### **MOTOR VEHICLE THEFT IN CANADA - 1996**

by Julie Sauvé

## **Highlights**

- While most property crimes have been decreasing in recent years, motor vehicle theft has been climbing steadily since 1988. Over this period, the motor vehicle theft rate has almost doubled, including a 10% increase in 1996.
- Among a number industrialized countries that participated in a recent international victimization survey, Canada ranked as one of the lowest in terms of the proportion of vehicle owners who experienced a motor vehicle theft in 1995 (18 out of every 1,000).
- British Columbia reported the highest rate of motor vehicle theft in 1996, followed closely by Manitoba. Since 1992, the rate of motor vehicles stolen in Manitoba has almost tripled. Newfoundland reported the lowest rate, while Prince Edward Island was the only province to show a decrease in vehicle theft in 1996.
- Of the nine largest metropolitan areas, Vancouver and Winnipeg reported the highest rates of motor vehicle theft in 1996. Quebec City reported the lowest rate, one-third that of Vancouver.
- Although cars accounted for almost two-thirds of all stolen vehicles in 1996, the fastest-growing types of vehicles targeted by thieves have been minivans and sport-utility vehicles.
- In 1995-96, theft of motor vehicles and their components cost the insurance industry almost \$600 million, an increase of \$100 million from the previous year.
- Due to the nature of this offence, clearance rates by police tend to be lower than for other types of property crimes. In 1996, police identified an accused person in only 12% of vehicle thefts and one-quarter of all stolen vehicles were never recovered.
- Youths aged 12 to 17 accounted for 43% of persons charged with motor vehicle theft in 1996. Although the vast majority of persons charged were male, females were more likely to be youths: while four in ten males charged were youths, six in ten females charged were youths.







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### INTRODUCTION

While most property crimes in Canada have been decreasing in recent years, motor vehicle thefts continue to climb steadily. This growth has caused concern among the general public and has resulted in increased use of anti-theft devices by car owners. The consequences of motor vehicle theft are largely monetary, but may also result in physical harm if the victim is robbed of their vehicle (known as carjacking) or if the theft results in a high-speed pursuit by police. Motor vehicles are usually stolen either for "joy-riding" (usually by youths), for re-sale by organized criminal groups or to commit another crime.

This *Juristat* will present the extent of motor vehicle theft in Canada over the past decade using police-reported data from the Uniform Crime Reporting (UCR) Survey. The prevalence of this crime at the provincial and metropolitan area levels will also be examined. Various sources will be used to look into the nature of this crime, including more detailed incident-based crime statistics from a sample of police agencies as well as other data sources, such as the insurance industry.

#### **Motor Vehicle Theft Defined**

Motor vehicle theft consists of taking a vehicle without the owner's authorization. A motor vehicle is defined as a car, truck, van, bus, recreational vehicle, semi-trailer truck, motorcycle, construction machinery, agricultural machinery or other land-based motorized vehicle such as an all-terrain vehicle, a go-kart, a dune buggy or a snowmobile.

### TRENDS IN MOTOR VEHICLE THEFT

### Number of stolen vehicles has doubled over the last 10 years

In 1996, there were 178,580 motor vehicle thefts reported to the police, meaning that approximately one in every 100 registered vehicles in Canada was stolen that year. This crime is now one of the most frequently perpetrated Criminal Code violations, accounting for one in every 10 reported property crimes.

Motor vehicle theft is one of the few property crimes to have been increasing in recent years. In 1996, police reported 1,043 thefts for every 100,000 registered motor vehicles<sup>1</sup>, compared to 573 in 1988 (Figure 1, Table 1).

## Canada's vehicle theft rate ranks one of the lowest among industrialized countries

The problem of motor vehicle theft is international in scope. Information on the extent of this crime in other countries is available from the recent International Crime Victimization Survey, which was conducted in 1996 to survey a number of industrialized nations regarding their experiences with crime during 1995 (Hung, 1996).

Among the countries surveyed, Canada ranked as one of the lowest in terms of motor vehicle thefts. In 1995, 18 out of every 1,000 Canadian vehicle owners experienced a motor vehicle theft, compared to a rate of 33 per 1,000 owners in England and high rates in Scotland (26), the United States (22) and France (21).

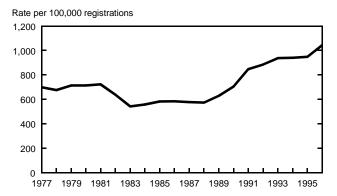
<sup>&</sup>lt;sup>1</sup> See Table 5 for registration counts used in this report.



Figure 1



### Motor vehicle theft rate, Canada, 1977-1996



Source: Uniform Crime Reporting Survey, Canadian Centre for Justice Statistics, Statistics Canada.

Rate of vehicle owners who experienced a motor vehicle theft in 1995					
Country	Rate per 1,000 owners				
England	33				
Scotland	26				
United States	22				
France	21				
Northern Ireland	19				
Canada	18				
Sweden	18				

Source: Jan J.M. Van Djik and Pat Mayhew (1996). Criminal Victimization in the Industrialized World: Key Fiondings of the 1996 International Crime Surveys. Ministry of Justice, The Netherlands.

### British Columbia reported highest rate of motor vehicle theft

With over 35,000 motor vehicle thefts reported in 1996, British Columbia's rate (1,627 per 100,000 registered vehicles) was the highest among the provinces (Table 2, Figure 2). Manitoba, which had reported the highest rate during the previous two years, ranked second. Newfoundland continued to report the lowest rate, followed by Prince Edward Island.

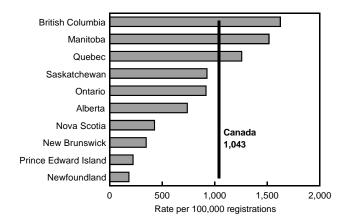
Nine of the ten provinces followed the national trend of an increase in motor vehicle thefts in 1996; only Prince Edward Island reported a decline (-11%) (Table 2).

Manitoba's vehicle theft rate has increased substantially since 1992. From 1992 to 1993 alone, its rate more than doubled. Over the last five years, Manitoba's rate has almost tripled, climbing from 543 vehicles stolen per 100,000 registrations to 1,518 (Table 2).

Figure 2



### Motor vehicle theft by province, 1996



Source: Table 2.

Nova Scotia and Saskatchewan reported the greatest increases in 1996. While Nova Scotia's rate jumped 30% over 1995, Saskatchewan reported an increase of over 20% for the third year in a row.

### Vancouver has highest rate among nine largest metropolitan areas

Of the nine largest census metropolitan areas<sup>2</sup>, only Québec City, Toronto and Edmonton reported rates of motor vehicle theft per 100,000 population<sup>3</sup> lower than the national average (Table 3 and Figure 3). Vancouver and Winnipeg reported the highest. Among Canada's smaller census metropolitan areas, Regina reported the highest rate which was double that of Sudbury, the city with the second highest rate (Figure 4). St. John's and Saint John reported the lowest rates of the smaller cities. Of all census metropolitan areas, Regina reported the highest rate in 1996.

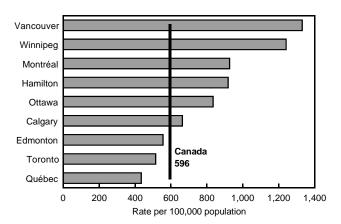
There is a wide variation in rates among cities. For example, the theft rate in Québec City was one-third that of Vancouver. There are many reasons that could explain the differences in rates, such as: the city's location being favourable to the operation of theft rings; the city is facing certain social or economic issues; or, the city's police and community responses to crime. For instance, rates may be high in Vancouver because of to their close proximity to ports that can be used for exporting stolen vehicles, whereas high rates in Winnipeg are mostly due to joyriding by members of youth gangs.

<sup>&</sup>lt;sup>2</sup> A census metropolitan area (CMA) is a large urban core (over 100,000 population) together with adjacent urban and rural areas that have a high degree of economic and social integration.

Rates for census metropolitan areas are calculated per 100,000 residents as counts of motor vehicle registrations are not available at this geographical level.



Motor vehicle theft, Census Metropolitan Areas with populations of 500,000 and over, 1996



Source: Table 3.

Over the last five years, large increases have been reported in Winnipeg (+234%), Regina (+155%), Hamilton (+141%) and London (+99%). In contrast, rates have decreased in St. John's (-40%), Edmonton (-32%), Saint John (-31%), Sudbury (-31%) and Thunder Bay (-25%) (Table 3).

# CHARACTERISTICS OF MOTOR VEHICLE THEFT

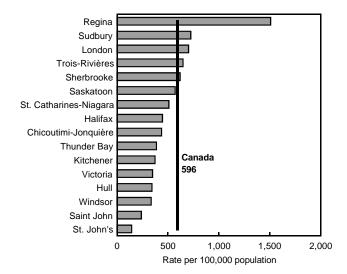
### Sport-utility vehicles are frequent targets of thieves

In 1996, cars accounted for almost two-thirds (64%) of all vehicles stolen; minivans, sport-utility vehicles and trucks accounted for a further 28%, motorcycles for 3%, and all other motor vehicles (e.g. snowmobiles, construction machinery) for the remaining 5%. The fastest-growing types of vehicles for car thieves have been passenger vans and sport-utility vehicles. Thefts of these types of vehicles have increased by 59% over the last five years, compared to an 18% increase in car thefts. To put this increase in perspective, however, the number of passenger vans on Canada's roads has increased 84% over the last five years and the number of sport-utility vehicles has grown 22%.4

The type of vehicle targeted by a thief depends on their motive (Clarke and Harris, 1992; Spencer, 1992). For instance, a thief looking for a joyride will likely be attracted to a high performance vehicle. On the other hand, a thief looking to make a profit on the black market will target a vehicle that can easily be sold in its entirety, has popular accessories, or has expensive or rare parts.

Generally, the types of vehicles with the highest claim frequencies in 1996 were sport-utility vehicles, two-door coupes and passenger vans.<sup>5</sup> The motor vehicles least likely to be stolen were station wagons, 4-door sedans and pick-up trucks.

Motor vehicle theft, census metropolitan areas with populations of 100,000 to 499,999, 1996



Source: Table 3.

#### Theft rings

Studies suggest that, over the past few years, stolen vehicles have developed into an illicit market operated by members of organized rings (Talon, 1996; Tremblay et al., 1992). A ring may be defined as a loosely organized illegal business in which those involved are seeking fast but illegal profits. While some thieves may steal cars for joyriding or to gain a get-away car, ring members are motivated by financial gain.

To be resold, a stolen vehicle must undergo an identity change; having been declared stolen by its owner, it can no longer be driven lawfully. The identity change involves the quick alteration or removal of the Vehicle Identification Number (VIN). The VIN may be altered in a number of ways (Talon, 1996). For example, the VIN may be partially or completely sanded off and replaced with new figures. One current practice among offenders is to obtain the VIN of a vehicle that has been declared a "write-off". Once a vehicle with the same characteristics (e.g. make, year and colour) as the stolen car is found, the VIN of the stolen car is replaced with that of the damaged car.

A car stolen by ring members is usually sold immediately, sometimes to a buyer who may have been identified even before the theft (Talon, 1996). Its parts may be sold to legal businesses such as garages and recycling or scrap yards that buy low-cost used parts. In some cases, entire vehicles may be exported to other parts of Canada, the United States or overseas.

<sup>&</sup>lt;sup>4</sup> Vehicle Information Centre of Canada (VICC) report "How cars measure up, 1995-96." The VICC is an independent organization funded by the Canadian vehicle insurers who, collectively, underwrite almost 100 percent of all the automobile insurance in Canada.

Vehicle Information Centre of Canada.



# Clearance rate for motor vehicle theft is low and few vehicles are recovered

Of all property crimes that came to the attention of police in 1996, 22% were cleared either by a charge being laid or "cleared otherwise". In comparison, only 12% of motor vehicle thefts reported to the authorities were cleared. This is likely due to the fact that a stolen vehicle is often found abandoned by the side of a road without any trace of the thief, or is quickly dismantled, making the vehicle and the accused difficult to track down.

The proportion of stolen cars that are never recovered is a good indicator of the number of vehicles stolen each year by organized theft rings (Talon, 1996; Clarke and Harris, 1992). In 1996, one in four stolen cars (26%) were never found by the authorities. When stolen vehicles are recovered, most are found within 48 hours (Morrison and Kong, 1994).

### Half of motor vehicle thefts take place in parking lots

Fifty-two percent of motor vehicle thefts reported by a sample of 154 police agencies in 1996 took place in parking lots (Revised UCR Survey). Parking lots are the most popular targets of thieves as they present an assembly of desirable vehicles and little chance of being detected (Brantingham and Brantingham, 1994). Other common locations included vehicles parked at the side of roads or highways (18%) or at the owner's residence (18%).

# Vehicle theft cost the Canadian insurance industry \$600 million in 1996

It is estimated that theft of automobiles and their components cost the Canadian insurance industry almost \$600 million in 1996, compared to \$500 million in 1995.8 Costs increased across all regions of Canada and were highest in Québec and British Columbia. These costs are ultimately paid by consumers through higher insurance premiums. In 1996, vehicle theft accounted for 51% of the amount paid by insurers for "comprehensive claims" (i.e. those involving fire, vandalism, theft or natural catastrophes) on 1995 model year vehicles.9

# PERSONS ACCUSED OF MOTOR VEHICLE THEFT

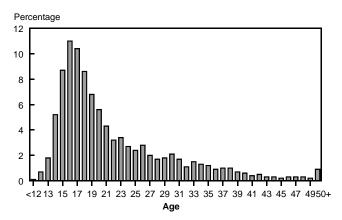
### More than 4 in 10 persons charged are youths

According to police statistics, 43% of those charged with vehicle theft in 1996 were youths aged 12 to 17. More specifically, data from a sample of police departments

- <sup>6</sup> An incident "cleared otherwise" means an accused person was identified by police, but no charge was laid due to various reasons such as: the accused was under 12; the accused was already charged for other crimes; police discretion, etc.
- <sup>7</sup> Insurance Crime Prevention Bureau (Toronto, Ontario), 1997.
- 8 Vehicle Information Centre of Canada.
- <sup>9</sup> Data were only available for 1995 model year vehicles.
- <sup>10</sup> An accused is a person who has been identified as suspect in an incident and against whom a charge either has been laid or could be laid in connection with that incident.

Persons accused of motor vehicle theft

by age, 1996



Source: Non-random sample of 154 police agencies accounting for 47% of the national volume of crime. The data are not nationally representative.

reporting to the Revised UCR survey show that most accused<sup>10</sup> persons were older youths and young adults: almost half were aged 15 to 19 years (Figure 5).

### Females charged are younger than males charged

Of all those charged with motor vehicle theft in 1996, 92% were male. Although females accounted for only 8% of total persons charged, they were much more likely to be youths: 61% of females were aged 12 to 17, compared to 42% of males.

### THEFT FROM MOTOR VEHICLES

### Theft from motor vehicles continues to fall

Theft from motor vehicles includes the theft of objects within a vehicle (e.g. radio, compact disks, clothing), as well as the theft of vehicle parts or accessories (e.g. wheels, hood ornament, steering wheel). In 1996, the rate of thefts from motor vehicles decreased for the fifth consecutive year, 1% below the 1995 rate (Table 1). This downward trend follows an increase from 1989 to 1991 (Figure 6) and mirrors the recent decline seen in most property crimes.

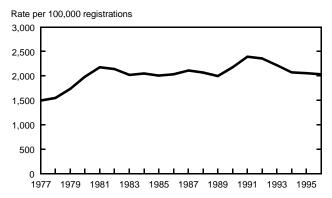
Among the provinces, British Columbia has reported the highest rate of thefts from motor vehicles for the past 10 years. For the second year in a row, New Brunswick reported the lowest rate, one-tenth that of British Columbia (Table 4).

In 1996, car stereos and other electronic devices were most coveted by thieves (23%), followed by personal belongings such as clothing or luggage (14%), and motor vehicle accessories or parts (13%) (Revised UCR Survey). Other items stolen included personal papers (i.e. identification, passports, vehicle papers) (8%), money (7%), machinery and tools (6%), sporting goods (4%), photographic equipment (2%), office-type equipment (2%) and bicycles (2%).



Figure 6





Source: Uniform Crime Reporting Survey, Canadian Centre for Justice Statistics, Statistics Canada.

Compared to motor vehicle theft, theft from vehicles is less frequently reported to police. Results from the International Crime Victimzation Survey indicate that 61% of Canadian victims of "theft from a motor vehicle" reported the incident to police, compared to 88% of victims of "motor vehicle theft" (Hung, 1996). The decision to lodge a complaint depends very much on the significance of the case: of those victims of "theft from a motor vehicle" who did not report to the police, over half stated it was because the incident was not serious enough (57%). Of those who did report to the police, they most frequently did so in order to receive compensation from their insurance company (40%). Other reasons included a feeling of duty to do so (32%), an attempt to recover their property (28%), and a desire to see the offender punished for their crime (14%).<sup>11</sup>

### PREVENTION OF MOTOR VEHICLE THEFT

Over the past few years, the police and the general public have combined their efforts to implement crime prevention programs designed to reduce car theft. As an example, many police departments in Canada have set up anti-theft programs involving visible stickers on the side or rear windows of cars. By placing this sticker in their vehicle, the owner is asking the police to stop the car when it is being driven between midnight and 6:00 a.m. and to check the driver's identification. The reason for this is that the majority of motor vehicle thefts occur in the early morning when most people are not driving their vehicle (Clarke and Harris, 1992).

Another measure taken to reduce motor vehicle theft is the identification of methods to check the registration of dismantled vehicles (Ogrodnik and Paiement, 1992). For example, many educational campaigns for vehicle owners encourage owners to engrave identification numbers on their vehicles. One particular campaign consists of scheduling a day during the year for all drivers to mark their serial numbers on the parts and windows of their vehicles to make it more difficult for offenders to resell a vehicle or its parts.

A National Stolen & Wrecked Vehicle Monitoring Program is scheduled to be implemented in each jurisdiction early in 1998. Approximately 90% of all vehicles in Canada will be on this program. The VIN numbers of stolen vehicles will be flagged to prevent the registration of these vehicles in jurisdictions. Vehicles that have been previously written off (salvage, rebuilt, non-repairable) will also be identified through mandatory reporting by insurance companies.<sup>12</sup>

In response to increased exporting by organized car theft rings, the police community has developed a number of projects to deal with this problem, many of them international in scope. One of the first examples involving Canada was a project called the "Control of Overseas Export and Fencing of Stolen Vehicles", set up in 1993. Members involved in this project included the Montréal Urban Community Police Department, the Sûreté du Québec and Canada Customs.

To combat the exportation of vehicles stolen on the Pacific Coast, a similar project called "Controlled Enforcement of Automobiles Stolen for Export" was formed in January 1996 by the Royal Canadian Mounted Police, Canada Customs and Ports Canada Police.

As a result of coming under criticism from the law enforcement community and the general public for their lack of security features in vehicles, manufacturers are now working with police and insurance companies to design more effective security features. One such feature consists of a coded chip inserted in the ignition key. If anyone attempts to start the vehicle with a faulty key, or one that is not coded, the fuel system is interrupted. Some manufacturers have integrated alarm systems and start-prevention devices in some of their models to make them more difficult to steal. Aside from efforts made by manufacturers, there are currently a number of devices on the market which owners can buy to reduce the risks of a vehicle being stolen, including bars to lock steering wheels and a variety of alarm systems. To encourage consumers to protect their vehicles, some insurance companies are offering discounts to clients with vehicle alarm systems.

One relatively new product on the market is a locating system designed to prevent vehicle theft for the purpose of export. This system uses satellite technology to detect stolen vehicles. Cars are equipped with a remote control device on which owners can enter an access code that deactivates the locating system and starts the car. If the system is not deactivated by the driver, a signal will be automatically transmitted to the satellite to alert the locating system. This system will then advise the closest police department. This acts as a disincentive to "professional" thieves.

Legal steps can also be taken to reduce crime. For example, owners of recycling businesses may be required to keep a detailed registry of vehicles and parts in stock, including their origin and destination. Any owner not recording all transactions may face sanctions.

<sup>&</sup>lt;sup>11</sup> Percentages add to more than 100% as respondents were allowed multiple responses.

<sup>&</sup>lt;sup>12</sup> Canadian Police Chief Newsletter, Summer '97, Canadian Association of Chiefs of Police.



### **METHODOLOGY**

Uniform Crime Reporting (UCR) Survey - The Canadian Centre for Justice Statistics, in co-operation with the policing community, collects police-reported crime statistics through the Uniform Crime Reporting (UCR) Survey. The UCR survey produces a continuous historical record of crime and traffic statistics reported by every police agency in Canada since 1962. UCR data reflect reported crime that has been substantiated through police investigation. Information collected by the survey includes the number of criminal incidents, the clearance status of those incidents and persons-charged information. The UCR survey is considered to be a summary or aggregate type census, with data available for nearly 100 separate criminal offences. The number of motor vehicle thefts and thefts from motor vehicles presented in this *Juristat* are based on the results of this survey.

Revised UCR Survey - In 1984, the UCR survey was redeveloped to expand the information collected. This new survey, called the Revised UCR survey, is a micro data survey that allows detailed examinations of accused and victim characteristics, as well as characteristics of the incident itself. Information in this Juristat on specific ages of accused persons, the status of accused persons (i.e. charged versus not charged), location of incident and property type stolen is based on the results of this survey. In 1996, there were 154 police agencies from six provinces reporting to the Revised UCR survey. The incidents contained in the 1996 Revised UCR data base are distributed as follows: 39% from Québec, 38% from Ontario, 10% from Alberta, 8% from British Columbia, 4% from Saskatchewan, and 1% from New Brunswick. Data from this non-representative sample accounted for 47% of the national volume of crime.

Motor Vehicle Registrations - The Transportation Division at Statistics Canada collects data on road motor vehicle registrations annually. The information is gathered by means of a questionnaire from the ten provincial and two territorial government departments responsible for the registration of road motor vehicles or the issuance of drivers' licenses or dealers' permits. In order to improve the quality of the data, in 1995 all provinces and territories were required to provide a count of "vehicles having a valid registration at year end". The new "year-end" method of counting affected Nova Scotia, New Brunswick, Manitoba and British Columbia as they used to report on a transactional basis. The "year end" method is more accurate as it does not over count the number of vehicles on the road. For example, if within the same year an individual were to register one vehicle, de-register it and then register a different vehicle, two registered motor vehicles would be counted under the "transactional" method. As the individual only ever had one vehicle on the road at one time, this method over-counts the number of vehicles on the road during the year. Under the "year-end" method, only the vehicle registered at year-end would be counted. More importantly, when a vehicle owner moves from one province to another, under the "year end" method, their vehicle will be counted only by the province in which he or she resides come the end of the year and will not be counted by two provinces.

For short-term comparability, Transportation Division revised their data back to 1991 based on the new method. For the purpose of this *Juristat* and to allow for long-term comparability in the rate of motor vehicle thefts, the Canadian Centre for Justice Statistics (CCJS) estimated the data for these four provinces for the years 1977 to 1990. For each of these provinces, the average annual difference between the old and revised data was calculated and then applied to the data from 1977 to 1990. Specifically, the 1977 to 1990 data for Nova Scotia was decreased by 12.4%; data for New Brunswick was decreased by 13.3%; data for Manitoba was decreased by 21.7%. These estimated data were then used to re-calculate the number of registrations at the national level for 1977 to 1990.

As the 1996 data on motor vehicle registrations was not available in time for the release of this report, the CCJS estimated these data by applying the percentage change between 1994 and 1995 to the 1995 number. This was done for each province and territory and the Canada estimate equals the sum of all provincial and territorial estimates.

1996 International Crime Victimization Survey (ICVS) – The ICVS is a survey on criminal victimization that was conducted in over 30 countries worldwide, including industrialized and developing countries. It was coordinated by the Ministry of Justice of the Netherlands and the United Nations Interregional Crime and Justice Research Institute. In Canada, the survey was jointly funded by the Ministry of the Solicitor General and the Canadian Centre for Justice Statistics, while the Department of Justice led the coordination of the survey. A total of 2,134 persons aged 16 years or older were randomly selected across Canada and were interviewed by telephone about their experiences with crime during 1995, their feelings of safety, security measures taken, their reasons for reporting or not reporting to police, and their perception of the justice system.

### **BIBLIOGRAPHY**

BRANTINGHAM, P.L. and P.J. Brantingham (1994), "La concentration spatiale relative de la criminalité et son analyse: vers un renouvellement de la criminologie environnementale." Criminologie 27.1. Montréal : Les Presses de l'Université de Montréal.

CLARKE, R.V., S. Field and P. Harris, (1991), "The Mexican vehicle market and auto theft in border areas of the United States." <u>Security Journal</u> (3).

CLARKE, R.V. and P. Harris (1992), "Auto Theft and Its Prevention." Crime and Justice: A Review of Research 16, published under the direction of Michael Tonry. Chicago: University Chicago Press.

GRECO, A., M. Greco and G. Iny (1995), "Auto Theft: Its Everybody's Business." <u>Lemon-Aid</u> 19.3 (Summer), Montreal : Automobile Protection Association.



HUNG, Kwing (1996), <u>Victimization in Canada: Preliminary Findings of the 1996 Criminal Victimization Survey</u>." Ottawa: Justice Canada.

KILLIAS, M. (1991), "Les indicateurs de la criminalité et du contrôle social." <u>Précis de criminologie</u>, (city) : Editions Starmpfli & Cie SA.

LALONDE, J.F. (1995), "Protégez-vous!" Protégez-vous, (avril), Montreal.

MORRISON, P. et L. Ogrodnik, (1994), "Motor vehicle crimes." <u>Canadian Social Trends</u> 34 (Autumn), Ottawa: Statistics Canada.

MORRISON, P. and R. Kong (1994), "Motor vehicle crimes." Juristat 16.2, Ottawa: Canadian Centre for Justice Statistics.

MORRISON, P. (1996), "Motor Vehicle Crimes" <u>Crime Counts:</u> A <u>Criminal Event Analysis</u>. Eds. L.W. Kennedy and V.F. Sacco. Scarborough: Nelson Canada.

OGRODNIK, L. and R. Paiement (1992), "Motor vehicle theft." Juristat 12.12, Ottawa: Canadian Centre for Justice Statistics.

SPENCER, E., (1992), <u>Car Crime and Young People on a Sunderland Housing Estate</u>, Crime Prevention Unit Paper No.40. London: Home Office.

TALON, B. Le marché des véhicules volés à Montréal (1989-1994): une analyse de 27 réseaux de receleurs. Masters Thesis, Institute of Higher Learning, School of Criminology, Université de Montréal, 1996.

TREMBLAY, P., M. Cusson et Y. Clermont, (1994), "Jockeys and Joyriders: Changing Patterns in Car Theft Opportunity Structures." <u>British Journal of Criminology</u> 34.3.

TREMBLAY, P., M. Cusson et Y. Clermont, (1992), "Contribution à une criminologie de l'acte: une analyse stratégique du vol de véhicules automobiles." <u>Déviance et Société</u> 16.2.



Table 1



### Motor vehicle crimes, Canada, 1986-1996

Voor			Motor Vehicle Theft	t	Theft from Motor Vehicles			
Year	Motor vehicle registrations <sup>1</sup>	Number	Rate per 100,000 registrations	Annual % change in rate <sup>2</sup>	Number	Rate per 100,000 registrations	Annual % change in rate <sup>2</sup>	
1986	14,642,715	85,585	584	0.5%	297,502	2,032	1.4%	
1987	15,083,650	87,061	577	-1.2%	318,308	2,110	3.9%	
1988	15,607,313	89,454	573	-0.7%	322,517	2,066	-2.1%	
1989	15,969,205	100,208	628	9.5%	318,573	1,995	-3.5%	
1990	16,206,306	114,082	704	12.2%	352,675	2,176	9.1%	
1991	16,443,808	139,345	847	20.4%	393,518	2,393	10.0%	
1992	16,580,960	146,801	885	4.5%	390,887	2,357	-1.5%	
1993	16,716,476	156,685	937	5.9%	370,603	2,217	-6.0%	
1994	16,970,447	159,469	940	0.3%	351,385	2,071	-6.6%	
1995	17,047,635	161,696	948	0.9%	350,176	2,054	-0.8%	
1996³	17,127,430	178,580	1,043	9.9%	347,890	2,031	-1.1%	

Data are collected by Transportation Division, Multimodal Transport Section, Statistics Canada.
In 1995, the method by which motor vehicle registrations were counted was revised to eliminate over-counting by Nova Scotia, New Brunswick, Manitoba and British Columbia.
Transportation Division revised the numbers back to 1991 according to the new methodology.
The CCJS then estimated 1986-1990 for these four provinces to render these data comparable to post-1990 data.

Please refer to the methodology section for details.

<sup>&</sup>lt;sup>2</sup> Percentage changes based on non-rounded rates.

As the 1996 data on motor vehicle registrations were not available for the release of this report, 1996 data were estimated by the CCJS. Please refer to the methodology sections for details.



Table 2

AK	Moto	or vehicle	e theft by	province	territory,	1991-1996		
Province/territory	1991¹	1992	1993	1994	1995	1996²	Percent change in rate 1995-1996 <sup>3</sup>	Percent change in rate 1991-1996 <sup>3</sup>
Newfoundland								
number rate*	774 253	574 184	572 185	476 148	477 153	553 184	20.0%	-27.3%
Prince Edward Island								
number rate*	300 347	327 371	258 285	249 273	233 253	209 224	-11.2%	-35.3%
Nova Scotia	1 000	1.007	4 777	1 (70	1 707	2.400		
number rate	1,983 378	1,886 354	1,777 331	1,670 313	1,797 328	2,409 428	30.5%	13.4%
New Brunswick	1 (20	1 440	1 071	1 410	1 422	1 400		
number rate*	1,620 373	1,448 325	1,371 320	1,412 319	1,433 330	1,492 349	5.9%	-6.5%
Quebec number	47,752	49,335	47,850	43,712	42,936	48,071		
rate*	1,317	1,347	1,294	1,168	1,136	1,258	10.8%	-4.5%
Ontario number	37,537	40,709	48,700	55,122	57,187	58,419		
rate*	617	661	781	874	903	919	1.7%	48.9%
Manitoba number	3,640	3,758	7,932	9,555	9,538	10,231		
rate*	523	543	1,149	1,372	1,392	1,518	9.0%	190.4%
Saskatchewan number	3,618	3,410	3,371	4,300	5,297	6,494		
rate*	514	485	482	593	743	928	24.9%	80.5%
Alberta number	16,881	20,436	18,718	16,071	12,577	14,321		
rate*	900	1,088	980	831	650	740	13.9%	-17.8%
British Columbia number	24,416	24,230	25,288	26,184	29,532	35,747		
rate*	1,197	1,179	1,223	1,237	1,369	1,627	18.8%	36.0%
Yukon Territory number	227	185	312	283	219	188		
rate*	556	728	1,137	876	676	578	-14.4%	4.1%
Northwest Territories number	574	503	536	435	470	446		
rate*	2,112	1,864	2,006	1,628	1,696	1,552	-8.5%	-26.5%
Canada number	139,345	146,801	156,685	159,469	161,696	178,580		
rate*	847	885	937	940	948	1,043	9.9%	23.1%

<sup>\*</sup> Rate per 100,000 registered motor vehicles. Data on registered motor vehicles provided by Transportation Division, Multimodal Transport Section, Statistics Canada.

<sup>&</sup>lt;sup>1</sup> For 1991, the sum of the numbers for the provinces and territories will not equal the number for Canada because, prior to 1992, data from the CN and CP police were submitted as a whole and not according to jurisdiction.

<sup>&</sup>lt;sup>2</sup> As the 1996 data on motor vehicle registrations were not available for the release of this report, 1996 data were estimated by the CCJS. Please refer to the methodology sections for details.

<sup>&</sup>lt;sup>3</sup> Percentage changes based on non-rounded rates.



Table 3



### Motor vehicle thefts by Census Metropolitan Area (CMA), 1996

СМА	Population <sup>1</sup>	Motor vehicle thefts	Rate per 100,000 population	Percent change in rate 1995-1996	Percent change in rate 1991-1996
Population 500,000 and over					
Vancouver Winnipeg <sup>2</sup> Montréal Hamilton Ottawa Calgary Edmonton Toronto Québec	1,883,679 680,285 3,365,160 657,230 781,147 853,711 890,771 4,410,269 699,035	25,077 8,450 31,211 6,039 6,519 5,666 4,957 22,733 3,040	1,331 1,242 927 919 835 664 556 515 435	19% 5% 12% -5% -16% 5% 32% 16%	29% 234% -7% 141% 46% -18% -32% 44% -12%
Population 250,000 to 499,999 <sup>3</sup>					
London St. Catharines-Niagara <sup>4</sup> Halifax Kitchener <sup>4</sup> Victoria Hull Windsor	420,614 422,608 344,135 427,054 315,168 258,160 294,063	2,957 2,155 1,538 1,596 1,099 885 988	703 510 447 374 349 343 336	-17% 21% 59% -22% -16% -6% -11%	99% 61% 41% 34% 4% -3% 1%
Population 100,000 to 249,999					
Regina Sudbury Trois-Rivières Sherbrooke Saskatoon Chicoutimi-Jonquière Thunder Bay Saint John St. John's	199,243 166,661 142,028 148,925 223,524 167,854 130,006 129,380 175,249	3,007 1,209 922 923 1,279 736 503 309 252	1,509 725 649 620 572 438 387 239 144	35% 8% 30% 14% 12% 33% -30% 58% 5%	155% -31% 37% 8% 65% 30% -25% -31% -40%
Canada	29,963,600	178,580	596	9%	20%

nil or zero

Motor vehicle registrations are not available at the CMA level. Population counts are based on estimates provided by

Statistics Canada, Census and Demography Statistics, Demography Division Population estimates as of July 1st: preliminary postcensal estimates for 1996.

Winnipeg Police have discovered an under-reporting of certain crimes, including motor vehicle theft, that has been occurring in recent years.

The magnitude of this under-reporting of motor vehicle thefts is approximately one percent.

<sup>&</sup>lt;sup>3</sup> The Oshawa Census Metropolitan Area (CMA) is excluded from this table due to methodological concerns with the matching of the police force jurisdictional boundaries and the CMA

<sup>&</sup>lt;sup>4</sup> Populations have been adjusted to match the police force's jurisdictional boundaries.



Table 4



### Theft from motor vehicles by province/territory, 1996

			Theft from Motor Vehicles					
Province/territory	Motor vehicle registrations <sup>1</sup>	Number	Rate per 100,000 registrations	Percent change in rate 1995-1996 <sup>2</sup>	Percent change in rate 1991-1996 <sup>2</sup>			
Newfoundland	301,139	1,994	662	15.2%	-25.1%			
Prince Edward Island	93,137	937	1,006	9.9%	-11.6%			
Nova Scotia	562,885	6,768	1,202	-11.1%	-41.5%			
New Brunswick	427,380	2,010	470	-20.9%	-58.5%			
Quebec	3,820,100	51,014	1,335	6.3%	-25.2%			
Ontario	6,356,840	121,715	1,915	-7.8%	-12.4%			
Manitoba	674,073	13,232	1,963	-12.0%	-20.7%			
Saskatchewan	699,524	11,088	1,585	9.9%	-10.6%			
Alberta	1,934,650	30,550	1,579	-4.1%	-41.6%			
British Columbia	2,196,455	107,975	4,916	5.5%	5.1%			
Yukon Territory	32,513	432	1,329	-13.4%	64.5%			
Northwest Territories	28,734	175	609	-10.2%	-11.0%			
Canada	17,127,430	347,890	2,031	-1.1%	-15.1%			

<sup>&</sup>lt;sup>1</sup> As the 1996 data on motor vehicle registrations were not available for the release of this report, 1996 data were estimated by the CCJS. Please refer to the methodology sections for details.

<sup>2</sup> Percentage changes based on non-rounded rates.



Table 5



### Road motor vehicle registrations, Canada and the provinces/territories, 1986-1996

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996²
Newfoundland	273,192	286,792	307,049	301,152	305,851	306,482	312,040	309,921	322,652	311,710	301,139
Prince Edward Island	78,619	82,362	82,531	88,084	84,716	86,507	88,216	90,537	91,310	92,219	93,137
Nova Scotia <sup>1</sup>	442,297	431,643	448,383	496,399	528,546	525,225	532,689	536,222	533,182	547,832	562,885
New Brunswick <sup>1</sup>	369,791	378,595	391,537	394,736	412,442	433,941	446,040	428,495	442,538	434,893	427,380
Quebec	3,145,116	3,317,472	3,432,035	3,527,761	3,580,765	3,624,479	3,663,513	3,697,068	3,742,306	3,781,003	3,820,100
Ontario	5,367,277	5,572,927	5,804,105	5,943,747	6,000,322	6,083,956	6,157,627	6,231,948	6,304,626	6,330,679	6,356,840
Manitoba <sup>1</sup>	666,105	681,833	675,786	680,430	683,766	696,502	691,603	690,481	696,600	685,244	674,073
Saskatchewan	778,295	734,747	755,350	736,638	735,964	703,536	703,770	699,870	725,649	712,467	699,524
Alberta	1,739,472	1,758,059	1,820,141	1,850,771	1,861,662	1,875,212	1,878,707	1,910,612	1,935,076	1,934,863	1,934,650
British Columbia <sup>1</sup>	1,741,424	1,794,714	1,841,488	1,896,686	1,958,262	2,039,935	2,054,368	2,067,163	2,117,486	2,156,609	2,196,455
Yukon Territory	20,886	22,675	27,077	27,072	30,952	40,851	25,408	27,436	32,301	32,407	32,513
Northwest Territories	20,241	21,831	21,831	25,729	23,058	27,182	26,979	26,723	26,721	27,709	28,734
Canada <sup>1</sup>	14,642,715	15,083,650	15,607,313	15,969,205	16,206,306	16,443,808	16,580,960	16,716,476	16,970,447	17,047,635	17,127,430

The 1986-1990 data provided by Transportations Division, Multimodal Section, Statistics Canada were revised by the CCJS to render these more comparable to post-1990 data. Please refer to the methodology section for more details.
 As the 1996 data on motor vehicle registrations were not available for the release of this report, 1996 data were estimated by the CCJS.

Source: Transportation Division, Multimodal Transport Section, Statistics Canada.

<sup>&</sup>lt;sup>2</sup> As the 1996 data on motor vehicle registrations were not available for the release of this report, 1996 data were estimated by the CCJS Please refer to the methodology sections for details.



### **Canadian Centre for Justice Statistics**

For further information, please contact the Canadian Centre for Justice Statistics, 19th floor, R.H. Coats Building, Ottawa, Ontario K1A 0T6 at **(613) 951-9023**, or call toll-free 1 800 387-2231, or fax 1(613) 951-6615. To order a publication, you may telephone (613) 951-7277 or fax (613) 951-1584 or internet: order@statcan.ca. You may also call 1 800 267-6677 (Canada and United States) toll-free. If you order by telephone, written confirmation is not required.

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