

**Demographic Change, Relocation, and Patterns of Crime in the  
Baffin Region, Northwest Territories, Canada.**

Darryl S. Wood

Criminology Research Centre  
Simon Fraser University  
Burnaby, British Columbia V5A 1S6  
Canada

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**ABSTRACT**

There is an increasing concern being voiced about high rates of violent and property-related offences in the Baffin Region, N.W.T. by the Inuit communities and organizations which are located there. Preliminary research, however, suggests that there is considerable variability across the communities in terms of the officially recorded rates of crime. This paper explores this variation between the 14 communities in the region. Among the factors which appear to be related to official crime patterns are the growth in the age-sex components of the population which are prone to criminal behaviour and the impact of a community being a forced settlement.

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### **INTRODUCTION**

Located high in the eastern Canadian arctic, out of sight and mind for most Canadians, is the sparsely populated Baffin Region. Despite a very harsh climate and long winter months of darkness, the area has been intermittently populated for at least the past 4,000 years. The archaeological record of the area tells of several consecutive cultures whose people were able to utilize a wide range of resources in order to survive in the severe circumstances (Kemp, 1984, p. 463). The Inuit, today's inhabitants of the region, face difficulties unlike those experienced by their ancestors.

European contact with the Inuit began in the late 1800s and accelerated in the middle of this century. During this relatively short period of time, the Inuit of the Baffin Region have faced an upheaval which has changed them from a self-sufficient hunting and gathering people to a people who have become largely dependent on Euro-Canadian social, economic, and cultural systems for survival. A part of the package that the Inuit have received is many of the social problems which are present in 'southern' society. As with most other racial minority groups in the modern world, these social problems are considerably more extensive for the Inuit of the Baffin Region than for the rest of the country. In the Baffin Region, the rates of alcoholism, suicide, and unemployment, as examples, are much higher than national averages.

Also much higher than national average is the rate of contact that the people of the Baffin Region have with the criminal justice system. A basic look at offence rates (which will appear in the next section) shows that there is a great deal more crime in the Baffin Region than there is overall in Canada. As of yet, there have been no systematic inquiries into the patterns of crime among Inuit, the specific patterns that may be associated with Inuit involvement in the criminal justice system, or the variations between communities in the types of crime problems and conflict with the law experienced. This paper will examine the patterns of crime in the Baffin Region and will explore a few explanations for the acute levels of crime recorded in the area. Specifically, the effects of the age structure, the ethnic mix, and the type of settlement will be examined as explanations for crime.

The Baffin Region, as a distinct geo-political entity, provides an interesting jurisdiction for the study of crime patterns. The distinctness of the region comes from the relative

homogeneity between the communities which comprise it. There are many similarities among the Inuit communities in the Baffin Region. Comparable patterns of contact with non-Inuit society, which continue to the present time, have occurred in all of the communities. All of the communities have been subjected to, and continue to be subjected to, extensive and intrusive territorial and federal government policy as part of the long-term process of colonization. Traditional Inuit law and methods of social control, which previously achieved conflict resolution, the restoration of order, and stability in the community, have been displaced by the imposition of Euro-Canadian law in all of the communities. Finally, all of the communities are situated in the similar geographic of the eastern Canadian arctic, far from the centres of 'Southern' power and policy making.

## **PATTERNS OF CRIME IN THE BAFFIN**

An examination of the descriptive data on rates of recorded crimes in the Baffin Region reveals two things. First, it is apparent that there is a great deal of variation in crime rates between the communities of the Baffin Region. Second, the data show that the Baffin Region has an overall crime rate that is much higher than what is found in the rest of Canada. In this section we will first look at the inter-community variation in crime rates. Then a comparison between the Baffin Region's crime rates and Canada's crime rates will be drawn.

There are distinct levels and patterns of crime between the communities, which, when given their similarities on many other accounts, should come as a surprise. Figures 1, 2, and 3, which display the community-level rates for violent crimes, property crimes and criminal code crimes respectively, graphically display the variation between the communities. Some of the communities have higher than average rates for only one of the offence categories while others have rates that are higher than average for all three of the offence categories. Broughton Island, a community of 468 people on the east coast of Baffin Island, is an example of the first type of community; it has a very high property crime rate and a comparatively low violent crime rate. Resolute, a community of about 180 people located in the far on north Cornwallis Island, is an example of the community which has a higher than average offence rate in all three categories. Some communities, such as Clyde River (which is located up the coast from Broughton Island on Baffin Island), have offence rates which are relatively lower than the rest of the Baffin Region. In fact, the rates for Clyde River are similar to those found for Canada nationally. While some of the communities have crime rates that are similar to the national average, as a whole the amount of crime in the Baffin Region is much higher than what is found in Canada. Table 1 provides a comparison between the

Baffin Region, the Northwest Territories, and Canada on several types of offences. While less than the amount of crime recorded in whole of the Northwest Territories, in the Baffin Region the rate of recorded offences is at least twice that found nationally in Canada for five out of seven of the crime types.

Table 1 Average Offence Rates Per 1,000 Population, Baffin Region, the Northwest Territories, and Canada, 1985-1989.

Offence(s)	Baffin Region	Northwest Territories	Canada
Assaults	35.43	43.51	6.52
Violent Crimes	35.74	44.77	8.53
Breaking and Entering	48.62	33.48	13.99
Theft	30.64	41.93	32.93
Property Crimes	92.25	93.28	56.36
Criminal Code Offences	187.00	220.58	90.74
All Offences	249.89	378.80	113.02

Given what has been written elsewhere, it should be expected that the Baffin Region, as a largely aboriginal populated area, would have higher crime rates than the national average. Although not dealing specifically with crime rates, numerous Canadian studies have pointed to a tremendous aboriginal over-representation in the criminal justice system (e.g., Griffiths & Verdun-Jones, 1989; Hylton, 1982; Jolly, 1982; Patenaude, Wood, & Griffiths, 1991). Likewise, studies in the U.S. underscore the over-representation of aboriginals in the justice system (e.g., May, 1982; Peak & Spencer, 1987; Stewart, 1964).

### **EXPLANATIONS FOR THE CRIME IN THE BAFFIN REGION**

While it is apparent that the Baffin Region does have abnormally high levels of recorded criminal behaviour, the reasons for these high levels are not so clear. There have been few explanations for the abnormal rates of crimes found in areas which have a high aboriginal population. The studies which have attempted to explain the high rates have been mainly theoretical in nature and have offered little in the way of empirical analysis. These studies have tended to try to explain crime among aboriginal peoples within a framework of the effects that European colonization has had upon the aboriginal peoples. Patenaude et al. (1991) document these different theoretical perspectives which have been developed to

explain crime among aboriginal peoples and their involvement with the criminal justice system. The perspectives include:

- 1. Adjustment / Acculturation:** Criminality and conflict with the law are seen as consequences of colonization and the difficulty which aboriginal peoples have in relating to the dominant society and its institutions (French & Hornbuckle, 1977).
- 2. Social Disorganization:** Crime among aboriginal peoples and involvement with the criminal justice system are due to culture conflict between the aboriginal culture and that of the dominant society. This, in turn, results in a breakdown of community and leadership structures and internal mechanisms of social control (May, 1977).
- 3. Traditional Social Organization:** Crime among aboriginal peoples is an extension of traditional cultural behaviour. Patterns of crime and deviance vary across cultural groups based on the types of behaviours allowed or encouraged by the group. Such behaviours may conflict with the dominant, non-aboriginal law and legal systems (Levy & Kunitz, 1974).
- 4. Overt and Covert Discrimination:** Aboriginal peoples are more visible to the agents of the criminal justice system, such as the police and, once detected, are more likely to become involved in the criminal justice process. Once in the process, aboriginal peoples have less ability to 'escape' from conviction and incarceration. The likelihood of discrimination is increased when an alien system of law and justice are imposed on a colonized people (Randall & Randall, 1978).
- 5. Socio-Structural Deprivation:** The likelihood of conflict with the criminal law and involvement in the criminal justice systems is increased by the pervasive socio-structural deprivation and economic and psychological dependency of aboriginal peoples (Havemann, 1989).

These explanations may be satisfactory for explaining why crime among aboriginal peoples is so high when compared with the dominant society. There is a strong case to be made for each of these perspectives. However, since the communities of the Baffin Region are essentially similar in terms of the impact that the dominant 'Southern' society has had on them, the above explanations offer little for showing us why there is so much inter-community variability in crime in the Baffin Region. Because of this inability, it is necessary to look elsewhere for an explanation.

The history, growth, and settlement patterns of the individual communities in the Baffin Region reveal some sources from which explanations for the differences in crime rates can be drawn. Over time, the communities in the Baffin Region have become differentiated according to how they were settled and according to the resulting population composition.

The history of how the communities in the Baffin Region came to be settled is an interesting one. Before the 1950s, most Inuit lived out on the land or in small camps along the coast. Although the Royal Canadian Mounted Police (RCMP), religious missionaries, and

Hudson's Bay Company outposts all entered the region in the early 1900s (Kemp, 1984, p. 474), it was not until the 1950s when the Inuit settled into communities. During the 1950s a decline in the trapping economy, outbreaks of infectious disease among the Inuit and among their sled-dogs, and a growth in wage labour opportunities brought most of the Inuit off the land and into permanent settlements (Yatsushiro, 1963). The rest of the Inuit were brought to the communities in the 1960s when permanent medical, educational, and governmental facilities were built (Kemp, 1984).

It is important to point out that not all of the communities were settled in exactly the same manner. The impact of the settlement process affected each community differently. This differential impact has created variation in the communities according to (1) the level of ethnic heterogeneity, (2) the way they were settled, and (3) the age distribution of the population.

A differential ethnic mix between the communities is the result of whether or not the community was established in an area strategic to the Canadian government. Of the communities that the Inuit settled down in, some were more important to the needs of the Canadian government than were others. Some communities were built at weather stations or military outposts, while others were established where the Inuit had inhabited for decades. In the communities which were important to the government, there is a greater degree of ethnic heterogeneity than in the communities which are not important to the government because it is the whites from southern Canada who operate such posts. In the communities where there is little governmental presence, there are less whites and therefore less ethnic heterogeneity.

The second way in which there is community variation as a result of settlement is the method by which the Inuit moved into the community. In one sense, all of the communities are the result of population by resettlement. What differentiates the communities is the way in which the Inuit people were moved from a semi-nomadic lifestyle into a community based lifestyle. Some communities are largely populated by the Inuit whose families had inhabited the immediate area for many years. Other communities are populated by a combination of Inuit from the immediate area and of Inuit from other areas who, because of a lack of renewable resources or wage labour in their ancestral homelands, were compelled to migrate. Finally, there are the communities which have been populated through schemes of colonization by the Canadian government where entire communities are founded in areas previously uninhabited by the Inuit. This final type of resettlement resulted from the forced relocation of entire communities from one location to another (Freeman, 1984).

A final source of variability between communities that has resulted from the settlement process and which is possibly related to variations in the amount of recorded crime is the age structure of society. Improvements in health care and the movement of the Inuit into communities over the past 30 years have resulted in a healthier population. These improvements have also translated into a severe aboriginal population boom. Infants and children which previously would have been victims of the harsh arctic environment are now surviving until adulthood because of the improvements in living standards (Freeman, 1971, p. 217). The current population structure of the Baffin Region as a whole resembles that of many third world countries. The population pyramid of the region is "bottom heavy" with few elders on the top, a small middle age group, and very large numbers of young Inuit. The degree to which this population boom has effected the age structures of the individual communities varies according to the availability of health care and to whether or not there is a large governmental presence in the community.

While most communities have had access to at least a nurse, the level of health care provided over the years has not been equal in all communities over the years. Where there is a deficiency in health care, the survival of young Inuit is lessened and the age structure is normalized. The communities with health care that is up to "southern" standards have an age structure is skewed toward the younger ages. The presence of a relatively larger white population also has an impact upon the age structure of the community. In some communities where there is a large governmental presence, hence a relatively larger white population, the age structures of the population are much more "regular" because the whites tend to have a much lower birth rate than the Inuit.

These three outcomes of the settlement of the Baffin Region Inuit into communities -- differential levels of ethnic heterogeneity, different age structures, and different means of resettlement -- have all been shown elsewhere, in greater or lesser degrees, to be related to many social problems including crime. Ethnic heterogeneity within a locale has been found to be strongly related to many types of criminal behavior; where there is an extensive ethnic mix, crime rates are generally higher (Sampson & Groves, 1989). Studies in both the U.S. (Hindelang, 1981; Hirschi & Gottfredson, 1984) and Canada (Hartnagel, 1978; Maxim & Jocklin, 1980) have demonstrated the influence that the age structure of the population has upon crime rates -- the idea that people aged in their teens and early twenties are responsible for the bulk of recorded crimes has almost become a given in criminology.



There has also been some evidence, albeit mostly anecdotal, of the way that the forced relocation of communities creates social problems. Many cases of forced relocation leading to increased incidence of social problems are available. In 1957 the Churchill Band of Chipewyan was moved many miles from Duck Lake, Manitoba to Camp 10, just outside of Churchill, Manitoba, because of the closure of the Hudson's Bay Company post at Duck Lake. (Lal, 1969a, p. 6). Once at the new settlement, life quickly deteriorated as violence and alcohol abuse became widespread. Lal (1969b) blames this deterioration partly on the stress of being forcibly relocated and partly on the people not being able to adjust to their new surroundings. Increases in violent behaviour accompanied the forced relocation of the northern Manitoba Cree community of "Chemawawin" (Waldram, 1980), of the Grassy Narrows Ojibwa (Shkilnyk, 1985), of the Fort Hope Ojibwa (Driben & Trudeau, 1983), and of the northern Manitoba Cree community of "Rat Lake" (Waldram, 1987).

A large degree of ethnic heterogeneity, an abnormal age structure, and forced relocation have been shown elsewhere to be key determinants of increased crime. In the Baffin Region there is variation between the communities on these determinants because of differences in the way the communities were settled. This paper will apply these three determinants to a statistical model which will attempt to explain the inter-community variation of crime rates in the Baffin Region.

## **METHODS**

The current study uses measures of age structure, ethnic heterogeneity, and type of relocation to account for variation in the violent and property crime rates of 13 communities in the Baffin Region of the Northwest Territories. A regression model is used to account for that variation. In order to capture as many of the Baffin Region's communities as possible in the analysis, a cross-sectional design is employed.

The dependent variables used in this study are the rates of violent and property crime per 1,000 population in a community as reported in the *Final Crime Statistics* made available by the Canadian Centre for Justice Statistics. Instead of using a single year as the point of analysis, a five year average (the mean) of the crime rates in each of the communities is used. There were not enough years of reliable police data available for the 13 communities to make a longitudinal analysis possible. It was not until 1985 that all 13 communities received their own R.C.M.P. detachment, and before 1980 there were only 9 detachments serving the area's 13 communities. Because the major interest in this paper is with the differences in the crime problem between the communities (rather than being mainly

concerned with the changes of the crime problem over time), the analysis is cross-sectional. However, since there are five years (1985-1989) of relatively reliable police data available for the 13 communities of the Baffin Region, a mean measure will be used for all variables in the analysis. Therefore, the main measure of the two crime categories will be the five year mean of crime in the years 1985-1989. The explanatory variables will also be five year mean measures for these same years. The use of the five year mean has the advantage of evening out the measures to provide a more realistic picture of the amount of crime in each settlement.

These police data are used with the political, philosophical, and methodological objections (Lowman & Palys, 1991) and the many technical difficulties (Hindelang, 1975, p. 2) in mind. The police measures of "crimes recorded by the police" are selected because of their ease of availability at the community level, because of the evidence that this type of "data provide robust estimates of the relative incidence of index offences known" (Hindelang, 1975, p. 14), and because such data are generally considered to be "valid indicators of serious crimes as defined by the citizenry" (Gove, Hughes, & Geerken, 1985, p. 451).

For each of the three explanatory concepts -- ethnic heterogeneity, age structure, type of relocation -- quantitative measures are devised. Measures for the first two concepts are drawn from various governmental sources. A measure of the type of relocation the community experienced is drawn from historical sources.

The measure for ethnic heterogeneity in this paper is the percentage of the population that is Inuit. Where there is a relatively smaller percentage of the population that is Inuit, the higher the ethnic heterogeneity will be. It is expected that ethnic heterogeneity will be positively related to the amount of crime in a community; as such, there should be a negative relationship between the percentage of Inuit in a community and the crime rate. For the regression analysis, the average (mean) of the percentage of Inuit for the years 1985 through 1989 will be used. Data for this variable are from the 1986 Canadian census (Statistics Canada, 1987) and from estimates produced by the Government of the Northwest Territories (Bureau of Statistics, G.W.N.T., 1991).

The measure of the age structure is the percentage of the population that is male and between the ages 15 through 24. The larger this segment of the population is, the more skewed the total population structure can be considered to be. In all of the studies that have examined the effect of the age and sex structure of a population upon crime, this age/sex group has been shown to have the greatest impact. From what has been shown elsewhere,

it is expected that there would be a direct relationship between the proportion of the population that is male and aged 15 to 24 and the crime rates. As with the measures for crime and ethnic heterogeneity, this variable is the average (mean) of the percentage of males aged 15 to 24 for the years 1985 through 1989. The data for this measure are from the 1986 Canadian census (Statistics Canada, 1987) and from estimates produced by the Government of the Northwest Territories (Bureau of Statistics, G.W.N.T., 1991).

The final measure used in the analysis is a categorical variable measuring the types of relocation that were used to settle each community. An examination of the histories of the communities shows three distinct types of relocation that happened in the Baffin Region: (1) communities in continuously inhabited areas, (2) communities populated by internal migration, and (3) communities populated by forced relocation (*NWT Data Book*, 1991.). Settlement by forced relocation is expected to be most strongly directly related to crime rates. The next strongest positive effects are expected to result from settlement by internal migration. Finally, settlement into continuously inhabited areas would have the smallest positive effects upon crime rates. This measure for type of relocation is coded from '1' through '3', where '1' is settlement in continuously inhabited areas, '2' is settlement by internal migration, and '3' is settlement by forced relocation.

## RESULTS

Whereas Figures 1-3 graphically demonstrate the inter-community variation in crime rates in the Baffin Region, the data in Table 2 on the violent and property crime rates provide a statistical representation of the variation. Table 2 also shows that there is variation between the communities on all three of the variables used in the analysis. The variation across the measure of ethnic heterogeneity, percent Inuit, is great. While not as great, there are distinct differences between the communities for the measure of the age structure, percent male ages 15 to 24.

Table 3 presents the correlation coefficients (Pearson's ' $r$ ') for all variables used in the analysis. Presented mainly as a check for multicollinearity (a violation of the regression assumptions), the only significant correlation is between the relocation (RELOCAT) measure and the violent crime rate (VIOLRATE). None of the other variables are significantly correlated. Only one other relationship, that between the violent crime rate (VIOLRATE) and the percentage of the population that is Inuit (INUIT), is greater than or equal to  $r = +/- .5$ .

Table 2 Descriptive Statistics for All Variables Used in the Analysis of Crime Rates in the 13 Communities of the Baffin Region, N.W.T.

Variable	Mean	Std. Dev.	Minimum	Maximum
Relocation Measure 1 = Continuous Inhabitation 2 = Internal Migration 3 = Forced Relocation (RELOCAT)	1.54	0.78	1.00	3.00
Percent Male Ages 15 to 24. (PYNGMALE)	10.46	1.11	8.55	12.24
Percent Inuit (INUIT)	86.91	12.02	61.07	94.93
Violent Crime Rate (VIOLRATE)	35.74	23.71	9.86	89.83
Property Crime Rate (PROPRATE)	92.25	46.69	18.21	165.30

Table 3 Correlation Coefficients for All Variables Used in the Analysis of Crime Rates in the 13 Communities of the Baffin Region, N.W.T.

Variable	RELOCAT	PYNGMALE	INUIT	VIOLRATE
RELOCAT				
PYNGMALE	-.14			
INUIT	-.45	.27		
VIOLRATE	.71*	.10	-.50	
PROPRATE	.10	.29	-.20	.42

Note: \*  $p < .05$

Table 4 shows the least squares regression estimates of the effects of all variables used in the analysis. The ability of the three independent variables to account for variability in the violent crimes and property crimes is incongruous. The model is much more successful in explaining variation in the violent crime rate than it is in explaining variation in the property crime rate. For violent crimes, the model explains 47 percent of the variation and is statistically significant at the .05 level. Much less of the variation in property crimes is explained by the model,  $r^2 = .11$ , and this 11 percent is not statistically significant.

There are also differences in the relative contribution of each of the variables depending upon which category of crime rates are looked at. For the violent crime rate (VIOLRATE), the strongest effect by far is the positive effect that the relocation measure

(RELOCAT) has. This relationship produced the only **b** (the standardized regression coefficient, or "beta weight") which was greater than or equal to  $b = +/- .5$  for both of the crime categories. The relocation measure (RELOCAT) is also the only variable which has a statistically significant effect upon the violent crime rate (VIOLRATE). The second to the highest relative contribution to the explained variation in the violent crime rate (VIOLRATE) is from the percent Inuit measure (INUIT); a negative relationship is found between these two variables. The variable which has the smallest relative contribution to the explained variation in the violent crime rate (VIOLRATE) is the percentage of young males age 15 to 24 (PYNGMALE).

Table 4 Ordinary Least Squares Regression Estimates of Effects of All Variables Used in the Analysis of Crime Rates in the 13 Communities of the Baffin Region, N.W.T.

Independent Variable	Dependent Variable	
	VIOLRATE	PROPRATE
INUIT	-.30	-.28
PYNGMALE	.26	.37*
RELOCAT	.60*	.02
R <sup>2</sup>	.47*	.11

Note: \*  $p < .05$

The relative strengths of the three variables for explaining the variation in the violent crime rate are reversed when they are used to explain variation in the property crime rate (PROPRATE). The strongest, and only statistically significant, effect upon the property crime rate (PROPRATE) in a community is the percentage of young males age 15 to 24 (PYNGMALE) in that community. As with the violent crime rate, the second to the highest relative contribution to the explained variation in the property crime rate (PROPRATE) is from the percent Inuit measure (INUIT); again, between these two variables, a negative relationship is found. Almost no relationship ( $b = .02$ ) is found between the relocation measure (RELOCAT) and the property crime rate (PROPCRIM).

## DISCUSSION

Ordinary least squares regression was used in a statistical model to explain the variation in violent and property crime rates in the Baffin Region. The three variables which comprised the model -- percentage of the population age 15 to 24, percentage of the

population that is Inuit, and the measure of type of relocation -- all had varying effects upon the two types of crime. A clarification of what these statistical findings mean in terms of the significance of the theoretical constructs from which they were drawn is given next.

The strongest relationship for both types of crime was the relationship between the measurement of type of relocation and the violent crime rate. What is suggested by this relationship is (1) that a main determinant of the violent crime rate is whether or not a community was settled by forced relocation and (2) that settlement by internal migration has a strong direct effect on violent crime in a community. It is not surprising that forced relocation would be a determinant of violent crime, because, as Scudder (1982, p. 11) points out:

The trauma of relocation disrupts the family unit and the lives of each of its members. It undermines the influence and authority of the household head since he or she is shown to be incapable of preserving the family's lifestyle. Individual family members may suffer from severe depression. Violence, alcohol abuse, and mental and physical illness are all too often intimately associated with forced removal.

The findings in this paper supports this type of assertion and much of the ethnographic research done on forced relocation of Aboriginals in Canada (Lal, 1969a, 1969b; Waldram, 1980, 1987) as far as violent crime is concerned. Interestingly, the finding of no relationship between the type of relocation measure and the property crime rate suggests that the way in which a community was settled in no way determines the amount of property crime it has.

Overall, the second most important variable in the analysis for both violent and crime rates is the percentage Inuit. This measure of ethnic heterogeneity was negatively related to both crime categories. The finding that percentage Inuit is negatively related to crime rates means that the more ethnic heterogeneity there is in a community, the higher crime rate will be. It is possible to account for the relative strength of the measure for ethnic heterogeneity with at least two distinct theoretical perspectives: the routine activities perspective (Garofalo, 1987) and the theory of relative deprivation (Blau, 1977; Blau & Blau, 1982). On the one hand, it would be quite reasonable to believe that there would be more crime in the communities where there are more whites because the whites would be more likely to put themselves and their property into situations where 'direct contact predatory' acts could occur. On the other hand, there is much to be said for the relative deprivation explanation; in the communities where there are more whites, the Inuit would be much more likely to internalize their impoverished status and then be more likely to act out in non-socially acceptable ways.

One of the most surprising outcomes of the analysis is the relatively small effect of the percentage of young males age 15 to 24 in the population (which was the measure of age distribution) on the crime rates. The positive relationship between the age distribution measure and the crime rates means that the more young males there are in a population relative to the rest of the population, the higher the crime rate should be. While this positive relationship is synonymous with studies on the effect of the age structure upon crime which have been performed elsewhere, the fact that the relationship is not very strong suggests that a cross-sectional design may be improper for testing the impact of the demographic structure upon crime. A longitudinal design would provide a better test that would allow the dynamic impact of demographic change upon crime rates to be measured.

The applicability of the results presented in the current paper should not be extended too far given the type of research design and level of analysis used. This paper's findings and conclusions are presented with, and limited by, the following qualifications concerning the research design and the level of analysis. First, the cross-sectional research design limits the inferences and conclusions made in the discussion to very strict time and geographic limits. The study is applicable only to the years 1985 through 1989 inclusive, and to the communities of the Baffin Region. Second, the applicability of the findings, because they are based on aggregate data, are limited to what has occurred at the community level. They are not intended to be extended to the individual level. Likewise, it should not be inferred that the results from the community level would be the same as the results garnered from a study using a state or province as the level of analysis. In all likelihood, there are probably two different processes operating between any two levels of analysis.

## **SUMMARY AND CONCLUSION**

This paper set out to locate the inter-community variation in the Baffin Region community crime rates and to provide explanations for such variation. The first part of this paper clearly demonstrated that there is indeed variation between the communities of the region according to how much crime they have. Some communities have levels of crime which are many times the national average. Other communities have relatively less crime; their patterns are quite similar to the national average.

The second part of this paper was concerned with accounting for the variation in the crime rates of the Baffin Region. Three possible explanations were presented. It was proposed that an abnormal age structure, a large degree of ethnic heterogeneity, and forced relocation would be key determinants of high crime rates. A regression model was used to

incorporate these explanations. For violent crimes, it can be said with some confidence that the greatest determinant is whether or not a community was settled by forced relocation and or internal migration. The communities which were traditional places of inhabitation for the Inuit of Baffin Region are also the ones where violent crime is lowest. No real strong conclusions can be drawn from the model which looked at the variation in property crime rates, although it does appear that the age structure and ethnic heterogeneity do have some influence.

Because the statistical model was only moderately successful in explaining the variation in the Baffin Region's violent crime rates and wholly unsuccessful in showing why there was variation in property crime rates, there remains much to be answered. In many ways, more questions than answers are raised by the present study. Instead of limiting themselves to using the concepts related to the impacts of the settlement process, future studies should include measures which are indicative of the current socio-economic patterns of the region. It may be highly informative to analyze the effects of unemployment, underemployment, and income inequality to see how they influence crime rates. Whatever additional explanations of crime rates in the Baffin Region are used, any future analysis should take into account the effects of ethnic heterogeneity, abnormal age structure, and forced relocation.



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