are frequently defined by judicial decisions, new legislation, and government policy initiatives. Since the Canadian Charter of Rights and Freedoms\(^8\) was enacted in 1982, giving the Supreme Court of Canada\(^9\) unprecedented authority to redefine substantive, procedural, and evidentiary law, demands on police operations have increased dramatically without a proportional increase in budget and/or manpower. In turn, these demands have had a significant workload affect on police organizations and their ability to serve the public. If this argument is valid, it needs to be studied in terms of the economic effect on police operations and the corresponding capacity of the police to fulfill its mandate to the public. However, before that research can occur, it will be important to review the underlying rationale and identify those service demands that are most responsible for workload changes.

The workload change rationale is straightforward, yet challenging. When a police officer’s\(^10\) workload is substantively changed in terms of increased demands, requirements, expectations, and responsibilities (such as adding complexity to current duties, introducing new and additional duties, altering the nature of the task, etc.), it follows that additional time and resources will be needed to meet the new demands, expectations, and responsibilities. The amount of additional time and resources required is a function of a number of factors, including: (1) what is being done (the task); (2) how it is being done in terms of efficiency; and (3) capacity (or limitations). Given that what is being done is necessary, that it is being done efficiently, and that maximum capacity is achieved, increasing workload demands will necessitate either decreasing previously required demands or increasing resources and support. In the absence of such strategies, output quality will suffer, mistakes will be made, and the organization will lose its ability to cope with not only current, but new demands.

The workload change argument is straightforward and simply requires objective evidence of workload change such that increased resources and support are necessary to meet the new service demands. An important point here is that the workload changes have been imposed externally, by new judicial decisions, new legislation, and/or new policy initiatives, over which police organizations have no direct control. To illustrate how police workload can be affected by increased service demands, examples of a policy initiative, legislative change, and judicial decision are briefly considered below. There is often an interaction amongst and between these variables that needs to be considered, such as judicial decisions interacting with each other and with policy and legislation, etc. However, it should be noticed that judicial decisions represent a variable that often explains change in the other two variables (Lepard, 2000).

One example of the effect of a policy initiative on police operations is photo line-ups. The Commission of Inquiry regarding the wrongful conviction of Thomas

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\(^9\) The remainder of this section will simply refer to the Supreme Court.
\(^10\) This argument can be generalized to any employee function.
Sophonow was established in Manitoba in 2000 by an Order in Council, appointing Mr. Justice Cory as the Commissioner. Based on his findings, Mr. Justice Cory made a number of recommendations regarding various police practices. For example, the following process with respect to police conducting photo line-ups was recommended:

- One officer compiles 10 “suspect” photos;
- Another officer, not involved in the investigation, presents the photos comprising the line-up sequentially to the witness (i.e., not as a package);
- The presentation must be audio-taped (preferably video taped);
- There should be a form provided for setting out in writing and for signature the comments of both the officer conducting the line-up and the witness, and all comments of each witness must be noted and recorded verbatim and signed by the witness;
- The audio/video tape must be copied by a forensic video unit for court purposes;
- Copies of the audio/video tape must be made available for disclosure rules;
- The audio/video tape must be transcribed to comply with disclosure rules; and
- The presenting officer must review the transcription (while listening to the audio/video tape) and attest to its accuracy.

Previously, a photo line-up would consist of six or more photographs that were assembled by the investigating officer in a set format or package. This same officer would show the photo line-up in a folder format to the individual witnesses. Although the requirement to disclose the actual photo line-up are the same, there was no requirement to use a different or independent presenting officer, video/audio tape the presentations, and make or review transcriptions.

In a study of the Vancouver Police Department’s staffing requirements (2005), a task analysis indicated that, prior to the recommendations arising from the Sophonow Inquiry, conducting a photo line-up would take approximately one police person-hour (not including court time). However, if all the Sophonow recommendations were followed, a photo line-up would take approximately six and one-half police person-hours. And, if required for court, rather than one officer giving evidence, there would be a least three officers required for court (the investigating officer, the second presenting officer assisting with the photo line-up, and the forensic officer who copied the original audio/video tape). A correlative effect is that, in the past, photo line-ups could be conducted at some convenient location in the field, but because of the requirement to involve a second presenting officer and to record the presentation, photo line-ups must now generally be conducted at police headquarters. Additionally, there will be a demand to increase the organization’s administrative ability to record and transcribe the transactions.

In a costing analysis, if an officer earns approximately $38.00 per hour in salary and benefits, without factoring in (a) support services (transcription by a

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secretary), (b) capital overhead (equipment, etc.), (c) additional training, and (d) court costs, the economic effect would be an increased cost of $209.00 for one case ($247.00 - $38.00 = $209.00). If this transaction were multiplied by an average of only six photo line-ups for each operational officer in one year, and there were 250 operational officers in a detachment (e.g., Surrey), the economic effect would be $313,500.00 on wages and benefits alone. In effect, the expected total (social) cost nationally, on one recommendation, would be colossal. And if this scenario were to be repeated on a systematic basis, such that new judicial decisions, legislative changes, and policy initiatives similarly affected police workload, the aggregate economic effect on police operations would be staggering.

An example of the impact of a legislative change is the tracking of warrants. Prior to 1992, on occasion, the police installed electronic tracking devices on the vehicles of suspects of serious criminal offences if they were the subject of police surveillance. These devices, which had no capacity to make audio recordings, helped police track suspect vehicles and locate them if contact was lost during surveillance. Because of the ability to track, such devices were also a public safety feature because they reduced the need to keep visual contact with suspect vehicles driving in a hazardous manner. However, in 1992, the Supreme Court in R. v. Wise decided that the installation of such devices was an unreasonable search pursuant to s. 8 of the Charter.

As a consequence, Parliament amended the Criminal Code to include s. 492.1 (S.C.1993, c. 40, s. 18), which requires a police officer to apply to a justice for a warrant to install, maintain, and remove a tracking device and to monitor such a device for a period not exceeding 60 days. A task analysis would measure the time it took for a police officer to obtain and install a tracking device on a suspect’s vehicle (i.e., prior to Wise) and compare it to the time it now takes for a police officer to perform the same task, but with the additional duties of obtaining a warrant (i.e., post Wise). A conservative estimate was that it takes four or five hours, as an officer now has to (a) draft an information to obtain a search warrant and related documentation, (b) locate a justice who must review the information and be satisfied on reasonable grounds, (c) if necessary, make additions or amendments to supporting documentation, (d) properly record and document the transaction in the investigative file, and (e) subsequently comply with disclosure requirements. The economic effect would be determined similarly to that described above for photo line-ups.

The case of R. v. B. (K.G.),\textsuperscript{12} decided by the Supreme Court in 1993, provides an example of the effect that judicial decisions can have on police operations and costs. In this case, the Supreme Court ruled that for prior statements of witnesses or victims who recant at trial to be admissible, it is generally necessary that the police (among other things) take such statements under oath and that they be videotaped.\textsuperscript{13} Although a mechanism now exists for previously inadmissible statements to be admitted as an exception to the hearsay rule, the effect on police

\textsuperscript{13} Commonly referred to as “KGB Statements”.
procedures is that rather than taking a simple written statement, it must be taken under oath (e.g., by being sworn or affirmed before a commissioner for taking oaths/affidavits, Justice of the Peace) and video-recorded. This again entails additional personnel, record keeping, forensic involvement, transcription, and disclosure. A correlative effect is that again such statements cannot be taken in the field and, in cases such as domestic violence where recanting is common, they become a matter of practice in almost every case. As a result, the economic effect on police operations is significant.\textsuperscript{14} \textsuperscript{15}

In order to assess the validity of the workload change argument, this chapter will identify and analyze evolving service demands (i.e., judicial decisions, legislative changes, and policy initiatives), along with other “new” trends, that affect police operations. Although not exhaustive, the examples provided were selected because they appear to have had some of the most significant economic impacts on police

\textsuperscript{14} In assessing the economic effects of changes in law what is necessary is an objective assessment according to rules that can be understood and repeated. Given that the object of this study is to measure or assess “effect”, it follows that the argument is “causal”. Second, regarding methodology, causal connections are traditionally made by means of strict scientific experiments which require randomized assignments of subjects to experimental and control groups in order to isolate and observe the variables of interest. In contrast, and for obvious practical reasons, the accepted empirical method for testing an economic theory is analytic, where a “natural” experiment or econometric study (vis-à-vis scientific study) is conducted (Posner, 1990, p. 364). Here, an economic model is created to identify possible statistical relationships between predictors and some criterion or criteria of interest. As a result, assessing the economic effects of changes in law (on police operations) requires a quasi-experimental design (e.g., a time series design, which is likely not possible within a criminal law context due to its uniform application across Canada) and, as such, is an analytic problem (Babbie, 1992, p. 352). Although methodological difficulties inhere in such studies, Bogart (2002) argues that the consequences of law can still be measured, making the following three recommendations. First, the types of effects must be operationally defined so as to facilitate measurement, along with their hypothesized relationship to the source. For example, determining when the change occurs on the target variable, how it is measured, and interactive effects amongst and between judicial decisions, laws, and policies. Next, all evidence that supports the relationship between the effect and the source must be identified. And last, all competing explanations for the effects must be explored (i.e., threats to internal validity).

\textsuperscript{15} Other inherent problems include time, expense, obtaining data on relevant variables, and the complexity of economic theory, all of which often deters empirical studies in the field of economics (Posner, 1990, p. 364). Despite these obstacles, the goals of law (e.g., justice) and its effects, which may be intended (e.g., interpreting Charter rights) or unintended (e.g., reducing police capacity), cannot be ignored. As noted by Bogart (2002), unintended consequences can offer dramatic reprieve to instrumentalism, which holds that the law is capable of single-handedly and directly reshaping social forces, notwithstanding social, political, and economic context. Unintended consequences may speak to the disparity between intended effects and actual impact or consequences. This is especially significant when the unintended effects are to some extent at odds with the ends that were initially envisioned by the decision-maker. For example, the computer age was supposed to reduce paper consumption and increase personal leisure time, but it appears to have increased the demand for paper and decreased leisure opportunities by increasing workplace expectations (and stress).

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organizations. It will also be argued that the service demands presented in this chapter lend themselves to further economic analysis such that the effects can be measured and analyzed in terms of “cost”, financial and otherwise (e.g., capacity to deliver services).

There is general agreement across criminal justice professionals, from those engaged in policing to those in the practice of law, that the enactment of the Charter in 1982 has significantly affected the practice of criminal law. This includes the judiciary and academics, as noted by Sharpe\(^\text{16}\), Swinton,\(^\text{17}\) and Roach\(^\text{18}\) (2002), where they state that “the Charter of Rights and Freedoms has had a profound impact in the area of criminal law” (p. 206). The Charter, then, provides a critical starting point (i.e., 1982), as prior to its enactment the criminal law, especially as it related to procedure and evidence, was relatively stable, where judicial activism was not that evident.

It is also important to note that, given the constitutional status of the Charter and the pre-eminent role of the judiciary in its application, it seems reasonable to assume that judicial decisions not only significantly affect police operations, but also significantly effect and interact with government legislation and policies. Consider again the comments of Sharpe, Swinton, and Roach (2002):

> The Charter has unquestionably had a profound impact upon the role of the judiciary. The courts are now empowered to deal with issues that range far beyond what was seen as appropriate to the judicial function before 1982. In the pre-1982 era, to most Canadians the Supreme Court of Canada was a remote institution that had little, if any, real impact upon their lives. Since entrenchment, however, the Supreme Court has been recognized by the Canadian public as a seat of great power and influence. It has become the institution to which citizens may turn for protection of their fundamental rights and freedoms. (p. 2)

Given the discussion above, and using the Charter as the starting point, there were four key steps that occurred in identifying some of the most significant judicial decisions, legislative changes and policy initiatives. Step one might be described as a modified content analysis, where a review of literature in the area of criminal law since 1982 was conducted. More specifically, this step identified those cases most frequently cited in the area of criminal evidence and procedure (cross referenced to legislation and policy), as these cases would have the greatest effect on police operations and criminal investigative practices. 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.

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\(^{16}\) Ontario Court of Appeal.  
\(^{17}\) Ontario Court of Justice.  
\(^{18}\) Faculty of Law, University of Toronto.
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 was to compare the results of the last three steps, identifying those judicial decisions, legislative changes and policy initiatives in which the greatest agreement occurred. For example, with respect to legislation, there was absolute agreement (i.e., concurrence between steps on the level of importance) that the Charter has had the greatest effect on police operations and investigative practice in the history of Canadian policing. In another example, with respect to judicial decisions, there was similar concurrence that judicially prescribed disclosure rules (see R. v. Stinchcombe) have probably had the most profound effect on policing in terms of workload and economic cost.

Judicial Decisions

This section discusses the judicial decisions that have been identified as having the most significant effects on police workload and operations since the Charter was enacted in 1982. Judicial decisions are organized according to the year of the decision, rather than significance, as in many cases this was too difficult to determine in the absence of a more objective economic analysis. In total, eleven cases were selected for their direct impact on police workloads and costs.

Hunter v. Southam Inc., [1984] 2 S.C.R. 145 focuses on search and seizure. In this case, the Supreme Court ruled that warrantless searches are generally deemed unreasonable pursuant to s. 8 of the Charter. The effect has been to cause the police to obtain search warrants in numerous situations where it had traditionally been considered unnecessary.

In R. v. Therens, [1985] 1 S.C.R. 613, which 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) and the significance of such an approach is that it imposes correlative Charter duties (informing of right to counsel, access, etc.) on the police in circumstances that are frequently ill-defined, often causing great confusion. The Therens case was the beginning of a long series of impaired driving cases that has complicated and extended police investigations (even to the extent that police now often avoid them), which is exacerbated by the fact that the judiciary continues to disagree (or perhaps “refine”) the right to counsel in this context. For example, does asking a motorist whether she or he has been drinking, roadside sobriety tests, or the requirement for a roadside screening constitute detentions that trigger Charter rights?

In R. v. Collins, [1987] 1 S.C.R. 265 the Supreme Court adopted a liberal approach to the exclusion of evidence (as a judicial remedy for a Charter breach,

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19 The reason being that the Charter gives the judiciary power to judicially review legislation and essentially rewrite criminal procedure.
pursuant to s. 24). A plain reading of s. 24 would appear that there must be good reasons for excluding evidence so as not to bring the administration of evidence into disrepute. The Court, combined with decisions such as Hunter v. Southam, stopped short of 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”. Recently, although not yet at the Supreme Court, in R. v. Calderone, [2004] O.J. No. 3474, the Ontario Court of Appeal demonstrated a trend to exclude real evidence that would have been admissible under Collins notwithstanding a Charter breach. There are two disconcerting trends in Calderone, one a clear impatience with the police for not understanding all relevant case law, indicating a disposition to “punish” the police, and the other a continued move to a presumptive exclusion rule (which was even further entrenched this year in R. v. Clayton, [2005] O.J. No. 1078 (C.A.)). With the exclusion of evidence an issue in almost every criminal trial, the effect on police to try to avoid even the slightest and most technical Charter breach has been significant.

In R. v. Brydges, [1990] 1 S.C.R. 190, the Supreme Court expanded upon the informational duties on 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. In terms of economic cost on police operations, there are two important issues. First, the Court gave the police only 30 days to “properly discharge their new burden”. This kind of approach puts an enormous strain on police training and communications resources. Second, in the area of impaired driving, since Therens, impaired driving investigations have become more and more complex and often procedurally less certain (as judicial and constitutional clarity regarding the right to counsel during the early stages of an impaired investigation remained unresolved). 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 the data suggesting that the length of impaired driving investigations have increased considerably over the last 30 years (refer to main study’s analysis of selected investigations).

In R. v. Hebert, [1990] 2 S.C.R. 151, 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). It is fair to say that Therens was not entirely clear on the meaning to be ascribed to “active elicitation”, and considerable confusion or disagreement reigned until R. v. Liew, [1999] 3 S.C.R. 227 when the Supreme Court provided further clarification. The effect, however, has been that police must attempt other investigative techniques and there has been a significant restriction of an effective (in terms of reliability, credibility, and economic) police practice.

In R. v. Duarte, [1990] 1 S.C.R. 30, 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, or in the absence of judicial authorization, striking down s. 178.11(2)(a) of the Criminal Code (as it was at the time) as an infringement of s. 8 of the Charter (the right to be secure against unreasonable search and seizure). Other forms of electronic interception or surveillance also came under scrutiny of the Supreme Court (e.g., R. v. Wong, [1990] 3 S.C.R. 36) at the same time. 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 warrant 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 the direct and indirect result of these and similar judicial decisions. As a result, the time required for police to complete investigations and write affidavits to obtain judicial authorizations has increased significantly. Further, even in “one party consents”, police must make application to a judge, not a justice of the peace. Moreover, where supporting affidavits were historically once less than 50 pages, they have now increased to hundreds of pages which recently caused the Supreme Court to complain about the length of such documentation, despite being directly responsible for the complicated demands and expectations it placed upon the police in this context (R. v. Araujo, [2000] 2 S.C.R. 992). The legislative provisions in the Criminal Code relating to various electronic investigative methods are also extremely detailed and complicated (as even a cursory examination reveals). 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 burden on the police, if not also the evidence, required to support electronic interception applications, and along with the subsequent review process for affidavits at trial, has complicated and overburdened the process beyond any truly defensible standard of reasonableness. As mentioned above, “full, frank, and fair disclosure” has now turned applications

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from less than 50 pages into hundreds of pages. Evidence of an informer’s tip by itself 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. In an anecdotal case, one officer spent ten weeks in cross-examination on an affidavit in an intercept case (which is hardly unusual anymore). The economic effect on police operations of judicial decisions in this area is astounding, where conducting intercepts, even in murder cases, are now cost prohibitive. This means that such investigative techniques are not being done even in serious files.

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. Simply put, relying on s. 7 of the Charter (the right to life, liberty, and security of person) the Supreme Court in Stinchcombe decided that the accused in criminal cases 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” (para. 60). 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, if not exponentially. 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 and/or not used, 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. Unfortunately, anecdotal evidence suggests that the judiciary may not understand fully, or discounts, that criminal investigative capacity is being imperilled because the cost (in terms of time and expense) of disclosure is becoming prohibitive, and in some instances, investigations may not be commenced or abandoned, or less “demanding” legal or regulatory avenues are being relied upon (e.g., consumer protection regimes) by police and other agencies to deal with what are truly criminal matters, which inevitably raises questions about the integrity and repute of the criminal justice system. 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, effectively crippling it from conducting other investigations.
As discussed above, in the case of *R. v. B. (K.G.),* [1993] *1 S.C.R. 740*, 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 rule (which is certainly an important development), the effect on police procedures is that rather than taking a simple written statement, it must be taken under oath and video-recorded. As a result, the economic effect on police operations is significant. Additionally, this case portends a disconcerting direction the judiciary is taking, such that all out of court statements by witnesses, victims, or accused persons must be electronically recorded (preferably by video) in order to have any weight in court (and some courts are signaling that audio or video recording will be a requirement to admissibility of a statement, particularly in the case of suspect interviews). This puts a significantly higher demand on police resources, as noted above. 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.

In another case of moving the goal posts without prior warning, the Supreme Court decided 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 house and refuses to come out, regardless of whether there is a warrant for arrest, the police now require a special warrant authorizing entry into the specific dwelling house in question in order to arrest the suspect which reversed almost 400 years of pre-Charter common law that permitted an entry and arrest in such a circumstance. Otherwise, absent exigent circumstances, the arrest will be considered a breach of s. 8 of the Charter (search and seizure) and subsequent evidence will likely be excluded under s. 24. 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 it generally takes three to five hours to even obtain the warrant. A correlative effect is that when resources are not available, unless there is a substantial risk to public safety, police will abandon or not even attempt an arrest. There is also the compounding effect of disclosure requirements under *Stinchcombe.* The economic impact and disincentive this case poses for police operations is significant (and when taken in conjunction with policy initiatives (e.g., domestic disputes) that expect an arrest to be effected (regardless of whether the dispute is over (i.e., no exigent circumstances), the inability of the police to disengage from a residence while awaiting judicial authorization can seriously tax limited resources).

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, apply to police officers committing illegal acts while engaged in undercover operations. The result has been a complex legislative scheme (s. 25.1 of the *Criminal Code*), both cumbersome and inefficient in terms of imposing additional financial and
administrative burdens, where, in the absence of exigent circumstances, before an illegal act may be committed (even a minor one), 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).

If these judicial decisions are pegged along a timeline, one can see how the service demands on police operations are compounding over time.

Figure 29: Timeline: Judicial Decisions (1982 – 2004)

<table>
<thead>
<tr>
<th>Year</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Calderone — Clayton</td>
</tr>
<tr>
<td>2002</td>
<td>Duguay-</td>
</tr>
<tr>
<td>2000</td>
<td>Auraujo-i*</td>
</tr>
<tr>
<td>1998</td>
<td>Campbell</td>
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<tr>
<td>1996</td>
<td>Feeney; *</td>
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<tr>
<td>1994</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>B.(K.G.)</td>
</tr>
<tr>
<td>1990</td>
<td>Brydges; Broyles; Hebert; Duarte; Garofoli; Stinchcombe</td>
</tr>
<tr>
<td>1988</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>Collins</td>
</tr>
<tr>
<td>1984</td>
<td>Hunter; Therens</td>
</tr>
<tr>
<td>1982</td>
<td>[Charter]</td>
</tr>
</tbody>
</table>

There are many other cases that could be provided, but these, to date, have probably had the most significant economic effect on police operations, limiting police capacity to serve the public. It is important that these cases not be considered separately. Rather, the effects are cumulative. For example, consider the net effects of Garofoli and Stinchcombe together in the context of a murder investigation where electronic intercepts are necessary. Moreover, these judicial decisions must be considered along with legislative changes and policy initiatives, where together new burdens are added, compounding the effect and dramatically increasing service demands to the point that investigations and other activities are either being curtailed or abandoned.

It is important to keep in mind that these judicial decisions clearly have value beyond their impact on police services. Without doubt, some changes are of immense benefit to society and long overdue, however, what has often been overlooked, especially by the judiciary, is that many of these changes come at
great cost. And this is the challenge now facing the police and others who are responsible for putting judicial direction into effect.

Legislative Changes

There are a number of legislative changes that have been identified as having the most significant effects on police workload and operations since 1982. Legislative changes are loosely organized according to the year of enactment, rather than significance, as, in many cases, this was too difficult to determine in the absence of a more objective economic analysis. It would be somewhat of an understatement to say that the Charter has had a significant affect on police operations. What gives the Charter its special status is that it is constitutional, giving the judiciary a pre-eminent role in its interpretation and application to the extent that the courts can strike down any law inconsistent with the Charter, “read in” interpretations, and create constitutionally-based procedural, substantive, and evidentiary law, etc. This has had a direct impact on the cost of police operations.

In addition to the Charter, federal laws governing access to information and privacy (1985) create significant service demands on police organizations, which by the nature of their activities are frequently the object of information requests. In addition to placing significant initial and ongoing demands on the police to organize information retention, storage, and retrieval to comply with this legislation, these Acts require a great deal of resources to address access requests and review in detail information released so that it does not compromise an investigation, privacy rights of third parties, compromise public safety, properly protect informants, or contravene domestic or international arrangements regarding the sharing of information provided by other governments or states, etc.

The 1993 Criminal Code laws governing seized property has also increased the cost to policing. These laws are a comprehensive and detailed legislation scheme that requires police to complete a Form 5.2 (Part XXVIII) when property has been seized by warrant or otherwise under any Act of Parliament and report to a justice of the peace. The legislation also requires police to apply for extensions when evidence has been seized in an ongoing investigation, adding to the administrative burden on police operations and resources.

Moreover, most legislative changes in the area of laws governing intercepts and surveillance between 1993-1999 are the result of judicial decisions which have already been discussed. However, the ongoing demand by the courts for increased judicial authorization and oversight of police activities and practices is clearly reflected in several legislative provisions, all of which have resulted in significant demands on the police that come at an incredible expense in terms of cost, time, and ultimately, service to the public.

Section 264 (formerly dealing with watching and besetting) of the Criminal Code was repealed in 1993 and replaced with the new s. 264 (Criminal Harassment) provision. The new section addresses the problem of “stalking” (where women are
generally the victims) and the problem of persons who violate restraining orders, etc. Government reports and public expectations demand that police devote resources to this problem, where individual cases can require extensive investigations. Bill C-27 (proclaimed into force on May 26, 1997) amended this section to strengthen the stalking provisions by making murder committed while stalking a victim a first-degree murder where the murderer intended to instill fear for the victim's safety. This has also led to an increase in the amount of time it takes the police to investigate this type of crime.

One of the more time consuming laws is s. 487.05, 1995, c. 27, s. 1 or requiring a warrant to take bodily substance for DNA analysis. This new law allows police to obtain a warrant from a judge to obtain or seize DNA. The standards for such warrants are very high resulting in a complex document that can take over one week for an officer to prepare. While an important scientific tool for police investigations, the service demands upon police to use this technology in all serious investigations, including re-visiting historical cases, have increased significantly.

Recent legislation, government policy, and case law have created additional requirements on the police for dealing with hazardous vehicle pursuits. In addition to the initial training demand (i.e., that it be provided to all police officers in the province), and the daunting task of having to actually apply this complicated Regulation in an operational context, all such pursuits now must be documented and investigated. For example, due to the Motor Vehicle Act Emergency Vehicle Driving Regulation, B.C. Reg. 133/98, a supervisor must now complete an investigation package that includes radio transmission tapes, maps of pursuit route, statements from everyone involved, and a written review for all vehicle pursuits. As well, there are now annual reporting requirements.

The federal government’s DNA legislative strategy began in 1995 with amendments to the Criminal Code to allow judges to issue warrants to take bodily samples from suspects alleged to have committed criminal offences. As mentioned above, while an important scientific tool to investigate serious crimes, the police resources required to obtain a warrant are quite onerous (e.g., typically up to 20 hours to prepare an information). The DNA Identification Act (S.C. 1998, c. 37, as am. S.C. 2000, c. 10) became law in 2000 and brought new amendments to the Criminal Code. These amendments authorize judges to order offenders convicted of designated criminal offences to provide DNA samples for indexing at the national DNA bank. However, along with the advances in investigative techniques comes associated costs. For example, the London Police Service reports that it typically takes over two hours to complete a DNA Data Bank investigation. This was based on processing 595 in 2001 and resulted in a significant demand on police resources.

An increasingly common police investigation involves impaired driving offences. Parliament expanded the two hour limit for police to take a breath sample to three hours. The benefits to this change are unknown, but it has placed a greater demand on police resources as discussed in the section dealing with judicial decisions. In addition, s. 254(2) provides for the use of “approved screening devices”, otherwise known as “roadside screening devices”. While a new tool for
investigating impaired drivers, it places new service demands on police resources, such as purchase and maintenance of the devices, training, investigative time, as well as expanding the window to provide consultation with counsel.

The *Motor Vehicle Act*, R.S.B.C. 1996, c-318, dealing with administrative driving provisions has also increased the costs of policing. This section of the Motor Vehicle Act requires a police officer to serve an administrative driving prohibition on impaired drivers. While potentially an effective tool to deter drinking drivers, it creates another service demand on police (e.g., investigation, service of documents, record keeping, etc.) investigating impaired driving under the *Criminal Code*. Elsewhere in this study, the time demands are analyzed, where it appears that impaired driving investigations have increased from 2 hours to 5-8 hours.

Finally, the investigation and administrative demands on police resources under the Youth Criminal Justice Act (S.C. 2002, c. 13) are also costly and onerous, especially as it pertains to the additional training that police must undertake to comply with all of the regulations in investigating young persons between 12 and 18 years old.

If these legislative changes are pegged along a timeline, one can see how the service demands on police operations are compounding over time. 

*Figure 30: Timeline: Legislative Changes (1982 – 2004)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>2004</td>
<td>Sex Offender Registry</td>
</tr>
<tr>
<td>2002</td>
<td>Youth Criminal Justice Act</td>
</tr>
<tr>
<td>2000</td>
<td>DNA Identification Act; Proceeds of Crime</td>
</tr>
<tr>
<td>1998</td>
<td>Phone Recorder Warrants; 3 Hr Breath Rule; Road Screening Devices; Emergency Vehicle Regulations (MV Act)</td>
</tr>
<tr>
<td>1996</td>
<td>Video Surveillance Warrants; Admin. Driving Prohibitions (MV Act)</td>
</tr>
<tr>
<td>1994</td>
<td>DNA Warrants</td>
</tr>
<tr>
<td>1992</td>
<td>Seized Property Rules; One Party Intercepts; Tracking Warrants; Stalking/Harassment</td>
</tr>
<tr>
<td>1990</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>Information &amp; Privacy Laws</td>
</tr>
<tr>
<td>1982</td>
<td>Charter</td>
</tr>
</tbody>
</table>

*Legislative and Technology Changes* 63
There are many other legislative examples, such as the *Sex Offender Information Registration Act, S.C. 2004, c. 10; Firearms Act, S.C. 1995, c. 39* that could have also been included in this review, but, to date, the aforementioned legislations have probably had the most significant economic effect on police operations, especially in British Columbia. While all of these laws are important in their own right, they have had the latent effect of limiting police capacity to serve the public. In reaching this conclusion, it is important that these laws not be considered separately. Instead, the effects are cumulative. Moreover, these laws must be considered along with judicial decisions and policy initiatives, where together new burdens are added, compounding the effect and dramatically increasing service demands to the point that investigations and other activities are either being curtailed or abandoned.

A particularly disturbing feature of the above legislative provisions is the length, detail, and complexity of their content. While this may, in part, be a response to judicial and constitutional demands, and the nature of the subject matter, in addition to the economic impact, serious consideration must be given to the ability of the average police officer to effectively understand, apply, and operationalize such complicated legislative instrumentation. Such concerns are only amplified when courts are often unable to agree on the application of even the most basic of principles that are to be used by the police when trying to resolve operational issues that are frequently mired in legislative and constitutional opacity.

**Policy Initiatives**

In addition to judicial decisions and legislative changes, there have been a number of policy initiatives that have been identified as having significant effects on police workload and operations since 1982. The government mandated policy of violence against women in relationships (1986) requires that police conduct comprehensive investigations into every allegation of domestic violence, regardless of the victim’s wishes, and to arrest and recommend charges to Crown where grounds exist. Because such investigations occur frequently and require an immediate response, this policy has had a significant effect on police workloads, particularly in relation to correlative investigative duties (e.g., firearms seizures and revocation measures). As a result of judicial decisions, legislative changes, and this policy, in the last 20 years or so investigative time has increased from less than two person hours to six to eight hours.

Violent Crime Linkage Analysis System (ViCLAS) is a national computer system that is maintained by the RCMP as part of their behavioural sciences unit. Its purpose is to provide a method for police investigators to link designated violent offences to suspects. For each designated offence investigated, the primary investigator must complete a 34-page booklet consisting of 168 questions. According to the London (Ontario) Police Department, the booklet takes approximately 45 minutes to two hours to complete, depending on case complexity. In 2003, for example, the Vancouver Police Department reported that they completed 854 booklets. On average, each officer in a police agency will complete one booklet each year, so it is easy to calculate the economic effect (e.g., 1.375 average hrs. x 250 officers = 344
hrs x $38.00 (wages & benefits only) = $13,062.50. While ViCLAS has its clear benefits, it does come with an increase in cost for the police.

Historically, when police investigators were attempting to identify a suspect in a criminal case, and a photograph was not available of the suspect on any police data base, police could contact the provincial Motor Vehicle Branch. If the suspect had a driver’s license, the Branch would forward a copy of his or her photograph to the investigator. Now, because of privacy concerns, the Branch now requires a search warrant, which implicates the investigative and administrative requirements outlined above as a result of judicial decisions and legislative changes, thus increasing the amount of time and cost to get a photograph of a suspect.

Another policy that increases investigation time and costs is Canadian Radio-Television & Telecommunications Commission policy of denying Telus the ability to provide subscriber information for non-published telephone numbers to police. What could previously be accomplished in a few minutes with a telephone call or reference to a “criss-cross” publication now requires a search warrant to simply confirm an association between a suspect and a residence and to conduct basic inquiries.

If these policies are pegged along a timeline, one can see how the service demands on police operations are compounding over time.

**Figure 31: Timeline: Policy Initiatives (1982 – 2004)**

<table>
<thead>
<tr>
<th>2004:</th>
<th>2002:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CRTTC Subscriber Information Warrants; Sophonow Inquiry</td>
</tr>
<tr>
<td>2000:</td>
<td>Driver’s License Picture Warrants</td>
</tr>
<tr>
<td>1998:</td>
<td></td>
</tr>
<tr>
<td>1996:</td>
<td></td>
</tr>
<tr>
<td>1994:</td>
<td>ViCLAS</td>
</tr>
<tr>
<td>1990:</td>
<td></td>
</tr>
<tr>
<td>1988:</td>
<td></td>
</tr>
<tr>
<td>1986:</td>
<td>Violence against women</td>
</tr>
<tr>
<td>1984:</td>
<td></td>
</tr>
<tr>
<td>1982:</td>
<td>[Charter]</td>
</tr>
</tbody>
</table>

There are many other polices that could have been included in this review, such as the non-provision of hydro user information unless supported by a warrant, but the
aforementioned policies have probably had the most significant economic effect on police operations to date. As stated above, taken together with judicial decisions and legislative changes, the time and costs associated with delivering police services today is more than in the past.

Future Trends Affecting Police Workload

There are also a large number of future trends that have been identified as important and likely to have significant economic effects on police operations. Future trends are classified as legal issues, social issues, technology and science issues, and general issues.

In terms of legal issues that will likely increase the time and cost associated with delivering police services, the judiciary is requiring Canadian police to apply the Charter in foreign jurisdictions when they are gathering evidence through the assistance of local law enforcement authorities, such as when the Canadian police interview a Canadian suspect in another country. Moreover, police agencies may soon be liable for costs awards because of disclosure problems or where evidence indicates charges should not have been laid.

There is also the trend of increasing civil cases by the public against police for negligent investigations and by internal employees against police agencies for poor internal investigations. And, civil liability for investigative practices is a new trend that goes beyond the traditional claims for tort, such as unlawful arrest or confinement. Even improper statements to the media have resulted in damage awards. Another trend is developing as a result of three judicial decisions in British Columbia in which there is currently great confusion concerning whether police have the common law authority to fingerprint arrested persons prior to an information (criminal charge) being sworn. If not, there will be a significant demand on police resources to hold arrested persons until an information is sworn, or alternatively, release the person and assign a subsequent date for appearance at the police station to be fingerprinted, which would be unnecessary if done at the time, and if the accused does not appear, the time and expense of attempting to obtain warrant will have to be incurred. As well, there is a substantial likelihood that the fingerprints of many accused persons will now never be obtained making it more difficult to prove convictions in relation to offences, including impaired driving.

The purpose of the Sex Offender Information Registration Act, S.C. 2004, c-10 is to help police investigate sex crimes by requiring the registration of designated information relating to sex offenders. However, rather than being automatic for sex convictions, the prosecution must make application to a judge for a registration order. The offender must report to a “registration centre” within the jurisdiction in which he (or she) lives, which will likely be the police. This will increase service demands on police agencies, as they will be required to record and update information about sex offenders residing in their jurisdiction and take any enforcement action required to ensure compliance by the offender. The demand on
the police to provide Crown Counsel with information in support of the registration of an offender is also proving enormous, and, in British Columbia, it is necessary for the police to conduct detailed file reviews (often historic), and to produce lengthy affidavits (in relation to hundreds of offenders each year) to support such applications.

In addition to sex offenders, organized crime and outlaw motorcycle gangs place high demands on police resources. The investigation of organized crime and outlaw motorcycle gangs, who are frequently involved in violence, economic, and international crime, requires special resources and is especially difficult due to judicial rulings on communications intercepts, surveillance, disclosure rules, etc. Most police departments do not have the capacity to conduct these kinds of investigations, which are left to the federal RCMP, large regional police services, and integrated task forces. Another related issue is the ability to conduct “mega trials” which is moving well beyond the justice system’s capacity to handle.

Partially related to organized crime, the province of British Columbia is considering provincial legislation that would allow government lawyers to civilly recover or obtain forfeiture of proceeds of crime. This will add a new service demand on police resources.

There has also been a concerted effort by defence to force police to disclose informant identities. To date, the Supreme Court has resisted (Leipert), but rulings that allow sealed affidavits or informations to be opened, etc., represent a dangerous and slippery slope. If police cannot rely on informant identities being protected, the impact on policing would be enormous. In Campbell and Shirose, the Supreme Court recognized the ability of police to obtain legal advice, which is “privileged”, but at the same reduced the practical ability of the police to prevent disclosure of that advice to defence if the advice was relied upon. Additionally, in the case of O.N.E., the Supreme Court has made it almost impossible for police to prevent the disclosure of sensitive techniques (e.g., undercover scenarios and identities of undercover police officers). Disclosure of such information is of particular value to criminals and organized crime and not only limits the effectiveness of the police to investigate, but also jeopardizes police, and by extension, public safety.

There are also a number of social and health issues that will likely impact the cost of policing in the future. For example, police are now at a greater risk than before of contracting a communicable diseases, such as HIV or hepatitis. Police deal with people who are carriers and evidence that is contaminated. Moreover, there is no standard legislative scheme to protect police who may be infected (e.g., disclosure by infected persons). This places new demands on police resources in both training and equipment, but also places officers under mental stress. In those limited instances where legislation has been enacted to obtain bodily samples in other jurisdictions, a court order based on a number of fairly rigorous requirements must still be met.
One of the leading issues likely to continue to challenge police is the growing drug problem in British Columbia and Canada from marijuana grow operations and “meth” labs. The proliferation of marijuana grow operations, which are overwhelmingly controlled by organized crime, has outstripped the capacity of the police to respond. Plecas (2005) reports that complete investigations of marijuana grow operations has plummeted from 91% in 1997 to 52% in 2003. Reporter Chad Skelton of The Vancouver Sun quotes Plecas’ warning, “I think we have a criminal justice system that is very much on the brink of imploding” (2005, p. A-1). Notably, judicial response to marijuana grow operations is nothing short of irrational in British Columbia. Finally, abusers of hard chemical drugs, such as “meth”, experience violent episodes and personality altering behaviour, which now is another social problem for police to handle.

Moreover, because of the dismantling of support structures for the mentally ill, more and more persons with mental health problems are coming to the attention of the police, and media reports often blame police for not having the means or training to deal with this population. Issues include staying with persons for hours while awaiting admission to a psychiatric facility, dealing with self-destructive behaviour or violence, and confronting agitated and violent individuals in circumstances that can escalate to the point of the police having to use lethal force, which, by necessity, results in a cavalcade of investigations, inquiries, and intense examination by a wide variety of interested stakeholders.

Advances in technology and science have contributed to the introduction of new kinds of crimes and new challenges for police. For example, computer and internet investigations, cell cloning, data theft, white collar crime, and identification theft are all new crimes and indicate future trends. These crimes are often very legally complex and technologically sophisticated, requiring specially trained investigators and consultants. As well, these crimes often cross jurisdictional boundaries and transnational borders. Again, these crimes are testing the capacity of police, who either curtail such investigations or abandon them.

Moreover, telephones, computers, and the internet have fundamentally transformed society. For example, technology in the telephone industry has changed significantly over the last few years. With the deregulation of the industry, new companies and cell phone companies have flourished, which presents security problems when working with police. In the past, police could access one circuit and intercept telecommunications. Now, more than one circuit may be necessary to handle the call. In the past, criminals were limited to hard-line telephones, but now they use cell phones, pagers, palm pilots, digital text messages, and satellite phones which make interception much more difficult. As a result, investigations are that much more complex and expensive. This trend is similar for computer and internet technology which have opened up new frontiers for criminal activity and are severely taxing the capacity of police to respond. While legislative measures under the Criminal Code have been enacted to assist with such investigations, they are not necessarily having the positive impact expected. For example, the authority to issue “production orders” was given, for example, for cell phone records, but as a condition of complying with such demands, companies are demanding...
reimbursement for the cost of recovering data which can run into tens of thousands of dollars, and it may still take weeks to obtain the information.

In addition, advances in science, such as DNA, DNA data banks, and ViCLAS, have placed many historical crimes, such as murder and sexual assault, within reach of a successful investigation. The public are aware of these advances and now expect police to investigate serious historical crimes, which is justified ethically and legally, but these investigations again place new demands on police resources.

There have also been significant advances in the areas of DNA, odontology, entomology, forensic computer science, and behavioural profiling, for example, which are effective tools for police, but also create additional demands for equipment and training. The demands on police resources will only continue to grow, and police are often left to desperately try and keep pace with crime trends and the criminal’s use of science and technology to commit criminal offences.

As noted, police are desperately trying to keep pace with crime trends and the criminal use of technology. Even “small time” street criminals are using digital text messages which are extremely difficult to intercept. Technology is expensive, not just in capital costs, but in operating costs for training and the inevitable upgrades. For example, while there is substantial promise for increased police effectiveness through the use of the new integrated CAD, MDT, and RMS systems (e.g., PRIME), along with crime mapping tools (e.g., geographic profiling), these advances also place additional financial burdens on police.

In trying to keep pace with crime trends, technology, science, and sophisticated crime, police are beginning to use specialized consultants much more frequently, but at greater financial costs. As well, police organizations are beginning to recruit civilian members who have special skills, such as crime analysts and forensic accountants who meet police needs. All these initiatives place increasing economic demands on police organizations, not only in terms of recruitment, retention, and compensation, but also in maintaining educational and technological skills and equipment in specialized areas.

These trends are developed in a culture in which police are under increased pressure to “do things right” from the media, the public, politicians, judiciary, and civilian oversight bodies. Increasingly, the general public are being encouraged to make legitimate complaints against police and public complaints commissioners are the new trend, all of which may result in an increased number of reported complaints. At the same time, police codes of conduct and professional standards are more complex than at anytime in history, complainants are more aggressive, and police unions and associations are becoming more activist. Consequently, the area of professional standards is becoming more complex legally, requiring experienced investigators who must now use sophisticated investigational techniques. In addition, defence counsel and others are also overwhelming police organizations in attempts to obtain disclosure of police discipline records as part of criminal, civil, and administrative proceedings. As a result of the foregoing trends, the economic cost to police organizations continues to increase.
Some have argued that the pace of change, sophisticated investigations, complex legal decisions and legislation, technological change, dangers of infectious diseases, increasing public expectations, increasing judicial expectations, policy demands, media scrutiny, and lack of resources and personnel are combining to create stressed out officers in larger numbers than ever before. Indicators of this modern phenomenon are found in “Critical Stress” debriefing teams and counselling sessions, “Employee Assistance Programs”, increased medical leave for mental health reasons, skyrocketing medical costs to police organizations, use of psychologists and psychiatrists, and counsellors, all of which require increased human resources personnel to track and coordinate. All of these interventions and treatment strategies come at a cost to police organizations, in financial terms and in the wellness of the organization.

In effect, all of the issues discussed in this chapter require enhanced and constant training for all police officers. For example, there are ever increasing training demands for changes in applying new case law, legislation, and policies to operational practice. There are also new training demands for changes in new equipment, technology, and science. There are new training demands for emergency response and special weapons teams, anthrax response teams, dangerous chemical teams, chemical laboratory investigations teams, active shooter (spree killer) teams, etc. There are also new training demands for self defence and open-handed techniques, and new demands for additional training in new operational equipment, such as semi-automatic pistols and less lethal force equipment. To meet these demands, police organizations must devote additional personnel and financial resources never before experienced in policing. Notably, it is now not uncommon for police organizations to spend at least one percent of their budget on training and the trend will likely increase significantly.

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
Figure 32: Technology Timeline

Figure 32 presents the technologies in a timeline format which clearly illustrates that the number of technological impacts in the 1970s and 1980s were minimal compared to the 1990s and the first half of the new millennium.

1970s

In the 1970s, the majority of information transmission for police was in paper form, transcribed on manual typewriters. Calls came into the police on rotary telephones and through a teletype network. In the early 1970s, a unified Motorola radio system was introduced where new mobile radios were placed in each car along with portables for several detachments. Toward the end of the 1970s, 150 radio repeaters were installed in order to service urban and rural detachments across the province. However, this still left many areas without radio service. During the expert focus group conducted as part of this project, one member recalled the method of dispatch used during the early 1970s,
“the officer in charge used to put out a toy swan on his porch when there was a call that the member on duty needed to respond to...if we saw the swan we’d go into the house and see what the call was.”

It is obvious from this quote how far police communication and dispatch has come in the past 30 years. By the end of the 1970s, there was complaint taking 24 hours per day, 7 days per week, 27 radio technicians and 130 dispatchers for the province.

In 1972, the Canadian Police Information Centre database (CPIC) went into effect. Over the next three decades, and several upgrades, CPIC continued to service the B.C. R.C.M.P. and provide information about individuals and crimes.

1980s
In the 1980s, a basic emergency dispatch system was introduced to replace the Zenith 50,000 system in major centres. This introductory 911 system was not funded by the R.C.M.P., but helped to make policing more efficient. The Police Information Retrieval System (P.I.R.S.) system was also introduced in the 1980s. P.I.R.S. made it easier to access information on offenders and cases. The Autotel system increased the efficiency of radios in police cars. Police officers in rural settings had access to INMARSAT, satellite telephones that allowed police officers to stay in contact when out of radio range. By 1985, stand alone computers, such as the IBM PC running WP 4.2, were established in larger detachments. Pagers were also becoming more commonplace. All of these advancements translated into an increase in telecom resources by approximately 10%.

Early 1990s
The past two decades have seen a multitude of technological advancements. By 1990, computerized data repositories were proliferating. An integrated system known as Microstat was introduced which allowed status and CPIC queries in one computer. P.I.R.S. and C.P.I.C. were still in the process of being rolled out. The R.C.M.P. Office Support System (R.O.S.S.) started in the early 1990s and made detachment administration more efficient. Police communication system advancements included MT1000 synthesized radios, DPC 550 analog cellular telephones, and PBX telephone systems in the detachments. The PBX system was digital and allowed for voicemail. Interestingly, dispatchers were still handwriting dispatch records in most centres in the early 1990s. The radio system expanded with more repeater sites during this time.

Mid-1990s
By 1995, the R.C.M.P. in British Columbia began to see significant changes. The old dispatch system was gone and dispatch was completely computerized. An enhanced 911 system was operational in large urban centres. The Computer Integrated Information Dispatch System (C.I.I.D.S.) was rolled out in the mid 1990s. The C.I.I.D.S. system integrated C.P.I.C., P.I.R.S., CAD, status keeping, and complaint taking into one system. Mobile data terminals were just being
introduced in the Lower Mainland, beginning with the Vancouver Police Department and quickly spreading to other detachments, such as Surrey and Richmond. In-car video systems were also introduced.

Data repositories and systems also continued to evolve. The P.I.R.S. and C.P.I.C. roll out was almost complete. R.O.S.S. was in the field and became a centrally managed system-wide tool for administration. A computer booking system for the jails was also introduced in the mid 1990s. The Violent Crime Linkage Analysis Software (ViCLAS) was introduced in 1997. The mid-1990s also saw desktop computers in most detachments, albeit most were not networked. Some members began to carry cellular phones and use email, however, a system-wide email service was not yet introduced. Special operations and Emergency Response Team radio transmissions became encrypted at this time. In order to support these technological advancements, staffing expanded. There were 7-8 computer technicians now in the field to support 35 servers. The number of radio technicians increased by 2 and the number of repeaters increased to 180-190.

1999-2000
During 1999 to 2000, police technologies continued to progress at a rapid pace. The computer models were switched to a de-centralized distributed model. Several computing entities were aggregated to run a single computational task so that they appeared as a single, centralized system without needing one centralized mainframe. For example, forms and manuals were converted to electronic format, however, these forms were not held in a central location. Laptops with dial-up email and mobile workstations were becoming more common. The mobile workstations had ROADS, CDPD (data over radio), and carried huge capital costs for the R.C.M.P. The number of members with cell phones continued to increase to 600-700 and MSAT satellite phone became widely available for members in remote detachments. The C.I.I.D.S. system added a mapping component called OCC Streetmap.

Once again, staffing needed to adapt to support these technological advancements. A designated system coordinator for C.I.I.D.S. was allocated to each dispatch centre. The number of computer technicians increased to approximately 30 in B.C. and individual detachments were expected to maintain and evergreen their own computers, which carried a heavy financial cost.

2001
There were several technologies introduced in 2001 that improved police communication. The @rcmp-grc.gc.ca email system was introduced and increased the ability of members to communicate with one another. At around the same time, the old telephone systems became obsolete. Electronic forms became available on a system called FORMFLOW. Communication was also improved in the Lower Mainland through the expansion of E-COM dispatching. Internet access was introduced at detachments with R.O.S.S. The number of cell phones used by members also doubled in 2001.
Other technological changes also occurred in 2001. The number of computers in the field doubled. Old computers and servers were evergreened with new hardware and software. The R.O.S.S. system expanded to smaller detachments. The Total Expenditures and Asset Management (TEAM) system introduced centralized accounting to the BC R.C.M.P. Over 150 ROADS terminals were also added. Responding to the security threat of viruses and computer hackers, encryption of police data began in 2001.

Of course, staffing changes mirrored these advancements. Computer technicians expanded to approximately 30 in the province. Remote computer repair became possible and staffing increases occurred in communication centres to cope with the increase in call volume.

2003
In 2003, a number of significant technological changes effected the timing and costing of police services in British Columbia. One of the most influential was the introduction of electronic disclosures. Electronic disclosures allow Reports To Crown Counsel to be submitted in .PDF (Adobe Acrobat) format. These reports often necessitate a computer programmer to write the programs and format the report. Major Case Management (MCM) software was also introduced in 2003. As the complexity of police investigations increase, particularly in reference to the amount of information that needed to be disclosed to Crown Counsel in the Report to Crown, the difficulty encountered by the police in managing the volumes of information involved in investigations also increased (RCMP 1999). Major Case Management was introduced to large cases, such as the Air India investigation, the Pickton case, and Project Hope, in order to help organize mega-cases. The lack of standardized MCM software was impeding major crime sections and, therefore, MCM software was introduced in B.C. in 2003.21

The number of peripherals used by the B.C. R.C.M.P. also increased in 2003. Digital cameras, digital voice recorders, PDAs, and Blackberries were introduced to increase the efficiency of policing. The number of cell phones being used by members doubled to 2004. Voice recording on CD-ROM was introduced through EVENTIDE software and voice over IP technology also began to proliferate at this time. In order to maintain these technologies, the number of computer technicians employed by the B.C. R.C.M.P. increased to 36.

Many detachments and dispatch centres were amalgamated in 2002 through 2004. There are now 8 R.C.M.P. dispatch centres and E-COM in the lower mainland. This amalgamation influenced the timing and costing of police services through travel time and sharing of resources (i.e. administration and management).

In 2003, the Solicitor General, Rich Coleman, introduced legislation that the PRIME system (Police Records Information Management Environment) was to be utilized

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by all police forces in British Columbia. PRIME allows information to be shared between all police forces in the province. British Columbia is the first province to introduce a province-wide online police records management system. Introduction of the PRIME system also coincided with the introduction of a secure computer network in order to share information online. As evidenced by this cursory review, while the capacity for technological changes to increase the efficiency of police work is clear, these advances has increased the costs of policing and, in some cases, increased police workloads.
Chapter 6: Specific Crimes and Associated Timing

As discussed in the methodology chapter, the flow charts for this project were constructed during the Expert Focus Groups (EFG) through contributions from the senior members in attendance. These flow charts represent the entire catalogue of steps that may be taken during an investigation of the five offence types in question. Understandably, these steps are highly dependent on several case-specific factors, such as number of victims, presence of suspects, and lack of evidence to proceed to 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 can also help indicate either the addition or subtraction of steps at a particular point in time.

The flow charts were presented to members attending the Regional Focus Groups (RFGs) in order to validate the flow of the steps and discuss the timing associated with the process. While exact timing of each particular step was difficult given the multi-faceted nature of offences, offenders, and detachments, a range was obtained. These timing areas may be within the offence itself or may be attributed to the location and makeup of the detachment and member strength. For example, rural areas may experience significantly longer response times due to larger service areas and longer travel times to and from a call.

To validate the RFG timing, available data from file reviews and log book analysis of the specific offences is presented in brackets beside RFG estimates. It should be noted that these times indicate total cumulative time and not necessarily time elapsed in a single successive activity.
Figure 32: Break and Enter Flowcharts
Break and Enter: 20 years ago...

- Call for Service
- Discovery

DISPATCH

In Progress
Not In Progress

Dispatch FDS
Dispatch Members
Take description of suspects
Dispatch Members

ON SCENE

- Arrest
- Suspect Present
- No Suspect Present

Read Charter Rights
Seize Evidence
Transport Process
Search Suspect
Warrants (if app)

Scene Investigation

Point of Entry
Victim Interview
Extent of Damage
List of Property
Neighbour/Witness Interview
Determine if Ident is needed
Seize Evidence (ISRE Databank)

DETACHMENT

- Supervisor Review
- Evidence Entered into Exhibits
- Obtain information prints from victims

Without Offender
With Offender

Interview
Release Documents (if apply)
Arrange for Guard (rural)
Access to Lawyer

Report to Crown
Pretrial Interviews

PROCEED TO COURT

Break and Enter 78
Break and Enter: Description of Steps and Associated Timing

**Step 1: Dispatch and Response**

![Diagram of dispatch and response process]

The initiation of a B&E offence investigation follows either a call for service from a victim or witness or the discovery by the police. If the B&E is in progress, members are alerted by the dispatcher and, if available, a description of the suspects is taken. PDS services are also dispatched immediately. If the B&E is not in progress, members are dispatched to the scene, often on a lower priority code.

**Table 1: Break and Enter Step 1**

<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Dispatch – Priority 1</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Dispatch – Priority 3</td>
<td>10 (25)</td>
</tr>
<tr>
<td>Response Time</td>
<td>12 (10)</td>
</tr>
</tbody>
</table>

**Priority 1:** 14 (12)  14 (nd)  14 (nd)  14 (nd)

**Priority 3:** 22 (35)  22 (inc)  22 (nd)  22 (nd)

*nd = no data or insufficient data available
inc = incomplete data for cumulative time

Dispatch and response times vary depending on Priority Code and detachment location. For instance, a Priority 3 Break and Enter that is not in progress would garner an average response time of approximately 20 minutes in a rural setting. However, this could extend to several hours in an urban setting as these calls may be placed at the end of the queue behind calls with a higher priority. Alternatively, a Priority 1 code will most often have members dispatched to the scene within minutes. Unfortunately, the R.C.M.P. records management system does not allow
for an analysis based on priority code to illustrate the differences between priority code and detachment location for the specific offences.

There were no procedural changes throughout the 30-year time period for this set of steps and no significant differences between the three regions of interest.

**Step 2 – On Scene with Suspect Present**

Once on scene with a suspect present, an arrest is often immediate. The suspect is searched, read their Charter rights, and evidence is seized. Following this, warrants are applied for and written up and the suspect is transported back to the detachment.

**Table 2: Break and Enter Step 2**

<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Arrest</td>
<td>10</td>
</tr>
<tr>
<td>Charter</td>
<td>2</td>
</tr>
<tr>
<td>Search Suspect</td>
<td>5</td>
</tr>
<tr>
<td>Seize Evidence</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total Step 2:</strong></td>
<td><strong>24 (nd)</strong></td>
</tr>
</tbody>
</table>

*nd = no data or insufficient data available*
The vast majority of files and log book data made mention of break and enters with no suspect present, therefore, little data was available on differences in timing between cases where a suspect was found on scene and cases where a suspect was not present. In some cases, a search of a suspect may require at least two members for gender reasons and a search of the property might also require more than one officer based on the type of structure that was broken into and the surrounding neighbours and/or businesses.

<table>
<thead>
<tr>
<th>Significant Change</th>
<th>Implementation</th>
<th>Time Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charter of Rights and Freedoms</td>
<td>1982</td>
<td>2</td>
</tr>
</tbody>
</table>

**Step 3: Scene Investigation (no suspect)**

If members are dispatched to a B&E with no suspect present, a scene investigation is initiated to ascertain several facets of the situation, such as the point of entry, extent of damage, and whether SOCCO is needed. During this initial investigation, or prior to it, the legitimacy of the call is determined. If it is determined to be a legitimate call, officers will interview the victim(s) and any neighbours or witnesses that may be present, compile a list of property taken, and seize any evidence that may aid in the investigation.
<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; appearance on scene</td>
<td>30-90 (80)</td>
</tr>
<tr>
<td>Ident/evidence</td>
<td>30-180 (58)</td>
</tr>
<tr>
<td>Neighbour Interview</td>
<td>30 (25)</td>
</tr>
<tr>
<td>Victim Interview</td>
<td>30 (10)</td>
</tr>
<tr>
<td><strong>Total Step 3:</strong></td>
<td>120-330 (173)</td>
</tr>
</tbody>
</table>

nd = no data or insufficient data available  
inc = incomplete data for cumulative time

In assessing the time costs for this step, the only consistent time written down in log books and files was the first appearance on scene which generally involved only initial involvement in the case. As with the log books, other officers involved in specialty services, such as Ident, would not be included in the responding officer’s log, so timing would be missing for that particular task. Additionally, many cases may have been concluded after the first initial appearance if no suspect was identified or no witnesses were present. This may have also affected total times for current investigations. It was suggested by the RFG that there was often more time spent in investigating break and enters in past decades, as current strains on member resources hindered the ability to follow up on offences.

The number of members present at the scene and the number dispatched to the scene was accurately recorded in the logbooks. These numbers seem to be increasing. For example, in 1983, the average number of officers was 1.4 compared to 1.8 in 1993 and 1.9 in 2003. While having more members respond to a break and enter may result in more member hours spent in investigation, this may result in a decrease total investigative step time as there are more members present to interview witnesses while others interview victims or search the premises and collect evidence.

SOCCO was not present 20 years ago, however, the duties associated with this specialty unit were completed by the GD or GIS members. Ordering and waiting for SOCCO in current cases may increase time on scene for the primary investigator, however, several experts indicated that SOCCO is typically not called to current break and enter cases.

Another step that commands more member time is the determination of legitimate calls. As house and commercial building alarms have become commonplace in recent years, the prevalence of false alarms and required police response places increasing burdens on the system. The average time to determine and complete a false alarm is estimated to be approximately 20 minutes.
For those cases where there is no suspect, the follow up investigation involves entering the list of missing property on PIRS, entering any evidence that was seized into Exhibits, checking local pawn sheets, and preparing a report to the Burglary Section. If applicable, elimination prints are obtained from the victims in order to compare against any other prints obtained at the scene. The supervisor must review this process.

According to the focus group participants, elimination prints and entering property on PIRS are not completed in every investigation. In addition, it was noted that pawn sheets were only checked in urban centres. Entering evidence into exhibits was generally felt to take approximately 30 minutes with an additional 30 minutes being taken to write reports and complete other paperwork. These steps have not changed substantially over the past 30 years, however, pawn sheets, reports to the burglary section, and PIRS property entries were not completed in past decades which would decrease the time spent in this particular group of tasks.
Step 5: Offender in Custody

If the officer(s) have a suspect in custody, on returning to the detachment, legal processing is initiated. These steps include granting the offender access to a lawyer, an investigative interview, and release documents if applicable. In rural locations, a guard may also be arranged for the suspect. Before release, the suspect may also have a JJP interview. Members then complete a report of information for the burglary squad.

Table 4: Break and Enter Step 5

<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Lawyer</td>
<td>60 (nd)</td>
</tr>
<tr>
<td>Interview</td>
<td>30-90 (37)</td>
</tr>
<tr>
<td>Release docs</td>
<td>30 (nd)</td>
</tr>
<tr>
<td>JJP</td>
<td>60 (nd)</td>
</tr>
<tr>
<td><strong>Total Step 5:</strong></td>
<td><strong>180-240 (nd)</strong></td>
</tr>
</tbody>
</table>

nd = no data or insufficient data available
inc = incomplete data for cumulative time

The file review and log books were largely insufficient to gain any reliable timing as the majority of cases did not involve suspects and, therefore, did not go through the procedures outlined above. In those instances where suspects were present, timing was either not mentioned or clearly outlined in the files or log books.

There were some changes to the steps at the detachments over the past 30 years. Of particular note is the interview process which is much more time consuming and
influenced heavily by video recording and interview transcription requirements. The JJP bail hearing is a relatively recent development, which adds to the total time necessary at the detachment with the offender. The burglary squad is also a recent development and its presence increases the time spent at the detachment.

**Step 6: Report to Crown**

If charges are laid and the case is proceeding to trial, a Report to Crown must be written regarding any evidence against the accused and detailed information about the offence and the members’ activities during the investigation and interactions with the accused must be included. Prior to court, interviews may also be held with Crown and the victim and witnesses. Testimony may also be required in court against the accused.

**Table 5: Break and Enter Step 6**

<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report to Crown</td>
<td>Current: 180-300 (nd)</td>
</tr>
<tr>
<td></td>
<td>10 Years: 180-300 (nd)</td>
</tr>
<tr>
<td></td>
<td>20 Years: 120 (nd)</td>
</tr>
<tr>
<td></td>
<td>30 Years: 120 (nd)</td>
</tr>
<tr>
<td><strong>Total Step 6:</strong></td>
<td>180-300 (nd)</td>
</tr>
<tr>
<td></td>
<td>180-300 (nd)</td>
</tr>
<tr>
<td></td>
<td>120 (nd)</td>
</tr>
<tr>
<td></td>
<td>120 (nd)</td>
</tr>
</tbody>
</table>

There is a substantial increase in the time taken to produce the RTC for the past two time periods. As mentioned previously, disclosure requirements based upon case law changes in the early 1990s significantly increased the amount of paperwork and administrative requirements on all cases that proceeded to court. Break and enter files were no exception.
### Estimated Total Time for Break and Enter

**Table 6: Break and Enter Estimated Total**

<table>
<thead>
<tr>
<th>Step</th>
<th>Current</th>
<th>10 Years</th>
<th>20 Years</th>
<th>30 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total B&amp;E:</td>
<td>338-668</td>
<td>353-593</td>
<td>334-442</td>
<td>334-424</td>
</tr>
</tbody>
</table>
Figure 26: B&E Total Time
Figure 34: Domestic Assault Flowcharts

**Domestic Assault: 30 years ago...**

- Discovery
- Call for Service
- In-Person Complaint

**Dispatch**

**On Scene**

**Separate Parties**

- On-Scene Interviews
- Photograph Damage
- Collect Evidence
- Call Ministry of Children and Family if children present

**Arrest**

**Detachment**

**Accused**
- Phone Call to Lawyer
- Identify Criminal
- Sobriety Test
- Photograph Injuries
- Immediate Release of File to Crown

**Victim**
- Release: NO Detained
- Review:
  - Photos of Injuries
  - Victim Services
  - KGB Warning

**Proceed to Court**

Send 2 members
Domestic Assault: Current

Discovery
Call for Service
In-Person Complaint

Dispatch

On Scene

Separate Parties

On-Site Interviews
Photograph Damage
Collect Evidence
Background of Violence?

EWS Required?

Interview Witnesses
Arrest

Suspect

Phone Call to Lawyer
Recorded Interview
Ident Criminal
Serve Firearms License

E-301 Form

To Detach

Sober Test

Photograph Injuries
Weapons Access?

Prohibition Notice

Crown Decision to Charge

PROCED TO COURT

Victim Services

Recorded Interview
Notify of Acct & Release & Conditions

Photos of Injuries
KGB Warning
Follow up

Release
NO
Detained

Release Conditions
Protection Order
Enter Info on CPIC
Bail

Monthly Follow up for 6 months

Call Ministry of Children and Family if children present
Domestic Assault: Description of Steps and Associated Timing

Step 1: Dispatch

There are generally three modes by which a domestic assault comes to the attention of police: (1) by a discovery by officers; (2) a call for service to the dispatch centre, often by the victim or a witness; or (3) an in-person complaint, again often by the victim or a witness. The dispatcher has several tasks to initiate, including running PIRS and CPIC checks, firearms checks, and queries of the Protection Order registry. During this time, members are also dispatched to the scene. Once on scene, the dispatcher must check in with the members on scene every five minutes.

Table 7: Domestic Assault Step 1

<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Dispatch</td>
<td>15 (20)</td>
</tr>
<tr>
<td>Response</td>
<td>10 (8)</td>
</tr>
<tr>
<td><strong>Total Step 1</strong></td>
<td><strong>25 (28)</strong></td>
</tr>
</tbody>
</table>

nd = no data or insufficient data available
inc = incomplete data for cumulative time

Currently, as a matter of policy, two members are sent, if available, to a domestic assault call. The data indicates that 1.9 members are being sent validating the two-member assumption presented by the focus groups. Ten years ago, the average number of members sent was 1.25 suggesting that policies have changed regarding how many members respond to a domestic violence call. The average number of members responding was also 1.25 20 years ago.
According to the flow charts, little has changed over the last 10 years, however, 20 years ago, the PIRS, CPIC, firearms checks, and member checks every 5 minutes were absent. This has a direct impact on the Dispatcher’s time, but did not significantly affect the responding member’s time for this step.
Step 2: On Scene

Once on scene, members separate the parties involved. At that point, a determination is made whether EHS is required for either or both of the parties, and whether Victim Services is required. If children are present, the Ministry of Children and Families are contacted. Any weapons, particularly firearms, are seized and the investigation of the offence is initiated once the safety and security of the members and those involved are secured. Interviews are conducted with the offender and victim and details concerning any background of violence or substance abuse is noted. Witnesses, if applicable, are also interviewed and any evidence available is collected. If applicable, the offender is then arrested, read their Charter rights, and transported back to the detachment. If the offender is not arrested, a Form for No Arrest must be completed.
Table 8: Domestic Assault Step 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Current</th>
<th>10 Years</th>
<th>20 Years</th>
<th>30 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate Parties</td>
<td>10 (nd)</td>
<td>5 (nd)</td>
<td>5 (nd)</td>
<td>5 (nd)</td>
</tr>
<tr>
<td>Interviews</td>
<td>15 (20)</td>
<td>15 (14)</td>
<td>10 (nd)</td>
<td>10 (nd)</td>
</tr>
<tr>
<td>Collect Evidence</td>
<td>15 (18)</td>
<td>10 (8)</td>
<td>10 (nd)</td>
<td>10 (nd)</td>
</tr>
<tr>
<td>Arrest</td>
<td>10 (18)</td>
<td>5 (nd)</td>
<td>5 (nd)</td>
<td>5 (nd)</td>
</tr>
<tr>
<td><strong>Total Step 1:</strong></td>
<td><strong>50 (55)</strong></td>
<td><strong>35 (38)</strong></td>
<td><strong>30 (nd)</strong></td>
<td><strong>30 (nd)</strong></td>
</tr>
</tbody>
</table>

*nd = no data or insufficient data available
inc = incomplete data for cumulative time

VAWIR Form ED-306 (for no arrest) was not present 10 years ago and now may take an estimated 20 minutes to complete, if necessary. Victim services was also not present 20 years ago, which does not directly affect member time, but now occupies a great deal of time in the overall investigation of the offence.

| Victim Services | 45 (47) | 30 (30) | N/A    | N/A    |

The scene investigations were far less onerous 20 years ago. For example, firearms seizures, collecting evidence, and photographing damage were rarely done, but now take additional time. The most significant difference in comparing domestic assault cases over the past 30 years is the recognition that arrests were not common 20 - 30 years ago, but are now often mandated, which take additional time on scene for processing and for court proceedings.
Step 3: At Detachment with Accused

The processing of the accused involves adherence to many steps, as well as recording information regarding the case for immediate release to Crown Counsel. The member allows the suspect a phone call to their lawyer after determining the suspect’s identity and completing fingerprinting. Sobriety tests are often conducted, as well as the determination of the suspect’s access to weapons. Any firearms licenses held in the suspect’s name are seized and the suspect is often served with the E-301 form, as well as a prohibition notice. The interview with the suspect is recorded and any injuries are photographed. Following these steps, the member can determine whether to release or detain the suspect. If released, the information concerning the suspect and the event are entered on CPIC and release conditions and/or bail may be outlined, as well as a protection order if applicable.

The involvement of the victim at the detachment generally will include documentation or photographs of any injuries, a recorded interview of the event, and a Victim Services request. The victim is also notified of the accused’s release status and any conditions that have been placed and is given a KGB warning. Follow up with the victim is conducted over several months by the members.
### Table 9: Domestic Assault Step 3

<table>
<thead>
<tr>
<th>Step</th>
<th>Current</th>
<th>10 Years</th>
<th>20 Years</th>
<th>30 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accused</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td>30 (18)</td>
<td>15 (10)</td>
<td>10 (nd)</td>
<td>10 (nd)</td>
</tr>
<tr>
<td>E-301 Form</td>
<td>20 (nd)</td>
<td>20 (nd)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Lawyer</td>
<td>20 (nd)</td>
<td>20 (nd)</td>
<td>10 (nd)</td>
<td>10 (nd)</td>
</tr>
<tr>
<td>Supervisor review E-301</td>
<td>10 (nd)</td>
<td>10 (nd)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Victim</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td>45 (25)</td>
<td>30 (18)</td>
<td>20 (nd)</td>
<td>10 (nd)</td>
</tr>
<tr>
<td>Release</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conditions</td>
<td>15 (nd)</td>
<td>15 (nd)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>PTO</td>
<td>5 (nd)</td>
<td>5 (nd)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>CPIC</td>
<td>5 (nd)</td>
<td>5 (nd)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Total Step 3:</strong></td>
<td><strong>200 (182)</strong></td>
<td><strong>120 (120)</strong></td>
<td><strong>40 (nd)</strong></td>
<td><strong>30 (nd)</strong></td>
</tr>
</tbody>
</table>

*nd = no data or insufficient data available

inc = incomplete data for cumulative time

Again, as arrests were fairly rare, there is limited data on timing beyond 10 years ago. However, the requirements for recording and transcribing interviews have become more stringent for members and now require a verbatim transcription instead of the handwritten note taking that was present 10 or more years ago.

A significant change is the increase in the number of forms that members must now complete, including the E-301 form and prohibition notices. Filling these forms takes a considerable about of time. As mentioned above, victim services was not present 20 years ago and the notification to victim of accused’s release conditions was not required.
Step 4: Report to Crown Counsel

Currently, there is a requirement to have an immediate file submitted to Crown Counsel for domestic offences, necessitating prolonged time for paperwork and administration by the members directly following an arrest. The requirement of immediate disclosure to Crown was not present 20 years ago resulting in the member’s ability to complete the paperwork at a potentially more convenient time. The focus groups estimate that the current RTCC can take up to 2 hours to complete, although it may take significantly longer if the injuries to victims are extensive. Currently, there is also a need for monthly contacts with victims typically in the form of a phone call. These monthly follow ups are required to be done for 6 months and data from the file reviews indicate that these contacts take an average of 45 minutes. However, this may range up to 200 minutes due to difficulties in contacting victims.

Estimated Total Time for Domestic Assault Case:

Table 10: Domestic Assault Estimated Total

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>10 Years</th>
<th>20 Years</th>
<th>30 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Total Time for</td>
<td>Before RTCC: 275 (265)</td>
<td>Before RTCC: 175 (178)</td>
<td>Charges: 120</td>
<td>Charges: 70</td>
</tr>
<tr>
<td>Number of Members</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Total processing time has significantly increased for this type of crime in addition to the overall member time required. Current cases will take two members approximately 475 minutes (~ 8 hours) to complete, whereas historical cases would take one member between 1-2 hours to complete.
Figure 27: Domestic Assault Total Time

Domestic Assault

<table>
<thead>
<tr>
<th>Minutes</th>
<th>30 Years Ago</th>
<th>20 Years Ago</th>
<th>10 Years Ago</th>
<th>Current</th>
<th>Ottawa Current Estimates*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Domestic Assault
Figure 28: DUI Flowcharts

**DUI 30 years ago...**

- Discovery (member generated)
- Call for Service

**ON SCENE**
- Identify Driver
- Observe Symptoms
- Demand for Sample
- Sobriety Tests

- Arrest or Detention or 24-hour suspension

**DETACHMENT**
- Read Charter Rights

- Incapable Blood
  - Blood Taken
  - Refuse
  - 20 minutes of observation
  - Technician
  - Logbook
  - Notice to neck great or penalty
  - Release

- Capable Breath
  - Agree
  - Separate Offence
  - Form C256
  - Release

**PROCEED TO COURT**

- Charge
  - Release
- Report to Crown
  - Release
DUI: Description of Steps and Associated Timing

**Step 1: Dispatch**

Generally, DUI offences are brought to the attention of police via member discoveries, either by Counterattack road checks or direct observation on the road. However, occasionally, a civilian will bring a suspicious driver to the attention of police. Once the driver is identified, dispatch will run a CPIC check and a PIRS check and a member will be dispatched to the scene if not already on scene.

<table>
<thead>
<tr>
<th>Table 11: DUI Step 1</th>
<th><strong>Average Time in minutes</strong> (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step</strong></td>
<td><strong>Current</strong></td>
</tr>
<tr>
<td>Response Time</td>
<td>10 (13)</td>
</tr>
<tr>
<td><strong>Total Step 1:</strong></td>
<td>10 (13)</td>
</tr>
</tbody>
</table>

Rarely are members dispatched to a DUI. More commonly, DUIs are discovered by members during the course of traffic duty or the result of a motor vehicle accident. If dispatched, travel time can vary greatly depending on whether the member is dispatched from an urban or a rural detachment.
**Step 2: On Scene**

At the scene, the officer will go through the process of confirming the identity of the driver (if not already confirmed), observing the driver’s symptoms, and then proceeding with sobriety tests and/or the ASD or RSD. If the driver passes the screening, they are released. However, if the driver fails, the officer makes the determination of whether to give a 24-hour suspension of the driver’s car and license or proceed with a criminal charge. If the driver is arrested on a criminal charge, their Charter rights are read and they are transported back to the detachment.

### Table 12: DUI Step 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes (validation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Identify Driver</td>
<td>2 (nd)</td>
</tr>
<tr>
<td>Observe Symptoms</td>
<td>5 (nd)</td>
</tr>
<tr>
<td>Sobriety Tests</td>
<td>5 (nd)</td>
</tr>
<tr>
<td>ASD/RSD</td>
<td>10 (nd)</td>
</tr>
<tr>
<td><strong>Total Step 2:</strong></td>
<td><strong>22 (20)</strong></td>
</tr>
</tbody>
</table>

ASDs were not present 20 years ago which added an additional 10 minutes to on-scene time for members. Mobile workstations, which came in during the last two
decades, added approximately 10-20 minutes in time required on scene for members to run checks on vehicles and suspects. Previously, these checks were run by dispatchers. Observation time 20 years ago was limited to 15 minutes, but was expanded to 20 minutes approximately 10 years ago. The arrest and demand for breath sample was done on scene 20 years ago rather than at the detachment which again extended the time required for the member to be on scene. Currently, 24-hour roadside suspensions, which were estimated to take approximately 25 minutes from stop to release, are becoming more commonplace as an alternative to following through with an entire DUI charge and subsequent processing required.
Step 3a: Incapable of Breath Sample: Blood Sample Procedures

Incapable: Blood

Medical Certificate for drawing blood

Yes

No

Telewarrant (5-7 forms)

Information to Obtain Search Warrant

Yes

No

Blood Taken

Pass

Release or lay new charges

Blood Taken

Fail

Fail

Cells

Release
Under certain circumstances, the driver of a vehicle may be unable to give a breath sample in order to ascertain intoxication. This often occurs when there is a motor vehicle accident and the driver is in the hospital for treatment. In this instance, the member must obtain a medical certificate for drawing blood to determine blood alcohol content. If a medical practitioner agrees to this, a telewarrant must be obtained prior to drawing blood. If the member cannot find a medical professional who is willing to complete this, an information to obtain a search warrant must be laid in order to obtain the blood sample. Upon testing and determination of blood alcohol content, the suspect may then have charges laid against them or be released following their medical treatment (if applicable). If charges are laid, the suspect is transported to cells when it is medically safe to do so.

<table>
<thead>
<tr>
<th>Table 13: DUI Step 3a</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Time in minutes</strong> <strong>(validation)</strong></td>
</tr>
<tr>
<td><strong>Step</strong></td>
</tr>
<tr>
<td>Blood Sample:</td>
</tr>
</tbody>
</table>

While it is a rare occurrence that the police need to draw a blood sample in hospital, it can take up to 8 hours to secure a telewarrant and have a doctor who is willing to take the blood sample.
Step 3b: Capable of Breath Sample: At Detachment

In most cases, the suspect is capable of providing a breath sample and can either agree or refuse to give one to the technician. If the suspect refuses to give a breath sample, this refusal constitutes a separate criminal offence and charges may be laid. If the suspect agrees to a breath sample, they are provided with access to legal counsel and are then observed for 20 minutes by the member. Following this, the technician is called upon to test the breath sample given. The test consists of two blows that must be 20 minutes apart. A certificate of analysis is drawn up with the results of the breath sample and the suspect may then be charged with a criminal offence if they have failed the test. At this point, the suspect is often released on an Appearance Notice. During the breath analysis by the technician,
the member responsible for the file must initiate the necessary paperwork required for the criminal charge and Report to Crown.

<table>
<thead>
<tr>
<th>Table 14: DUI Step 3b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Lawyer</td>
</tr>
<tr>
<td>20 min observation</td>
</tr>
<tr>
<td>Technician</td>
</tr>
<tr>
<td><strong>Total Step 3b:</strong></td>
</tr>
<tr>
<td><strong>Start to Cells (data):</strong></td>
</tr>
</tbody>
</table>

In previous decades, the time spent at the detachment was more compressed. For instance, 20 years ago, members were able to complete paperwork during detainment as the requirement for 20 minutes of observation and a 2nd blow was not in effect.

**Step 4: Report to Crown**

![Diagram showing the steps from Charge to PROCEED TO COURT](image)

<table>
<thead>
<tr>
<th>Table 15: DUI Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>RTCC:</td>
</tr>
</tbody>
</table>

Due to disclosure and other issues, time for Reports to Crown Counsel have increased dramatically over the past 30 years.
<table>
<thead>
<tr>
<th>Step</th>
<th>Average Time in minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Estimated Total Time (start to release):</td>
<td>300</td>
</tr>
</tbody>
</table>
Figure 29: DUI Total Time

DUI

Minutes

30 Years Ago  20 Years Ago  10 Years Ago  Current  Ottawa Current Estimates*

Minimum
Maximum
Mean
Trafficking

One of the most influential trends in policing, and the timing and costing of police services, is the move towards integrated units. For instance, the trend towards integrated homicide and drug units and the major case management approach has increased the amount of member resources used by about 1/3 in the past 30 years.

As can be seen on the flowcharts (see Figure 38), the number of steps involved with trafficking cases has risen exponentially over the past 30 years and has become a highly organized and detailed activity involving numerous members and committees. The most useful way to discuss trafficking costing and timing is by categorizing cases according to complexity, i.e. mega or minor cases. A ‘mega’ case may be defined as one involving a multi-agency, cross department investigation often spanning years in development. An example of such a mega case would be the 2004 integrated drug unit in Prince George who completed a trafficking file spanning two years and involving the full time participation of 35 members and 10 support staff across three detachments and one police department. A mega case such as this would have been unheard of 20 years ago.

Large cases, or mega cases, were not necessarily absent in previous decades, however, self-report information obtained during the focus groups suggests that as recent as 10 years ago, the manpower involved in a mega case was 1/3 what it is now. Twenty years ago, it was approximately ½ what it is now, and 30 years ago, they used 1/10 of the member power that is now needed to complete a comparable case. The major reasons for these increases in the number of members used are demands of disclosure and developments in technology. Currently, paperwork for a mega case may fill an entire room at a detachment and is submitted to Crown Counsel on a DVD. As an aside, it took one member one year to write the format and programming for the Report to Crown Counsel on this DVD.

As in homicide, there is Major Case Management (MCM) in trafficking which includes a file coordinator and team leader. For the file coordinator, there is a systems software member – MCM systems software – who writes the programs and acts as database administrator. The administration of the electronic portion of the Report to Crown Counsel can take up to one year to complete for the Database Administrator who works full time on one case. While these mega cases are more commonplace now, the vast majority of trafficking cases occupying member’s caseload are often minor in nature and cases of ‘street’ trafficking, rather than cases involving organized crime syndicates.

As shown by the flow charts, there has been a dramatic increase in the number of steps required by members to work through a mega trafficking case. In past decades, without the barriers imposed by the Charter regarding warrants and other investigative tools, identifying and arresting a suspect or suspect was a much more
direct procedure. The number of outside agencies involved with an investigation has also dropped dramatically which has had the secondary effect of minimizing the amount of mandates or policies surrounding investigative procedures, budget approval, and evidence gathering. In particular, as Ottawa now needs to approve all budgets for Ops plans and other initiatives, any delays in budget approval can cause delays in the investigation and increases in member time.

**Minor Street Trafficking – From File Reviews and Log Books**

All three study regions included cases which outlined timing for minor trafficking cases. Data were severely limited in log books and files concerning timing and there were no historical data available which could provide a comparison in time spent for members involved with minor trafficking cases.

For those files that did contain timing, an average of 2.18 members were dispatched to the scene and dispatch time was an average of 25 minutes. The average number of minutes on scene was 313 (approximately 5 hours), however, this is influenced by a large range spanning from 5 minutes to 2310 minutes (38.5 hours) for the sample cases. The median for time on scene was 80 minutes. Historical data did not allow for computation of time spent at the detachment or RTCC processes.
Figure 30: Trafficking Flowcharts

Trafficking 30 years ago...

Choose Target

Intelligence and Evidence Gathering

- All Police Resources
- Wiretap Installed
- Evidence Gathering
- Agents and Informants

Enough for Action

Arrests

Report to Crown
Currently, the initiation of a trafficking case follows a more standardize set of steps than in the past, starting with an Ops meeting to identify a list of targets, most often organized according to crime groups or particular people or locations. This list is then organized according to either priority or opportunity. Once a target is chosen from this list, the Case Management Team is arranged and Team Leaders and File Coordinators are designated. The Team Leader is in charge of putting the plan together, while the File Coordinator begins to compile information for disclosure for the Report to Crown from point zero.

Once the Ops plan has been put together, it is forwarded to District Ops for support, Undercover Ops for review, and to Criminal Ops for budget approval. The Undercover Ops team must review and plan for any wiretaps that are needed and any secret expenditures must be reviewed and approved by ECROPS. If all the groups involved approve the operation and budget, the plan may be initiated. However, if it is not approved by one or all of the departments involved, the Team Leader and those involved must go back to Step 1 to reprioritize and come up with a revised plan and/or budget.

Following approval, evidence and intelligence gathering is initiated. This involves direct liaison with Federal Crown and applications to support wiretaps if applicable. The affidavits for Part 6 must be approved by the courts in order to move forward. If these are not approved, further evidence and intelligence information must be gathered.

In order to install wiretaps following the approval of a Part 6, a detailed Ops plan must be developed which involves all member resources and outlines details concerning special teams for surveillance, undercover operations, the use of agents or informants, and scenario building with all of the teams. Logistics must also be considered, including safe houses and accommodation for informants or suspects. If at any point other individuals become involved, the Ops plan must be modified and the team must go back to the evidence gathering stage in order to modify warrants and wiretap applications as required.

Once wiretaps are installed, team members participate in scenario building in order to generate conversations between suspects. During this ongoing process, warrants are generated as new evidence is collected. Many other agencies are often involved or have interests concerning evidence or suspects that may arise, and must be informed or included in the process. These often include Revenue Canada, Interpol, Canada or US Customs, and IPOC. Once this phase has generated enough evidence for action, the team can begin to develop the Ops plan for rounding up of suspects.

The Ops plan for roundup may include several groups, such as ERT, dog squad, Ident, BC Hydro, SPMD, and the Tech Crime Unit. These groups must be coordinated and involved in the arrest plan for the suspects. Upon the successful
arrest of the suspects, the interview team is assembled for interrogations, arrest warrants are written up, and witness protection is arranged if required. Items are also seized at this time under Proceeds of Crime, and a full de-brief is held upon completion for all members involved.

The Report to Crown, although submitted during the final stages of a trafficking file, is ongoing throughout the entire process, which may last years in some cases.
Figure 31: Trafficking Total Time

Trafficing

Ottawa Current Estimates

Minimum: 90
Maximum: 2520
Mean: 165
Homicide

As with trafficking, gathering timing for homicide cases is difficult given their relative low base rate. Homicide cases may be relatively simple in nature, if a suspect is identified immediately and evidence gathered clearly supports the direction of the investigation. When no suspects are present and evidence is limited, the investigation may span months, years, or go unsolved. However, homicide boasts one of the highest clearance rates among offences in Canada, generally hovering between 80-90%.

As a sufficient sample of homicide cases were absent from the files and log books, it would be inappropriate to present timing ranges to represent all homicides. Rather, the flow charts (see Figure 40) will present the changes in duties and procedures for homicides as a way of demonstrating how timing and steps involved in investigations has changed over the years.

As with trafficking, homicide now uses a Major Case Management (MCM) approach. While many of the duties that are now divided amongst the lead coordinators were always done, more often than not, these tasks were completed by one member occupying several roles. Again, as with all offences, the onerous nature of the Report to Crown Counsel takes up a significant amount of time when it comes to homicide investigations and members must be extremely diligent in the process and recording of their actions in order to avoid the risk of acquittal. With advances in forensics, the available evidence that can be utilized to secure a conviction has increased, but with that comes an increase in specially-trained members and emerging requirements under the Charter for how evidence may be gathered. The changes in case law and legislation have also affected homicide investigations as strict rules concerning warrants, wiretaps, and informants are closely observed and can be extremely time consuming.

As is evident from the flow charts, there is an increase in the specialized nature of each member’s role on a homicide investigation. Where a homicide decades ago may have utilized every member and required them to undertake multiple roles, currently, duties are divided by description whenever possible and includes significantly more members in strictly defined roles. For instance, even for the first appearance at the scene, an enormous complement of members is required to maintain perimeter security, secure the scene, maintain the site log, and act as media liaison. Understandably, these numbers are highly dependant upon member availability and the size of the detachment, but demonstrate how complicated homicide investigations have become.
Figure 40: Homicide Flowcharts
The discovery of a homicide is often brought to the attention of police by a call to dispatch from an outside party or by a direct discovery of the body by members. A member is immediately dispatched to the scene along with a scene supervisor. An incident commander is brought into the Com Centre to oversee the operation and aid the dispatcher. Depending on when information is obtained regarding the victim, witnesses, and the status and location of the offence, PIRS and CPIC checks are run along with a scan of the Firearms Registry and Protection Registry. If applicable, the Coroner is called to attend the scene and members begin setting up a security perimeter.

Upon arrival, the Site Commander takes charge of the scene and organizes several members and duties at the scene. These include supervising one member to run the site log, between 1 and 20 members to secure the scene, 2 members to begin Ident, any GIS members available, the Coroner, the media liaison, and if applicable, the blood spatter technician and Victim Services. Depending on the size of the detachment and available resources, the number of members available to fulfill these roles may be significantly smaller and may take longer to reach the scene, particularly for specialized roles. The GIS members at the scene begin the investigation and utilize the police dog squad if necessary and available. The primary objective of the GIS members is to initiate the Major Case Management system.

The initial investigation requires a substantial input of time from between 1 and 20 members who canvass the neighbourhood to collect any witness evidence or statements. Depending on where the offence occurred, more specialized units, such as the dive team or Air Services, may be called in. As statements are taken, evidence is collected at the scene and entered into exhibits. The member who is in charge of exhibits must attend the autopsy as well. Once the next of kin is notified and the body removed, the Primary Investigator reviews the scene and the follow up investigation begins.

Following the scene investigation, all members involved in the case are debriefed at the detachment. The Major Case Management team then initiates the follow up investigation which starts with a plotting and review of a course of action. There are generally four ‘teams’ that are dedicated to particular tasks in a homicide investigation – the File Coordinator, the Team Commander, the Primary Investigator, and support staff.

The File Coordinator is ultimately responsible for the Report to Crown and must begin compiling and tracking information for disclosure from the start. This may include keeping tracking of any evidence or information supplied by Ident, completing ViCLAS reports, obtaining background information, re-interviewing witnesses, and going through the TIPS system. The File Coordinator must also liaise and report to the Crown throughout this process. The files must be reviewed on an ongoing basis and this review often generates new tasks to be completed and new data to be analyzed.
The Team Commander is responsible for putting together an Ops plan and assembling the investigation team. They must also plan the resources and equipment necessary to carry out the investigation and brief senior members on the Ops plan and any plan of action.

The Primary Investigator is responsible for obtaining evidence and information, often through direct or indirect contact with witnesses. This includes taking witness statements, overseeing polygraph examinations, conducting neighbourhood inquiries, and conducting photo line-ups. In some cases, wiretaps may also be required, in which case the Primary Investigator must apply for warrants, complete a Part 6, assemble the undercover team, and obtain DNA warrants if required. The Primary Investigator is also responsible for the positive identification of a suspect through forensic evidence and may utilize specialists in behavioural sciences to organize the arrest.

Arresting a suspect may involve several team members, such as undercover operators, cell plants, surveillance teams, and ERT. The coordination of these team members begins with an Ops plan for the arrest and may also involve a polygraph test of the suspect once arrested.

Prior to the actual trial, the requirements of members by the Crown are extensive. They must provide the Report to Crown and all disclosure documents, give evidence at preliminary hearings, supervise the suspect or witness and track their movements, and gather pre-trial intelligence. During the trial, in addition to giving oral evidence, members are responsible for explaining DNA evidence and ViCLAS usage if applicable.

This review of five types of crimes highlights the issue of police workloads and costs. In addition to simply the increase in the number of crimes committed, the demands on police, in terms of their procedures and protocols, in addition to the introduction of modern investigation and evidence collecting techniques, have contributed to a significant increase in member’s workloads and a substantial increase in the amount of time that it takes to the police to complete routine elements of their duties as compared to 20 and 30 years ago.
Figure 41: Homicide Total Time

Homicide

Ottawa Current Estimates

Minimum: 2860
Maximum: 12180
Mean: 5460
Chapter 7: Model Building

This chapter presents pilot management models that may be used in police scenario building. While not a complete answer to the issues surrounding changes in police services, these pilot models can be built upon and used by management in the Evidence Based Planning of administrative policy decisions. While time issues and associated costs are an inevitable concomitant of serious crimes, police managers do have some limited alternatives in deciding what to do in financially constrained times. The time changes over the past thirty years presented in the previous chapter can be used to forecast case load changes from a base year to any particular year of interest. For instance, if disclosure contributed to increases in the amount of time needed on DUI offences by 333% over the past thirty years, how would a DUI in 1973 equate to a DUI in 1993, or 2003? It is important to have a tool that gives a quick estimate of likely additional personnel needed or help in identification of crimes that will have to be moved to a computerized or victim form submission response mode.

It is important to note that this chapter only presents the first stage in the pilot model, and once data collection and analysis is more complete, the models will be adapted.

Pilot Time Management Tables

Time management model tables were constructed for the three crimes where timing over the past 30 years was available. For an explanation of the breakdown used to compile the timing for the tables, please refer to the previous chapter. In order to use the tables:

1. Decide what year to use as a base. For example, if you are interested in the time it would take to investigate one of the specific crimes in 1983 at some time prior to or after 1983, then 1983 is your base year.

2. Locate the base year in the column down the left side of the table. Move to the right along the row of figures opposite until you come to the value "1" in the diagonal. That is your starting point.

3. If you want to convert your base year time to time amounts for some year in the future, move along the row to the right of your starting point until you intersect the column headed by your designated future year. The number you encounter is the time equivalent of one crime in your base year. For example, one Break and Enter in 1983 is equivalent to 1.00-1.04 Break and Enters in 1993.

4. If you want to convert your base year crime to the amount of crime for some year in the past, move left of the starting point. For example, one break and enter in 2003 is equivalent to 0.99-0.63 Break and Enters in 1973.
The following equation was used to calculate the rate of time change ($t$):

$$t = \frac{\text{minutes to investigate I crime base year}}{\text{minutes to investigate I crime year of interest}}$$

### Break and Enter

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time start to release (min)</td>
<td>334-424</td>
<td>334-442</td>
<td>353-593</td>
<td>338-668</td>
</tr>
<tr>
<td>1973</td>
<td>1.00</td>
<td>1.00-1.04</td>
<td>1.06-1.40</td>
<td>1.01-1.58</td>
</tr>
<tr>
<td>1983</td>
<td>1.00-0.96</td>
<td>1.00</td>
<td>1.06-1.35</td>
<td>1.01-1.51</td>
</tr>
<tr>
<td>1993</td>
<td>0.95-0.72</td>
<td>0.94-0.75</td>
<td>1.00</td>
<td>0.95-1.13</td>
</tr>
<tr>
<td>2003</td>
<td>0.99-0.63</td>
<td>0.99-0.66</td>
<td>1.04-0.89</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 17: B&E Timing Matrix

### DUI

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time start to release (min)</td>
<td>90</td>
<td>120</td>
<td>180</td>
<td>300</td>
</tr>
<tr>
<td>1973</td>
<td>1.00</td>
<td>1.34</td>
<td>2.00</td>
<td>3.34</td>
</tr>
<tr>
<td>1983</td>
<td>0.75</td>
<td>1.00</td>
<td>1.50</td>
<td>2.50</td>
</tr>
<tr>
<td>1993</td>
<td>0.50</td>
<td>0.67</td>
<td>1.00</td>
<td>1.67</td>
</tr>
<tr>
<td>2003</td>
<td>0.30</td>
<td>0.40</td>
<td>0.60</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 18: DUI Timing Matrix

### DUI Start to Cells (from logs and files)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time start to cells (min)</td>
<td>44</td>
<td>60</td>
<td>60</td>
<td>94</td>
</tr>
<tr>
<td>1973</td>
<td>1.00</td>
<td>1.36</td>
<td>1.36</td>
<td>2.14</td>
</tr>
<tr>
<td>1983</td>
<td>0.73</td>
<td>1.00</td>
<td>1.00</td>
<td>1.57</td>
</tr>
<tr>
<td>1993</td>
<td>0.73</td>
<td>1.00</td>
<td>1.00</td>
<td>1.57</td>
</tr>
<tr>
<td>2003</td>
<td>0.47</td>
<td>0.64</td>
<td>0.64</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 19: DUI to cells Timing Matrix
Domestic Assault

<table>
<thead>
<tr>
<th>Time start to RTCC (min)</th>
<th>1973</th>
<th>1983</th>
<th>1993</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70</td>
<td>120</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>x 2 members</td>
<td>275x2 members</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+ 45 (1mem</td>
<td>+125 (1 member</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RTCC) = 395</td>
<td>RTCC) = 675</td>
</tr>
<tr>
<td>1973</td>
<td>1.00</td>
<td>1.71</td>
<td>5.64</td>
<td>9.64</td>
</tr>
<tr>
<td>1983</td>
<td>0.58</td>
<td>1.00</td>
<td>3.29</td>
<td>5.63</td>
</tr>
<tr>
<td>1993</td>
<td>0.18</td>
<td>0.30</td>
<td>1.00</td>
<td>1.71</td>
</tr>
<tr>
<td>2003</td>
<td>0.10</td>
<td>0.18</td>
<td>0.59</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 20: Domestic Assault Timing Matrix

Modeling Crimes using the Time Management Tables

The tables presented above can be used to model the impact that timing has on specific types of crimes. The following figures use the Statistics Canada Data presented in Chapter 2 of this report. Figure 42 is a display of actual Break and Enter incidents, incidents cleared by charge, and incidents cleared otherwise without any timing factored into the model.

Figure 32: B&E Without Timing
Figure 33 graphs Break and Enter incidents using timing collected from the previous chapter. Actual incidents of Break and Enter in four time periods, using 1977\(^2\) as a base year, were multiplied by the time coefficient presented in Table 17 above. Figure 32 illustrates a similar trend to Figure 33, however, when timing is factored into the model, the increase from 1983 to 1993 is more dramatic and the decrease from 1993 to 2002 is less pronounced.

**Figure 33: B&E Maximum Model**

---

\(^2\) While Statistics Canada data go back to 1966, 1977 is the earliest year data are readily available using the CANSIM and E-STAT databases.
Figure 34 models domestic assault timing from Table 20 with the Statistics Canada data from Chapter 2 using 1983 as a base year. 1983 was chosen as the base year because no data was available from the 1970s. The trend of increasing time over the past 20 years is obvious.

**Figure 34: Assault Model (Domestic Assault Timing)**

These simple models are the basis for more complex activity-based costing or discrete-event simulation models.
Chapter 8: Conclusions and Recommendations

Despite the limitations of the data utilized in this project, there is a strong convergence of several different sources that support the conclusions to be discussed here. First, the various crime trends, police staffing/crime ratios, and the varied different policing needs of the three research cities, all indicate that there has been an insufficient increase in the number of police during the past 30 years. Equally important, limiting the police’s capacity to respond, investigate, and clear major serious crimes is the increasingly disproportionate amount of police resources that are spent on minor and nuisance crimes as these crime types require considerable “paperwork” and daily utilization of very limited police time and costs.

Second, the introduction of new technology has had both positive and negative results. The isolation of police officers in their cars, the additional training required and the resulting decline in certain “proven” traditional police investigative techniques are some of the negatives. On the positive side, the many advantages include, but are not limited to: the ability to quickly identify crime “hot spots”; report shifts in crime trends and resource adjustments; identify criminals and linkages to crime groups, including organized crime; a substantial increase in the immediate sharing of crime scene and criminal identification information across detachments within British Columbia, Canada, and internationally; facilitating valid quantitative measured for assessing police program effectiveness and costs; and providing instant on-scene information to the investigating police officer.

Third, evolving case law, statutory law, and individual criminal justice agencies’ policies all have added an enormous procedural complexity to not only major crimes, but also traffic offences and even minor offences. All of these numerous changes have placed an ever growing resource strain on the time, paperwork, education, and training of police officers. Given the intensity of this trend, it is most likely that training of members will require considerably more and intricate education of police officers. Equally important, police and public confidence in the criminal justice system will be more problematic if more serious, especially violent, criminals cannot be successfully prosecuted because of either recent procedural technicalities or inadequate police resources. The evidence for the overwhelming increase in procedural steps for several types of crimes is convincing and needs to be addressed in terms of providing either legislative modifications/remedies or substantial increases in police resources. Mega-case costs and routine overtime increases also are unpredictable in determining annual police budgets.

Finally, there is insufficient information in Canada concerning the task – cost – impact relationship to specific crime types. Recent RCMP research initiatives have begun to address this trend, however, much more immediate research is required.

The inescapable general conclusion is that policing is at a crossroads in British Columbia. Additional resources, along with their innovative allocation to address the above issues, are needed if public expectations of their police forces are to be met. Contemporary policing operates in a climate where, on the one hand, there is an apparent desire of the public, as expressed by the policies of their elected officials
and the decisions of the judiciary, to have increasing protections against potential police abuses of their liberties and, on the other hand, the complexity of crime, the fear of crime, and the public demand that their police respond with maximum effectiveness to all crimes. In order to address both sets of concerns, police require additional members, training, and education, and an overall increase in resources to allow them to deliver the full range of police services expected by Canadians.
Appendix A: Case Law Chapter References

Legislation


Controlled Drugs and Substances Act, R.S.C. 1996, c. 8.


DNA Identification Act, R.S.C., c. 37., as am. R.S.C. 2000, c. 10.

Identification of Criminals Act, R.S.C. 1985, c. I-1


Motor Vehicle Act Emergency Vehicle Driving Regulation, B.C., Reg. 133/98.


Sex Offender Information Registration Act 2004, c-10 [Bill C-16/not in force].

Judicial Decisions


R. v. Altseimer (1982), 1 C.C.C. (3d) 7 (Ont. C.A.)


**Articles & Texts**


Bernardo Investigation Review (1996), by Mr. Justice Archie Campbell (see Manson & Mullan (2003), cited below).


RCMP On-Line Learning University: Conducting investigations and collecting evidence (n.d.). Available at URL: http://www.rcmp-learning.org/iim/ecdi1050.htm#caselaw


*Appendix A: Case Law and Other References*

*Violent Crime Linkage Analysis System (ViCLAS)* (n.d.). Available at URL: [http://www.rcmp.ca/viclass/viclas_e.htm](http://www.rcmp.ca/viclass/viclas_e.htm)

References to Included Studies


Other References


Appendix B: Daily Time Use Logs

**Daily Time Use Log**

**Instructions**

1. Enter the start time of your shift in the appropriate space in the "Time" column. Enter the time activities commence throughout the day in this column, keeping as detailed records as possible regarding how long each activity took.

2. Use the "Duty" codes to indicate what activity you were doing in a particular time block. Please refer to the Descriptions to ensure you are using the correct code for your particular activity. If an activity is not well-defined within these codes, please use "7" and describe what activity you were doing in that time block.

<table>
<thead>
<tr>
<th>Code</th>
<th>Duty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administrative Duties</td>
<td>meetings, squad/parade briefings, non-investigation communications at beginning of shift, meal &amp; coffee breaks, vehicle servicing (*these are standard assumptions for admin duties used by other major departments)</td>
</tr>
<tr>
<td>2</td>
<td>Report Writing</td>
<td>Includes police reports, reports to Crown, and other investigative reports (give statute name &amp; section # and/or description)</td>
</tr>
<tr>
<td>3</td>
<td>Patrolling-Unassigned</td>
<td>non-call oriented, discretionary patrol, and includes self-initiated counter-attack, traffic enforcement, etc.  (Note that specially funded projects by ICBC or Police Services on special overtime provisions are not part of this study.)</td>
</tr>
<tr>
<td>4</td>
<td>Responding to Call</td>
<td>give statute name &amp; section # and/or description of complaint</td>
</tr>
<tr>
<td>5</td>
<td>Travel Time to Call and/or Returning From Call</td>
<td>Give total travel time and kilometers traveled to and from a call, include travel time escorting witnesses, complainants, and give description of travel</td>
</tr>
<tr>
<td>6</td>
<td>Investigation of Offence/Complaint</td>
<td>Include investigation of self-initiated offences; give statute name &amp; section # and/or description of complaint; include associated activities, but exclude report writing and court-related duties</td>
</tr>
<tr>
<td>7</td>
<td>Attendance at Court</td>
<td>Include meetings with Crown and time spent in court; travel time to and from court, give statute name &amp; section # and/or description</td>
</tr>
<tr>
<td>8</td>
<td>Other Duties</td>
<td>Describe in Description field on log (e.g., assigned Counter Attack, traffic enforcement (but not specially funded projects as noted above), school talks, etc.)</td>
</tr>
</tbody>
</table>

*For questions regarding this form, please contact Nahanni Pollard (604-377-7042)*
<table>
<thead>
<tr>
<th>Code</th>
<th>Duty</th>
<th>Rank:</th>
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<tbody>
<tr>
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<td>Report Writing</td>
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<td>3</td>
<td>Patrolling-Unassigned</td>
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<td>4</td>
<td>Responding to Call</td>
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<td>5</td>
<td>Travel Time to Call and/or</td>
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<tr>
<td></td>
<td>Returning From Call</td>
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<tr>
<td>6</td>
<td>Investigation of Offence/Complaint</td>
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<tr>
<td>7</td>
<td>Attendance at Court</td>
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<tr>
<td>8</td>
<td>Other Duties</td>
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<tr>
<th>Time (write in shift start time at 00:00 block)</th>
<th>Duty (use codes)</th>
<th>Description</th>
<th>File Number (if available)</th>
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Appendix B: Daily Time Use Log
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<th>File Number (if available)</th>
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Contact Information

**Darryl Plecas, PhD**
Professor and Chair  
Department of Criminology and Criminal Justice, UCFV  
University College of the Fraser Valley  
33844 King Road  
Abbotsford, BC  V2S 7M8  
Phone: (604) 854-4553  
E-mail: Darryl.Plecas@ucfv.bc.ca

**Aili Malm, PhD(ABD)**  
Professor and Director  
Centre for Criminal Justice Research  
Department of Criminology and Criminal Justice, UCFV  
University College of the Fraser Valley  
33844 King Road  
Abbotsford, BC  V2S 7M8  
Phone: (604) 504-7441 (4302)  
E-mail: Darryl.Plecas@ucfv.bc.ca