

Patterns of Homicide in Vancouver: 1980-1986

by

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B.A. (Geography), University of British Columbia, 1978

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS (CRIMINOLOGY)

in the School of
Criminology

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Simon Fraser University

December 1988

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Patterns of Homicide in Vancouver: 1980-1986

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ABSTRACT

The literature on the urban analysis of homicide occurrence has been dominated by American research largely patterned upon methodology developed by Wolfgang (1958). Subsequent homicide theory development and hypothesis testing, were largely founded upon American experience with American generated data. The current thesis arose with a query whether empirical generalizations and theory development of urban homicide patterns that have developed in the United States could be readily transferred to the Canadian experience. The purpose of this thesis is to fill a void in the literature by the introduction of primary Canadian homicide data from the observed patterns of homicide in Vancouver, British Columbia.

All homicides that occurred in the City of Vancouver between January 1, 1980 and December 31, 1986, formed the sample. Data for the 204 victims and 174 suspects of homicide who were identified in 194 homicide cases, were gathered from the complete homicide file as prepared by the detectives of the Major Crime Section of the Vancouver City Police. Methodology developed by Wolfgang (1958) was employed to examine patterns of homicide with respect to twenty-four victim, suspect, and situational variables. In addition, the spatial distribution of homicide was examined employing techniques developed by Bullock (1955) and Wilt (1974).

The major findings of this study revealed both similarities and profound differences in the patterns of homicide in Vancouver and that of the literature. Although the absence of a large black population in Vancouver precluded direct comparisons regarding racial involvement, it was discovered that Native

Indians in Vancouver had numerical involvement with homicide occurrence that was far in excess of their proportion in the population. It was also found that firearms were rarely used in Vancouver homicide, in contrast to American and national Canadian statistics. The importance of alcohol as a factor in urban homicide was further exemplified by the analysis of the exact levels of blood alcohol content of the participants of homicide in Vancouver. Two "strategic areas" and a "strategic spot" of homicide in Vancouver were identified. It was suggested that the high homicide rates found in the strategic areas, may have resulted from the violent interaction of a number of subcultures found within the areas. The interaction and "convergence" of the various subcultures is speculated to be largely responsible for the fact that Vancouver, for the last ten years, has had the highest per capita homicide rate of any large urban centre in Canada. In conclusion, recommendations were made to improve the current methods of data collection, and the reporting of homicides, by the police, to Statistics Canada.

ACKNOWLEDGEMENTS

I would like to acknowledge and thank; Dr. Douglas Cousineau, my Senior Supervisor, whose office door was always open; Dr. Ray Corrado, Supervisor; Dr. Len Evenden, for agreeing to be the External Examiner; Mrs. Aileen Sams and Liz Szockyj, for their help and friendship over the years; and to the Vancouver Police Department for granting me access to the homicide files. This study would not have been possible without the patient support of my wife, Susan.

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INTRODUCTION

The following seven scenarios of homicide actually occurred in the City of Vancouver between January 1, 1980 and December 31, 1986. These cases are presented to illustrate the diverse nature of homicide occurrence in the city, and serve to introduce the reader to a qualitative appreciation of the nature of homicide that occurs in Vancouver.

Case # 1

A group of people met in a bar on the Granville strip in downtown Vancouver. It was just after "welfare day" so everyone had money and were drinking. After the bar closed a group of young "street" people decided to continue the party at a nearby West End apartment. An older male from the bar tagged along with the group in the hope of more to drink at the party. When the group arrived at the apartment building two young males decided that the older man was unwelcome at the party. The two males took the older man to the underground garage where they killed the victim by kicking, and jumping on the victim, to such an extent that every major bone in the upper torso and head were broken. The young males then removed the victim's clothing, boots, and the remainder of his welfare money, and rejoined the party upstairs. The victim's boots were later sold for \$40.00 to another "street" person. The two young males were arrested days later at a motel in a neighbouring city. They were both charged and convicted of second degree murder and were sentenced to life.

Case # 2

The victim in this case had an extensive criminal record and had just been released from a federal prison. The victim was living in the Skid Road area of downtown, downtown-eastside Vancouver, and was known by the people who lived in the area to be extorting and bullying the prostitutes who also worked and lived in the area. The victim was drinking in a bar on Columbia Street when three men appeared on the scene. One man stayed outside of the bar and held a taxi at the ready, another man stood at an outside doorway and watched for the police, the third man went into the bar and walked up to the victim and shot him

with a large calibre handgun. The victim was killed instantly. The bar was full of patrons at the time of the murder. No one in the bar would give a statement to the police as to the identity of the murderers. The case is considered to be solved but will never be taken to court because of a lack of evidence. An interesting footnote to this case is the fact that one of the three suspects involved in this case was later himself, a victim of an unsolved murder.

Case # 3

The suspect and victim in this homicide were career criminals and were involved in drug underworld connections. The suspect went to the victim's apartment in the West End as a contract murderer and shot and killed the victim as well as seriously wounding another person in the apartment. The suspect fled but was later arrested in Victoria. The suspect was originally charged with first degree murder but was found guilty of second degree murder and was sentenced to life. Footnote: The suspect had been previously convicted of non-capital murder ten years prior to this homicide, and at the time of the second murder, was still on parole for the first murder.

Case # 4

The victim of this case was living in a Skid Road hotel room with the mother of the suspect in this homicide. Both the suspect and the victim had been drinking all day in the victim's room; an argument erupted between the two over the mother of the suspect. The argument turned into a fight with the suspect smashing a wine bottle over the head of the victim, then using the broken bottle, slit the victim's throat. The victim's blood alcohol content was 480 mgs. The suspect was charged with second degree murder, but later pleaded guilty to the reduced charged of manslaughter. The suspect was sentenced to two years less a day, in prison.

Case # 5

The suspect and the victim in this case were both on welfare and lived in a house in south east Vancouver with a number of other persons. The victim had a very lengthy criminal record and was a friend of the suspect. The victim was in the living room of the house and was playing the stereo very loudly, annoying the suspect. The suspect asked the victim to turn down the sound, the victim replied by turning the volume up even louder. The suspect responded to this by going to the kitchen

and selected a large knife. The suspect went into the living room and stabbed the victim through the heart. The suspect then carved the following initials on the victim's chest: "D F W C ". The suspect was charged and was found guilty of second degree murder and received a life sentence. The blood alcohol content of the victim was 80 mgs., the suspect had a blood alcohol reading of 150 mgs. Footnote: D F W C stood for "Don't Fuck With Cathy."

Case # 6

The participants of this case were brothers. Both were unemployed and were at home involved in a weekend long drinking spree. Both brothers had a history of arguing and fighting with each other. An argument over a trivial reason erupted and was followed by a fight. The older of the two brothers stabbed his sibling to death. The blood alcohol content of the victim was 190 mgs., the suspect had a blood alcohol reading of 210 mgs. The suspect was charged with second degree murder but was found guilty of the lesser offence of manslaughter. He received a four year jail term for the murder.

Case # 7

The victim in this case was an unemployed welfare recipient who was a transient in the Skid Road area of downtown, downtown-eastside Vancouver. The victim was found lying on a bench in Skid Road; she had been stabbed four times and her throat had been slit open. The victim was found clutching a bottle of chinese cooking wine. The victim's purse was not found at the scene. There were no suspects, and no apparent motive other than possibly robbery. The victim's blood alcohol content was 240 mgs.

Most of the literature reporting patterns and trends of urban homicide has been based upon American research and American data. Consequently, it is not known whether the theories and empirical generalizations that have been generated by the American research, are applicable to Canadian urban homicide. There are fundamental differences between the cultures of the two countries. Similarly, there may be profound differences in the occurrence and patterns of urban homicide. The primary objective of this thesis is to generate

comparative data from the patterns of homicide observed in Vancouver, British Columbia. This data will begin to fill a void in the literature concerning Canadian urban homicide patterns, and will allow comparisons to be made with American urban homicide trends.

This thesis is also predicated on the belief that a legitimate approach to theory development and hypothesis formation regarding sociological phenomena, is that of the inductive method. Observation of the phenomenon, ordering of the data into patterns of observation, formulation of empirical generalizations, and the subsequent testing of the generalizations to produce theory that is grounded in the data from which it is developed, is seen as a logical and legitimate approach to social science research. (Babbie, 1986: Wallace, 1971: Glaser & Strauss, 1967). Much of theory development in homicide research has resulted from the utilization of inductive research methods. Wolfgang (1958) stated in Patterns of Criminal Homicide that :

Theories of social action should not be in a vacuum, but must begin with observed facts, produce paradigms of reality, hypothesize new associations of facts, test them, and restate confirmed interpretations until prediction and control become possible (p. 328)

Wolfgang's (1958) methodology has formed the basis for many replications of urban homicide research to date, and forms the foundation of the methods employed in this thesis. A review of the American dominated literature base of urban homicide research is presented in Chapter I. The methodology employed in this thesis is presented in Chapter II along with an insight into the process undertaken by the police in homicide investigations. The results of the research are presented in Chapter III, and wherever

possible, comparisons to American based research are made to explore the differences and similarities of Canadian and American homicide patterns.

Methods developed by Bullock (1955) and Wilt (1974), to examine the spatial distribution of urban homicide, are replicated and form the basis of the spatial analysis of homicide patterns that were found in the Vancouver data. The spatial distribution patterns of homicide in Vancouver are presented on a series of maps that can be found in Chapter IV and in appendix four. From the observed patterns of the geographical distribution of homicide in the city, two geographic areas were identified as "strategic areas" of homicide. A "strategic spot" of homicide is also identified as spatial reference point of the extraordinary homicide activity found in one of the "strategic areas"; a "convergence of subcultures" hypothesis is presented in response to the highly concentrated patterns of homicide found in the downtown-eastside area.

A summary of the major patterns of homicide in Vancouver are presented in the concluding chapter. Finally, suggestions for future research and recommendations for improvements to Statistics Canada homicide data collection methods, are discussed in Chapter V.

It should also be pointed out to the reader that the author of this thesis is himself a ten year veteran police officer of the Vancouver City Police. Policing experience by the author has included patrol duty in the largely residential area of south-west Vancouver, two years as a "beat cop" in the Granville Mall area of downtown Vancouver, two and a half years in motor vehicle accident investigation, and the last year and a half have been spent working in the downtown-eastside region which includes a walking beat in Chinatown. Interest in the urban patterns of crime was initially formulated

during my undergraduate study at the University of British Columbia. My subsequent employment as a police officer and the resulting exposure and involvement with crime, poverty, addictions and violence in the city, spawned an interest in the spatial and sociological occurrence of homicide.

CHAPTER I

LITERATURE REVIEW

The literature on homicide is vast and varied. Two recent homicide bibliographies list 2000 and 4500 sources respectively (Able, 1987; Jerath, Larson, Lewis, 1982). For the purposes of this paper, the range of literature that will be reviewed is limited to those empirical sociological inquiries that examined homicide on a *meso-analytic* level. Brantingham and Brantingham defined the meso-analysis of crime as the: "...study of crime within the subareas of a city or metropolis. The range of such studies includes very large subunits such as the constituent cities of a metropolitan area....or very small subunits such as the faces of individual city blocks" (1981: 21). All of the research reviewed is American. No Canadian study of urban homicide at the meso-analytic level using empirical methods such as Wolfgang (1958) employed, was located.

The literature was searched by a variety of methods including a Social Science Citation Index search using Wolfgang and homicide as the key words. The two bibliographies were also used extensively. The Social Science Citation Index search produced the majority of the sources and by the number of citations found, reinforced the importance of Wolfgang's contribution to the study of homicide.

Prior to Wolfgang's (1958) Patterns of Criminal Homicide there were few studies that specifically researched the phenomenon of urban homicide at the meso-analytic level. The earliest study found was Schmid's (1926) areal analysis of homicide in Seattle. Schmid used data from coroner records to

study 252 culpable homicides that occurred from 1914 to 1924.¹ Geographic analysis at a neighbourhood scale revealed definite clustering of homicide in the Chinatown and Skid Road area; this ten block by four block area produced 25% of Seattle's homicides. This small area adjacent to the central business district, produced a homicide rate of 58/100,000 based upon an area population of 6,863. Other variables analyzed included: temporal and racial distribution, age, sex, occupation, means of inflicting death, marital status and criminal disposition of the suspect. Notable in Schmid's findings was the predominance of firearms as the principal means of inflicting death. Seventy-five percent of all the homicides were the result of shootings, a further 10.3% by beating, and only 7.5% were stabbings. Schmid also compared Seattle's homicide rate with other American and English cities and was surprised to find that large English cities had homicide rates far lower than Seattle's. Dispositions of offenders as determined by the court system were also contrary to what Schmid expected for he found that Seattle's courts were very lenient, particularly towards female offenders. The purpose of Schmid's work was to present the facts of the occurrence of homicide in Seattle. Schmid recognized the imperfections of the data and realized the danger of inferring causality from his observations.

Burgess (1925), Park (1925), Shaw and Mckay (1929), and the Chicago School had a profound effect on the sociological study of crime from the 1920's until just after the Second World War. The spatial study of crime occurrence (mostly delinquencies) and its correlation with socio-economic

¹Culpable homicide is homicide to which criminal responsibility for the death of a person is assigned to someone other than the victim.

data became the "ecological" study of crime with almost total emphasis given to the offender and the "milieu" in which he lived or committed crime. Much has been written regarding the profound impact of the Chicago School and the "ecological fallacy" that it produced. However, what the School did accomplish was to provide a reference point, an empirical model that became a theoretical foundation for further research and theory development.

Bullock (1955) studied homicide in Houston, and recognized the deficiencies of the "ecological fallacy" and saw that his data results did not fit existing theories of crime. Bullock asserted:

.....a coherent theory explaining the dynamic relations between disorganized areas and criminal behaviour must grow, not only out of consideration of crime and place as co-existent phenomena, but also out of an analysis of a particular type of crime, a particular type of criminal, and particular places, all as elements of a common process. Using urban homicide as a form of criminal behaviour, this paper seeks to suggest a direction toward the development of such a theory by tracing out the natural manner in which assailant, victim and place become organized into a complex of ecological and interpersonal situations that result in homicide .(1955: 566)

Bullock's 1945-1949 analysis of homicide, assumed that certain areas of the city attracted people of potentially significant characteristics and who in their leisure time became involved in homicide. A total of 489 homicides were examined and, not surprisingly, Bullock found that a few small areas of the city accounted for the majority of the city's homicides. A census tract analysis found that a few Central Business District tracts accounted for 71% of the city's homicides. Bullock recognized the inherent flaws of census tract analysis in that homicides clustered within the tract and along borders of the tract may not be representative of the entire tract. Homogeneity of the census

tract could not be assumed. Bullock turned to a street plotting method that recorded the location of the homicide in relation to the city's streets. An analysis of the results found that 87% of Houston's homicides occurred on four streets or within eight blocks of those streets. These streets and their intersections were called "strategic spots" and were found to be of socioeconomic characteristics that were significantly different from other areas of the city. Bullock then examined census tract data and found that the high homicide areas had common characteristics of: deteriorated inexpensive housing, a large concentration of Blacks, high unemployment rates, high percentage of working labourers/domestics, and low median education level. Bullock tested the strength of the relationship between the variables and the high homicide rate tracts and found that individually the variables correlated moderately with the homicide rate. However, collectively the five variables correlated strongly with homicide occurrence, ($r=.813$).

Bullock found a number of what he termed "dynamic relations" within the strategic areas. Segregation by race was the strongest dynamic indicator. Blacks were found to be highly segregated and were the primary participants in homicide, accounting for 67% of the offender and victim sample. Victim and suspect relationship was also found to be heavily skewed with almost 87% of the participants known to each other, and the majority of participants living within a short distance of each other. Specific locations of homicide occurrence revealed that over 42% of homicides took place in a residence; 29% occurred in a tavern or restaurant. Temporal factors were also significant in that 84% of homicides occurred on weekends; 77% of all homicides occurred between the times of 1800-0600. Bullock mentioned the

following social characteristics that were thought to be contributors to the break down of normal social control functions of the high homicide area: marital discord, alcohol involvement, and excess leisure time.

Bullock set the foundation for the development of a "subculture of violence" theory whereby he saw the spatial distribution of homicide as the result of specific ecological processes that developed racial segregation, physical deterioration, and social and moral decay. These processes in turn developed a "psychology of excuse" amongst the inhabitants of the area, where violence became an acceptable behaviour.

A major limitation of Bullock's work was his failure to account for the criminal backgrounds of the victims and offenders in his study. The criminal record of both subjects was ignored and subsequently the occurrence of homicide was seen as primarily a consequence of situation and inter-personal conflict notwithstanding the violent or criminal tendencies of each participant. The fact that the "strategic spots" may have drawn people of significant criminal tendencies was excluded from analysis.

Wolfgang's Patterns in Criminal Homicide is frequently stated to be the "cornerstone" or "foundation" of modern empirical analysis of urban homicide (Lundsgaarde, 1977 : Wilt, 1974). Wolfgang's objective was to determine whether criminal homicide exhibited definite "objective" order and he assumed that : "...even though homicide is a largely unplanned phenomena, that there are in the event, discernible and empirical uniformities of social characteristics." (1958: 6)

Wolfgang's data base was the Philadelphia Police homicide files for 588 cases for the period 1948-1952. Individual characteristics of the homicide

event, of the offender, and of the victim were examined in a study that overshadowed anything done before it and has become the example upon which many replications, including this thesis, are based.

Wolfgang found a number of significant relationships among his homicide sample, the most important of which were that of race and sex. Blacks were found to be involved with homicide in numbers that far exceeded their proportion in the population. Blacks accounted for 75% of the victims and 73% of the offenders. Males of all races accounted for 76% of the victims and 82% of the offenders. Black females were more likely to be a victim or offender of homicide as compared to white females. Homicide was found to be an intra-racial phenomenon with very few inter-racial killings. Youth was strongly associated with homicide in that offenders were most likely to be 20-29 years old; victims were most likely to be 25-34 years old. Weapon type and racial preference were found to be significantly related; overall 39% of the homicides were by stabbing, 33% by shooting, and 22% by beating. Blacks used stabbing in 47% of cases, while whites used beating in 46.6 % of homicides. Alcohol was a factor in two-thirds of the cases. Blacks were found to have a disproportionately high rate of alcohol involvement.¹ Two-thirds of all offenders and one-half of all victims had a previous arrest record. Males were found to have a higher incidence of arrest as compared to females.

Wolfgang found that his data confirmed the hypothesis that where an offender had a prior record he/she was more likely to have a record of assault

¹Wolfgang admitted, however, that his data were incomplete and that he did not have access to the precise measurement of alcohol level of the offender. He had no data at all on the victim's alcohol involvement. The information was derived from the police mention of alcohol consumption by the offender in the homicide file.

rather than property offences, and where the offender had a record of assault he was more likely to have a serious assault record. Blacks were more likely to have a prior record and were much more likely to have a previous assault record. Petty altercations, domestic quarrels, jealousy, arguments over money, and robbery were the most frequent motives with over 80% of the cases falling into one of the categories. Only 5.4% of cases involved the commission of another crime with robbery the leading criminal motive. Fifty-nine percent of all the identifiable victim-offender homicides involved primary group relations (spouse, relative, friend). Husbands and wives killed each other by stabbing with about the same frequency, and the kitchen and bedroom were the principle locations.

Victim precipitated homicide took place in 26% of the homicide cases.¹ Homicide followed by suicide of the offender took place in four percent of the cases. Unsolved homicides were relatively rare accounting for only six percent of the cases. Court disposition analysis of the 387 convicted offenders revealed that 20% were convicted of first degree murder, 29% second degree, 36% voluntary manslaughter, and 15% involuntary manslaughter. Less than three percent of the offenders were found not guilty by reason of insanity.

Homicide location analysis found that the home and highway (public street, alley, field) were the most common locations for homicide with 50.9% in the home, 31.4 % on the highway, and 8% in a taproom (tavern or bar). Seasonally, homicides did not show any temporal tendencies, but when examined by day of week, weekends accounted for 65% of all homicides.

¹Victim precipitated homicide is defined in the Methods chapter. Essentially victim precipitated homicides are those where the victim initiated the violence, and subsequently became the unintended victim of the conflict.

Wolfgang presented an association of alcohol involvement, weekend slayings, and the corresponding variable of Friday paydays, but because of incomplete data on alcohol involvement Wolfgang stopped short of stating the strength of the relationship. Time to death (period of time from injury to death) was examined and indicated that the majority of victims expired in the first hour after injury infliction. Degree of violence present in the homicide was also examined using Berg and Fox's (1947) definition of violence.¹ Homicides were classified as non-violent or violent depending upon the type and frequency of injury infliction. Wolfgang's results indicated that violent and non-violent homicides were equally distributed by age, race, and by sex.

Wolfgang's Patterns of Criminal Homicide became the basis of many later studies. The research methods, the "subculture" hypothesis, and his suggestions for future research, have guided much of homicide research up to, and including the present day. Other theories in criminology have attempted to explain geographic areas of disorganization and crime. However, the formation of "anomie", "differential association", and other theories before Wolfgang's "sub-culture of violence" hypothesis were developed from research that was primarily offender based. Wolfgang approached homicide research with the contention that homicide was a crime of "mutually interacting participants". Emphasis on the offender, victim, and

¹ No other study has replicated the "violence" variable as it is inherently plagued with definition problems. For example, a cold blooded execution with one shot to the head is seen as "less" violent as compared to a knife fight where there are numerous non-fatal injuries but only one fatal wound. As firearm use increases, with a corresponding increase in the probability of death with just one or two wounds, the violence index as developed by Berg and Fox, would decrease.

the social situation revolving around the participants led Wolfgang to conclude :

...there may be a sub-culture of violence which does not define personal assaults as wrong or antisocial; in which quick resort to physical aggression is a socially approved and expected concomitant of certain stimuli; and in which violence has become a familiar but often deadly partner in life's struggles. Attacks against the person are made without compunction, despite the middle-class value-system which views such acts as the most heinous of crimes. A conflict or inconsistency of social norms is most apparent, and the value-system of the reference group with which the individual differentially associates and identifies, determines whether assaultive behaviour is necessary, expected, or desirable in specific social situations. When an insult or argument is defined as trivial and petty by the prevailing culture norms, but as signals for physical attack by a sub-cultural tradition, culture conflict exists. When a blow of the fist is casually accepted as a normal response to certain stimuli, when knives are commonly carried for personal defense, and a homicidal stabbing is as frequent as Saturday night, then social control against violence is weak. Under such circumstances there appears to be a sub-culture where the collective id dominates social consciousness..... Thus, altercations that lead to homicide become symptoms of unconscious impulses laid bare in a sub-culture where toleration--if not encouragement--of violence is part of the normative structure . (1958: 329)

Bensing and Schroeder (1960) produced a "documentary" of homicide for Cleveland, Ohio, analyzing homicides that occurred from 1947 through 1953. A total of 662 homicides were examined for a number of variables similar to those used by Wolfgang. The data for the study were gathered from the police, court, and coroner files of the individual homicide event. The authors initially found that race and sex were the most significant predictors of homicide. Seventy-six percent of the offenders and 75% of the victims were Black; there were very few inter-racial homicides. Males dominated homicide with 72% of the offenders and 83% of the victims. Most of the participants of homicide were young. Firearms were used in 55% of the sample while knives

were used in only 25% of the cases. Alcohol was found to be present in 36% of the victims however, there was no mention of offender consumption. The most frequent motives included; quarrels of a petty nature, marital discord, and love or sex disputes. Temporal analysis revealed the expected weekend clustering of homicides with most occurring from 1800-0300. No seasonal association with homicide frequency was found. A disposition analysis of race, sex and type and length of disposition, revealed no significant relationship between the variables.

The authors then conducted a social analysis using Cleveland's 1950 Census data and the results of the homicide research. A number of generalizations about homicide were made:

Homicide is a social phenomenon with a high or low incidence and is one index of the social health of an area. Poorer slum type neighbourhoods would show a higher incidence of homicide compared to richer, newer areas. And, that the incidence of homicide would correlate rather highly with other social indices.

A warning regarding the influence of the *a priori* generalizations and the selection of comparison variables was given as was a brief discussion of the danger of causal inference from statistical correlations found in the results. The three generalizations became the hypothesis for the social analysis and were to be tested in "the cold light of statistical fact."

Geographic distribution analysis of the homicide sample revealed that homicides were clustered within three geographic areas accounting for 62% of the homicides in Cleveland. These three areas only contained .6% of the city's population. Not surprisingly, these three areas were downtown slums

with high concentrations of Blacks. Other social indicators such as median family income, education, occupation, population density, overcrowded housing, substandard housing, welfare assisted families, illegitimate birthrate, delinquency, and low health standards all supported the hypothesis of high homicide rates in areas of low social health.

Intra-urban analysis of Cleveland's social planning areas was found to be a very interesting component of the study. From the intra-urban analysis the authors found that income, not percentage of Blacks, was a better indicator of the homicidal tendency of an area. A complex grouping of variables into two indices representing "social problems" and "area characteristics" resulted in an impressive correlation of the indices to the homicide rates of the planning areas. The results of the analysis supported all three of the hypothesis made by the authors:

...homicide is not accidental, nor is the fact that some areas have a high rate and others a low rate a matter of coincidence. The almost invariable association of a high homicide rate with so many other symptoms of social ill health and economic need shows almost conclusively the socio-economic basis of homicide (1960; 184).

The time frame of the data sample closely resembled Wolfgang's study. This allowed for direct comparison of homicide variable results between the two cities. However, Bensing and Schroeder failed to recognize and account for two significant variables in the homicide scenario; that is the criminal backgrounds of the offender and the victim, and the participation of the victim in the precipitation of his/her death. Bensing and Schroeder also neglected to discuss their methodology and never bothered to refer to the literature at all. The study is at best a "documentary" of homicide which does not contribute to

theoretical development but is simply a reporting of homicide using empirical methods.

Pokorny (1965) conducted a replication of Wolfgang's work in an analysis of homicide using data from Houston, and then compared the results to Wolfgang's Philadelphia data. The data for Pokorny's study came from Houston Police homicide files from March 15, 1958 through to December 31, 1961. The sample included 438 homicide cases. Pokorny found a number of significant differences in the homicide patterns between the two cities. Houston's homicide rate of 11.9 per 100,000 population was almost double that of Philadelphia (5.7). Shooting accounted for 63.5% of Houston's homicides as compared to Philadelphia's 33%. Black involvement in homicide for both sexes, victims and offenders, was also disproportionately high compared to their percentage of the total population, but was lower than Philadelphia's Black homicide rate. Whites and especially Latin Americans had much higher rates in Houston. Homicides in Houston were more likely to occur outside of the home compared to Philadelphia, but the killings were most likely to involve family and friends rather than strangers as found in Wolfgang's study. Houston's homicide phenomenon was also found to be an intra-racial event with few inter-racial killings. Spatial analysis of the addresses of the victim and the offender revealed that 75% of the total sample lived within one mile of each other. Even after removing spousal homicides from the sample it was found that 60% of the participants lived within the same census tract.

Pokorny then compared his data to Bullock's (1955) study of homicide in Houston and found a striking reduction in the overall homicide rate. From

1945 to 1961, Houston's homicide rate decreased by 50% from 22.7/100,000 to 11.9/100,000. Pokorny offered no explanation for the reduction of the homicide rate nor did he present any data that could be used to account for the reduction.

Voss and Hepburn (1968) conducted a replication of Wolfgang's study using Chicago as the comparison city. Their analysis was a simple replication to determine if homicide patterns found in Philadelphia were similar to those of Chicago. The sample included 415 offenders and 394 victims of homicide for the year 1965. Data were gathered from a "resume" of the homicide file as presented by the Chicago Police. Total access to the homicide file was not granted. Subsequently variable selection was limited to data provided by the resume and did not include variables such as previous criminal background and social status variables.

The authors found that the Chicago data supported Wolfgang's finding on the significant association between race, sex, age and homicide. Non-whites accounted for 77.9% of the victims and 78.6% of the offenders. Males were victims in 73.6% of the cases and were offenders in 83.1%. Non-white males comprised 56.6% of all victims and 63.8% of all offenders. Non-white females were four times as likely to be a victim of homicide and seven times as likely to be an offender as compared to white females. This association was further exemplified by the presentation of the homicide rate by race: non-white 30.4 homicides/100,000, white 3.5 homicides/100,000. It was also found that the non-white female offender homicide rate was greater than the white male offender homicide rate; the non-white female rate was 11.6 homicides/100,000, while for white males it was 6.6 homicides/100,000. The

white female offender rate was only 1.1 homicides/100,000. Youth was found to be a significant correlate of homicide in that 52.4% of white and 44.5% of non-white offenders were between the ages of 15 and 29. Victims were less youthful with 44.3% of the sample between the ages 25-39. Only 6.6% of the homicides were inter-racial with whites most likely to be the victim of an inter-racial homicide.

Firearm usage in Chicago was higher than in Wolfgang's study, 49.5% of the sample died by shooting, 27% stabbing, 14% by beating. Contrary to Wolfgang's finding of racial preference for weapon type, Voss and Hepburn found that whites and non-whites used the various weapons at the same rate with no significant association found. Temporal patterns of homicide in Chicago also refuted the "thermal hypothesis" of increased crime during the warmer months. Homicide distribution by month was quite consistent. Weekend association with homicide was found to be significant with 60% of all killings occurring on weekends. Homicide was found to be a nocturnal event with 36% of cases occurring between 2000 and midnight. The residence was the most frequent location of homicide; 61.5% of all females and 37.6% of males were killed at home. The difference in the male/female location frequency is explained by the authors in an analysis of offender and victim relationship. Females were most likely to be slain by their spouses or relatives while males were most likely killed by friends or strangers. Shooting was the most common weapon used in the home with over 47% of cases. This surprised the authors given the fact that knives are so accessible at home. Alcohol use by offenders and victims was found to be a significant factor with 53.5% of a reduced sample (known alcohol involvement, 370 cases) having

some involvement with alcohol prior to the homicide. Females were found to have intoxicant involvement in 56% of the cases while male intoxicant involvement occurred in 51% of the cases. This result surprised the authors but was again attributed to the victim/offender relationship. An analysis found that males were more likely to be killed in robberies or by casual acquaintances or strangers on a non-drinking basis outside of the home. Females were more frequently killed by spouses or relatives at home, usually in a domestic dispute situation that involved the consumption of alcohol by both participants. The authors had difficulty in interpreting motive assignments made by the investigating detective and as result their findings are incomplete¹. However, robbery was found to be a significant motive since 39% of the white male sample were killed in a robbery situation. Homicides with motives described as "trivial matters" were found to account for 42% of the non-white homicides. Gang related motive murders, not discussed at all by Wolfgang, were found to be a new, and important motive variable particularly for non-white homicides.

Wilt (1974) conducted a sociological analysis of homicide for Detroit in which she sought to "understand the social interactions and situations of homicides using an interpretative method of analysis" (page 2). The induction method was employed by Wilt to explore homicide through a sociological examination of the various types of social interactions that resulted in the death of one of the participants of the interaction. This was accomplished by two methods of analysis; a trend analysis of homicide for Detroit from 1960 to

¹ No doubt this was due to the fact that Voss and Hepburn were denied access to the full homicide report. Wolfgang and this author had complete access to the homicide file. This problem is further discussed in the Methods chapter.

1972 using reported homicide statistics and a detailed analysis of the social situations and patterns of social interactions for various types of homicides along with a thorough review of the social roles of each of the participants of the homicides that occurred in 1972.

The data source for Wilt's study was the Detroit Police Homicide File. Wilt analysed 672 of the 693 homicides that took place in Detroit in 1972. Medical Examiner records were also used to supplement the homicide file. The sample included both culpable and non-culpable homicides. 1972 was selected as the sample time period as it was the year that the media coined Detroit "Murder City" due to Detroit's high rate of homicide. Wilt initially identified 48 variables for analysis representing six categories: demographic, socio-economic, social and social psychological, situational, social situational and legal. A pre-test of 100 homicides resulted in the author reducing her variable list to 24 and they were as follows: age, race, sex, occupation, education, marital status, and criminal record (of victim and offender), weapon used, type of homicide, location, motive, original aggressor of homicide interaction, previous conflict patterns, sex role, economic and parental concepts and interactions, and drinking patterns.¹

Wilt's statistical results for trends of homicide in Detroit and the exhaustive analysis of 672 homicides is extremely thorough and well presented. Wilt compared her results with that of Wolfgang's and found similarities and differences for both trends and patterns of homicides. The most significant difference between the two studies was the alarming trend of

¹Incomplete and unreliable reporting in the data caused Wilt to narrow her variable list. See the Methods chapter for more detail.

Detroit's increasing homicide rate (157 homicides in 1960-rate not given; 693 homicides in 1972-42 per 100,000 population). Philadelphia experienced only a slight increase in the numbers of homicides from 1948 through 1952 (113 in 1948, 131 in 1952). An analysis of racial composition of the participants of homicide revealed a strong association of Blacks with homicide, in the trend analysis, and for 1972. In 1972, Blacks accounted for 79% of the victims and 83% of the offenders. Black involvement in homicide in Detroit was slightly higher than in Wolfgang's study, however this was due to the fact that Detroit's Black population made up a larger proportion of the total population. Homicide in Detroit was found to be an intra-racial event with only 9.1% of the homicides between persons of different races. Males were the predominant sex group involved in homicide accounting for 81% of the victims and offenders. Youth and homicide, especially for offenders, was again the trend with the largest group of offenders in the 21-29 age group; victims tended to be slightly older. Weapon use in Detroit differed significantly from the Philadelphia experience. Firearms accounted for 77% of the sample (66% handguns), 12.2% knives, beating 4.2%, 6% other. Weekends were positively associated with homicide with 51% of the sample homicides occurring on Friday, Saturday or Sunday. Location analysis revealed that 54% of the homicides occurred in the home, 30% on the street, 4% in a bar and 11% other. Census tract analysis was abandoned as the city was divided into 208 very small tracts. Consequently relatively few homicides were found in any particular tract with no patterns or high concentrations readily visible. The author turned to area analysis by Police Precinct and found that four precincts (out of 13) accounted for 48% of the

sample. Patterns of inner city clusters of homicides near the Central Business District and ghetto areas were observed; very few homicides were found in the suburban precincts. Wilt found that occupation and education level attained for victims and offenders of homicide, were significantly associated with unskilled or unemployed, poorly educated individuals. Homicide in Detroit was for the most part, a crime of low social economic status individuals. Victim precipitation was high with 32% of the sample initiating the interplay of violence. Criminal record of each participant was analysed and it was found that 53.2% of the offenders had a criminal record while only 33% of the victims had a record. Wolfgang's hypothesis of criminal background and the prior existence of assault and violence convictions for the offender and victim was not substantiated as property crimes were the most common prior records for both participants.

Social interaction characteristics of the sample were analysed and were classified as either: unspecified, crime specific, or social conflict. Unspecified homicides were those that were unsolved and had no information regarding the offender, consequently little or nothing was known of the social interaction that led up to the homicide. Crime specific homicides were killings that resulted out of an initial interaction that was motivated by another criminal offence such as robbery or drug underworld killing. Social conflict homicides were killings between family, friends or acquaintances that was initiated from a social conflict rather than a criminal intention. Social conflict homicides made up the largest group with 50.3% of the sample. Crime specific killings accounted for 27.1%, unspecified 22%. The three sociological classifications of homicide were then analysed for each of the

twenty four variables. The result was a detailed and insightful explanation of the social interaction processes involved in each homicide category.

A more recent study conducted in Chicago by Block (1976) was a trend analysis of homicide from 1965 to 1973. Data for the 6075 homicides came from analysis of the Chicago Police homicide files. The purpose of the study was to analyze the changes in rates of homicide involving a number of variables including: age, sex, race, motive, and gun use. Block found significant changes in homicide patterns over the nine year period. The absolute numbers of homicides increased annually in all but one of the nine years. Domestic altercations between family or friends and robbery were the primary motives for homicide with robbery motive homicides increasing annually. Block found an trend for Blacks and homicide in that the Black homicide involvement rate for both victim and offender was rapidly increasing along with a decreasing median age of the Black participants. Latin American involvement in homicide dramatically increased while white involvement remained fairly constant. Block found that the increase in the number of homicides across the sample period (396 in 1965, 841 in 1973) could be statistically accounted for by the increase use of guns. Block cited the failure of gun control legislation and called for more stringent gun control laws.

Lundsgaarde (1977) in an anthropological analysis of urban homicide in Houston, Texas sought to : "...describe, discover, and analyze those cultural patterns that ultimately manifest themselves in the high rate of homicide and related forms of interpersonal violence in the urban Houston community." (1977: p. 18)

The author analysed 232 homicidal incidents that occurred in Houston in 1969 and included both culpable and non-culpable homicides in the sample. Lundsgaarde's objective was to determine how and why homicide occurred so frequently in Houston and why more than half of the offenders escaped official sanctioning and judicial punishment. The data was collected from the Houston Police Homicide File with the author having complete access to the entire file. Lundsgaarde included supplemental data from court records, autopsy reports, and from interviews with detectives, lawyers, and pathologists. From each file the following information was collected for analysis: location of event, type of premises, victim and offender sex, age, race, victim and offender address, victim and offender relationship, weapon, motive, time and day of week of the event, and court disposition. Lundsgaarde also included extensive descriptive case analysis as well as census tract data in an attempt to:

...conceptualize the problem of aggression and violence in American society as part of implicit cultural patterns that are sustained and nourished by slowly changing social values and social institutions. The anthropological approach provides an empirical basis, founded on a detailed comparison of actual case materials, for both theoretical and applied discussion of urban violence as a cultural phenomena. (1977: 19)

Lundsgaarde found some interesting patterns of homicide in his data. Blacks were the predominant racial group involved in homicide with 69% of the offenders and 67% of the victims. Whites accounted for 23% of the offenders and 26% of the victims. Mexican Americans were victims in 7% of the homicides and were offenders in 8%. Firearms were used in 86% of the homicides with stabbing accounting for 11% and other 3%. The residence was the most frequent location with 41% of the sample, 20% occurred in a bar, and

11% on the street. Motives leading to homicide were varied with "trivial" motives as the most frequent reason given. Most victims and offenders lived within close proximity of each other with 41% of the victims living in the same location as the offender. Lundsgaarde conducted an detailed analysis of victim-offender relationships and categorized the relationships as follows: homicides within domestic groups, homicides among friends and associates, homicide among strangers. Domestic group homicides were the most frequent type of victim-offender relationship (41% of the sample). Friends and associates recorded 29% of the cases while stranger type homicides accounted for 23% of the sample. The author presented detailed case studies of each type of relationship and then examined the justice system's response to each type of relationship category. Lundsgaarde found that the justice system was very reluctant to sanction domestic group and friends/associates homicides. Stranger homicides were most likely to be sanctioned and to receive the harshest punishment. Lundsgaarde explained the discrepancy in the judicial system's response to homicide in part by the broad definition of excusable homicide in the Texas Criminal Code and by the historical "wild frontier" and "gun toting" mentality that some Texans employ in resolving trivial conflict with deadly force .

The great latitude accorded Texans by statutory law in responding to threats from fellow citizens unquestionably precipitates more violence in the populace than might otherwise be the case. By scaling official sanctions in response to the private and public interest in a particular act, a society manages to negatively sanction aggressive and violent behaviours that directly threatens overall public welfare.... Killing, as we have seen, when defined in terms of social relationships and punishment, if any, can be explained by referring to cultural values deeply embedded and reflected in formal legal institutions. (1977:185).

Canadian research of homicide has largely been conducted at levels other than the *meso-analysis* of homicide in urban areas. Most of these other studies have employed national homicide statistics provided by Statistics Canada in their analyses. Statistics Canada itself produces homicide analyses based upon police generated data. The latest paper by Statistics Canada, Homicide In Canada 1976-1985; A Historical Perspective, is a detailed analysis of national homicide data employing crosstable analysis of a multitude of variables. A number of Canadian studies of non meso-analytic homicide research, are included in the bibliography.

CHAPTER II

METHODS

The methods employed in this thesis closely resembles the methodology developed by Wolfgang (1958), and replicated by Lundsgaarde (1977), Wilt (1974), Voss and Hepburne (1969), and Pokorny (1965) whereby the data were derived almost entirely from various police records. However, subtle differences in the methodology developed because of the availability, reliability, and quality of the data at hand. It was also desirable to improve upon the prior methodologies by the inclusion of new variables.

One basic difference in methodology between Wolfgang's Patterns in Criminal Homicide (1958) and this paper was that Wolfgang only included those homicides that were defined as criminal; all homicides that occurred in Vancouver within the seven year study period were included for analysis in this thesis.¹ There were several reasons for this decision, one being that there may have been significant differences in the criteria used by the two legal systems to determine whether a homicide was criminal or not. Another reason for the inclusion of all homicides was to allow a comparison between non-criminal and criminal homicides, which would result in a more complete understanding of homicidal interactions in Vancouver.

From the number of areas that Wolfgang suggested for future research the following have been incorporated into this paper:

¹From Wolfgang's total sample of 625 homicides, 588 were classified as criminal by a coroner's inquest, these 588 homicides formed the sample Wolfgang used in his analysis. However it is interesting to note that from court disposition data presented on page 382, table 26, of the 607 offenders taken to trial for the 588 homicides, 203 offenders (33%) were found "not guilty" or "other" disposition and subsequently would be defined as non-criminal.

1) Analysis of scientific data of alcohol levels of both the victim(s) and suspect(s) (when available) from autopsy and police investigation.

2) An analysis of solved and unsolved homicides and inclusion of all homicides, both culpable and non-culpable.

The Sample

A total of 194 homicide cases that occurred during the years 1980 to 1986 were examined. The sample included unsolved, solved, and police justified homicides. Originally all of the homicide cases within the seven year time span were identified for the sample, however, four files could not be located. The files for the last seven years were easily obtainable, were relatively uniform in their composition and were of sufficient number to allow for comparison with previous American studies. Where files were found to be incomplete (parts missing) alternative sources such as coroner's records, court records, were searched to complete the file as much as possible.

The Research and Data

The data for this study were gathered from the individual Homicide File of each of the 194 homicide cases that occurred in Vancouver from 1980 to 1986. Each homicide file was examined in detail and selected variables were then coded following the coding sheet found in appendix two. A synopsis of each homicide was also recorded listing qualitative information concerning the events of the homicide.

Variable selection and the collection of data was therefore limited to the amount, type and quality of data reliably reported in each Homicide File. The amount and quality of data varied with each file depending upon the circumstances and the authors of the file. To fully comprehend the processes

involved in the make-up of a Homicide File a short description of the homicide investigation process follows.

The Vancouver City Police Major Crime Section investigates all homicides, (other than fatal motor vehicle accidents), that occur within the city. All homicides are investigated initially by the Patrol Division. The Major Crime Section (M.C.S.-Homicide Squad) is then called on to take charge of the investigation. The Coroners Service is also called and attends all homicide scenes. The Coroner takes charge of the victim and it is the Coroner's duty to discover the cause of death, and to recover any evidence such as bullets, poisons, etc., found within the body.

Various reports are prepared in the investigation process. The first police officer on the scene will usually be charged with completing an Investigation Report. The Investigation Report outlines the occurrence of the incident with minimum detail. All other police officers involved in the initial investigation will complete a Miscellaneous and Supplementary Report stating their involvement.

The M.C.S. detectives attend the scene and take charge of the investigation, all records and progress are kept in a Homicide File created by the detective. The detective in charge will also complete a Statistics Canada Homicide Return Form¹. When a suspect has been identified and criminal charges are contemplated a Report to Crown Counsel, which includes all of the known facts of the homicide and the investigation, is prepared. This report will include other reports from various departments and agencies such as: Identification Squad (photographs, fingerprints), Crime Lab (ballistics and

¹See Appendix 1.

weapon examination), City Analyst (alcohol and drug identification), Pathologist (autopsy details), Criminal Records (previous charges and convictions). In addition, wherever possible, written statements from all witnesses to the incident are included. Oral and/or written statements from the accused are also included.

All of the Homicide Files were organized in the following format:

- 1)Synopsis of crime.
- 2)Crown Counsel Narrative- Evidence gathered by the police.
- 3)Witnesses- civilian and police.
- 4)Statements- Witnesses and suspects.
- 5)Miscellaneous Police reports.
- 6)Exhibits.
- 7)Science- Ballistics, medical, fingerprints etc..
- 8)Photographs of the scene..
- 9)Statistics Canada Homicide Return Form.

Variable Selection and Definition

Variable selection was carefully considered. A number of variables used by Wolfgang(1958) and others were obvious choices and could be reliably coded from the Homicide File. Standard variables found within the literature and that were included in this study include: date, day of week, time, location of incident, motive, means employed to inflict death, victim and suspect demographics, (race, sex, age, marital status, education, employment status), criminal background, alcohol involvement and the relationship between the victim and suspect. Based upon the experience of a 1984 pilot paper (Coburn and MacAlister, 1984), it was recognized that variable

selection was critically related to the available information that could be consistently found in the Homicide File. This crucial criterion was exemplified by Voss and Hepburn(1968)¹ and Wilt(1975). Wilt originally identified 48 variables that were to be divided into six categories: demographic, socioeconomic, social and social psychological, situational, social situational and legal. However, after an initial analysis of one hundred files, Wilt reduced the number of variables to be included in her study to twenty-four because of incomplete and inconsistent reporting over the sample time period.

Consequently, based on the experience gained from the 1984 pilot paper and a thorough review of a sample of the newer files, the following variables were added: census tract and exact street location of the homicide, suicide/attempt by the suspect after the homicide, case disposition, charge type, sentence upon conviction, whether the homicide was victim precipitated, and drug involvement.

Education level of victim and suspect was initially chosen as a variable. However, the Statistics Canada Homicide Return Form listed education level for the suspect, but not for the victim. Since it was up to the discretion of the individual detective to record education level for the victim, it was seldom mentioned. Even for the suspect, education level was recorded too infrequently to be reliable. It became apparent that education was not reliably reported for either the victim or suspect and subsequently the variable was discarded.

¹Voss and Hepburn were not given total access to the homicide file and subsequently had to reduce the number of variables that they could work with. Page 500.

Location of the homicide event was examined and was defined as the site of the incident where the injury to the victim (which directly led to the victim's death) was inflicted. The type of location rather than the exact location was coded. Exact location coding would have necessitated large data lists, with few entries in each particular location e.g., kitchen, bathroom, hallway. In many cases coding the exact location would be problematic, for example, in a rooming house room, the bedroom is the living room, dining room and kitchen. While the literature seems to be split on exact location verses type of location, for the purposes of this study, type of location was chosen. Locations were coded as follows: "house or apartment" (or other place of dwelling including hotel room, rooming house etc.), "street, lane, parking lot" (included underground parking areas), "commercial" (any store or business other than a pub or place of employment of victim/suspect), "pub or bar" (licensed premises not a restaurant), "place of employment" (of victim or suspect, includes very recent employment), "automobile or boat", "river, lake or ocean", "park or other outside location", "other", and "not known".

Motive was defined to closely resemble the Statistics Canada Homicide Return Form definitions with slight modifications. Statistics Canada identified twelve possible motive categories: revenge, jealousy, anger/hatred, argument/quarrel, robbery/theft, sexual assault, self-defence, escape, during commission of other offence, inadvertent act, other motive, mentally ill, motive not known. Upon review of the Homicide Returns, problems with coding became apparent. Many Returns had multiple motives indicated, especially incidents involving revenge, jealousy, anger/hatred, argument/quarrel. Each detective scored motive as he interpreted the incident.

No guidelines were included with the Homicide Return, subsequently the detective used his own discretion in coding the motive of the particular incident with the motives on the Return. Frequently this was done by scoring multiple motives on the Return. In these instances a thorough review of the file took place to determine the underlying singular motive or intent of the incident. In addition "anger/hatred", "argument/quarrel" was collapsed into a single variable labelled "anger/argument". "Escape" was eliminated as there were no victims in the sample that were in the process of escaping. "Inadvertent Act" was discarded. "Arson" was included in "other offence". "Self-defence" was scored if upon review of the incident no charges were laid by the Crown in the first instance, as "self-defence" is an excuse to culpable homicide.¹ Homicides by police officers were scored as "police justified" if no charges arose out of the incident. "Police justified" was a new category not listed on the Homicide Return.

Weapon was defined as the means used to inflict the injury which directly led to the death of the victim. The Homicide Return categorized the means of offence as follows: shooting, beating, stabbing, strangling, suffocating, drowning, arson, other, unknown. For this thesis, shooting was dichotomized into two categories: "handgun", "rifle/shotgun". Much is written in the literature about handgun availability and lack of controls as a significant factor contributing to the higher overall homicide rate in the U.S. compared to countries such as Canada with relatively strict controls and limited availability. Rifles/shotguns are not subject to strict controls and are much more readily available. Because of handgun control laws and the

¹ Section 35, Criminal Code of Canada.

greater availability of rifles and shotguns it was decided to see if there was any displacement of handguns for rifles/shotguns as the weapon of choice of murderers. Beating was dichotomized for this study into two categories: "beating/blunt object", "beating/strangulation/hands-feet". The variable was expanded to distinguish if a weapon in addition to bodily force was used. "Poison/overdose", and "vehicle" (where the vehicle was intentionally used to injure/kill) were included as additional means of inflicting death.

"Gender", "age", "race", "marital status", and "victim-suspect relationship", were scored directly from the Homicide Return.

The Homicide Return required employment information for the suspect(s) but not for the victim(s). Once again it was found that employment was unreliably coded with no guidelines or consistency as to type of employment or unemployment. Each File was then referred to and the backgrounds of the subject examined. Suspect backgrounds were more thoroughly reported than were victim backgrounds. This is explained by the fact that the background of an accused will play a part in bail considerations. Inclusion of victim background information in the File was left up to the individual detective's discretion. Employment was categorized as follows: "unemployed", "welfare", "working part time", "working full time", "self employed", "retired", "other", and "not known". The unemployed and welfare categories differentiate a time duration of unemployment. "Unemployed" was scored for subjects who were unemployed for less than one year and whose income was from Unemployment Insurance or other sources not including Social Assistance. "Welfare" was scored if the subject

was unemployed for more than a year and his/her source of income was Social Assistance.

The address for both subjects was taken directly from the Homicide File. Address was categorized as follows: "no fixed address", "fixed address less than one year", "fixed address more than one year", "fixed address unknown", "not known", and "other".

Address in conjunction with employment and education were seen as possible social economic status indicators. However, education was discarded because of infrequent reporting. Address and employment were routinely reported and may provide some basic social economic status information if one is prepared to equate unemployed/welfare-no fixed address with low S.E.S, and employed-fixed address with higher S.E.S.

Homicide alcohol involvement for each subject was scored as follows: "none", "minor less than 80 mgs", "major-80 mgs and over", "intoxication level not known", "not known if involvement". Victim blood alcohol tests were conducted by the City Analyst, when possible, on all of the victims and the results were forwarded to the detective in charge of the File. In a few cases where the victim did not die immediately or soon after the injury (e.g., hospitalized, given blood transfusion died days, weeks later) a blood test for alcohol at the autopsy would reveal no involvement. However, if from witness statements, or from observations made at the scene, it was evident that the victim had alcohol involvement "intoxication level not known", would be scored. This would also apply to suspects who were not immediately arrested and later claimed to be intoxicated at the time of the incident. All arrested homicide suspects are requested to give breath samples for alcohol analysis,

however it is not a mandatory requirement. Where a subject's exact blood alcohol level was known, the level (miligrams per 100 millilitres of blood) was also recorded.

The drug involvement category also described two aspects of involvement and was coded as follows: "none", "victim involvement", "suspect involvement", "victim and suspect involvement", and "not known". If levels of an illegal drug were detected at the autopsy the victim would be scored as having involvement. Prescribed drugs were not scored as involvement. Scoring prescribed drugs as an intoxicant was seen as very problematic because of the multitude of prescribed drugs, and of the varying levels of drug ingestion required to have an intoxicating effect (or by the endless combinations of prescribed drugs that would be encountered that may or may not have an intoxicating effect). The suspect was scored as having involvement if there was direct evidence of illegal drug consumption given by witnesses or by the suspect himself. Each subject would also be scored as having drug involvement if the subject was a known drug addict, or if the homicide involved a known drug transaction or drug underworld connotations.

The criminal record of the victim and subject was determined from information in the Homicide File, or by utilizing the Canadian Police Information Computer, or by searching the Criminal Records Section of the Police Department. In a File where a suspect was identified, a criminal background was usually included. However, this did not hold true for victims as it was up to the individual detective whether to include a victim's criminal history. Where criminal backgrounds were not found in the File, the

Canadian Police Information Computer and the Local Criminal Record Files were used. A problem was experienced with both alternative sources of information in that the criminal record of a subject is destroyed by both record sources one year after official notification of the subject's death. In these cases the detective in charge of the File was contacted and was asked to recall from his notes, the type of criminal background of the subject. Criminal background's were categorized as follows: "minor property" (three or fewer convictions, less than two years prison), "major property" (more than three convictions or more than two years prison), "violence" (assault, weapons), "drugs", "driving/fail to appear/other", "violence and drugs", "career criminal", and "not known". Each subject's criminal record was researched and was scored using the criterion that a "career criminal" was someone with eight or more convictions and prison time of more than two years in total. Subjects with multiple theft convictions (more than eight) but with less than two years prison time would be scored "major property". Any assault or weapons record with prison time would be scored as "violence" as the severity of the assault or weapons offence can be associated with prison time. The conviction with the longest prison time would outweigh other lesser convictions and score the person in that category (e.g., four thefts with minor fines and or short prison terms along with one or more drug charges with lengthy prison terms would score "drugs"). "Driving/fail to appear/other" includes impaired driving, and other technical offences and would include minor sex related charges. Rape and sexual assaults would be scored as "violence".

Case disposition of each file was examined and indicated the file status as determined by the detective in charge, and by court disposition of the case. Case disposition was scored as follows: "unsolved", "solved no charges", "charged found not guilty", "charged found guilty", "charged found insane", "not determined-trial pending", "case solved-insufficient evidence to charge", "pled guilty", "stay of proceedings/discharge at preliminary inquiry", "suspect outstanding/suspect dead". Where a suspect was charged, case disposition was determined by searching the suspect's Local Criminal Record as held by the Criminal Record Section of the Police Department.

Charge type indicates the type of criminal charge that the homicide file generated and may indicate the extent of plea bargaining and charge reduction by the Courts, if coupled with case disposition information. It should be noted that the police only suggest charges, all homicide files are presented to Crown Counsel who have the final decision on who to charge and what charges will be laid. If a suspect was originally charged with first degree murder but pled guilty to the lesser charge of second degree murder under an arrangement with the Crown, it is an indication of charge reduction by plea bargaining. The Court reduction of charges by judges and juries would be indicated by a reduction in the charge combined with a case disposition, "charged-found guilty". Charge type was scored as follows: "none", "first degree murder", "second degree murder", "manslaughter", "criminal negligence causing death", "other" (includes infanticide), "first degree reduced to second degree", "first degree reduced to manslaughter", "second degree reduced to manslaughter", "suspect dead".

Sentence indicates the legal sanction awarded the suspect upon Court disposition of the case and was scored as follows: "none", "probation-no jail", "jail-less than two years", "jail-two up to ten years", "jail ten to twenty-five years", "life", "awaiting disposition" and "other".

Suicide attempt and successful completion by the suspect after the murder was examined and was coded as follows: "no attempt made", "attempt made", "successful", and "not known".

Victim precipitation was examined and was found to be a very problematic variable. Each File had to be carefully read and the comments of all involved had to be studied to see if there was evidence of victim precipitation. Wolfgang's definition of victim precipitation was used:

The term *victim precipitated* is applied to those criminal homicides in which the victim is a direct, positive precipitator in the crime. The role of the victim is characterized by his having been the first in the homicide drama to use physical force directed against his subsequent slayer. The victim-precipitated cases are those in which the victim was the first to show and use a deadly weapon, to strike a blow in an altercation,--in short, the first to commence the interplay or resort to physical violence. (1957: 4)

All unsolved homicides were subsequently scored as "not known if victim precipitated". Solved homicides were then coded "victim precipitated", "not victim precipitated", or "not known". Where there were no witnesses to the event, the evidence of the suspect was relied upon to decide whether the victim precipitated the killing. However, one must keep in mind that suspects will try to mitigate their circumstances by indicating that the victim had started the argument/fight and had been the first to use force. Unfortunately the dead victim could not tell us that the suspect was lying, therefore corroboration of the suspect's story was always sought. Another factor that

influenced coding is that some suspects refused to give statements to the police as to the pre-homicide events, until after talking to a lawyer, and may not have provided statements at all until they took the stand in their own defence. In these cases, without other information, the homicide would be scored as "not known if victim precipitated", as access to Court transcripts was not sought.

Homicide location by address and census tract was coded for each location. It was decided to record both census tract location and exact address location for a number of reasons: 1) census tract boundaries are often arbitrarily drawn along major thoroughfares and do not necessarily represent homogeneous neighbourhood areas; 2) land use across a census tract can change dramatically and subsequently a tract may be unfairly characterized by a small fringe area with high homicide activity. The census tract address for each subject was also coded as follows: "not known", "no fixed address", and "other" (not within the City of Vancouver).

Thus the variables identified for analysis in this study are: police case number, date, day of week, time of event, location of event, weapon used, homicide motive, subject (victim-suspect) demographics (gender, age, race, marital status, employment status, address status), victim-suspect relationship, alcohol and drug involvement, criminal record of subject, suicide, case disposition, charge type, sentence, census tract and exact street location of the homicide, and victim precipitation.

CHAPTER III

PATTERNS OF HOMICIDE

The sample of 194 homicide files from January 1, 1980 to December 31, 1986 represented 98% of the total number of homicide files for the period, four files were not located. The 194 files produced a total of 204 victims and 174 suspects.

Temporal Patterns

The trend over the seven year period can be seen below. There was no distinct pattern of homicide frequency over the sample range, the average victim homicide rate per 100,000 population over the sample period was 7.0.¹

Table 1
Victim Homicide Rate by Year²

Year	<u># of victims</u>	<u>homicide rate</u> <u>/100,000</u>
1980	30	7.0
1981	29	7.0
1982	40	9.6
1983	23	5.5
1984	25	6.2
1985	35	8.2
1986	26	6.1

² Includes four victims from the missing files.

The distribution of homicides by month over the study period varied from a low of 12 victims in March and April, to a high of 25 in October. No significant monthly association was found. A frequency of 17 homicides per month was statistically expected.

¹ Based on 1986 Census Canada population statistics.

Table 2
Number of Homicides by Month

January	16	April	12	July	16	October	25
February	14	May	17	August	22	November	16
March	12	June	19	September	19	December	16

Even when combined by season, the distribution of homicides was not significantly related to any of the four seasons.

Table 3
Homicides by Season

Winter	46
Spring	41
Summer	57
Fall	60

The expected frequency per season was 51. The "thermal hypothesis" of homicide which states that homicide activity increases as temperature increases, was not supported by the Vancouver data.¹

Analyzing homicide frequency by the day of the month revealed no distinct temporal clustering. Homicide frequency peaked with 13 on the ninth day of the month, while day 10 was the least murderous day with only two homicides.

A hypothesized relationship of a high homicide period during welfare pay week (known to the locals as *mardi gras*) was not substantiated by the data. Welfare "pay day" occurs on the last Wednesday of the month and its effect may spill over into the first few days of the next month. To test the relationship and to control for the spillage, the days of the month were trichotomized into three groups; group one, from day 25 to day 3; group two, day 4 to 13; group three, day 14 to day 24 (group one may contain 8,10, or 11

¹ This hypothesis suggests increasing temperature during the summer months. For a complete examination of meteorological association testing see Brealey (1932).

days depending on the month; group two contained 10 days; group three contained 11 days). Group one, the period when welfare cheques were distributed, contained the fewest number of homicides. Group three, the period leading up to the welfare pay week, contained the most.

Table 4
Homicide by Welfare Period

Group 1	30.2% (welfare period)
Group 2	32.5% (post welfare period)
Group 3	37.3% (pre welfare period)

An examination of weekday distribution of homicides showed no association between day of the week and homicide frequency. Weekend clustering of homicide did not materialize. A homicide frequency of 29 per day was expected.

Table 5
Homicide by Day of Week

Sunday	41
Monday	25
Tuesday	25
Wednesday	23
Thursday	33
Friday	28
Saturday	29

Hourly distribution of homicides was analyzed and was found to be significantly associated with homicide occurrence.¹ The diurnal distribution of homicides was analyzed by compressing the hours of the day into four six-hour divisions; 0200-0759 (early morning), 0800-1359 (mid morning), 1400-1959, (afternoon), 2000-0159 (evening). Evening was by far the most lethal period with 49.5% of the sample murdered between 2000 and 0159. The early morning period was next with 24% of the sample, afternoons 16%, and mid-morning 16%. An unexpected finding in Vancouver's temporal patterns of

¹ $\chi^2=73.6$, $df=3$, $p=0.01$.

homicide was the non-significant association of homicide and days of the week. Lundsgaarde (1977), Wolfgang (1958), Wilt (1974), Bullock (1955), Bensing and Schroeder (1960), Voss and Hepburn (1968), all found that homicide frequency clustered significantly on weekends. Vancouver's homicide frequency peaked on Sundays and Thursdays with no significant weekend frequency.

Homicide rate trends in the literature differed somewhat with Wolfgang (1958) reporting a slight decline in homicide rate during his sample period. Pokorny (1965), found a "striking " decrease in Houston's homicide rate from 1945 to 1961. Lundsgaarde (1977), Wilt (1974) and Voss and Hepburn (1968) cited alarming increases in the homicide rate for their particular sample city as a motivating factor in studying homicide. Vancouver's data did not display any trend over the sample period.

Monthly, and seasonal homicide patterns found in Vancouver were consistent with the literature's inconsistent findings of monthly and seasonal homicide patterns. Hourly patterns of homicide in Vancouver were consistent with those found in the literature whereby the evening period (after 8 p.m.) was found to be the most lethal. Yearly fluctuations of Vancouver's homicide rate did not support any trend of increasing or decreasing rates.

Homicide Location Patterns

Homicide location was defined as the location of the initial violence that directly caused the death of the victim. Location variables were compressed into five categories to reduce the number of zero cell categories: residence, street (included: lane, parking lot, outside-park), commercial (included: place of employment), bar, and other (included: auto-boat, river-ocean).

Location was found to be significantly associated with homicide occurrence.¹ Sixty-four percent of the sample's homicide victims were killed in a residence, 26% on a street, 4% in a commercial premises, 3% in a bar, 2.5% other location. All of the homicide studies reviewed reported a high occurrence of homicide within the confines of a dwelling. Wolfgang (1958) found that 51% of the homicides in his sample took place in the home, Lundsgaarde (1977) reported 40%, Bullock (1955) 42%, and Wilt (1977) 53%.

Table 6
Homicide by Location
Victims

Place	Male		Female		N	(%)
	N	(%)	N	(%)		
Residence	93	(61.6)	38	(71.7)	131	(64.2)
Street	44	(29.1)	10	(18.9)	53	(26.0)
Bar	5	(4.4)	0		5	(4.4)
Commercial	6	(3.3)	4	(7.5)	10	(2.9)
Other	3	(2.0)	1	(1.8)	5	(2.5)
Total	151	(100)	53	(100)	204	(100)

Location analysis by gender revealed that female victims and location were significantly associated.² Seventy-one percent of the female victim sample died as the result of violence that was initiated in their own residence, the suspect's residence, or in some other person's home. Male victim location analysis also revealed an significant association, 61% of the male victim sample died as result of injury sustained in a residence.³ 'Street' homicides accounted for 28.5% of the male victim sample, compared to 18.8% for female victims.

¹ $\chi^2=178.98$, $df=3$, $p=0.01$.

² $\chi^2=62.68$, $df=3$, $p=0.01$.

³ $\chi^2=29.49$, $df=3$, $p=0.01$.

Analysis of homicide location by victim-suspect relationship revealed that of victims killed in a residence, 35.9% were killed by a friend or acquaintance; 18.3% were killed by a stranger; and 16% were killed by their spouse/commonlaw. Female victims however, were most likely to be killed by a spouse or commonlaw partner.

Strangers were responsible for 48.2% of all street homicides, in addition, 30.4% of street victims had an unknown relationship with their killer(s). Only 18.6% of homicide victims killed on the street knew their killer(s).

Commercial, bar, and other, constituted less than 10% of the total sample and displayed no apparent pattern of victim-suspect relationship. Subsequently, the three variables were compressed into a single category, 'other'.

Table 7
Homicide Location by Victim-Suspect Relationship

	<u>Residence</u>		<u>Street</u>		<u>Other</u>		<u>Total</u>	
	N	(%)	N	(%)	N	(%)	N	(%)
None	24	(18.3)	27	(48.2)	8	(47.1)	59	(28.9)
Friend/Acquant.	47	(35.9)	6	(10.7)	4	(23.5)	57	(27.7)
Spouse/Commonlaw	21	(16.0)	2	(3.6)	0		23	(11.3)
Other relative	11	(8.4)	1	(1.7)	0		12	(5.9)
Lover	6	(4.6)	2	(3.6)	0		8	(3.9)
employer/ee	2	(11.5)	0		0		2	(1)
ex-lover/ex-spouse	3	(2.3)	1	(1.7)	3	(17.6)	7	(3.4)
Not-known	17	(13.0)	17	(30.4)	2	(11.8)	36	(17.6)
Totals	131	(100)	56	(100)	17	(100)	204	(100%)

No significant difference in the location pattern of homicide victims by race was found. Whites, Natives, and Orientals were most frequently slain in a 'residence'. The 'other' race category was the exception to this finding with 45% slain 'outdoors' and only 36% slain in a residence (the 'other' race category had a small N of only 11 victims).

Of those victims slain in a residence, 43% of the victims had a blood alcohol content of more than 80 milligrams at the time of death. Male victims were intoxicated in 60% of the male residence homicides. Female victims were intoxicated in only 21% of the female residence homicides. Male suspects of residence homicides were identified as intoxicated in 25% of the cases (24 of 94), female suspects were intoxicated in 52% of the cases (10 of 19). Of street homicides 41.9% (18 of 44) of the male victims were intoxicated at the time of death, while 20% (2 of 10) of the female victims were intoxicated. Only 17.9% of males suspected of street homicides were intoxicated, and of the 3 female street homicide suspects, none were intoxicated.

Table 8
Homicide Location by Motive

	Residence	Street	Commercial	Bar	Other	N	(%)
Revenge	11	1	4	2		16	(10.3)
Jealousy	6	1			1	8	(4.0)
Anger-Argument	62	19		3	1	85	(41.7)
Robbery-theft	26	14	3		1	44	(21.6)
Sex-assault	3	1				4	(2.0)
Other offence	5	1				6	(6.0)
Self-defence	2	3			1	6	(6.0)
Mentally ill	5	1				6	(6.0)
Justified-Police		1	1			2	(1.0)
Not known	11	12	1	1		25	(12.2)
N=204	131	54	9	6	4	204	(100)
(%)	(64.2)	(26.5)	(4.4)	(3.0)	(2.0)		

Location analysis of homicide by motive revealed that of the homicides that occurred in a residence the most frequent motive was anger/argument, representing 47.3% of 'residence' homicides. Robbery/theft was the next most frequent motive for 'residence' homicides with 19.8% of the cases. Of the

homicides that occurred on the 'street', anger/argument and robbery/theft were the most frequent motives.

Location analysis of weapon use revealed that 52% of 'residence' homicides employed 'stabbing' as the principle means of death infliction. Bodily force 'beatings' were the next most frequent means of death with 26% of the 'residence' cases, blunt object 'beatings' accounted for 11% of the cases. Handguns were involved in only 5% of the 'residence' homicide cases. Of the 'street' homicides, 'stabbing' was the most frequent means of death with 47% of street cases, bodily force 'beating' accounted for 24%, followed by 'handguns' 13% , blunt object 'beating' 9%.

Table 9
Homicide Weapon Use by Victim Location

Weapon	<u>Residence</u>		<u>Street</u>		<u>Commercial</u>		<u>Bar</u>		<u>Other</u>		<u>Total</u>	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Handgun	7	(5.3)	7	(12.9)	5	(55.5)	3	(50)	3	(75)	25	(12.5)
Rifle/shotgun	3	(2.3)	1	(1.8)							4	(1.9)
Stabbing	69	(52.7)	25	(46.3)	3	(33.3)	3	(50)			100	(49.0)
Beating/blunt	14	(10.7)	5	(9.2)					1	(25)	20	(9.8)
Beating/hands	34	(25.6)	13	(24.1)							47	(23.0)
Poison	2	(1.5)									2	(0.9)
Vehicle			1	(1.8)							1	(0.5)
Arson	1	(.7)									1	(0.5)
Other	1	(.7)	2	(3.6)	1	(11.1)					4	(1.9)
	131	(64.2)	54	(26.4)	9	(4.4)	6	(2.9)	4	(1.9)	204	(100)

Homicide location patterns in Vancouver were comparable to those found in the literature. All of the studies cited found that the residence was the most frequent location of homicide. Street locations were consistently high in number except for Lundsgaarde (1977) who found that the tavern accounted for 20% of Houston's homicides, while street locations accounted for only 11%.

Weapon patterns by location were not surprising. The predominance of stabbing and the relative rarity of handgun use can be partially explained by the relative supply of these weapons in the general population. Knives are commonplace in the home and are becoming commonplace on the street, as many citizens have taken to carrying knives as a defensive weapon.

Race, Age, and Gender Patterns

Race characteristics of the homicide participants in Vancouver were strikingly different from those found in the literature. However, this was expected as Vancouver's racial composition was significantly different from the study cities of the American dominated literature.¹

Table 10
Vancouver Racial Composition 1981

Total population: 408,080

<u>Race</u>	<u>Total</u>	<u>(%)</u>	<u>Homicide rate/100,000</u>
White	305,640	(74.9)	7.0
Native Indian	6,280	(1.5)	59.1
Oriental	66,170	(15.9)	4.3
Indo-Pakistani	14,175	(3.5)	5.0
Black	910	(0.2)	31.4

In contrast to the reported race distribution of homicide participants found in the literature, Vancouver's largest racial group had the greatest involvement with homicide as both victims and suspects. Vancouver's white population in the 1981 Census was approximately 305,640; or 75% of the total population. Over the seven years of this study Vancouver recorded 149 white homicide victims, or 73% of the homicide victim total; 123 white suspects

¹ Census Canada 1981, defined race characteristics by ethnic or cultural origin to which the respondent's ancestors belonged on first coming to this continent. Subsequently for this paper's purpose over 41 different ethnic origins were compressed into white, native, oriental, indo-pakistani, black, and other, depending upon the racial composition of the ethnic origin. 14,905 (3.7% of total population) ethnic backgrounds could not be reliably coded into one of the five racial groups.

were identified, or 70.7 % of the suspect total. Using 1981 Census figures, Vancouver's white victim homicide rate, per 100,000 population, (averaged over the seven years of the study), was seven victims per 100,000 white residents. Calculating a white suspect rate in the same manner, Vancouver produced 5.7 white suspects per 100,000 white residents.

Native Indians as a racial group represented 1.5% of Vancouver's population, however, natives constituted the second largest group of homicide participants. From 1980 to 1986 there were 26 native homicide victims, or 12.7% of the victim total. Thirty-nine native suspects were identified; or 22.4% of the suspect total. The native victim homicide rate, (averaged over the seven years), was 59.1 native victims per 100,000 native population. Calculating a native suspect rate in the same manner produced a native suspect rate of 88.6 per 100,000 native population.

Table 11
Vancouver Homicide Population by Race

Race	Victims				Suspects			
	M	F	N	(%)	M	F	N	(%)
White	113	36	149	(73.0)	108	15	123	(70.7)
Native Indian	19	7	26	(12.7)	32	7	39	(22.4)
Oriental	14	4	18	(8.8)	3		3	(1.7)
Indo/Pakistani	2	3	5	(2.4)	5		5	(2.8)
Black	2		2	(1.0)				
Other	1	1	2	(1.0)	2		2	(1.1)
Not known		2	2	(1.0)	2		2	(1.1)
Total	151	53	204	(100)	152	22	174	(100)

Oriental constituted the second largest racial group in the City with 15.9% of the population. However, Oriental homicide involvement was noticeably lower than that of whites and natives. There were 18 Oriental victims in the sample; or 8.9 % of the victim sample. Only 3 Oriental suspects

were identified; or 1.7% of the suspect sample. The Oriental victim homicide rate per 100,000 population, (averaged over the seven years) was 4.3. The suspect rate was 1.7 suspects per 100,000 population (averaged over seven years).

The third largest racial group in Vancouver, Indo/Pakistani, represented 3.5% of Vancouver's total population. The group's involvement with homicide was very low with only 5 victims and 5 suspects during the seven year sample period. This represented a victim homicide rate of 5.0 victims per 100,000 population (averaged over the seven years), and 5.0 suspects per 100,000 population.

Blacks made up only .2% of Vancouver's population in 1981. During the study period 2 blacks were slain. No black suspects were identified. The black victim homicide rate was 31.4 per 100,000 black population.

High rates of minority race involvement in homicide in American cities was a common denominator throughout the literature. Lundsgaarde (1977), Block (1976), Wilt (1974), Voss and Hepburn (1968), Wolfgang (1958), Bullock (1955), and Schmid (1926) all found that the blacks, especially young males, had homicide rates up to ten times greater than the other races. Wolfgang (1958) recommended several topics of future research in relation to the high incidence of homicide among blacks; biological explanation, socio-economic analysis, analysis of recent migration of blacks from the South, and socio-psychological comparisons were suggested topics.

Hackney (1969) and Gastil (1971) in two independent but similar studies, used multiple regression analysis of social and racial data and concluded that unique cultural patterns that developed in the southern United

States produced consistently high rates of violence in the Southern region. Gastil stated, "high homicide rates in the U.S. today are related primarily to the persistence of Southern cultural traditions developed before the Civil War and subsequently spreading over much of the country." (1971,

Loftin and Hill (1974) criticized the research design of the "Gastil-Hackney Thesis" arguing that the design was biased in favour of a culture of violence hypothesis. Loftin and Hill in their improved replication of the research design, concluded that neither the data analyzed by Gastil and Hackney, nor their own research, was adequate to delineate precise cultural and non-cultural effects on homicide rates. Nonetheless Loftin and Hill claimed that "there is strong evidence that socioeconomic variables are closely correlated with state homicide rates and, at least until new evidence is available, one cannot reject the hypothesis that socioeconomic variables are directly involved in the maintenance of high levels of interpersonal violence in the South." (1974; 723)

Socioeconomic variables have long been identified as correlates with high homicide rates (Lundsgaarde, 1977 Schmid; Pokorny, 1965; 1960; Bensing & Schroeder, 1960; Brealey, 1932). Wolfgang (1958) found that 90-95% of the homicide participants in his study were in the lower end of the occupational and educational scale. Wolfgang (1958) suggested that a sub-culture of violence existed among a certain portion of the lower socioeconomic group (specifically composed of males and blacks) whereby the social controls of the larger community were weakened in this sub-cultural milieu.¹

¹See Wolfgang & Ferracuti (1967) for expansion of the "subcultural" thesis.

Age characteristics of the known participants of homicide in Vancouver were similar to those found in the literature in congruence with the findings of Wolfgang (1958), Lundsgaarde (1977), Block (1976), Wilt (1974). Suspects tended to be younger than victims, Wolfgang (1958), Lundsgaarde (1977).

Table 12
Age Classifications of Victims and Suspects by Gender

Age	Victims		Suspects	
	M (%)	F (%)	M (%)	F (%)
under 15	3 (1.5)	2 (.9)		
15-19	3 (1.5)	4 (3.4)	9 (5.1)	
20-24	14 (6.8)	9 (1.9)	26 (14.9)	6 (3.4)
25-29	23 (11.3)	9 (4.4)	45 (25.8)	9 (5.1)
30-34	18 (8.8)	6 (2.9)	23 (13.2)	2 (1.1)
35-39	21 (10.3)	4 (1.9)	17 (9.7)	1 (.5)
40-44	15 (7.3)	7 (3.4)	10 (5.7)	2 (1.1)
45-49	15 (7.3)	3 (8.8)	10 (5.7)	
50-54	11 (5.4)	3 (1.4)	3 (1.7)	1 (1.1)
55-59	8 (3.9)		3 (1.7)	1 (1.1)
60-over	20 (9.8)	6 (2.9)	6 (3.4)	
	N=151	N=53	N=152	N=22

Analysis of the age characteristics of the homicide sample was performed by grouping age into five-year age classifications. This revealed that youth and homicide were associated; 63.8% of all suspects and 38.8% of victims, were of age 20 to 34 years. The largest single age group was the 25-29 year group with 31% of suspects and 15.7% of victims. The mean age for the victim group was 38.9. When analyzed by gender, the mean age for male victims was 40.1 years, female victims 35.3 years. There were no infanticides in the sample. Male and female suspects tended to be younger with a mean group age of 32.4; by gender the mean age for male suspects was 32, and 30.5 for females.

Age and the racial distribution of homicides was analysed and it was discovered that 66% (75 of 113) of white male victims were 35 years and older. For male native victims only 36% (7 of 19) were 35 years and older. White female victim age distribution was evenly split with 50% (18 of 36) under 35 years. Native female victims were relatively younger with 71% (5 of 7) under the age of 35. The age distribution of Oriental victims tended to cluster at both ends of the age spectrum; 10 victims were under the age of 35, while 6 victims were age 55 or older. Indo/Pakistani, black, other and victims whose race was not determined, were relatively young with 82% (9 of 11) under the age of 35.

Suspect age distribution analysis by race revealed that 63% (69 of 108) of the white male suspects were under the age of 35; 66% (10 of 15) of the white female suspects were under the age of 35 years. Native suspects were young with 75% (24 of 32) of male native suspects under the age of 35. All of the female native suspects (7) were under 35 years. Of the Oriental, Indo/Pakistani, other and race not known suspect categories, 83% (10 of 12) were under 35 years.

Males dominated the homicide population (151 victims, 152 suspects) and accounted for 87.7% of the suspects and 74% of the victims. The literature reported a similar trend of male domination of homicide. Wolfgang (1958), Lundsgaarde (1977), Bensing and Schroeder (1960), Voss and Hepburn (1968), and Wilt (1974) all found that males were the dominant sex group involved with homicide.

Address, Employment, and Marital Status Patterns

Victims of homicide were found to have a stable residence pattern in 82.3% of the cases. No fixed address status accounted for 15.2% of the victim sample. Interestingly, only two victims (1%) had an address outside of Vancouver.

Suspects were found to be of fixed address in 63.8% of the sample, while 31.6 % were of no fixed address. One suspect (.5%) gave an address of outside of Vancouver, seven suspect addresses (4%) were unknown.

Address analysis revealed that victims were more likely to have established roots in the community. Suspects were relatively stable, however a third of the known suspect sample were wanderers with no firm roots in the community. Very few non-Vancouver residents were involved in homicide; two victims, and one suspect were from out of town.

Employment status analysis for suspects revealed that 77.6% of the suspect sample were unemployed or on social assistance, 13.8% were employed (part time, full time, self employed), 2.3% were retired, 6.3% had an unknown employment status.

Of the victim sample, 58% were unemployed or received social assistance, 21.6% were employed (part time, full time, self employed) , 10.3% were retired, 8.3% had an unknown employment status.¹

An examination of marital status of the victim sample revealed that 63.8% of the sample were single at the time of their demise (includes divorced, widowed, separated). Married victims accounted for 32.4% of the

¹ Victim sample excluded victims under the age of 15 as they were not expected to be employed. There were no suspects under the age of 15 years.

sample (includes commonlaw), 3.9% of the sample had an unknown marital status.¹

Of the suspect sample 66% were single (includes divorced, widowed, separated), 29.3% were married or commonlaw. Marital status was unknown for 4.6% of the suspect sample.

Marital status and occupation of the suspects and victims of homicide in Vancouver were examined, the marital status and occupational trends of the sample were very similar to those found by Block (1976), Wilt (1974) and Wolfgang (1958). Suspects tended to be unemployed or of very low occupational status, and were single in the majority of cases. The fact that 31.6% of Vancouver's suspect sample were of no fixed address, and 77.6% were unemployed, supports the conclusion that suspects of homicide in Vancouver were of relatively low social economic status. The fact that only 15.2% of the victim sample in Vancouver were of no fixed address, and only 58% unemployed, suggests that victim sample was of slightly higher social economic status as compared to the suspect sample.

A common denominator in the literature on homicide has been the association of low social economic status of both the victim and suspect. Wolfgang (1958) did not have data to directly conclude that homicide was related to low social economic status. Instead, Wolfgang examined the social economic data of the areas of high homicide and concluded that the highest homicide areas were predominantly poor, and of the lowest social economic status in the city. Lundsgarde (1977) also concluded that high homicide rates

¹ Victim sample excluded victims under the age of 15 as 15 year olds were not expected to have a marital status. There were no suspects under the age of 15 years.

were largely associated with urban areas of low economic status. This conclusion was again based upon areal social data of areas of high homicide rates. Without more complete data on the incomes and social standings of those involved in homicide, conclusions regarding the social economic status of the participants of homicide must be made with caution. Employment status, and address status are just two of the many indicators of social economic status. Marital status may or may not be an indication of social economic status. Little is known regarding the impact of cohabitation and social economic status however, Daley and Martin (1988) argue that higher social economic status is afforded to those who are married, and even higher social status is afforded to those with more than one wife!

Weapon Patterns

Weapon use in homicide in Vancouver was the most outstanding single variable that distinguished Vancouver's homicide experience from that reported in the literature for other urban centers. The outstanding feature of weapon use in Vancouver was the relatively low usage of handguns and firearms in homicide. Handguns accounted for only 12.3% (25) of the homicides during the seven year sample period. Rifles and shotguns were responsible for only 1.9% (4) of the homicides in the sample. Overall, 14.3% of the homicide sample were slain by firearms. Of those killed by handguns, white males were the most frequent victims with 64% (16 of 25) of the handgun victim sample.

The largest weapon category was that of stabbing; 49% of the victim sample, (100 of 204), were killed as the result of stabbing. Beatings by bodily force (hands, feet and/or strangulation), was the second most numerous mode

of death with 23% of the sample (47 of 204). Beating to death with a blunt object claimed 9.8% of the sample, (20 of 204). Only two homicides were attributed to poison, one homicide by vehicle (not a car accident), and four by other means.

Analyzing weapon use by sex and race of the victim revealed that of the white male victim sample 54% (62 of 113) were stabbed to death, 15% died by beatings of bodily force, followed closely by handgun use 14.3%. White females were most likely to be killed by beating with bodily force, 44% (16 of 36), followed by stabbing 30% (11 of 36).

Table 13
Weapon by Race and Sex of Victim

Weapon	White		Native		Oriental		Indo/Pak.		Black		N/K		Other		N
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Handgun	16	3	2		2			1						1	25
Rifle/shot	2	2													4
Stabbing	62	11	12	3	5	2	1		2	1			1		100
Beat/blunt	13	2	1	2	1	1									20
Beat/hands	17	16	4	2	4	1	1	1				1	1		48
Poison	1	1													2
Other	2	1						1				1			5
	113	36	19	7	12	4	2	3	2	1	2	2	1		204

Native victims were most frequently slain by stabbing with 58% (15 of 26) of the native sample. Native males were stabbed to death in 63% (12 of 19) of native male homicides, while native females were stabbed in 43% (3 of 7) of the native females cases. Only 2 natives were killed by a handgun. Of the Oriental sample, stabbing was the leading cause of death with 47% (8 of 17) of the cases. Of the remaining racial categories, no distinct pattern of weapon use developed.

Table 14
Weapon Use by Motive

Weapon	Reveg.	Jealos.	Anger	Robb.	Sex Offence	Other Offence	Self Defence	Police Mental	Justif.	N/K	N
Handgun	8	2	3	5			3		2	2	25
Rifle/shot	3			1							4
Stabbing	3	1	49	21	1		3	6		16	100
Beat/Blunt			9	7	1	2				1	20
Beat/Bodily		5	22	9	2	3				6	47
Poison	2										2
Other	2		2	1		1					6
	18	8	85	44	4	6	6	6	2	25	204

The relationship between motive and weapon selection in homicide was examined and it was found that handguns were primarily used in situations that were most likely to be planned and deliberate, as in revenge and robbery homicides; 56.5% of the handgun sample (13 of 23, excluding two police justified homicides) were used in robbery, revenge killings. The two justified homicides were committed by police officers in the course of duty, while the three self defence handgun homicides were committed by civilians protecting themselves from death or grievous bodily harm. Jealousy, and anger/argument homicides imply irrational and spontaneous actions that utilize weapons close at hand. Handguns were seldomly used to end a social conflict situation such as anger/argument, or jealousy type homicides; only 5.5% (5 of 93) of the anger/argument, jealousy homicides were committed with a handgun. The point to be made is that the scarcity of handgun killings in Vancouver may be a reflection of: restrictive gun ownership legislation, the limited availability of the weapon (both legal and illegal), the relative high cost of handguns, and the type of homicide that was committed, (planned and deliberate: revenge, robbery).

The popularity of the knife as the leading weapon in homicide in Vancouver was a reflection of: the type of conflict, most were spontaneous interpersonal conflicts or robbery (in a number of homicides, especially unsolved killings, it was difficult or impossible to know whether the robbery was an afterthought of the homicide, or was the original intent); the location of the conflict, 64% of the sample were killed in a residence where knives are readily available; and a growing trend of a segment of the population to carry knives in public, as a personal defence weapon.

Beatings by blunt object or by bodily force was also indicative of spontaneous type events where a tool close at hand was used, or lacking a tool, excessive bodily force, was used to kill. Anger/argument, and robbery were the most frequent motives of beatings with the residence as the most frequent location.

The literature on weapon use in homicide was dominated by the high incidence of handgun use (Lundsgaarde, 1977: Block, 1976: Wilt, 1974: Voss and Hepburn, 1968: Pokorny, 1965: Bullock, 1955: Schmid, 1926). Wolfgang (1958), however, was the exception. Wolfgang (1958) found that 38.8% of his sample were killed by piercing instruments, 33% by handguns, 21.8% by beating, and 6.4% other methods. Wolfgang found that the observed differences in his data relative to sex and race with weapon use, were highly significant. This was then equated with the observation that 90% of the sample were of "lower social class stratum", (composed of mostly blacks), and that blacks had a cultural tradition of carrying pocket knives or switchblades. Wolfgang held that the high rate of homicide in the United States was not due to the greater accessibility of handguns, but was due to a cultural preference or

selection for a particular type of weapon. Blacks in Philadelphia chose knives as the principle weapon of homicide for "cultural" reasons. Whites were most likely to employ beatings in killing their opponent, while both whites and blacks employed handguns at about the same rate. Wolfgang stated that; "It is the contention of this observer that few homicides due to shootings could be avoided merely if a firearm were not immediately present, and that the offender would select some other weapon to achieve the same destructive goal." Wolfgang suggested that to measure the effect of handguns on the homicide rate it would be necessary to determine the number of shootings that would have been stabbings, beatings, or other means, if a handgun were not available; an impossible task.

Wolfgang however, failed to examine the motive distribution of weapon use in his sample. Over 59% of Wolfgang sample were killed for reasons such as; trivial altercation (35%), domestic quarrel (14.1%), altercation over money (10.5%). How many of these victims were killed with a handgun? It is this author's contention, that these type of homicides were most likely spontaneous reactions to highly charged emotions, frequently alcohol influenced, culminating in an interplay of violence that may or may not have been intended to have been fatal. The presence of handguns in these types of situations, which most often occur in the home (51% of Wolfgang's total sample occurred in a residence), neutralizes the physical disparity between females and males, ensures a greater probability of death, (compared to other methods), is relatively easy to commit, and is very fast. Homicides that were planned and deliberate, that were executed for a specific intent, such as robbery or revenge murders made up only 12.1% of Wolfgang's sample. It is

these types of murders that weapon type would have minimal effect as to the outcome of the interaction between victim and offender; determined or desperate people will commit desperate acts. The widespread proliferation of handguns in the United States has meant that those who are in social conflict interactions or who are in crime specific pursuits (Wilt,1974), have close at hand, the most deadly response to their immediate situation.

Block (1976) in a trend analysis of homicide in Chicago from 1965 to 1973, found that the alarming increase in homicides in that city, could be partially explained by the increased use of handguns. Blacks especially increased their involvement with homicide and this increase was directly related to increased handgun use. Soaring robbery-homicide rates in Chicago also correlated strongly with the rapidly increasing handgun homicide rate. Lundsgaarde (1977) found that 86% of the homicides in Houston for 1969 were executed by handguns, stabbings accounted for 11%, beatings 3%. Wilt (1974) found that 66% of Detroit's homicides were committed with handguns. Voss and Hepburn (1968) found that handguns accounted for 49.5% of Chicago's homicide population, and that over 47% of residence homicides were committed with handguns. Pokorny (1965) found that 63.5% of Houston's homicides from 1958 thru 1961, were committed with handguns, and that while blacks had a disproportionately high homicide rate, the white homicide rate was much higher in Houston as compared to Wolfgang's Philadelphia data. Bensing and Schroeder (1960) determined that from 1947 through 1953, that 55% of Cleveland's homicides were committed with handguns. Schmid (1926) examined Seattle's homicide data from 1914 to

1924 and determined that 75% of the homicides were committed with handguns.

Motive Patterns

Homicide motive patterns in Vancouver were similar to those of the other cities that were reported in the literature, whereby "trivial altercation" (anger/argument in this paper) and robbery motive murders produced the greatest number of victims and suspects (Block, 1976: Wilt, 1974: Voss and Hepburn, 1968: Pokorny, 1965: Wolfgang, 1958).

Table 15
Motive by Gender-Victims and Suspects

Motive	Victims			Suspects		
	M	F	%	M	F	%
Revenge	8	10	(8.8)	12	1	(7.5)
Jealousy	4	4	(3.9)	9		(5.2)
Anger/Arg.	64	21	(41.7)	71	16	(50.0)
Robbery	40	4	(21.6)	37	4	(23.6)
Sex. Offence	2	2	(1.9)	2		(1.1)
Other Offence	4	2	(2.9)	5		(2.9)
Self Defence	6		(2.9)	4	1	(2.9)
Mental	4	2	(2.9)	4		(2.3)
Police Just.	2		(1.0)			
Not known	17	8	(12.3)	8		(4.6)
N=204	151	53	(100)	152	22	(100)

Wolfgang (1958) found that 35% of his sample died as result of a "trivial altercation", however, to compare this paper's motive classification with Wolfgang's, "domestic quarrel" and "altercation over money" must be combined with "trivial altercation." The result was that 59.6% of Wolfgang's sample died because of violent interpersonal conflicts, this compared to 41.7% of Vancouver's sample. Robberies that resulted in homicides (or that were a consequence of homicide) were relatively rare in Wolfgang's sample. Only 6.8% of Wolfgang's sample had a robbery motive assigned to the homicide. Vancouver, as well as most of the other literature, (Block, 1976; Wilt, 1974:

Voss and Hepburn, 1969) had a much higher rate of robbery motive homicides; 21.6% of Vancouver's homicides were motivated by robbery, Wilt (1974) found that 16.3% of Detroit's murders were robbery motivated. Block (1976) observed that 19% of Chicago's homicides were robbery motivated.

Table 16
Motive by Victim-Suspect Relationship by Gender

	None		Friend		Spouse		Relat.		Lover		Employ		Not/kn		Ex-love		N	(%)
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Revenge	2	1	3	2			1	2	1	2					1	3	18	(8.8)
Jealousy	1		3	1		2				1							8	(3.9)
Anger/Arg.	19	1	31	4	7	12	3	1	2	1	1		1			2	85	(41.6)
Robbery	19	1	8		1			1					11	2	1		44	(21.5)
Sex Off.	1	1							1					1			4	(1.9)
Other Off.	4	1				1											6	(2.9)
Self Def.	3		1										2				6	(2.9)
Mental	1			1			3	1									6	(2.9)
Police Just.	2																2	(1.0)
Not Known	2		3									1	12	7			25	(12.2)
	54	5	49	8	8	15	7	5	4	4	1	1	26	10	2	5	204	(100)

As can be seen from the above table, males were the predominant gender involved as both victims and suspects in all motive classifications, except for revenge and jealousy where slightly more females were victims. The association between motive and victim-suspect relationship was analyzed and disclosed that strangers and friends accounted for 56.8% of the homicides in Vancouver. Strangers interacted and were killed most frequently in robbery and anger/argument situations. However, an interesting feature was that only five of the 59 stranger homicide victims, were female. Females were most likely to be killed by someone they knew, likely a spouse, relative, lover or ex-lover, in an anger/argument or revenge situation. Friends were most likely killed in anger/argument situations, as were spouses. Only 11.3% of the sample involved the killing of a mate while 27.9% involved friends. Almost twice as many females died as did males in spousal conflicts. Wolfgang (1958)

found that 17% of his sample involved spouses, however, 47% of the victims in Philadelphia were males, compared to 34.7% in Vancouver.

Motive and alcohol involvement by victims and suspects was analyzed and was found to be related to homicide occurrence. Overall, 45.1% of the victim sample had a blood alcohol content of more than 80 mgs; 7.4% had a blood alcohol content of less than 80 mgs, and 7.4% had an unknown blood alcohol content. Anger/argument homicides had the highest concentration of intoxicated victims (61.2% had over 80 mgs., 10.6% had an unknown blood alcohol level). Robbery victims were intoxicated (over 80 mgs.) in 36.4% of the robbery victim sample. Eleven victims killed for an unknown motive, had a blood alcohol content of more than 80 mgs. Sober victims were most likely targets of robbery, anger/argument, and revenge motives. Overall, 37.7% of the victim sample had no blood alcohol present in their body at the time of death.

Of the suspect sample who were apprehended shortly after the event, and who voluntarily provided breath, or blood samples, (to determine blood alcohol content), 83% were found to have a blood alcohol content of more than 80 mgs. . Overall, only 25.9% of the suspect sample were found to be legally intoxicated, however, an additional 46% of the suspect sample claimed, or there was evidence of, alcohol involvement.. Anger/argument motive homicides had the greatest number of suspects who were intoxicated (37), and the greatest number of suspects who later claimed, or were determined, to be influenced by alcohol (41). Of the suspect sample, only 11.5% (20) of the suspects were sober at the time of the homicide. None of the motives analyzed involved more sober suspects than intoxicated ones.

Table 17
Motive by Alcohol Involvement

	<u>Victims</u>			int. n/k	n/k	N
	None	<80 mgs.	>80 mgs.			
Revenge	12	1	4	1		18
Jealousy	2	2	4			8
Anger/Arg.	17	6	52	9	1	85
Robbery	20	4	16	3	1	44
Sex Off.	3		1			4
Other Off.	4				2	6
Self Def.	2		3	1		6
Mental	6					6
Police Just.	1		1			2
Not Known	10	2	11	1	1	25
Total	77	15	92	15	5	204
(%)	(37.7)	(7.3)	(45.1)	(7.3)	(2.4)	

Table 18
Suspects

	<u>Suspects</u>			int. n/k	n/k	N
	None	<80 mgs.	>80 mgs.			
Revenge	4	1	1	6	1	13
Jealousy	4	1		4		9
Anger/Arg.	2	6	37	41	1	87
Robbery	2	1	4	22	12	41
Sex Offence	1			1		2
Other Off.	1			4		5
Self Def.	1		1	2	1	5
Mental	3		1			4
Police Just.						
Not Known	2		1		5	8
Total	20	9	45	80	20	174
(%)	(11.5)	(5.1)	(25.8)	(45.9)	(11.5)	

Wolfgang (1958) was not able to analyze alcohol involvement by the level of blood alcohol content of the victim and/or suspect, but relied upon the police report mention of the presence of alcohol at the homicide scene. Alcohol involvement was scored as present, or not present, in the victim and/or suspect. Wolfgang found that alcohol was present in 64% of the homicide sample.

Motive and the employment status of the victim and suspect was examined and it was found that of the victim sample who were killed as the

result of an anger/argument motive, 76.5% were unemployed or on welfare. Only 9.4% of anger/argument motive victims were employed at the time of their deaths, 4.7% were retired, and 9.4% of the victim sample had an unknown employment status.

Table 19
Motive by Employment Status
Victims

	U/E	WEL.	P/T	F/T	S/E	RET.	OT.	N/K	N
Revenge	5			7	1	4		1	18
Jealousy	2	2		1	1			1	7
Anger/Arg.	30	35		9		5		8	87
Robbery	4	11	1	9	6	9	1	2	43
Sex Off.		2		2					4
Other Off.	1	1		3		1			6
Self Def.	3	5	1						9
Mental	5					1			6
Pol. Just.	1	1							2
Not Known	7	8		3		1		3	22
Total	58	65	2	34	8	20	1	15	204
(%)	(28.4)	(31.8)	(1.0)	(16.6)	(3.9)	(9.8)	(0.5)	(7.3)	(100)

Robbery motive homicide victims had a broader employment status range; 36.4% were unemployed or on welfare, 36.4% were employed (part time, full time, or self employed), 20.5% retired, and 6.8% other or not known. Of the not known motive homicide victims, 64% (16 of 25) were unemployed or on welfare at the time of their death. All of the police justified and self-defence motivated homicide victims, were unemployed or on welfare. All but one of the mentally ill motivated homicide victims were unemployed. Victims of revenge motivated homicides were more likely to be employed, while jealousy motivated victims were likely unemployed or on welfare.

Unemployed, or welfare employment status, accounted for 77.6% of the suspect sample. Of the anger/argument motivated homicides, 83.9% of

the suspects were unemployed or on welfare, only 12.6% were employed (part time or full time). Not surprisingly, 87.8% of the robbery motivated homicide suspects, were unemployed or on welfare. Of the revenge homicides, suspects were as likely to be employed as to be unemployed or on welfare; however, with jealousy homicides 77.8% (7 of 9) of the suspects were unemployed or on welfare.

Table 20
Motive by Employment Status
Suspects

	U/E	WEL.	P/T	F/T	S/E	RET.	OT.	N/K	N
Revenge	4	1		4	2	1		1	13
Jealousy	5	1		1				1	8
Anger/Arg.	31	43	2	9				3	88
Robbery	15	20	2		1	1		1	40
Sex Off.	1	1							2
Other Off.	4					1			5
Self Def.	2	4					1		7
Mental	1			1	1		1		4
Police Justified									
Not Known	1	2			1	1	2		7
	64	72	4	15	5	4	4	6	174
(%)	(36.8)	(41.8)	(2.2)	(8.6)	(2.8)	(2.2)	(2.2)	(3.4)	(100)

Victim-Suspect Relationship Patterns

Of the known victim-suspect relationships (17.6%, 36 of 204 victims had an unknown suspect relationship), 64.9% involved primary group relationships (friend/acquaintance, spouse/commonlaw, other relative, lover, ex-lover/spouse). Non-primary group homicides (strangers) comprised the remaining 35.1%. Wolfgang (1958) found that of known victim-suspect relationships, 65% of his sample involved primary group participants, the

remaining 35% comprised of non-primary, or 'stranger' type homicides.¹ Wilt (1974) found that in Detroit, 69.1% of the homicides involved primary group participants, 30.9% of the homicides occurred between strangers. Lundsgaarde (1977) found that 79.9% of Houston's sample involved primary group participants, while 20.1% involved strangers.

The association between homicide victim-suspect relationship and gender was examined and it was found that male victims dominated the non-primary type relationships, and all but one of the primary relationship categories. Females however, were most likely the victims of primary relationship homicides and were relatively rarely involved in non-primary homicides. When homicides did involve spouse/commonlaw and ex-lover/spouse relationships, females were more likely to be killed than were males.

Table 21
Victim-Suspect Relationship by Gender

Relationship	Male	Female	Total	%
Stranger	54	5	59	(28.9)
Friend acquaintance	49	8	57	(27.9)
Spouse/commonlaw	8	15	23	(11.3)
Other relative	7	5	12	(5.9)
Lover	4	4	8	(3.9)
Employer-ee	1	1	2	(1.0)
Ex-lover/spouse	2	5	7	(3.4)
Not known	26	10	36	(17.6)
	151	53	204	(100)

Victim-suspect relationship by race was examined and it was found that white and native victims had similar patterns of primary and non-primary

¹Of Wolfgang's total sample of 588 homicides, 6.5% (38 of the 588) of the cases did not identify a victim-suspect relationship.

suspect relationships; white primary 67.2%, native primary 60.9%: white non-primary 32.8, native non-primary 39.1%. Oriental victim-suspect relationship patterns differed considerably from white and native patterns. None of the Oriental sample were killed by a friend/acquaintance, spouse/commonlaw, lover, or ex-lover/spouse. 'Other relative' relationship homicides accounted for all the Oriental primary group sample (three fratricides-a mentally ill brother killed two older brothers before being slain by his eldest brother; and one victim was killed by a mentally ill grandson). Non-primary (stranger) homicides that involved Orientals victims accounted for 54% of the known victim-suspect relationships. A further 38.9% of the Oriental sample had an unknown victim-suspect relationship, this compared to 16.1% unknown relationship for white victims, and 11.5% unknown for native victims. The East Indian/Pakistani sample was very small with two stranger homicides, and two primary relationship homicides. Of the two black victims, one victim was slain by their lover, the other victim was slain by a stranger.

Victim-suspect relationship by subject alcohol involvement was analyzed and it was found that non-primary homicides involved an intoxicated (over 80 mgs. blood alcohol content) victim in 45.8% of all stranger homicides. Suspects of non-primary homicides were identified as being intoxicated in only 16.9% of stranger homicides, however, a further 53.8% (35) of the non-primary suspects, later claimed, or there was evidence of, alcohol involvement.

Table 22
Victim-Suspect Relationship by Alcohol Involvement
Victims

	None	<80 mgs.	>80 mgs.	level n/k	n/k	Total
Stranger	21	4	27	5	2	59
Friend acq.	13	1	38	5		57
Spouse commonl.	6	5	9	2	1	23
Other relative	9		2	1		12
Lover	7			1		8
Employer-ee	1	1				2
Ex-lover/spouse	4	1	2			7
Not known	16	3	14		2	36
Total	77	15	92	15	5	204
(%)	(37.7)	(7.4)	(45.1)	(7.4)	(2.5)	(100)

Table 23
Suspects

	None	<80 mgs.	>80 mgs.	level n/k	n/k	Total
Stranger	4	2	11	35	13	65
Friend/acq.	5	3	17	32	5	62
Spouse commonl.	3	1	12	6		22
Other relative	2	1	2	2		7
Lover	4		1	2		7
Employer-ee					1	1
Ex-lover/spouse	2	1	1	2		6
Not known		1	1	1	1	4
Total	20	9	45	80	20	174
(%)	(11.5)	(5.2)	(25.9)	(46)	(11.5)	(100)

Friend/acquaintance homicides were characterized by frequent alcohol involvement. Victims had 80 mgs. or more of blood alcohol content in 66.7% of all friend/acquaintance homicides. Suspects were similarly identified as intoxicated in 27.4% of the homicides, however, a further 51.6% of the friend/acquaintance suspect sample claimed, or there was evidence of, alcohol involvement. Spouse/commonlaw homicides were also associated with alcohol involvement; of the 22 victims where alcohol involvement was known, only six spousal conflict victims had no alcohol involvement. Of the 22 spousal conflict suspects identified, only three had no alcohol involvement. Where exact levels of intoxication were known for spousal conflict homicides, the

blood alcohol content for both victim and suspect was most likely to be high (80 mgs. and over). 'Other relative', lover, ex-lover/spouse, and employee, homicides were more likely to be free of alcohol involvement. Not known relationship victims were as likely to be intoxicated as sober.

Victim-suspect relationship and weapon used was analyzed and of the known victim-suspect relationships, stabbing was the most frequent mode of death accounting for 46.4% of the known sample. Of non-primary (stranger) homicides, 42.4% of the sample were killed by stabbing, beatings (bodily force and blunt object) combined to account for 37.3%, and handguns 15.3%. Victims of friend/acquaintance homicides were stabbed to death in 49.1% of the sample, beatings, (by bodily force and by blunt object) accounted for 31.6%, and handguns were responsible for 15% of the friend/acquaintance victim sample. Victims of spouse/commonlaw conflicts were as likely to be stabbed as to be beaten to death. Interestingly, none of the spouse/commonlaw victims were slain by a firearm. However, 3 lover/ ex-lover/spouse, victims were killed with handguns.

Table 24
Victim-Suspect Relationship by Weapon Use

	Handgun	Rifle/shot	Stabbing	Beat/Blunt	Beat/Hands	Poison	Other	N(%)
Stranger	9	1	25	8	14		2	59	(28.9)
Friend Acquaint.	9		28	7	11	1	1	57	(27.9)
Spouse commonl.			11	2	9		1	23	(11.2)
Other relative		3	7		2			12	(5.8)
Lover	1		5		2			8	(3.9)
Employer-ee	1				1			2	(1.0)
Ex-lover/spouse	2		2			1	2	7	(3.4)
Not known	3		22	3	8			36	(17.6)
Total	25	4	100	20	47	2	6	204	
%	(12.3)	(2)	(49)	(9.8)	(23)	(1)	(3)	(100)	

Of the not known victim-suspect relationship victims, 61.1% were killed by stabbing, 31.5% by beating, and 8.3% by handguns.

Suicide after Homicide Patterns

Successful, or attempted suicide, by the suspect after committing a homicide was a relatively rare occurrence in this sample. Of the 174 suspects who were identified by the police, 4% (7), all males, successfully committed suicide after the homicide. There were 6 (3.4%) unsuccessful attempts (5 males, 1 female) at suicide after the homicide.

Wolfgang (1958) found that of the 624 suspects identified in his study, 3.8% (22 males, 2 females) committed suicide after committing homicide. No mention of attempted suicides was made by Wolfgang. Wilt (1977) found that of the 246 suspects identified in her study, 3.2% (8, gender not mentioned) committed suicide after committing homicide. Again, no mention of suicide attempts by the suspect was made. Lundsgaarde (1974) found that 3.5% (8) of the 209 identified suspects committed suicide after a homicide. English studies of homicide reported much higher rates of homicide-suicide. In 1950, England and Wales recorded 119 homicides, 109 persons were identified as suspects, of these 35% committed suicide.¹

Suspect motives for the homicides that preceded suicide in Vancouver were: revenge-four; jealousy-one; and anger/argument-two. Attempt suicide homicide motives were: revenge-one; jealousy-two; anger/argument -one; other offence-one; and mentally ill-one.

Weapons used for successful homicide-suicide cases were (weapon used to kill the victim, was not necessarily the same weapon/means as used in the suicide): handgun-two; rifle/shotgun-one; stabbing-two; strangulation-one;

¹"Criminal Statistics for England and Wales", 1950, London, 1951, p. xxvi, cited by Max Grunhut in "Murder and the Death Penalty in England", The Annals of the American Academy of Political and Social Science. 284:158-166.

other-one.¹ Weapons used in unsuccessful homicide-suicides were: beatings-three; stabbing-two; and poison-one.

Suicide and attempt suicide homicide events were primarily located in the residence where five successful and six unsuccessful homicide-suicides took place. One homicide occurred in a residence with the suicide occurring off of a bridge. One homicide was committed in a commercial location, the suicide occurring elsewhere.

Victim-suspect relationship of the homicide-suicide sample was largely of the primary type (lovers-two, friend/acquaintances-two, spouse-one, ex-lover-one). One homicide-suicide occurred between strangers (non-primary). All of the unsuccessful homicide-suicides occurred between primary type relations (spouses-three; lover-one; ex-lover-one; and friend/acquaintance-one).

Criminal background analysis of suspects of homicide-suicide revealed that most suspects had no criminal background: no criminal record-five; career criminal-one; violence-one. Of the unsuccessful suicide suspects, five had no criminal background, one suspect had a minor technical offence background.

Employment characteristics of the suspects of homicide-suicide revealed that three suspects were employed full time, retired-one, not known-two, unemployed-one. Of the unsuccessful suicide suspects, four-were unemployed, self-employed-one, retired-one.

¹Indicates the weapon used to kill the victim, not necessarily the same weapon/means was used in the suicide.

Homicide Charge Patterns

Analysis of the legal charge distribution of the suspects of homicide revealed that 82% (143 of 174) of the suspect sample were charged with a criminal offence.¹ Of the suspect sample not charged (31), 8 suspects died (suicide) before charges could be laid, 24 were not charged with any offence (self defence, insufficient evidence, police justified).

Table 25
Homicide Charges by Gender

Gender	None ²	1st Deg.	2nd Deg.	Mansl.	Crim. Neg. ³	1st to 2nd	2nd to Mansl.	1st to Mansl.
Male	23	6	61	11	2	7	39	2
Female	1		11	3		1	4	1
	24	6	72	14	2	8	43	3

Of the suspect sample charged with an offence, 77.7% were initially charged with second degree murder. Of those initially charged with second degree murder, 37.4% had the charge reduced to manslaughter. Only 11.5% of the charged suspect sample were initially charged with first degree murder, of those 47.1% had their charge reduced to second degree murder, and 17.6% had their charge reduced to manslaughter. Manslaughter was a rare initial charge, only 9.5% of the sample were originally charged by way of manslaughter. However, as a final disposition, manslaughter accounted for 40.5% of the convicted suspect sample. Criminal negligence causing death and other charges relating to a death were very rare in this sample, accounting for only two charges. No charges of infanticide were found in the sample.

¹ Does not include the two police justified homicides.

² Includes suspects who died before charges could be laid.

³ Includes "other offence".

Charge type by race distribution revealed that whites were charged with 15 of the 17 first degree murder charges. Natives, as were whites, were most likely to be charged with second degree murder; 81.8% of the native sample were originally charged with second degree murder, of these 40.7% had their charges reduced to manslaughter. Of the white suspect sample, 76% were charged with second degree murder, of these 34% had their charges reduced to manslaughter. Only two Orientals were charged with an offence. Both were charged with second degree murder, subsequently one of the suspects had their charge reduced to manslaughter, the other suspect was found not fit to stand trial by reason of insanity. Four East Indian/Pakistani suspects were charged with homicide as follows; first degree murder-one; second degree murder-three. Of these charges, two were reduced to manslaughter.

Charge type and victim-suspect relationship was examined and revealed that 89% (57 of 64) of non-primary (stranger) homicides resulted in a criminal charge. Of primary relationship homicides, criminal charges were laid in 82.2% of the homicides.

Table 26
Victim-Suspect Relationship by Charge Type

<u>Relationship</u>	<u>None¹</u>	<u>1st Deg.</u>	<u>2nd Deg</u>	<u>.Mansl.</u>	<u>Crim. Neg.²</u>	<u>1st to 2nd</u>	<u>2nd to Mansl.</u>	<u>1st to Mansl.</u>
Primary	13	2	42	6	1	6	29	2
Non-Primary	8	4	29	7	1	2	14	
	21	6	71	13	1	8	43	2

Of those suspects charged with a homicide offence and for who the criminal background was known, 46.8% were career criminals, 16.5% had a minor property record, 8.6% had a record of violence, 5% had a drug record,

¹Includes suspects who died before charges could be laid.

² Includes "other offence".

3.6% had technical offence convictions, and 3.6% had violence and drug convictions. Only 15.8% of the charged suspect sample did not have a criminal record prior to the homicide charge. Wolfgang (1958) similarly found that 66-75% of all offenders convicted of a homicide offence had a previous arrest record.

Homicide Case Dispositions

Of the 204 homicide victims in the sample, case disposition status was known for 197 victims. There were 43 unsolved homicides, or 21.1% of the total sample. Of the solved case sample, there was insufficient evidence to charge in 2.9% of the homicides. As determined by Crown Counsel, no criminal charges were proceeded with in 5.4% of the solved cases.¹ No criminal charges could be laid in 3.9% of the solved cases as the suspect had committed suicide or died before charges could be laid.

Charges were laid against 82.2% of the suspect sample. Of the charged suspect sample, 28.7% (41) were found not guilty of the charges. A further 4.9% (7) of the suspects were dismissed at their preliminary inquiry. An additional 3.4% (5) of the suspects were found not fit to stand trial by reason of insanity. In total, 37.1%(53) of the suspect sample charged with a homicide offence, were found not to be criminally responsible for the death. Guilty pleas arose in 24.5% of the charged sample, and 38.7% of the charged suspect sample were found guilty after a trial. Overall, 62.9% of those charged with an offence were convicted of an offence.

¹Includes two police justified homicides.

Table 27
Homicide Case Disposition

	N	(%)
<u>Total Homicide Victims:</u>	204	100.0
Solved-Charged	143	(70.0)
Unsolved	43	(21.1)
Police Justified	2	(1.0)
Solved-Suspect Dead	8	(3.9)
Solved-No Charges	16	(7.8)
Solved-Insufficient Evidence	6	(2.9)
Suspects Outstanding	2	(1.0)
<u>Not Determined/Unknown</u>	2	(1.0)
<u>Total Homicide Suspects</u>	174	
Charged	143	(100.0)
Charged-Found Guilty	55	(38.4)
Charged-Plead Guilty	35	(24.5)
Charged-Insane	5	(3.4)
Charged-Found Not Guilty	41	(28.7)
<u>Charged-Dismissed at Preliminary</u>	7	(4.9)
Convicted of offence	90	(62.9)
Acquitted ¹	53	(37.1)

Wolfgang (1958) reported that of the 588 criminal homicides in his sample, only 6% were classified as unsolved. A further 3% of the homicide cases had suspects outstanding, for a total of 9% not cleared.

From the 607 suspects arrested by the police in Wolfgang's sample, 66.5% were convicted of an offence, 20.1% were found not guilty, and 13.4% had "other" disposition.² Lundsgaarde (1977) discovered that 49% of the 209 homicide suspects identified in his study were not charged, or were found not guilty of an offence.³

¹Includes those found to be insane.

²As mentioned in a footnote in the methods section, Wolfgang's suspect sample arrested by the police, did not include suspects who were identified in 37 homicides. These 37 homicides were found to be non-criminal by a coroner's inquest, subsequently no charges arose in these homicides.

³An interesting aside in Lundsgaarde study was the fact that in one year Houston police justifiably killed ten suspects. In Vancouver, over seven years, police justifiably killed two persons.

Sentencing Patterns

Of the 143 suspects who were charged with an offence, 37.1% were acquitted. Of those suspects that were found guilty of an offence, 4% (5) received probation with no jail sentence, 6.4% (8) received jail terms of less than 2 years, 34.4% (43) received jail terms of 2 to 9.9 years, 3.2% (4) received jail terms of 10 to 24.9 years, 27.2% (34) received life terms. Five suspects were found to be insane by the courts and subsequently received indefinite sentences.

Sentencing distribution of suspects by race was calculated and the results are shown below.

Table 28
Sentence by Race
Suspects

	White	Native	Oriental	East/Ind.	Other	N/K	N	%
None	46	21			1		68	(39.5)
Probation	5						5	(2.9)
< 2 years Jail	4	3	1				8	(4.7)
≥ 2 < 10 years Jail	31	9		2	1		43	(25.0)
≥ 10 < 25 years Jail	4						4	(4.0)
Life	29	5					34	(19.8)
Not determined	2	1		2			5	(2.9)
Insane	2		1	2			5	(2.9)
Not known	1					1	2	(1.2)
Total	122	39	2	6	2	1	174	
%	(70.1)	(22.4)	(1.1)	(3.4)	(1.2)	(.6)		(100)

Of those suspects who were sentenced to jail time 78.4% were white, 19.3% were Native, 2.2% East Indian, 1.1% Oriental, 1.1% other. Whites appear to have been sentenced more harshly than the other races (85.3% of life terms, 100% of terms 10 years and more, 72.1% of terms two years but less than 10 years, 50% of less than two year terms, and 100% of probation no jail terms).

Homicide motives and sentencing patterns were examined for the 174 suspects and it was found that 'revenge' homicides suspects were most likely to receive jail terms; 61.5% of 'revenge' suspects were convicted and sentenced to prison terms. Of those sentenced to prison, 46.1% received terms of 10 years or more. Robbery motive suspects received the harshest sentences, 41.5% were sentenced to life terms; 14.6% were sentenced to terms from 2 to 9.9 years, and 2.4% received terms of 10 to 24.9 years (25 years is considered a life term).

Wolfgang (1958) found that 19.9% (77) of his convicted sample were sentenced to life terms (this included 7 offenders who were sentenced to death, 6.7% (26), were sentenced to 10 or more years, but less than 25 years. Of the offenders sentenced, 37.2% (144) received terms of 2 or more years, but less than 10 years, 18.4% (71) received terms of less than 2 years, and 3.9% (15) received probation with no jail term. An interesting feature of justice in Wolfgang's time was the fact that 54 offenders (13.9%) received indefinite prison terms.

Lundsgaarde (1977) was dismayed at the sentencing patterns of his suspect sample. Aside from the fact that only 51% of suspects in his sample received some sort of judicial sanction, those who did were in many cases sentenced to terms that made Lundsgaarde question the judicial value of the sentence. Lundsgaarde then hypothesized that the lack of judicial deterrence in homicide sentencing, added to the cultural milieu in Houston that tolerated, if not encouraged, violent responses to many circumstances.

Victim Precipitated Homicide Patterns

Of the 204 victim sample, information regarding victim precipitation was known for 161 victims, or 79% of the sample. Information regarding victim precipitation was coded from careful analysis of police reports and witness statements, following the definition set by Wolfgang (1958). By definition, each of the 43 unsolved homicides were scored as 'not known' victim precipitation. From the remaining sample of 161 victims it was determined that 20 victims, or 12.4% of the known sample, precipitated or caused the series of events that culminated in the victim's death.

Examining victim precipitation by gender it was found that males dominated the victim precipitation sample accounting for 21 of the 22 victims. Victim precipitation by motive revealed that anger/argument was the leading motive assigned to victim precipitation homicides with 63.6% (14 of 22) of the sample. Robbery, self-defence, and police justified motives each recorded two homicides; revenge and mentally ill motive homicides each scored a single homicide.

Stabbing was the principle weapon used in victim precipitation homicides accounting for 77.3% (17 of 22) of the cases. Three victims were slain by handguns, and two were killed by beatings (hands/feet). Location analysis of victim precipitation homicides revealed that 68.2% (15 of 22) of the homicides were committed in a residence, five occurred on a street (outdoor location), while bar and commercial premises each recorded a single homicide.

Victim-suspect relationship patterns of victim precipitated homicides indicated that of the known victim-suspect relationship sample (21), 66.6%

(14) took place between primary relationship participants (friend/acquaintance-eight: spouse-two: other relative-two: lovers-two). The remaining 33.3% (7) of the cases involved non-primary relationship (stranger) participants.

Alcohol involvement data for victim precipitated homicides revealed that 63.6% (14) of the victims of victim precipitated sample had a blood alcohol content of 80 mgs. or more, one victim had a blood alcohol content of less than 80 mgs., and five victims had no alcohol in their system. Two victims had involvement with alcohol prior to the homicide, however, the precise blood alcohol levels were unknown.¹

Suspects of victim precipitated homicides had similar alcohol involvement patterns, 61.1% (11 of 18) of the suspects had a blood alcohol content of 80 mgs. or more. Five suspects (28%) had involvement with alcohol however the precise blood alcohol content was unknown. One suspect had no alcohol in his blood, while the blood alcohol content of one suspect was unknown. Criminal background and employment characteristics of the victim precipitation sample are presented below.

Table 29
Criminal Backgrounds of V.P. Homicide Participants

<u>Subject</u>	<u>None</u>	<u>Minor Prop.</u>	<u>Major Prop.</u>	<u>Viol.</u>	<u>Drugs</u>	<u>Tech.</u>	<u>Viol. Drugs</u>	<u>Career Criminal</u>	<u>Not Known</u>	<u>N</u>
Victim	3	2	2	1	1		1	7	4	20
Suspect	4	2	2	2	2	2		3	1	18 ²

¹Both victims had blood transfusions before expiring, subsequently when the corpse was latter tested for alcohol none was found.

²Police suspects (2) not included in suspect data.

Table 30
Employment Characteristics of V.P. Homicide Participants

Subject	Unemployed	Welfare	Work F/T	Other	Not Known	N
Victim	11	7	1		1	20
Suspect	48	6	2	1	1	18 ¹

Criminal background and employment characteristics of victim precipitated homicide participants were quite similar except that victims of victim precipitated homicides were twice as likely to be career criminals compared to victim precipitated. suspects (35% of victims and 16.7% of suspects were career criminals). Overall 75% of victims and 72.2% of suspects had criminal backgrounds.

Unemployment (unemployment and welfare combined) was the leading employment characteristic of both the suspect and victim precipitated sample, accounting for 94.7% of the victim sample and 82.3% of the suspect sample.

Wolfgang (1958) found that 26% of his sample was victim precipitated. Lundsgaarde (1977) reported that 12% of his sample were killed as the result of victim provocation.²

Alcohol Involvement and Homicide Patterns

Alcohol involvement in Vancouver's homicide victim and suspect sample was determined by two methods; an actual blood alcohol content level was determined by blood or breath tests, with the results known; or by police, witness, or suspect mention of the involvement of alcohol in the series of events that culminated in the homicide.³

¹Police suspects (2) not included in suspect data.

²It was not known if Lundsgaarde's "victim provocation" definition followed Wolfgang's definition of victim precipitation.

³It was found that the Homicide Return Form specifically did not request information of alcohol involvement for either the victim or suspect on the face of the form. It was left up to the detective who completed the form, to comment on contributing factors of the homicide in

Of the victim sample where alcohol involvement was known (199 victims), 38.7% (77) had no involvement with alcohol at the time of the homicide. Of those victims where there was evidence of alcohol involvement, the sample was trichotomized into three categories: blood alcohol content of less than 80 mgs., 80 mgs. and over, and alcohol involvement indicated-level not known.¹ Of those victims with known alcohol involvement, 85.9% (92) had a blood alcohol content of 80 mgs and over, 14.1% (15) had a blood alcohol content of less than 80 mgs. 12.5% (15) of the victim sample had indication of alcohol involvement, exact level unknown. Of the victim sample with a known blood alcohol level (107), the average blood alcohol content of the was 211 mgs..

Suspect involvement with alcohol was more difficult to determine as many of the suspects were not apprehended immediately. In addition, suspects who were located immediately after the homicide could refuse to participate in blood alcohol level tests as they were not required by law. Of the suspect sample where there was evidence of alcohol involvement (54), 83.3% (45) had a blood alcohol content of 80 mgs. and over, 17.3% (9) had a blood alcohol content of less than 80 mgs. 12.9% (20) had no blood alcohol content at the time of the homicide. 52% (80) of the suspect sample had indication of alcohol

the Circumstances of Offence narrative at the bottom of the form. Consequently, because information about alcohol involvement was not immediately known, and because the information was not specifically requested, alcohol involvement details were infrequently reported on the Homicide Return Form. However, Statistics Canada reports information regarding alcohol involvement for nationally collected data. It is believed that alcohol involvement data as reported by Statistics Canada is unreliable.

¹A blood alcohol content level of 80 mgs. and over, is considered to be legally intoxicated for the purposes of driving an automobile, airplane, or vessel. There is no established level of blood alcohol that is considered to be legally intoxicated in homicide law. Each case is considered on the circumstances, alcohol level may be a factor in mitigating the seriousness of the offence.

involvement, however the exact level was not known. Alcohol involvement was not known in 23% (40) of the suspect sample. Of the suspect sample with a known blood alcohol content (54), the average blood alcohol content was 164 mgs.

Males, both suspects and victims, dominated the known alcohol involvement sample, with male suspects representing 78.4% of the known alcohol sample, and 84.4% of the known victim alcohol sample. Analyzing homicide alcohol involvement by race revealed that native indians, as victims and suspects, had the highest rates of alcohol involvement.

Comparing known blood alcohol content levels by race, natives proportionately had the highest rate of intoxication involvement with 73.1% of the victims and 45.4% of the suspects with blood alcohol contents of 80 mgs. and over. In comparison, 47.3% of white victims and 26.6% white suspects had blood alcohol levels of 80 mgs. and over, 'other' races had very low rates of alcohol involvement where only 12% of the victims and 8.3% of the suspects had involvement. Overall, 96.2% of native victims and 96.9% of native suspects had involvement with alcohol; 60.8% of white victims and 89% of white suspects had involvement with alcohol. Of "other race" victims only 28% of victims and 42% of suspects had involvement with alcohol prior to the homicide.

Table 31
Homicide Alcohol Involvement by Race

Alcohol Involvement	White		Native		Other		N	%
	n	%	n	%	n	%		
None	58	(39.2)	1	(3.8)	18	(23.4)	77	(38.7)
< 80 mgs.	10	(6.7)	2	(7.7)	3	(20.2)	15	(7.5)
≥ 80 mgs.	70	(47.3)	19	(73.1)	3	(3.2)	92	(46.2)
Level n/k	10	(6.7)	4	(15.4)	1	(6.6)	15	(7.5)
Total	148	(74.4)	26	(13.1)	25	(12.5)	199	(100)

Table 32
Suspects

Alcohol Involvement	White	%	Native	%	Other	%	N	%
None	12	(11)	1	(3.0)	7	(35.0)	20	(12.9)
< 80 mgs.	5	(4.6)	3	(9.1)	1	(11.1)	9	(5.8)
≥ 80 mgs.	29	(26.6)	15	(45.4)	1	(2.2)	45	(29.2)
Level n/k	63	(57.8)	14	(42.4)	3	(3.7)	80	(51.9)
Total	109	(70.8)	33	(21.4)	12	(7.8)	154	(100)

Alcohol and weapon use was examined and it was found that high levels of intoxication and weapon use were associated in homicide cases where alcohol involvement was known. Of those victims who had a blood alcohol level of 80 mgs. and over, 63% were stabbed to death, 23.9% died by beating, 9.8% were killed by a firearm, and 3.2% died by other means.¹

Table 33
Homicide Alcohol Involvement by Weapon Use

Weapon	<u>Victims</u>							
	None	%	< 80 mgs.%	≥ 80 mgs.%	Level n/k	%		
Firearms	19	(24.7)		9	(9.0)	1	(7.7)	
Stabbing	28	(36.3)	7	(46.6)	58	(63.0)	6	(40.0)
Beating ²	27	(35.1)	7	(46.6)	22	(23.9)	8	(53.3)
Other	3	(3.9)	1	(7.8)	3	(3.2)		
Total	77		15		92		15	N=199

Table 34
Suspects

Weapon	None	%	< 80 mgs.%	≥ 80 mgs.%	Level n/k	%		
Firearms	4	(20)		1	(2.2)	11	(13.7)	
Stabbing	9	(46)	5	(55.5)	30	(66.6)	33	(41.2)
Beating	5	(25)	3	(33.3)	13	(28.8)	34	(42.5)
Other	2	(10)	1	(11.1)	1	(2.2)	2	(2.2)
Total	20		9		45		80	N=154

Of suspects with a blood alcohol content of 80 mgs. and over, it was found that 66.6% employed stabbing in the homicide, 28.8% used beating, 2.2% selected firearms, and 2.2% used 'other' means.

¹Handguns' and 'rifles/shotguns' compressed into a single variable 'firearms'.

²'Bodily force' and 'blunt object' beatings compressed into a single variable 'beating'.

Homicide Drug Involvement Patterns

Illegal drug involvement by the victim or suspect was scored only if the death of the victim was plausibly connected with the drug underworld, or if any of the participants was under the influence of a narcotic, or an illegal restricted drug at the time of the homicide, and that the drug involvement was a factor (intoxicated by drug) in the homicide. Of the 378 subjects in the sample, drug involvement information was known for 87.5% of the subjects.

Of the total sample of victims and suspects, 16.1% (61) had involvement either with the consumption of illegal drugs, or with illegal drug underworld activity.¹

Table 35
Drug Involvement by Homicide Subject by Gender

Subject	Male	Female	(%)
No Involvement	208	60	(71.0)
Victim Involvement	13	1	(3.7)
Suspect Involvement	17	3	(5.8)
Suspect & Victim Invol.	23	4	(7.1)
Not Known	40	7	(12.4)
Total	303	75	(100)

Criminal Background Patterns

The criminal background of the suspect and victim sample was researched utilizing local and national criminal record systems. Criminal background information was not available for 30.9% (63) of the victim sample and for 3.4% (6) of the suspect sample.²

¹Drug involvement was also infrequently reported on the Homicide Return Form as specific information regarding drug involvement was not requested.

²Two police officer suspects (both police justified homicides) were not included in the suspect sample.

Table 36
Criminal Background of Homicide Subjects by Gender
Victims

Gender	None	Minor Major		Viol.	Drugs	Tech.	Viol. Career		Not Known	N
		Prop.	Prop.				Drugs	Criminal		
Male	40	10	4	3	7	1	1	37	48	151
Female	26	8		1		2		1	15	53
	66	18	4	4	7	3	1	38	63	204

Table 37
Suspects

Gender	None	Minor Major		Viol.	Drugs	Tech.	Viol. Career		Not known	N
		Prop.	Prop.				Drugs	Criminal		
Male	26	23	8	11	6	4	4	64	5	152
Female	8	2		2	1	1		8	1	22
	34	25	8	13	7	5	4	72	6	174

Of the known victim criminal background sample, 46.8% (66) of the victim sample did not have a criminal record. Female victims were least likely to have a criminal record (68% had no criminal record), when females did have a record the type of offences that made up the record was most likely minor property or technical offences. Only one female victim had a career criminal designation, and one female had a violence record.

Male victims were more likely to have had a criminal record, and were more likely to have had a serious criminal background than did female victims. Of the male victim sample, 62% had a criminal record. "Career criminal" was the leading criminal background designation for male victims with a known criminal record; 58.7% of male victims were career criminals. Property offences (minor and major), followed by drugs, and violence convictions were the next most frequent types of criminal backgrounds for male victims.

Female suspects of homicide had criminal backgrounds more often than did female victims. Sixty-six percent of the female suspect had a criminal

record; of those female suspects with a known criminal background, 61.5% (8) of the female suspects were designated as career criminals.

Not surprisingly, male suspects of homicide had the highest frequency of criminal backgrounds and possessed the most serious criminal records of the homicide sample. Of the known male suspect criminal background sample, 83% had a criminal record. 'Career criminal' was the leading criminal background designation of the criminal sample accounting for 52.8% (64) of the suspects. Property offences (minor and major combined) accounted for 25.6% of the sample. Violence, and violence and drug convictions combined to account for 12.4%, while drug and technical offences accounted for a further 8.2% of the suspect sample.

Wolfgang (1958) in examining criminal background, analyzed previous police arrest data in place of criminal court convictions as employed in this paper.¹ Wolfgang found that 64% of his known offender sample, and 47% of the known victim sample, had a previous arrest record. Using court conviction data searched on a national data base, the present study found that 79.7% of the suspect sample, and 53.2% of the victim sample, had a criminal record prior to the homicide events.

Wilt (1974) in examining criminal backgrounds of her sample, employed a method that combined previous convictions with previous charges. Also included in Wilt's analysis was a record of traffic violations of

¹It was also not known if Wolfgang searched local police arrest history or if state and national data were examined as well. Given the state of technology in 1958 it is suspected that just local arrest data was available to Wolfgang. If state and national data bases had been available to Wolfgang, the frequency of subjects with police arrest records would have been higher.

the subjects. Wilt reported that 35.3% of all the known victims and 53.2% of the perpetrator sample, had previous records.¹

Criminal background by race analysis of Vancouver data revealed that of the known criminal background sample, natives, as both victims and suspects, proportionately had the highest rates of criminal histories. Of the known native victim sample, 86.6% had a previous criminal record, 61.5% of the native victim sample with a criminal record were classified as career criminals. Ninety-one percent of the native suspect sample had a criminal record, 66.6% of these suspects were designated as career criminals. Of the total native sample with a criminal record, 65.2% were designated as career criminals.

Table 38
Criminal Background by Race
Victims

Race	None	Minor Prop.	Major Prop.	Viol.	Drugs	Tech.	Viol. Drugs	Career Criminal	N
White	45	13	4	3		7	1	26	101
Native	2	4	1					8	15
Oriental	14							4	18
Other	4	1							5
N	65	18	5	3		7	1	38	139

¹ Again, the source of the criminal charges and convictions data was not indicated in Wilt's study. And while Wilt assumed that her research indicated that the levels of charges and convictions found in her sample must "be significantly greater than the general population of Detroit" it is suspected that if state and national data was included in her data, the sample would have had much higher rates of criminality. Also it was not indicated if the traffic violations were of a criminal matter such as impaired driving or hit and run, or whether they were of routine traffic offences, such as speeding, or bald tires etc..

Table 39
Criminal Background by Race
Suspects

Race	None	Minor Prop.	Major Prop.	Viol.	Drugs	Tech.	Viol. Drugs	Career Criminal	N
White	25	22	5	6	7	4	3	49	121
Native	3	2	3	4		1	1	22	36
Oriental	3								3
Other	2	1	3					1	7
N	33	25	11	10	7	5	4	72	167

Of the known white victim sample, 45.5% had a criminal record, of these, 46.4% were classified as career criminals. White suspects had a criminal record in 79.4% of the known suspect sample, of these, 51% were classified as career criminals. Overall, where criminal background was known, whites were designated as career criminals in 49.3% of the white subject sample.

Of the Oriental race, only 22% of Oriental victims and none of the Oriental suspects, had criminal records. Interestingly, all of the Oriental victim sample with a criminal record, had career criminal designations.¹ 'Other' race victims and suspects had criminal records in only 22.2% of the known sample. Of these (6) only one suspect was classified as a career criminal.

¹All four victims were either involved in the drug underworld, and/or were members of oriental gangs.

CHAPTER IV

SPATIAL DISTRIBUTION OF HOMICIDE IN VANCOUVER

Homicide frequency analysis by census tract (see map 1) distribution of homicides that occurred in Vancouver from January 1, 1980 to December 31, 1986, expectantly revealed that the central business district, tract 59.01, had the highest frequency of homicide of all census tracts within the city. Tract 59.01 alone accounted for 23% (47) of the city's homicides over the sample time period. Adjacent downtown and downtown-eastside tracts, 50.01, 57, 58, 59.02, 64, and 65, also had recorded higher than expected homicide activity (see map 2). Cumulatively the seven downtown, and downtown-eastside tracts represented the location for 51% (104) of the homicide sample. These seven census areas comprised only 7.7% of the city's population in 1986.

Table 40
Downtown Census Tract Population and Homicide Rate

Census Tract	1981	1986	% change	Homicide rate ¹
59.01	4303	3974	- 7.6	168
59.02	1728	1691	- 2.1	92.9
58	2507	2760	+ 10.1	65.2
64	3594	3835	+ 6.7	26.1
57	8070	8063	- 0.1	17.7
65	5713	5714	0.0	17.5
50.01	6644	7281	+ 9.6	10.6

Table 41
Downtown Census Tract Distribution of Homicide Victims by Gender

Census Tract	Male	Female	N	(%)
59.01	37	10	47	(23)
58	10	3	13	(6.4)
59.02	10	1	11	(5.4)
57	7	3	10	(4.9)
50.01	5	4	9	(4.4)
64	5	2	7	(3.4)
65	5	2	7	(3.4)
	79 (75.9)	25 (24.0)	104 (100)	

¹Based upon 1986 population (Statistics Canada 1986), averaged over seven years, per 100,000 population.

Homicide distribution over the rest of the city was relatively sparsely distributed. Overall, 31 (42%) of the city's census tracts had no recorded occurrence of homicide during the seven year study period. The westside neighbourhoods of Dunbar-Southlands (tracts 8, 23,24,25,26), Arbutus Ridge (22,27), Shaughnessy (20,21,28), Oakridge (10.01,20), and the eastside neighbourhoods of Killarney (14, 15.02), and Champlain Heights (1, 15.01) were free of homicides.¹ These homicide free neighbourhoods were almost entirely composed of residential land use and contained a large proportion of Vancouver's middle and upper class population.²

Table 42
Census Tract Distribution of Homicide 1980 - 1986

Census Tract			Census Tract		
Number	Frequency	%	Number	Frequency	%
2	1	0	45	1	0.5
3	2	1	47	2	1
5	1	0.5	48	3	1.5
6	1	0.5	49.01	2	1
7	1	0.5	50.01	9	4
9	1	0	50.02	2	1
11	1	0	52.01	1	0.5
12	6	3	53	1	0.5
13.01	1	0	54	5	2.5
13.02	1	0	55	4	2
16.01	1	0	56	7	3.5
16.02	2	0.5	57	10	5
18.02	1	0	58	13	6.5
19	2	0.5	59.01	47	23.5
29	2	0.5	59.02	11	5.5
31	1	0	60	6	3
34	3	1.5	61	2	1
35	1	0.5	62	1	0.5
36.01	5	2.5	63	2	1
37	6	3	64	7	3.5
38	1	0.5	65	7	3.5
39	6	3	66	1	0.5
40	1	0.5	67	4	2
41	2	1	68	3	1.5
44	2	1			

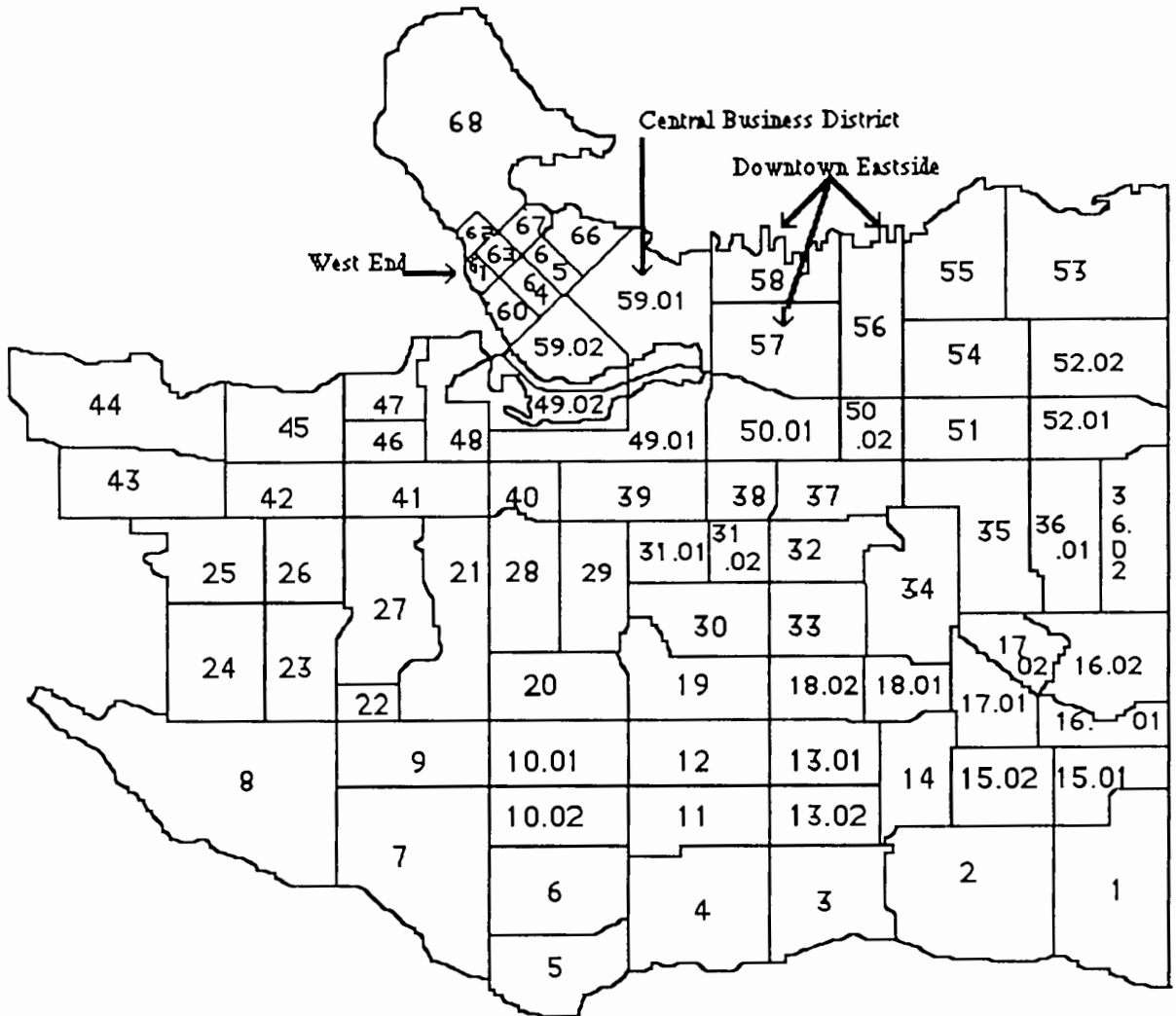
N=204

¹Neighbourhood boundaries and names taken from, "Vancouver Local Areas" City of Vancouver, Planning Department, 1985.

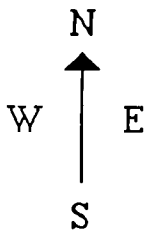
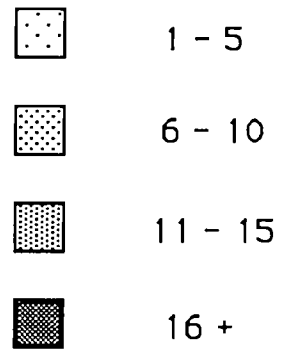
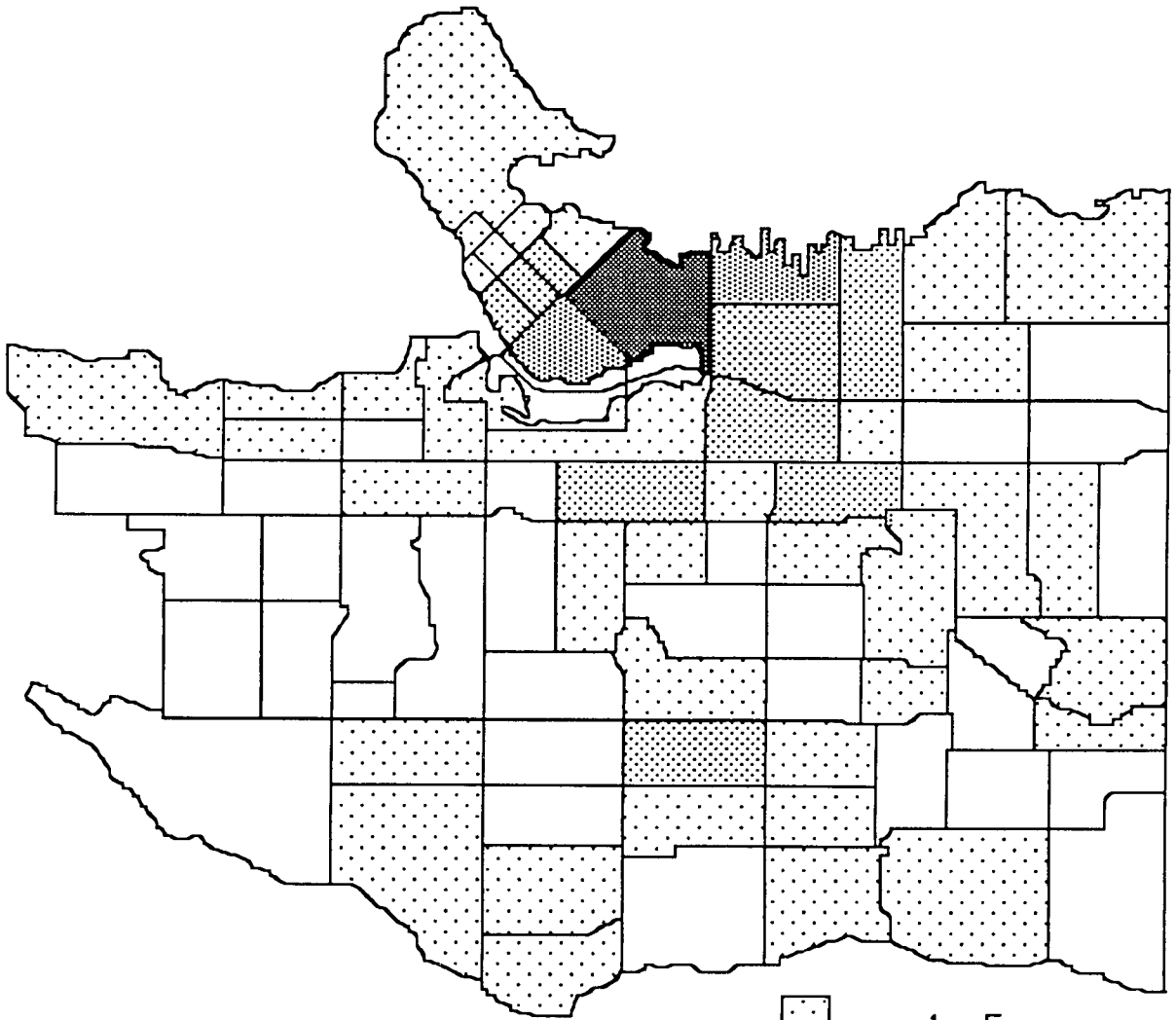
²Ibid.

Map 1

Census Tracts of the City of Vancouver



Map 2
Homicide Frequency by Census Tract Vancouver 1980-1986



Wilt (1974) studied the spatial distribution of homicide in Detroit by first analyzing census tract distribution. However, she found that the city's 208 census tracts had a seemingly random distribution of homicides with no single tract scoring more than six homicides. Wilt then turned to police precinct area distribution and found that there was significant association of homicide occurrence with the downtown area precincts, in fact four downtown precincts accounted for 48.4% of the homicides that occurred in 1972. Rates of homicide per 100,000 population per police precinct were calculated and it was found that precinct One had a homicide rate of 192. In place of correlating data of precinct population characteristics to homicide rates, Wilt examined social situational and conflict interaction data from each of the participants in every case of her sample. Wilt produced a trichotomy of sociological typologies of homicide in Detroit; patterns of social conflict, crime specific, and unspecified homicides were examined and were presented on a series of maps and tables.

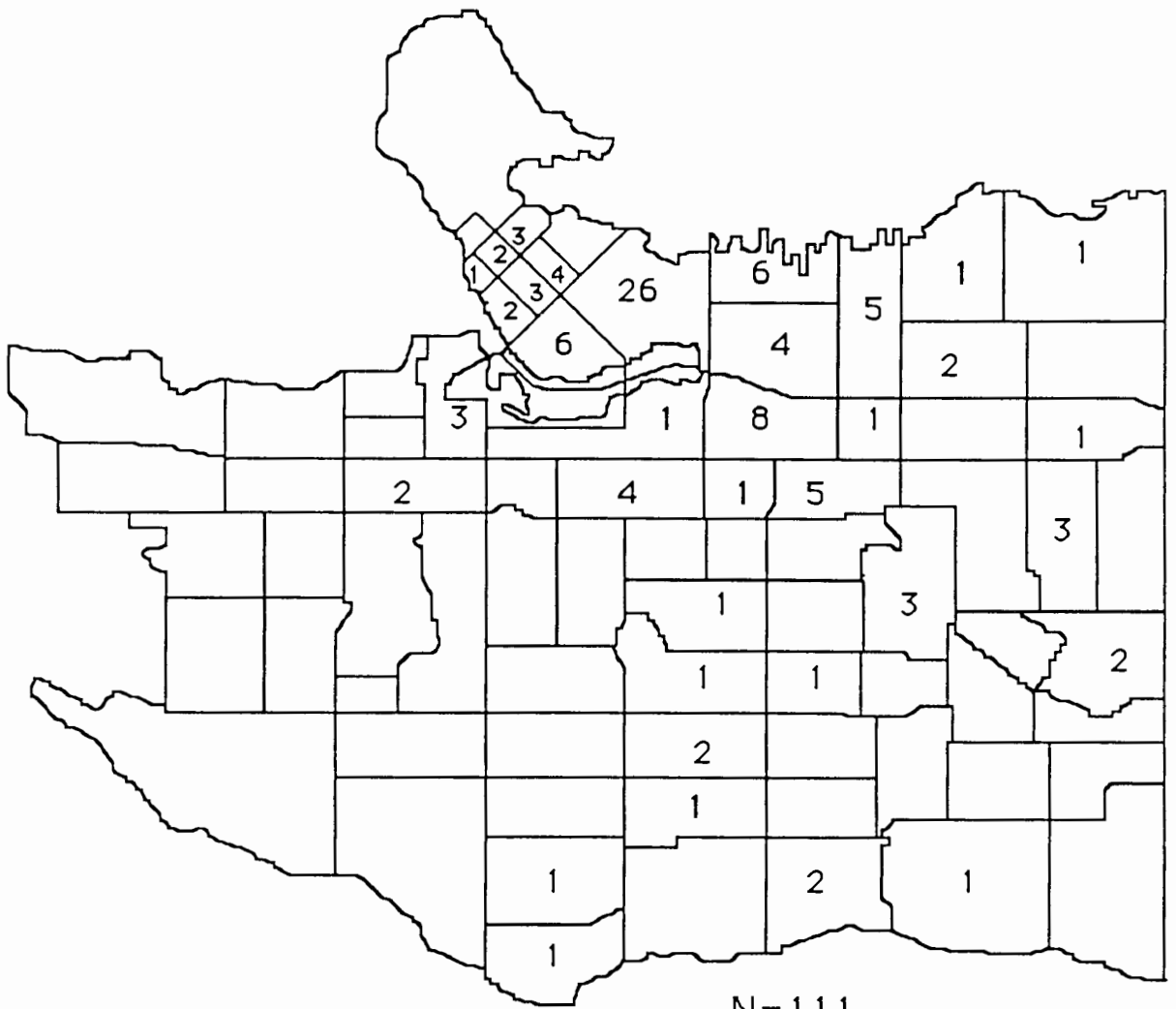
Wilt's sociological classification of homicide was employed for the spatial analysis of Vancouver's homicide data. The three typologies were slightly modified to fit the data, and because there were obvious patterns of homicide by census tract in Vancouver, census tract distribution analysis was retained. Social conflict homicides as defined by Wilt, were homicidal social interactions which were characterized by some form of conflict action (jealousy, anger/argument, revenge, in this paper) and conflict resolution on the part of the participants in the interaction, that may or may not have been intended to be fatal. Crime specific homicides were homicidal interactions which was characterized by an illegal activity (robbery/theft, sex assault, other

offence, and police justified) and the death of the victim was a consequence or resulted from the illegal activity. Unspecified homicides included those homicides in which the specific characteristics of the events leading up to the homicide were unknown and could not be classified as social conflict, or crime specific (unsolved, unknown motive, and mentally ill).

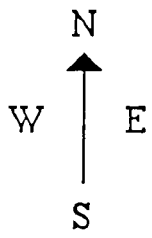
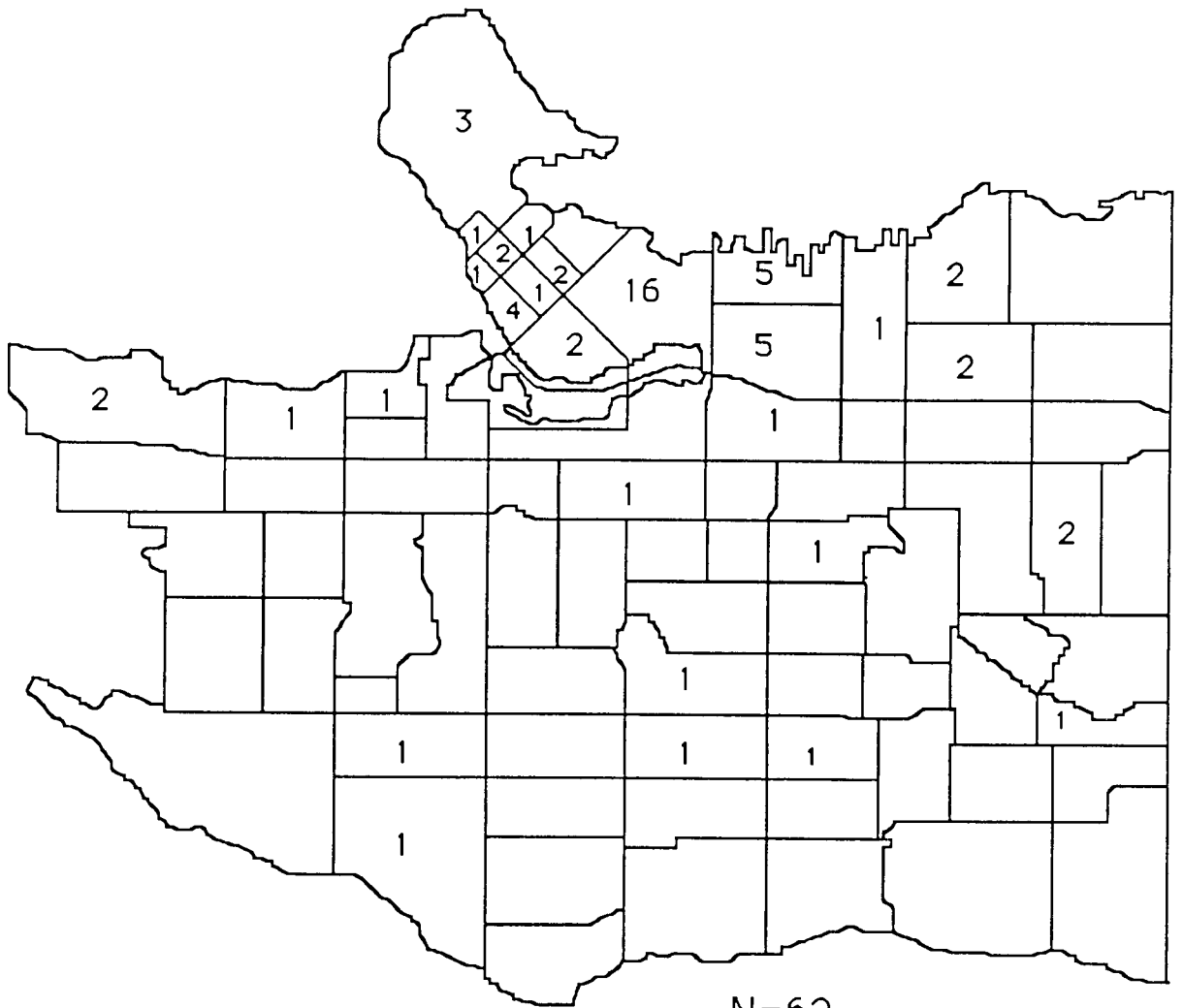
The sociological distribution of homicide in Vancouver is presented on maps 3-5. In addition to the sociological typology of Vancouver's homicides, data relating two variables, weapon, and ratio of homicide participants with alcohol involvement, were included in the areal analysis, (see appendix 4, maps 8-19).

Census tract 59.01 had the distinction of leading all of the city's census tracts in all three of the homicide typologies. Social conflict homicides were the most widely distributed type of homicide over Vancouver, however a definite downtown and downtown-eastside concentration is noticeable. Interestingly, only three social conflict homicides occurred in the area west of Granville street in south Vancouver. Individual census tracts in the West End scored relatively few social conflict homicides, however, when examined on a neighbourhood basis (60, 61, 62, 63, 64, 65, 66, 67), the West End was second to tract 59.01, with 15 social conflict homicides producing a social conflict homicide rate of 6.6 per 100,000 population. The social conflict homicide rate for the city was 3.7; tract 59.01 had a social conflict homicide rate of 93.4 per 100,000.

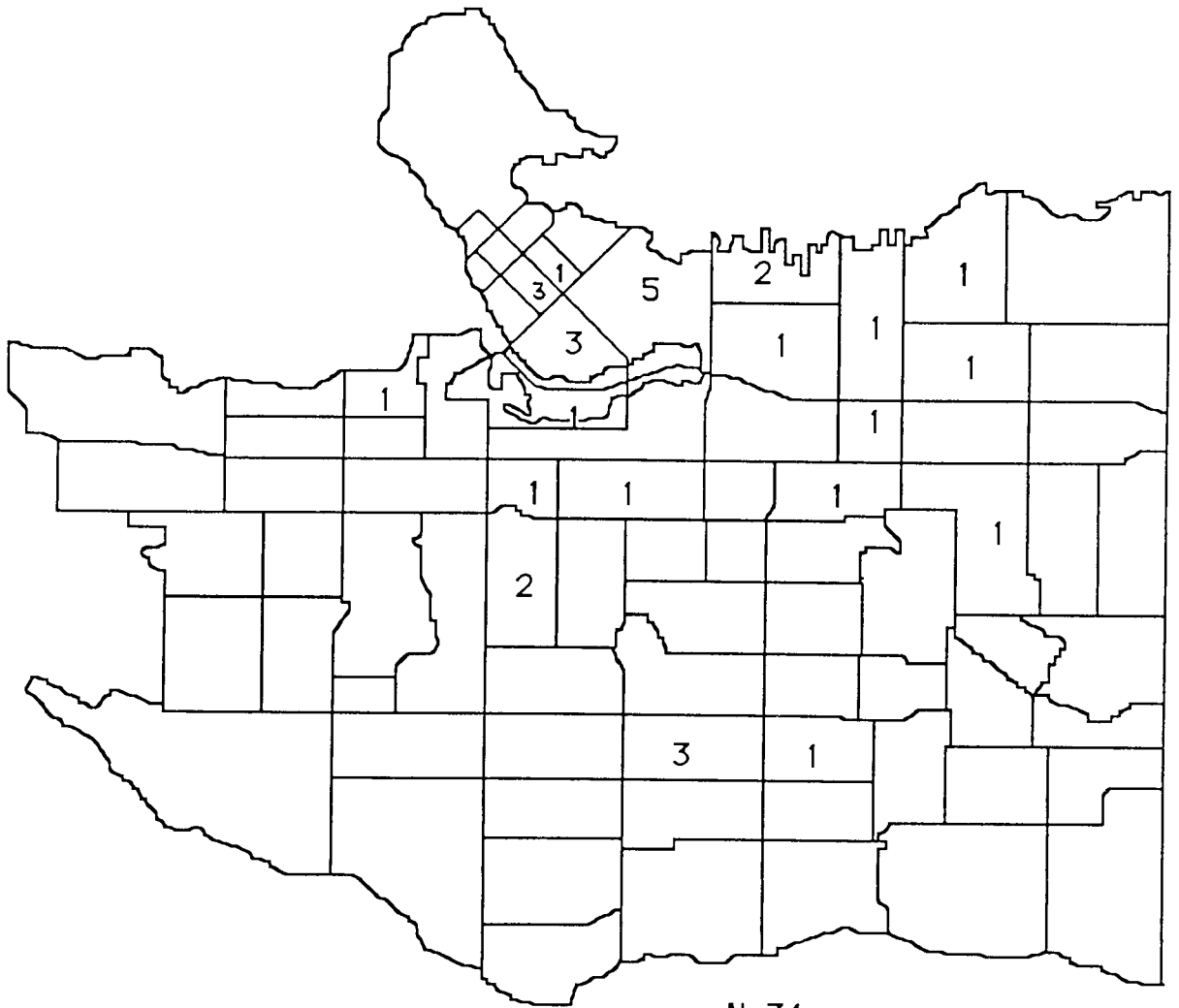
Map 3
 Census Tract Distribution of Social Conflict Homicides: 1980 - 1986



Map 4
Census Tract Distribution of Crime Specific Homicides: 1980 - 1986



Map 5
Census Tract Distribution of Unspecified Homicides: 1980 - 1986



Weapon use analysis of social conflict homicides revealed that firearms (handguns and rifles/shotguns combined) were relatively rarely employed accounting for only 14% (16 of 111) of the homicides. The spatial distribution of firearm homicides was concentrated in tract 59.01 with six. No other apparent trend was observed for firearm homicides. Stabbing was employed in 47.7% (53) of social conflict homicides and the spatial distribution of stabbing homicides was quite widely distributed with the exception of south west Vancouver where there were no stabbing homicides. Tract 59.01 and adjacent downtown and downtown-eastside tracts had the most stabbing homicides. Social conflict beating homicides (hands/feet, blunt objects, includes strangulation) were heavily concentrated in tract 59.01 with 33.3% (12) of the beating homicides.

Crime specific homicides were concentrated in the downtown, and down-eastside tracts, with tract 59.01 leading all tracts with 25.8% (16 of 62) of crime specific homicides. Cumulatively the seven downtown, downtown-eastside tracts (50.01, 57,58, 59.01, 59.02, 64,65) accounted for 51.6% (32) of the city's crime specific homicide producing a crime specific homicide rate of 57.5 per 100,000. The remaining crime specific homicides were widely distributed through out the city.

Firearm use in crime specific homicide was relatively rare with only 17.7% (11) of crime specific homicides involving firearms; no spatial pattern of note was observed. Crime specific homicides committed by stabbing accounted for 40.3% (25) of the murders. Tract 59.01 had the most crime specific stabbing homicides with 32% (8) of the sample. The spatial trend of crime specific stabbings was concentrated in the downtown-downtown eastside

with few south and south west area crime specific stabbing homicides. Crime specific homicides by beatings were again concentrated in tract 59.01 with 25% (6 of 25) of the sample occurring within the tract. The remaining crime specific beating homicides were widely distributed across the city.

Unspecified homicides were widely distributed through out the downtown, and eastside tracts. Tract 59.01 had the highest unspecified homicide occurrence with 16% (5 of 31) of the sample. No apparent spatial trend was observed other than the absence of unspecified homicides in southwest Vancouver. Firearm employment in unspecified homicide was rare with only two occurrences. Stabbing was the most common method of death in unspecified homicides accounting for 71% (22) of the murders. Again tract 59.01 led all others with 18% (4) of unspecified homicides. Cumulatively the downtown, downtown-eastside tracts had the largest share of the sample with 54.5% (12) of unspecified stabbing homicides. Unspecified beating homicides were quite rare with only seven occurrences. No spatial trend was observed.

Social conflict homicides whose participants were found to have had alcohol involvement were relatively widespread over much of the city, with high frequency locations in the downtown and downtown-eastside tracts. Tracts 58, 59.02, 62 and 62 recorded 100% involvement of the known alcohol involvement sample comprised of victims and suspects. Tract 59.01 had the largest number of alcohol involved participants with 37 of 49, or 75% alcohol involvement. Suburban tracts, 2, 16.02,12, 19, 18.02, 34, and 19 recorded that all of the participants of homicide had consumed some level of alcohol. Only five census tracts in the city recorded homicides with no alcohol

consumption involved. A closer examination of homicide motive of the non-alcohol and the alcohol involvement cases is needed to make further distinctions between the two samples. It is hypothesized that the alcohol involvement homicides would be highly characterized by motives that would be classified as "trivial" (anger/argument), whereby the non-alcohol involved homicides would more likely to have involved motives such as jealousy, and revenge.

Alcohol consumption of the known crime specific alcohol participants was also characterized by high ratio's of alcohol involvement. Tract 59.01 had the largest number of alcohol involved crime specific participants with 22 of 27 participants involved, or 81% involvement.

Unspecified homicide and alcohol involvement analysis revealed that in tracts, 59.01, 58, and 37, every homicide had alcohol involvement (the sample comprised mostly of victims). Suburban unspecified homicides were more likely to have involved sober unspecified participants.

The literature on spatial patterns of homicide has also reported similar findings of concentrated areas of high homicide frequency in and around the central business districts of the study cities (Lundsgaarde 1977: Wilt, 1974: Bensing and Schroeder, 1960: Wolfgang, 1958: Bullock, 1955: Schmid, 1924). Social characteristics frequently correlated with high homicide rates of inner city areas have been; high percentage non-white population, low median income, high rates of unemployment, low education and occupation status, low rents, crowded sub-standard housing (Byrne & Sampson, 1986). However, these social correlates were derived from the tract or area population statistics, and subsequently may not have been necessarily

representative of the participants of homicides found in these areas. The correlates of homicide may or may not be at all relevant to homicide causation.

Urban census tract boundary demarcation is usually determined by natural boundaries or by major arteries or streets. Tract boundaries are drawn to distinguish certain population parameters and to encapsulate natural population or geographic units. In Vancouver these units vary in size and population, with an average tract population of approximately 5000. Ideally, land use within a tract would be relatively homogeneous, however in practice this is seldom the case. For example tract 59.01, the central business district, has extremely varied land use within the tract. Luxury hotels, affluent shopping malls, office towers, luxury apartments, are within blocks of skid road bars, rooming houses, and strip joints. Areas of the eastern edge of this tract are characterized by deteriorating buildings and streets, while the western edge of the tract is characterized as the financial hub of the city, the location of many bank head offices along with the Vancouver Stock Exchange. The tract itself is relatively large in size and contains a small resident population. Most of the activity associated with the high homicide rate is concentrated within one or two blocks of the two major streets that run through the tract, Hastings and Granville (see map 6). In an adjacent tract, 59.02, all of the homicides that occurred within the tract took place with one block of Granville street (see map 7).

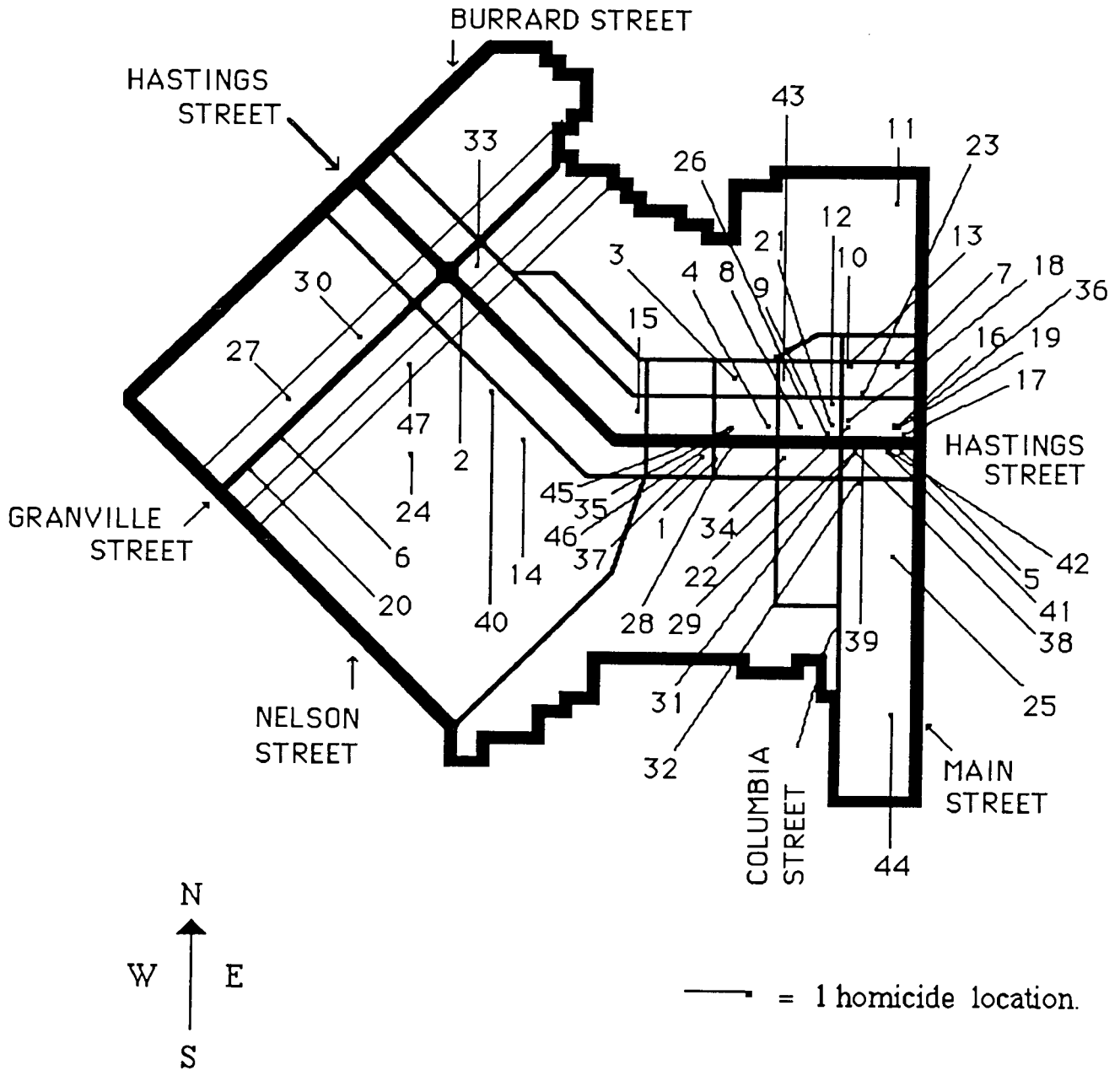
Bullock (1955) recognized that while census tract plotting of homicides controlled the factor of population size, the method created the illusion that homicide distribution was evenly spread out over the tract. In addition to

census tract analysis Bullock employed street plotting of actual homicide location in relation to the street network of the city, (Houston). This method revealed "strategic areas" that were substantially different from the other areas in the tract and the city. The intersection of certain streets and the high occurrence of homicides at or near the intersection, led Bullock to believe that these "strategic spots" were so different from the surrounding city, that the differences somehow facilitated the expression of homicidal behavior.

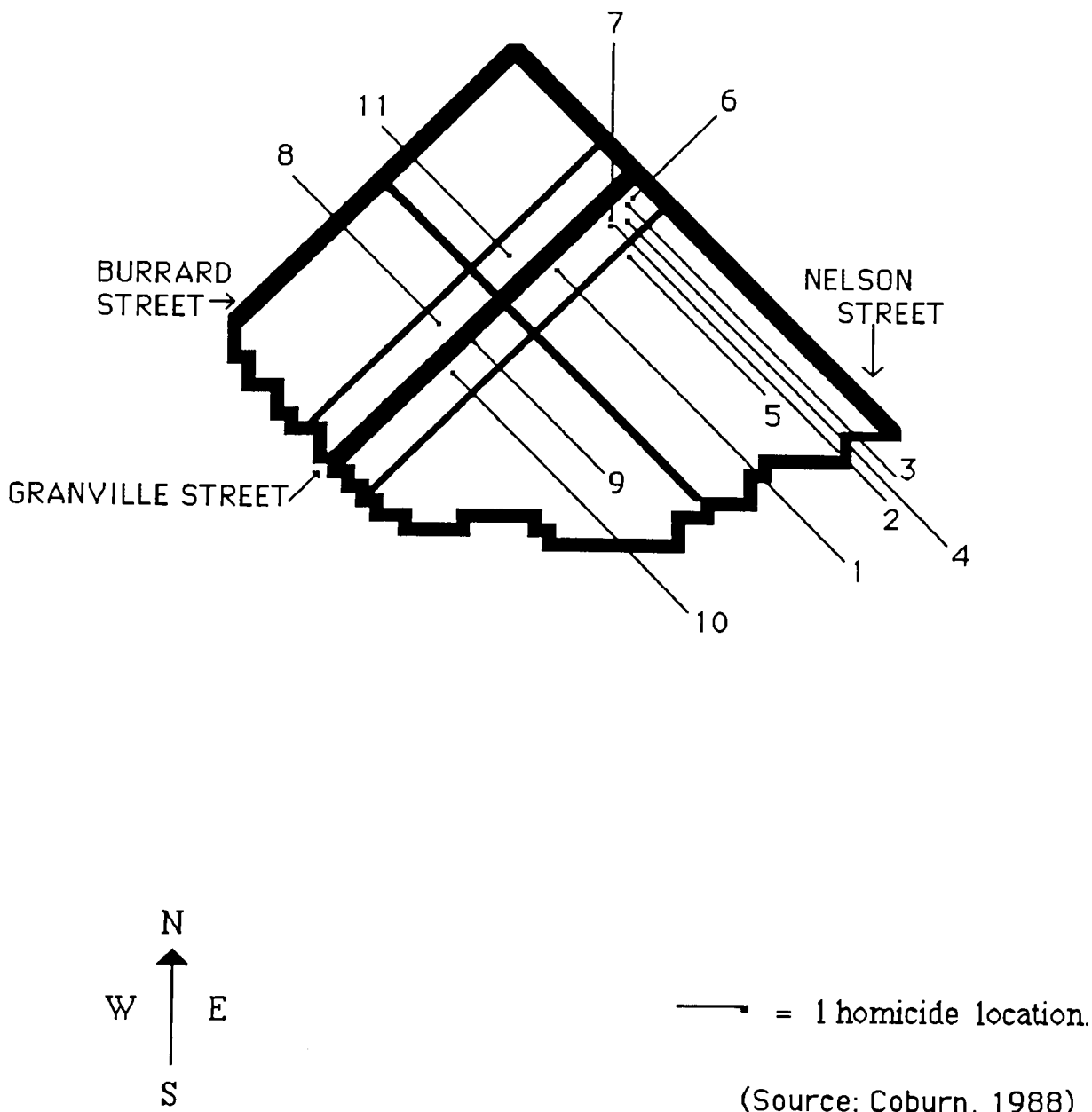
When the street plotting method was employed using data for tracts 59.01 and 59.02 two strategic areas developed from the data. From Map 6, the street plotted distribution of 47 homicides that occurred in tract 59.01 can be seen. A definite cluster pattern of homicide is apparent at the eastern edge of the tract, centering on the intersection of Hastings and Columbia. In fact 70.2% (33 of 47) the tract's homicides occurred within a two block radius of the intersection of Columbia and Hastings. Just east of the intersection, in the 100 block of East Hastings, 11 homicides took place.

At the western edge of the tract along Granville street, another trend of homicide location has developed. On and within two blocks of Granville street seven homicides were recorded north of Nelson street. Interestingly, homicide activity appeared to increase with distance from the intersection of Hastings and Granville street (the traditional centre of the central business district in Vancouver) along both of Granville and Hastings streets, for approximately ten blocks, homicide activity then decreased with increased distance from the C.B.D.

Map 6
 Street Locations of Tract 59.01 Homicides: 1980 - 1986



Map 7
Street Locations of Tract 59.02 Homicides: 1980 - 1986



In tract 59.02 (map 7), Granville street homicide activity persisted, with 11 homicide locations on, or within one block of Granville street, south of Nelson to False Creek. Granville strip homicides represented 100% of all homicides that took place within tract 59.02 during the study period.

Two areas of Vancouver are therefore identified as "strategic areas" of homicide; along Hasting street east of Granville to Main street, and along Granville street south of Hastings to False Creek. A "strategic spot" is also identified at the intersection of Hastings and Columbia streets.

CHAPTER V

CONCLUSION

This study has been a replication of homicide research that employed methods developed by Wolfgang (1958), Bullock (1955), and Wilt (1974), to analyze patterns in homicide from among the 204 homicide victims, and 174 homicide suspects who were identified by the police between January 1, 1980 and December 31, 1986. The data source for the study was the complete homicide file as prepared by the Major Crime Section of the Vancouver Police Department for each of the 194 homicide cases that the 204 victims represented. From the methodology developed in the literature and from the experience gained in a 1984 pilot study, data were gathered concerning victim, suspect and situational attributes for the following variables: time, day of month, day of week of homicide occurrence, location, motive, weapon used to inflict death, gender, age, race, marital status, victim-suspect relationship, employment status, length of time at address, alcohol and drug involvement, criminal record, case disposition, charge type, sentence, exact street and census tract location of each homicide, suicide after homicide, and victim precipitation of homicide.

No other research of homicide of this type has been conducted in Canada; *meso-analysis* of urban homicide has been dominated by American research. One implication of the lack of Canadian research has meant that homicide theory development and testing done in the United States may or may not have relevance to homicide in Canada. Although Canadian and American societies are, and have been similar in many respects, the differences in the historical and social development of the two countries may

be important in explaining the differences in the frequency and patterns of urban homicide.

Homicide research in Canada to date, has largely relied upon national statistics that have been generated by Statistics Canada, and have primarily focused upon national homicide trend analysis, or have been involved in the debate over capital punishment, or other issues (Boyd, 1988; Statistics Canada, 1987, 1976; Taylor 1983; Jaywardene, 1975). Statistics Canada has relied on the Statistics Canada Homicide Return Form for its data collection from police departments across Canada. However, based upon the experience gained in this study of primary data sources, a number of problems with the Statistics Canada Homicide Return Form have been identified and serve to reinforce the conviction that primary source data are preferable to secondary sources, such as Statistics Canada. Problems associated with police reporting of crime are well documented (Nettler 1984; Silverman 1980); however, the deficiencies discovered in the reporting of homicide by Statistics Canada point to problems of methods and questionnaire design of the Homicide Return, not in the actual reporting by the police.

The primary objective of the present study has been to contribute to the existing meso-analytic homicide literature through the generation of patterns of homicide observed in a Canadian city utilizing primary source homicide data . The research employed methods previously developed by American researchers who also utilized primary source homicide data. The results of the research of the patterns of homicide in Vancouver are summarized as follows.

The most outstanding difference between the patterns of homicide in Vancouver and that reported in the literature was the difference in the importance of racial participation in homicide. American research has consistently reported the significance of black homicide involvement in the high rates of homicide found in many American cities. Black homicide participation was found to vary between 65% and 89% of the total homicide population in the literature reviewed. In most cases, blacks were in a minority position in the population, and from rates of homicide involvement per 100,000 population, were found to have homicide rates, that were up to twelve times greater than the majority white population (Wolfgang, 1958). In Vancouver, examination of the racial distribution of homicide participation has revealed that the majority white population was involved in homicide proportionately to the number of homicide subjects; this was in marked contrast to race involvement trends that were reported in the literature. Whites comprised 75% of the city's population, and subsequently represented 73% of the victim sample, and 70.7% of the suspect sample. The white homicide rate per 100,000 population for victims was 7.0, and 5.7 for suspects.¹ The overall homicide rate for Vancouver was 7.0. However, an important finding in the racial distribution of homicide in Vancouver, was the high rate of involvement of Native Indians. Natives were found to represent only 1.5% of the city's population; however, natives accounted for 12.7% of victim sample and 22.4% of the suspect sample. The homicide rate for Native victims was 59.1, and 88.6 for suspects. The second and third largest racial

¹Homicide rates calculated per 100,000 population, averaged over the study period.

groups in Vancouver, Oriental and Indo/Pakistani, had very low rates of homicide participation.

Homicide weapon use in Vancouver also differed substantially from that reported in the American literature and from national Canadian data. Firearm use in the homicide literature varied 33% to 89% of the methods used to inflict death. In Vancouver, firearm use in homicide represented only 14.2% of the methods used. Stabbing was the leading cause of death with 49%, followed by beatings-bodily force 23%, beatings-blunt object 9.8%, and other methods 4%. Statistics Canada (1987) reported that nationally, 34.9% of all homicides were committed with firearms, 24.5% by stabbing, and 21% by beating.¹

Alcohol involvement by the participants of homicide was found to be an important contributing factor, 62.4% of the victim sample, and 87% of the suspect sample, had some involvement with alcohol prior to the homicide. Where exact blood alcohol results were known, 85.9% of victims, and 83.3% of suspects, had a blood alcohol content of 80 mgs. and over. The average blood alcohol content of victims and suspects who had known levels of blood alcohol was 211 mgs. for victims, and 164 mgs. for suspects. The importance of alcohol involvement in homicide in Vancouver was similar to that reported in the literature; however, the high rate of alcohol involvement found in Vancouver's data was contradictory to the importance of alcohol involvement in homicide published by Statistics Canada for national data. Statistics Canada (1987) reported that only 28.8% of homicides in Canada from 1974-1984 involved some level of consumption of alcohol by either the victim or suspect.

¹Statistics Canada did note that the trend of firearm use over the study period 1976-1985 was decreasing and an increasing trend of stabbing was observed.

Illegal drug involvement, a variable not widely examined by the literature, was found to be present in 16.1% of the homicides in Vancouver. Again this finding was contradictory to that reported by Statistics Canada (1987), who reported that only 2.8% of the homicides in Canada were reported to have involved illegal drug activity prior to the homicide.

Males of all races dominated the suspect and victim samples of homicide in Vancouver. Males represented 74% of the victim sample and 87.7% of the suspect sample. Homicide participants were also found to be young with a mean age of 38.9 years for victims, and 32.4 years for suspects. These findings were consistent with the literature.

Homicide motives in Vancouver were similar to those found in the literature whereby the leading motive was "trivial altercation" which accounted for 41.7% of the victim sample. Robbery homicide was slightly higher in Vancouver than that of most of the literature and represented 21.1% of the victim sample. The remaining motives were: 12.3% unknown motive, 8.8% revenge, 3.4% jealousy, 2.9 % other offence, 2.9% self defence, 2.9% mental illness, 1.9% sex offence, and police justified 1%.

The residence (house, apartment, rooming house, hotel room) was the most common location for murder in Vancouver accounting for 64% of the homicide sample; 26% of the victims were slain on a street (lane, parking lot, park), 4% in a commercial premises, 3% in a bar or pub, 2.5% other place. The residence was also the most frequent location of homicide in the literature, however the importance of other locations of homicide did vary.

Victim-suspect relationship patterns of the Vancouver data revealed that 64.9% of the sample involved primary group participants

(friend/acquaintance, spouse/commonlaw, other relative, lover, ex-lover/spouse), and 35.1% of the homicides involved strangers. This trend was consistent with the literature. However, an interesting anomaly was found in Vancouver's data concerning that of spousal homicides; females were more than twice as likely to be victims of homicides as were males. Statistics Canada (1987) similarly reported that 81.2% of spousal homicide victims in Canada, were female¹ The trend of spousal homicides in the literature was an almost even division of male and female victims of spousal homicide.²

Employment status of the homicide sample revealed that 58% of the victim sample, and 77.6% of the suspect sample were unemployed or received social assistance. Of the victim sample, 21.6% were employed, 10.3% retired, and 8.3% status unknown. Only 13.8% of the suspects of homicide were employed, 2.3% were retired, and 6.3% status unknown. All of the literature reviewed found that homicide was associated to unemployment and the general low social economic status of the participants of homicide.

Victims of homicide were found to have had a fixed residential address in 82.3% of the sample, 15.2% of the victims had no fixed address. Only 1% of the victims of homicide in Vancouver, lived outside of Vancouver. Suspects were found to have had a fixed address in 63.8% of the sample, while 31.6% of suspects had no fixed address.

¹Did not include commonlaw spousal murders.

²It is suggested that handgun use in American spousal/commonlaw homicide has had an equalizing effect on the number of male and female victims, as compared to more physical means of homicide such as beating, stabbing, etc., where males would have a physical strength advantage. None of the spousal/commonlaw homicides in Vancouver were committed with a gun.

Temporal trends of homicide in Vancouver were examined and it was found that over the seven year study period, homicide rates fluctuated with no distinct trend of increasing or decreasing rates. By year, the homicide rate varied from a low of 5.4 homicides per 100,000 in 1983, to a high of 9.5 in 1982. The overall homicide rate, averaged over the study period, was 7.0 victims per 100,000. Statistics Canada (1987) reported that homicide rates in Canada were quite stable during the period 1976-1985 and averaged 2.75 homicides per 100,000 population, (an average of 663 homicides a year). It was found that 48% of the homicides in the sample occurred on a Friday, Saturday or Sunday. Analysis of the hourly distribution of homicide revealed that 49.5% of the homicides in the sample took place between 2000 and 0159 (8 p.m. and 159 a.m.). Homicide frequency and welfare cheque distribution was analyzed and it was found that 37.3% of the homicides took place during the pre-welfare cheque period, 32.5% of the homicides occurred in the post welfare cheque period, and 30.2% of the homicides occurred during the welfare cheque distribution period.

Only 4% of suspects who committed homicide subsequently successfully committed suicide. Suicide after homicide rates in Vancouver were similar to those found in the literature. A further 3.4% of homicide suspects in Vancouver were unsuccessful at their subsequent suicide attempt.

Twenty one percent of the homicides in the sample were unsolved. Of the suspects identified by the police, 82.2% of the sample were charged with a criminal offence; 64.1% of the charged sample were convicted of an offence, 28.7% were found not guilty, 4.9% had their cases stayed or dismissed, 2.3%

were found not guilty by reason of insanity. Of those charged with an offence, 24.5% pled guilty, 38.4% were found guilty after a trial.

Seventy-seven percent of the charged suspect sample were originally charged with second degree murder; 37.4% of those originally charged with second degree murder, had their charge reduced to manslaughter. Only 11.8% of the charged sample were initially charged with first degree murder, of those charged with first degree murder, 35.2% were convicted of the offence; 64.8% of the first degree murder sample had their charges reduced either by pleading guilty to the lesser offence of second degree murder, or their charges were reduced to second degree or manslaughter as the result of the trial. Only 9.5% of the sample were originally charged with manslaughter, however as a final disposition, manslaughter convictions represented 40.5% of the convicted sample.

Of the suspect sample convicted of a homicide related offence, 4.5% received no jail sentence (probation only), 6.4% received jail terms of less than two years, 34.4% received jail terms of two years to less than ten years, 3.2% received jail terms of ten to less than 25 years, and 27.2% received life (25 year) terms.

Of the sample with known criminal backgrounds, 46.8% of the victims, and 79.7% of the suspects had a criminal record prior to the homicide event. Career criminal designation (eight or more convictions with accumulated prison time of more than two years) was the largest criminal background category for both victims and suspects of homicide (27% of victims, 42.5% of suspects). Native Indian victims, and suspects had the highest involvement with criminal backgrounds; 86.6% of native victims, and 91% of native

suspects had criminal histories. Of the native sample with a criminal background, 61.5% of the victims and 66.6% of the suspects, were designated as career criminals. High rates of criminality of the participants of homicide was also found in the literature.

Victim precipitation in homicide was a factor in 12.4% of the known sample. Males dominated the victim precipitation sample. The Vancouver victim precipitation rate was about half the rate found in the literature.

The geographic distribution of homicide in Vancouver was highly concentrated in seven downtown, and downtown-eastside census tracts. The seven tracts accounted for 51% of the homicide sample but represented only 7.7% of the city's population. Census tract 59.01, the central business district, contained 23% of the homicides in the sample and produced a homicide rate of 168 homicides per 100,000 population. Thirty-one of the 72 census tracts in the city did not contain any homicides.

Census tract 59.01 contained the most social conflict, crime specific, and unspecified homicides, of any tract in the city. Social conflict homicides were relatively widely distributed across the city but were clustered in the downtown, and downtown-eastside tracts. Crime specific homicides were also highly concentrated in the downtown, downtown-eastside tracts, these seven tracts generated 51.5% of the crime specific homicide. Unspecified homicides were widely distributed across the city with no apparent pattern. The spatial distribution of alcohol involvement homicides, revealed city wide distribution of alcohol related slayings, however the downtown, downtown-eastside tracts had very high proportions of alcohol involved homicides. The spatial

distribution of weapon use in Vancouver revealed that stabbing and beating homicides were concentrated in the downtown, downtown-eastside tracts.

Two areas of Vancouver were identified as "strategic areas" of homicide; Hastings street east of Granville street to Main street, and Granville street south of Hastings street to False Creek. A comparison of the land use and general social and economic characteristics of the two strategic areas of homicide in Vancouver would likely reveal that the two areas were very similar in their composition. First hand policing experience by the author in both of these areas allows a brief comparison to be made. Both areas were, and are currently, characterized by: a large concentration of unemployed males, a transient resident population, a concentration of Native Indians, numerous licensed premises (pubs, bars, cabarets) in a small geographic area, visible prostitution activity, availability of inexpensive rooming houses and hotels above street level, pawn shops, inexpensive restaurants, pornography and drug paraphernalia shops, and an active illegal drug trade (heroin at the south end of Granville street; marihuana, hashish, L.S.D. on Granville mall; talwin, ritalin, heroin, cocaine, in the Hastings area).

The "strategic spot" of homicide located at the intersection of Hastings and Columbia streets is hypothesized as the spatial reference point of the convergence and violent interaction of a number of subcultural groups found in the skid road area. Within two blocks of this intersection 70.2% (33 of 47) of census tract 59.01 homicides occurred. Data regarding criminal backgrounds, alcohol involvement, drug involvement, employment, address, and motive suggests that many of the victims and suspects of homicide in this area may have belonged to one or more of the subcultural groups found in the

area (poverty, alcohol and/or drug abuse, prostitution, property crime, and violence). Some of the victims and suspects of homicide in this area may not have been directly involved in a criminal orientated subculture, but may have been involved in a subculture of poverty and or alcohol/drug abuse, who lived in, or came to the area because of the ready availability of the product they desired. These non-criminal groups became targets of the criminal and violent groups. Social interactions between members of the criminal and violent groups would likely have higher incidences of violent conflict that result in homicide as violence is seen as an acceptable norm that may be employed in conflict situations (Wolfgang, 1958).

Almost all of the homicide subjects of the "strategic areas", regardless of subcultural group, were entrenched in poverty, subsisting on social assistance and profits from illegal activities. Some of the subjects of homicide found in this area may have been victims of other social problems (such as mental illness) who were forced to reside in an area of economic and social disorganization purely because of economic forces operating within the city (Burgess, 1925). The numerous rooming houses and hotels found within steps of the intersection of Hastings and Columbia provided inexpensive housing, while the bars, pubs, and streets of the area became the living rooms, board rooms, and the target search areas of the participants of subcultural activities.

The product of the convergence and interaction of a number of subcultural groups located in the skid road area (tract 59.02) was a homicide rate which was 28 times greater than that of the city as a whole. The persistence of the skid road area, and of the Granville strip, can be seen as an indication of the strength of the forces that operate in these areas to draw

certain types of people into the area to live, work, to be entertained, to commit crimes, and to become victims of crimes. These two areas were, and are still, socially and economically substantially different from other areas of the city. Closer examination of these areas at micro-analytic scale (Brantingham and Brantingham, 1981) is needed to further our understanding of the processes that operate to allow human behaviour to resort to deadly violence at rates so dramatically different from the rest of society.

Wolfgang (1958) suggested that within the larger community a subculture of violence had developed, and that the norms of the larger society were not necessarily the norms of those within the subculture of violence. It is suggested that from the observations of the patterns of homicide presented in this paper, that the social and cultural development of Vancouver has resulted in the development and establishment of a number of subcultural groups that are not found, or have not developed as extensively, in other large Canadian cities. The findings of the present study suggests to this author that in addition to a small group of people who comprise a subculture of violence in this city, there are a number of other groups of people, who because of their social position or other disadvantage, form subcultural groups of poverty, of drug and/or alcohol abuse, and of criminal (non-violent) associations. Because of urban economic forces operating in the city (Burgess, 1925), these groups have become spatially segregated and subsequently co-exist in close proximity to each other. The interaction and conflict of the subcultural groups has resulted in the development of two strategic areas of homicide in Vancouver. Of those participants of homicide in Vancouver who did not live, or die, within the two strategic areas but were found in other less affluent

areas of Vancouver, it is suggested that many of these homicides may have involved participants whose lives and deaths, revolved around one, or more of the previously mentioned subcultural groups. The low rates of homicide found outside of the downtown, and downtown-eastside areas, may be an indication of the absence of the presence of interacting and conflicting subcultural groups. It is suggested that high rates of homicide are most likely to be found in areas where different subcultural groups come into contact and conflict with each other.

Similar to the conclusions of Lundsgaarde (1977) and to that of Block (1976), because much of the violence leading to homicide in Vancouver has primarily involved only members of the various subcultural groups, and not of the general population, the community has been, (and still is), unwilling to deploy additional resources to alleviate the social problems found in the various subcultural groups. It has been left up to the Court system to deal with the problem of violence in the community. It is speculated that because the Court system has failed to harshly sanction much of the homicide activity in Vancouver, that the Court system has added to the tolerance, acceptance, and persistence, of homicide as a means of conflict resolution, or as a means of survival, of a small, culturally insignificant, segment of our society.

Vancouver has been reported to have had the distinction of having the highest per capita homicide rate of any major city in Canada. (Statistics Canada, 1988).¹ Vancouver's homicide rate of 7.0 homicides per 100,000 population is lower than rates found in many larger American cities, but is three times greater than rates found in Calgary, and Toronto, twice that of

¹See appendix 3 for comparative homicide rates for selected Canadian and U.S. cities.

Winnipeg and Edmonton, and is one and a half times greater than rates in Montreal. Many more questions regarding urban homicide in Canada have been raised by this thesis than have been answered. What are the factors involved in Vancouver that have created "strategic areas" of homicide that have generated homicide rates that more resemble American rates of homicide rather than other Canadian urban centres? To fully answer this question, research in the other major urban centres of Canada must be undertaken and comparisons, such as this paper has made to American research, should be made with patterns of homicide found in Vancouver.

Suggestions for Future Research

Research involving the meso-analysis of urban homicide in other Canadian urban centres, replicating established methods such as those utilized in this study, would contribute to a greater understanding of Canadian urban homicide. Inter-urban analysis of Canadian homicide patterns and trends could then be employed to test the "convergence of subcultures" hypothesis that was conjectured in this study in the partial explanation of the disparity of homicide rates between Vancouver and most other Canadian cities. International comparisons of urban homicide patterns between the United States, Canada, and Great Britain would also contribute to the understanding of the homicidal forces operating these three alike, but distinct, societies.

Much of homicide research in Canada to date has relied upon homicide data reported by Statistics Canada. Consequently research should be directed at the problems identified in this study that exist with the current Statistics Canada Homicide Return Form. Definition problems with existing variables (motive, weapon, relationship, employment, education), inconsistent

reporting of other variables (alcohol and drug involvement), as well as the complete absence of other important variables (criminal record of the victim, employment status of the victim, victim precipitation, suicide after homicide) were the direct result of poor form design of the Homicide Return Form. An American study of homicide also found similar problems with the reporting reliability of the Uniform Crime Reports Supplementary Homicide Report as prepared by the Federal Bureau of Investigation (Williams and Flewelling, 1987). Inconsistency of reporting data, inaccuracies, poor variable definition, little or no internal verification of data, and poor form design of the homicide return, were congruent problems of the American and Canadian homicide forms. Research into the effectiveness of the present form to accurately report homicide should be undertaken with the objective of the research to improve the form design to enhance the accuracy and reliability of the gathered data.

INSTRUCTIONS

Occurrence:

- 1 and 2. Offence – report all cases of capital and non-capital murder, manslaughter and infanticide.
3. Location of Offence – give name of city, town, or village; if rural, give section township and range or mileage to nearest town; when applicable give county, township or rural municipality; report province or territory.
4. Date of Offence – give date offence occurred (day, month, year).
5. Time – give appropriate time death occurred (a.m. or p.m.).
6. Means of Offence – indicate appropriate category. Specify any further details as to type of weapon (e.g., if a firearm was used, give type and calibre), instrument, substance, violence or other method used in causing victim's death, in section 12 – Circumstances of Alleged Offence.
7. Motive – indicate motive for crime, if possible, e.g., sexual assault, revenge, jealousy, escaping arrest or custody, while committing another offence (e.g., kidnapping, abortion, arson), etc. Any further details are to be described in section 12 – Circumstances of Alleged Offence.
8. Present Standing of Case – report whether Cleared by charge, Warrant issued, Cleared otherwise, or Not Cleared (unsolved); specify under Cleared otherwise where accused committed suicide prior to being charged or other situations; notify STATISTICS CANADA when unsolved cases are cleared.
9. Court Procedure – indicate date of "Arraignment", "Preliminary Hearing" and/or "Trial" if any of these procedures have taken place.

Victim(s):

10. Give the number of victims, their full names and aliases, address, sex, age, marital status and racial origin – if more than three victims, list details separately.

Please note: Marital Status – common-law may be combined with one of the other marital statuses.

Accused:

11. Give number of accused, their full names and aliases, address, FPS No., date of arrest, sex, date and place of birth, marital status, racial origin, occupation, education and relationship to victim – if more than three accused list details separately.

Please note: Marital Status – common-law may be combined with one of the other marital statuses.

Circumstances:

12. Give brief details of offence describing events in sequence including contributing factors, e.g. alcohol, drugs, etc. – use reverse side or separate sheet if necessary.

If a restricted firearm was used indicate if it was registered.

Please note: To assist us in an ongoing historical study on homicide, please record any known criminal record of the accused and/or victim(s) and also any previous mental history, if applicable.

APPENDIX 2

Coding Sheet For Patterns Of Homicide In Vancouver: 1980-1986

Column	Variable Name	Values
1-3	Homicide #	1-175
4-5	Year	1980 - 1986
6-10	Case #	
11-16	Date	80-01-01 to 86-012-31
17	Day of Week	0=Sun., 1=Mon., 2=Tue., 3=Wed., 4=Thur., 5=Fri., 6=Sat.,
8-21	Time of Event	0000 to 2400, 9999=n/k
22	Location	0=House/apart. 1=Street/lane/parking, 2=Commercial, 3=Pub/bar, 4=Place of Employ, 5=Auto/boat, 6=River/ocean, 7=Outside/park
23	Motive	0=Revenge, 1=Jealousy, 2=Anger/argument, 3=Robbery/theft, 4=Sex assault, 5=Other offence, 6=Self defence, 7=Mentally ill, 8=Police justified, 9=Not known.
24	Weapon	0=Handgun, 1=Shotgun/rifle, 2=Stabbing, 3=Beating-blunt object, 4=Beating-hands, feet, strangulation, 5=Poison/overdose, 6=Vehicle, 7=Arson, 8=Other, 9=Not known.
25	Subject	0=Victim 1, 1=Victim 2, 2=Victim 3, 3=Suspect 1, 4=Suspect 2, 5=Suspect 3,
26	Gender	0=Male, 1=Female
27-28	Age	0 -
29	Race	0=White, 1=Native Indian, 2=Chinese, 3=East Indian/Pakistani, 4=Black, 5=Other, 6=Not known, 7=Japanese
30	Marital Status	0=Single, 1=Married, 2=Commonlaw, 3=Divorced/widowed/separated, 4=Other, 5=Not known
31	Victim Suspect Relat.	0=None, 1=Friend/acquaint. 2=Spouse/commonlaw, 3=Other relative,

		4=Lover/homo.-hetero., 5=Employer/ee, 6=Not known, 7=Ex/spouse-lover,
32	Employment	0=Unemployed, 1=Welfare, 2=Working/part time, 3=Working/full time, 4=Self Employed, 5=Retired, 6=Other, 7=Not known.
33	Address	0=N.F.A., 1=Fixed/ < 1 year, 2=Fixed/ > 1 year, 3=Fixed/ not known, 4=Not known
34	Alcohol	0=None, 1=Minor/ < 80 mgs., 2=Major/ > 80 mgs., 3=Intoxication level not known, 4=Not known.
35	Drugs	0=None, 1=Victim involvement, 2=Suspect involvement, 3=Suspect/victim involvement, 4=Not known.
36	Criminal Record	0=None, 1=Minor property/ < 3 < 2 years, 2=Major property/ > 3 or > 2 years, 3=Violence, 4=Drugs, 5=Technical/driving, f.t.a., 6=Violence/drugs, 7=Career criminal/ ≥ 8 > 2 years, 8=Prior murder/attempt, 9=Not known.
37	Case Disposition	0=Unsolved, 1=Solved/no charges, 2=Charged/not guilty, 3=Charged/found guilty, 4=Charged/insane, 5=Not determined, 6=Case solved/insufficient evidence, 7=Charged/pled guilty, 8=Dismissed at trial, 9=Not known.
38	Charge Type	0=None, 1=1st degree, 2=2nd degree, 3=Manslaughter, 4=Criminal Negligence, 5=Other, 6=1st to 2nd, 7=2nd to mansl., 8=1st to mansl., 9=Suspect dead
39	Sentence	0=None, 1=Probation/no jail, 2= < 2 years, 3=2 to 9.9 years, 4=10 to 24.9 years, 5=Life, 6=Other, 7=Not Determined, 8= Not known.
40-43	Homicide Census Tract #	0000=other, 8888=N.F.A., 9999=Not known.
44	Suicide	0=No attempt, 1=Unsuccessful attempt, 2=Successful suicide, 3=Not known.
45	Victim Precipitation	0=Victim precipitated, 1=Not victim precip., 2=Not known.

APPENDIX 3

Comparative Homicide Rates¹

Year	United States		Canada	
	# of victims	Rate /100,000	# of victims	Rate /100,000
1980	23,040	10.2	593	2.5
1981	22,520	9.8	648	2.7
1982	21,010	9.1	668	2.7
1983	19,310	8.3	682	2.7
1984	18,690	7.9	667	2.7
1985	18,980	7.9	704	2.8
1986	20,613	8.6	569	2.2
1987	20,096	8.3	642	2.5

Canadian Cities

	1980	1981	1982	1983	1984	1985	1986
Rate per 100,000							
Toronto	2.1	2.6	2.1	2.3	2.5	2.8	1.7
Montreal	2.4	4.7	4.8	4.9	4.8	4.9	3.8
Calgary	2.1	2.7	2.2	2.9	1.7	2.5	2.0
Winnipeg	2.3	3.4	2.7	3.0	3.8	2.5	2.0
Edmonton	2.9	4.0	3.8	4.2	3.7	3.3	3.8
Peel Regional	1.5	1.1	1.8	0.6	0.9	1.4	0.7
Vancouver	7.0	7.0	9.6	5.5	6.2	8.1	6.0
Saskatoon	4.6	2.5	1.2	4.3	2.3	1.1	1.1
Halifax	0.8	2.5	1.7	0.0	0.8	6.1	4.3
Burnaby	0.7	0.7	1.4	4.3	1.4	9.1	1.3

American Cities²

	1980	1981	1982	1983/84	1986
Rate per 100,000					
Chicago	28.9	29.1	22.2	24.1	24.8
Detroit	45.7	42.1	43.4	49.3	59.1
Dallas	35.4	31.8	31.5	26.8	59.1
Los Angeles	34.2	29.0	27.4	26.0	25.6
New York	325.8	25.8	23.5	22.8	22.0
Philadelphia	25.9	21.5	19.7	18.4	20.8
Seattle ³	11.3				11.3
Washington	31.5	35.1	30.7	29.4	31.0

¹ Source: Statistics Canada, (October 1988). American data from Uniform Crime Reporting Program, United States Department of Justice, also found in Statistics Canada (October 1988). Rates per 100,000 population.

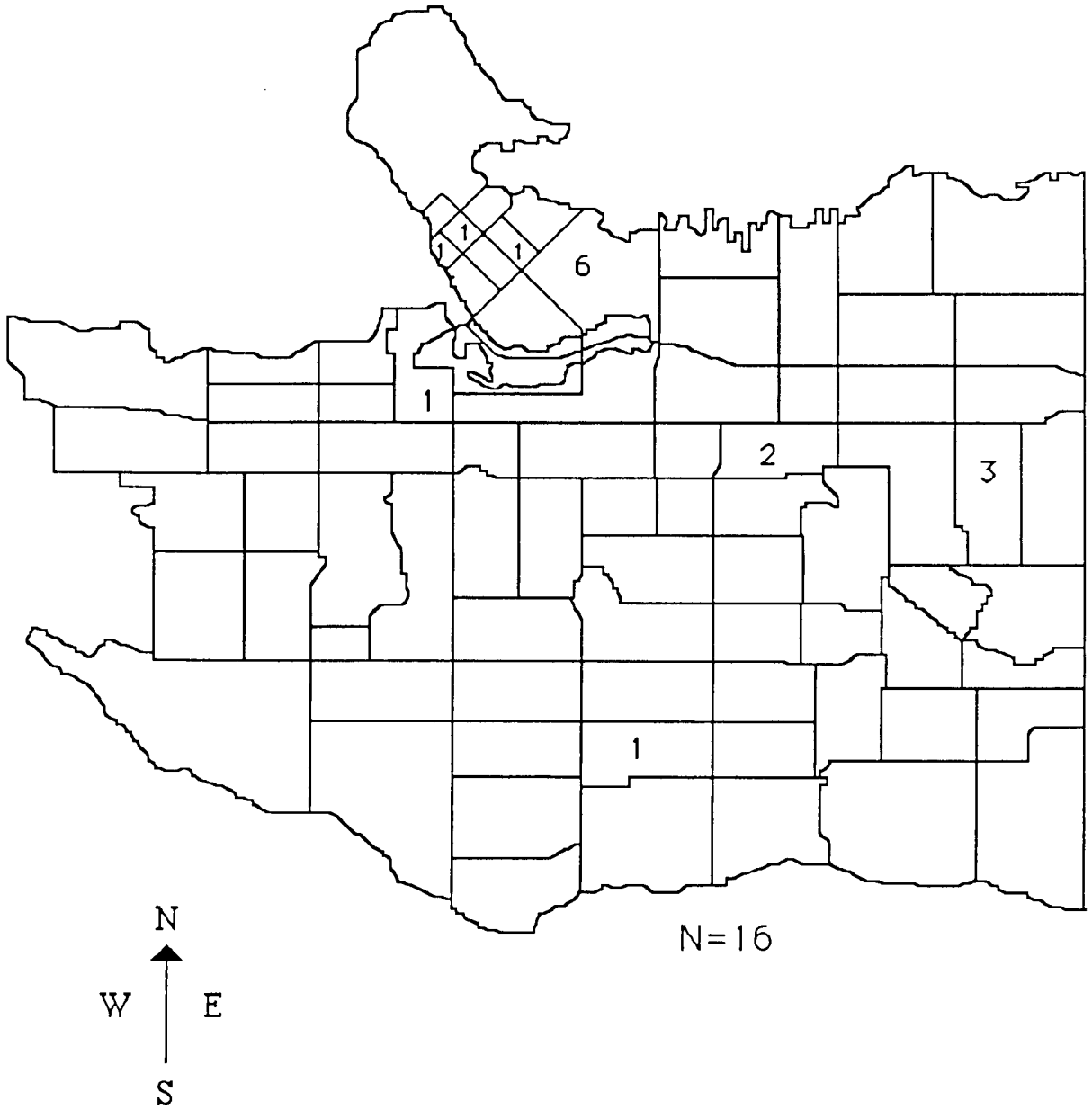
² Source: Statistical Abstract of the United States. U.S. Department of Commerce, Bureau of the Census.

³ Seattle's homicide rate of 11.3 was for the period 1980-1986 as determined by Sloan (1988).

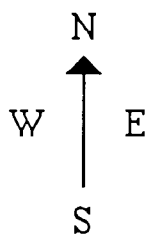
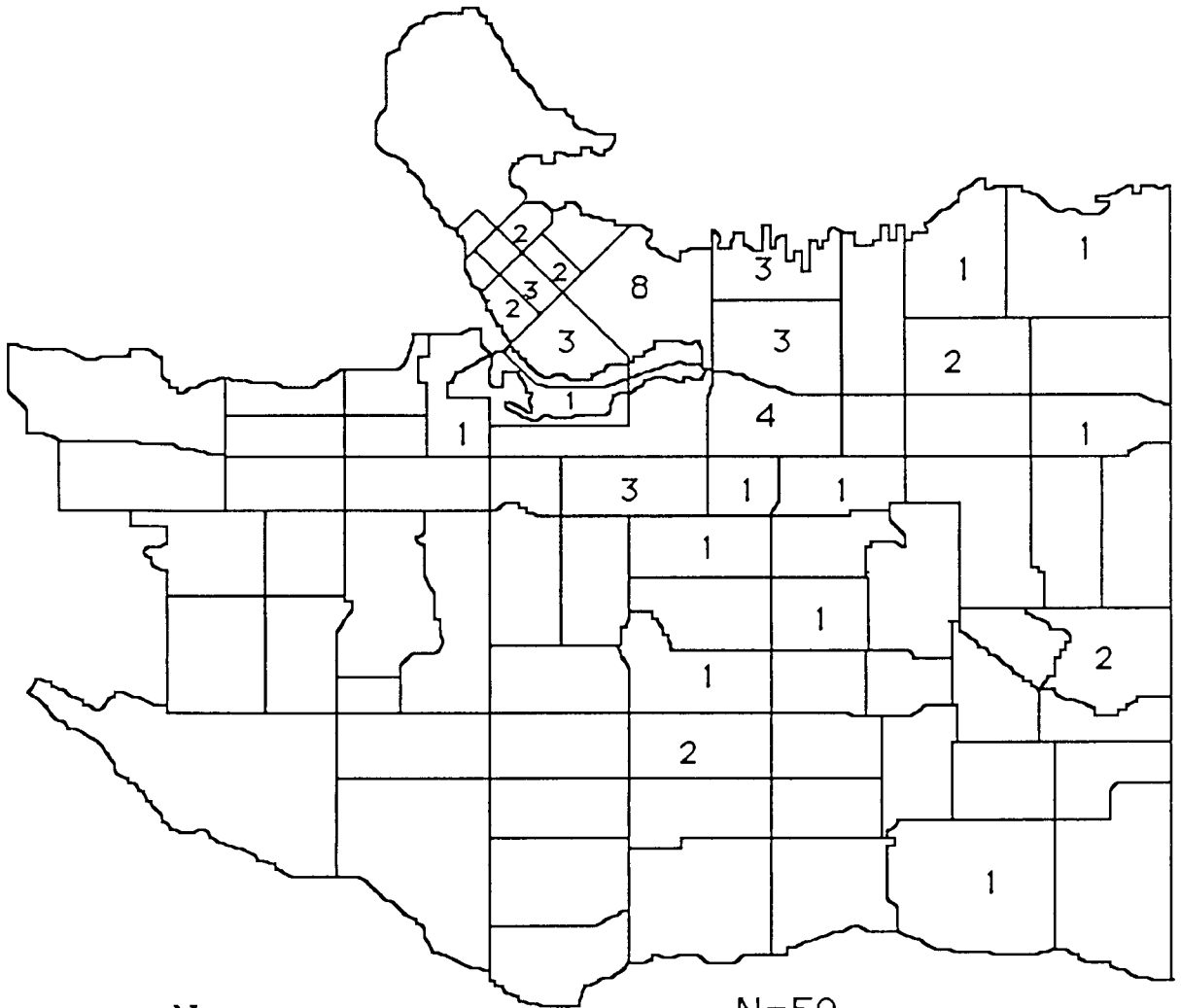
APPENDIX 4

MAPS 8 - 19

Map 8
Census Tract Distribution of Social Conflict Homicides:
Firearms

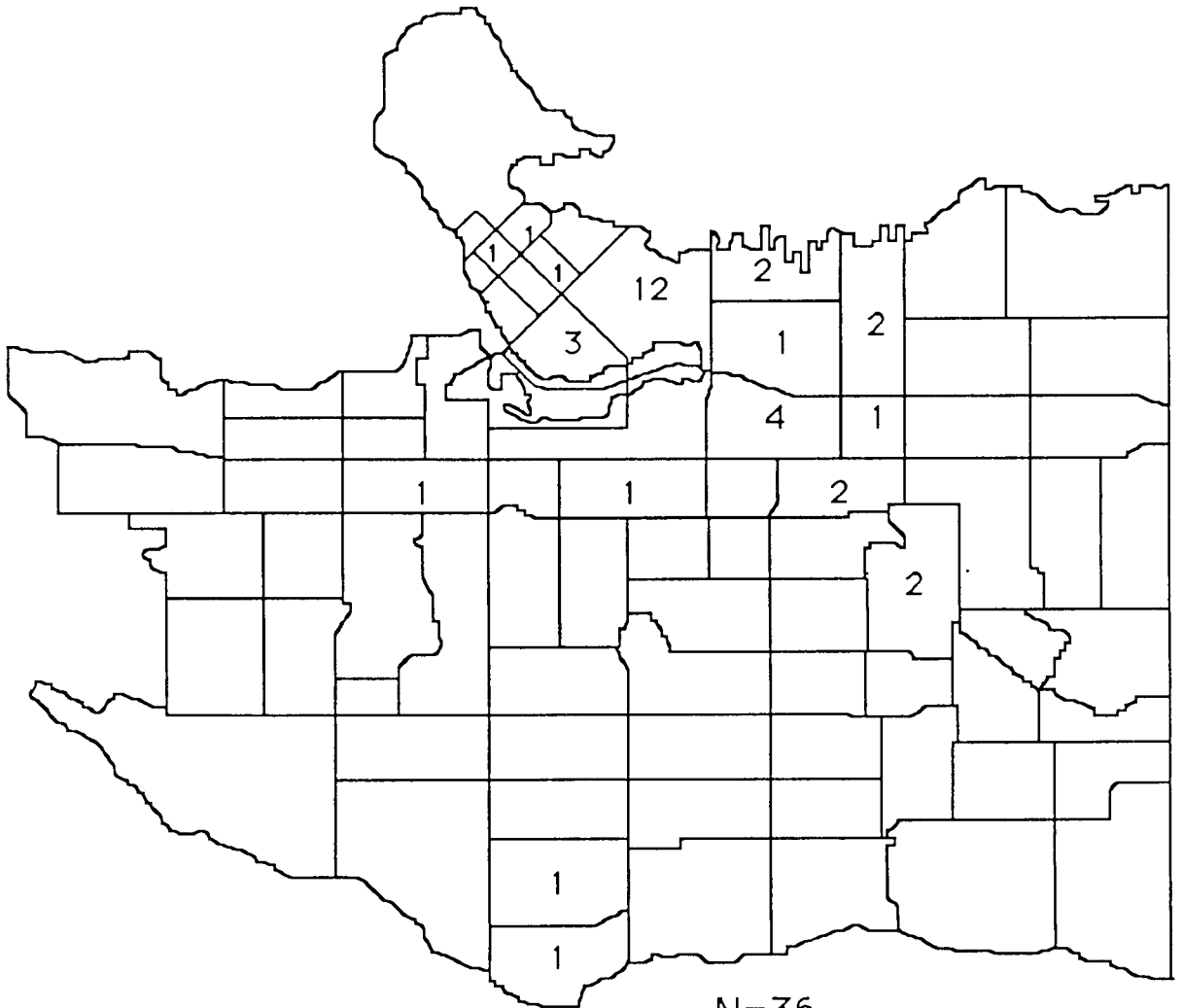


Map 9
 Census Tract Distribution of Social Conflict Homicides
 Stabbings

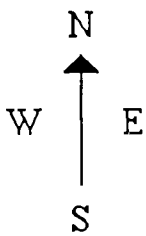


N=50

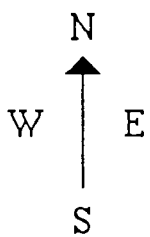
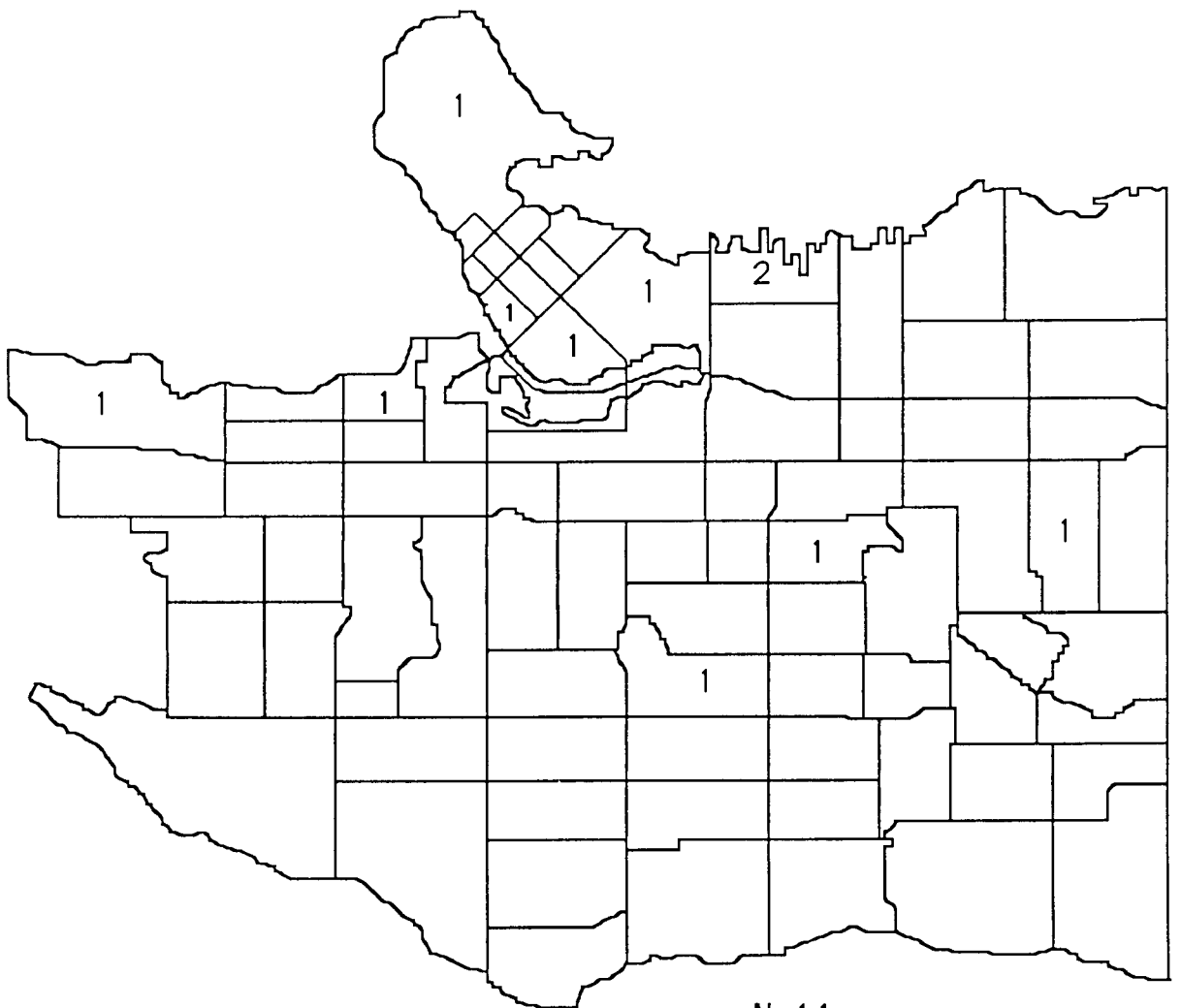
Map 10
Census Tract Distribution of Social Conflict Homicides
Beatings



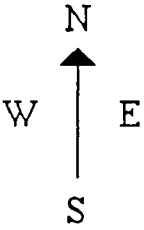
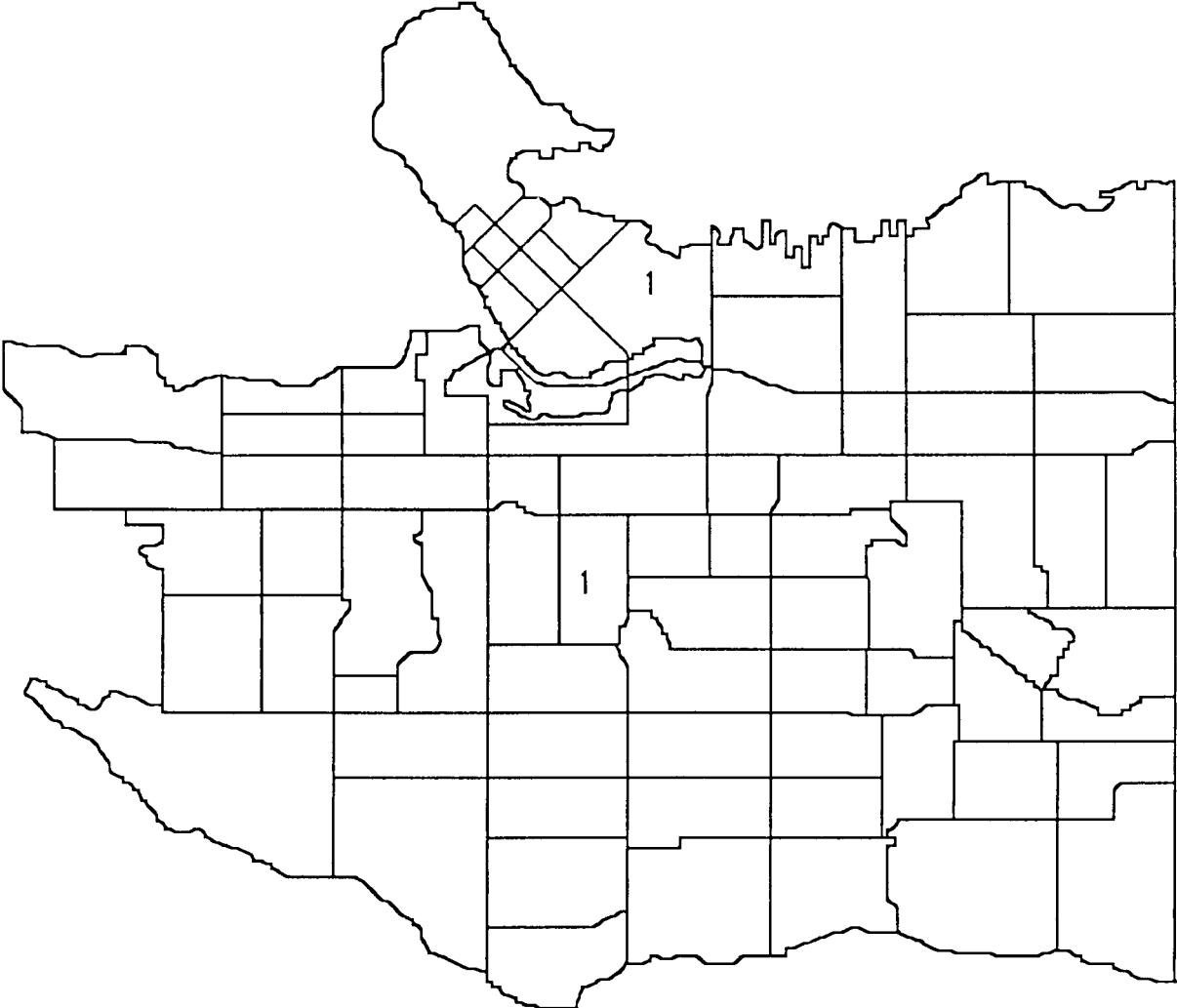
N=36



Map 11
Census Tract Distribution of Crime Specific Homicides
Firearms

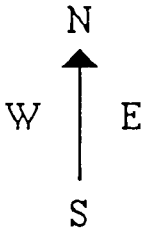
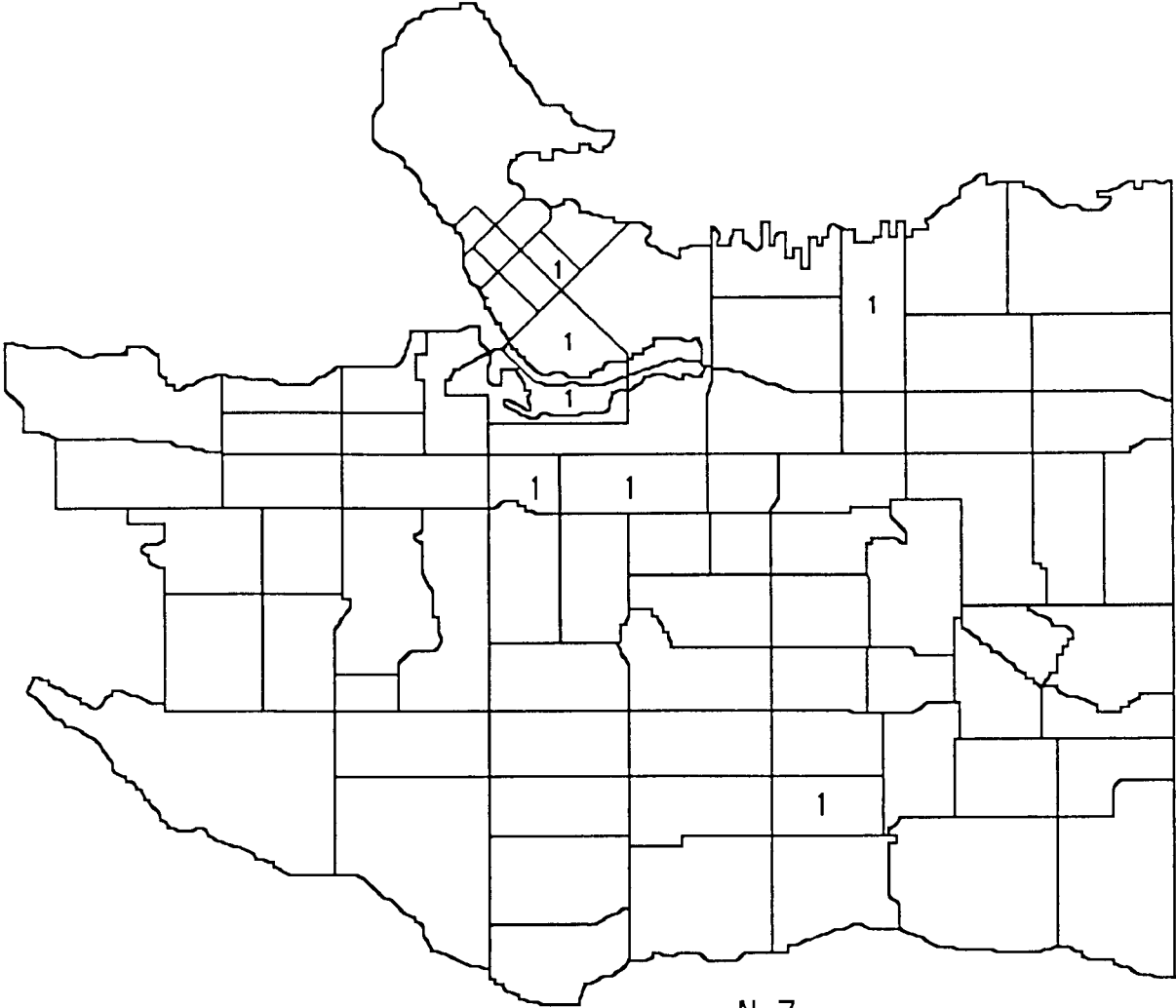


Map 14
Census Tract Distribution of Unspecified Homicides
Firearms



N=2

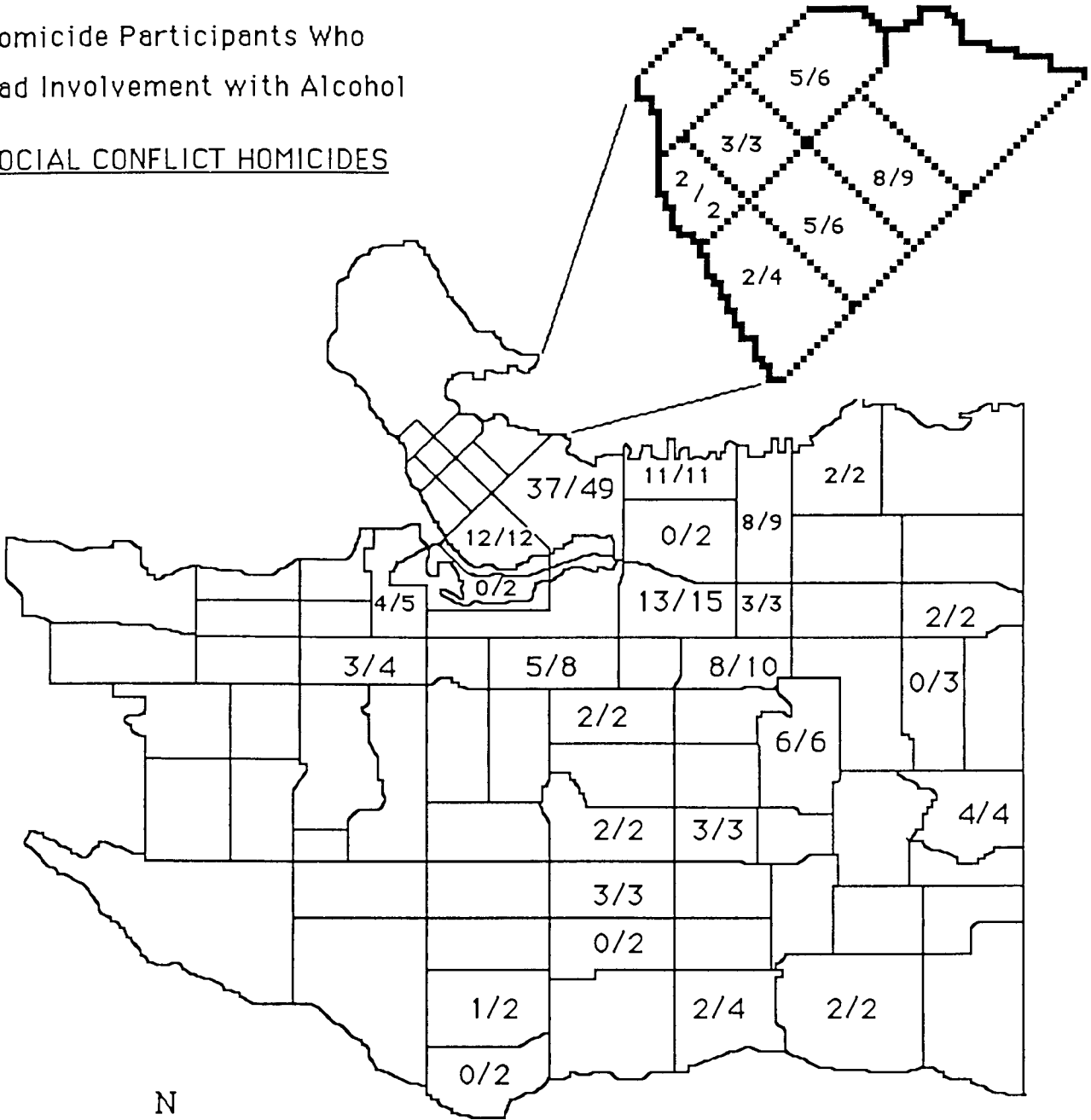
Map 16
Census Tract Distribution Of Unspecified Homicides
Beatings



Map 17

Census Tract Distribution of the ratio of
Homicide Participants Who
Had Involvement with Alcohol

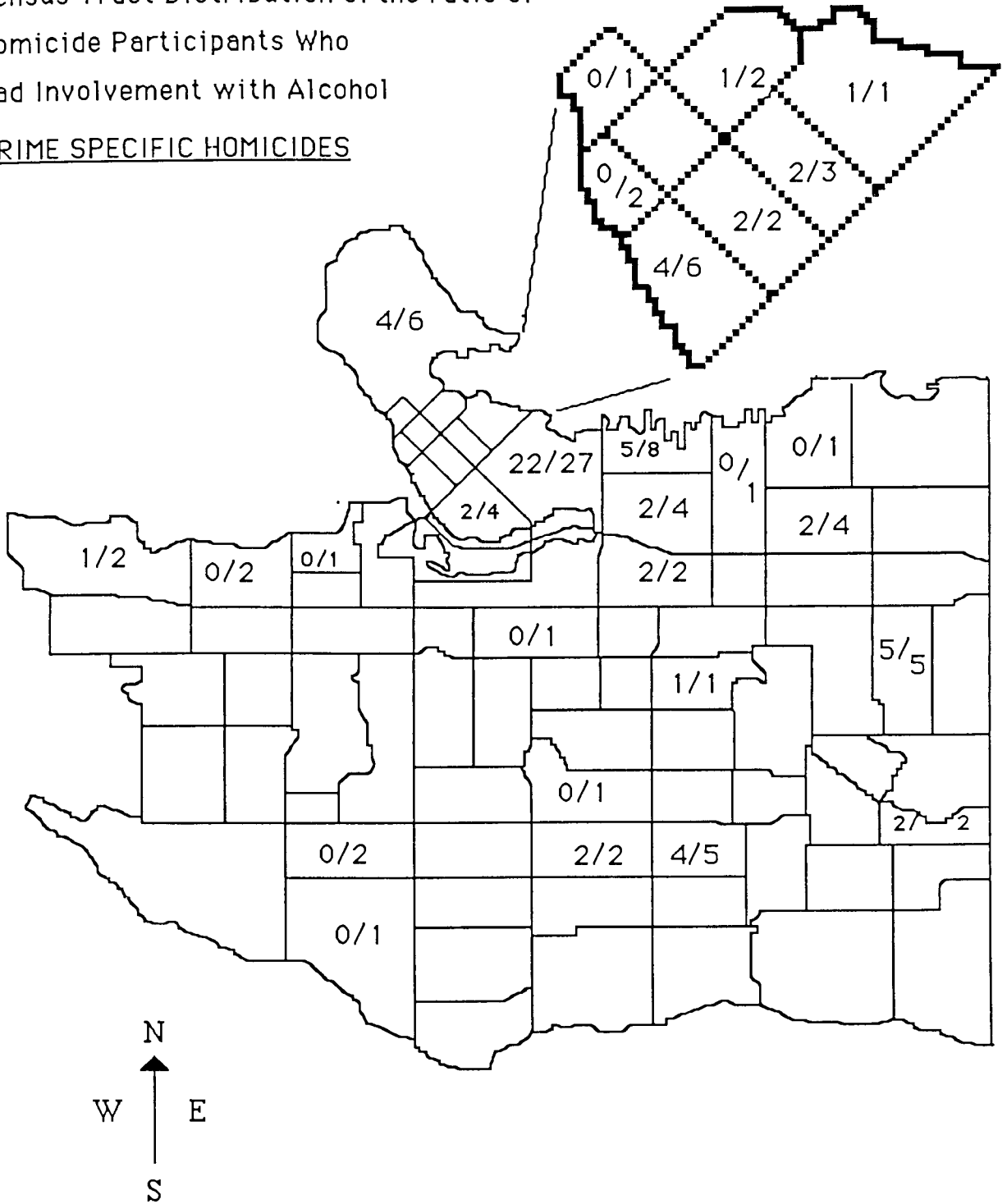
SOCIAL CONFLICT HOMICIDES



Map 18

Census Tract Distribution of the ratio of
Homicide Participants Who
Had Involvement with Alcohol

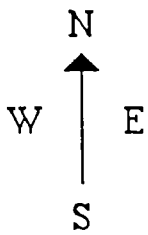
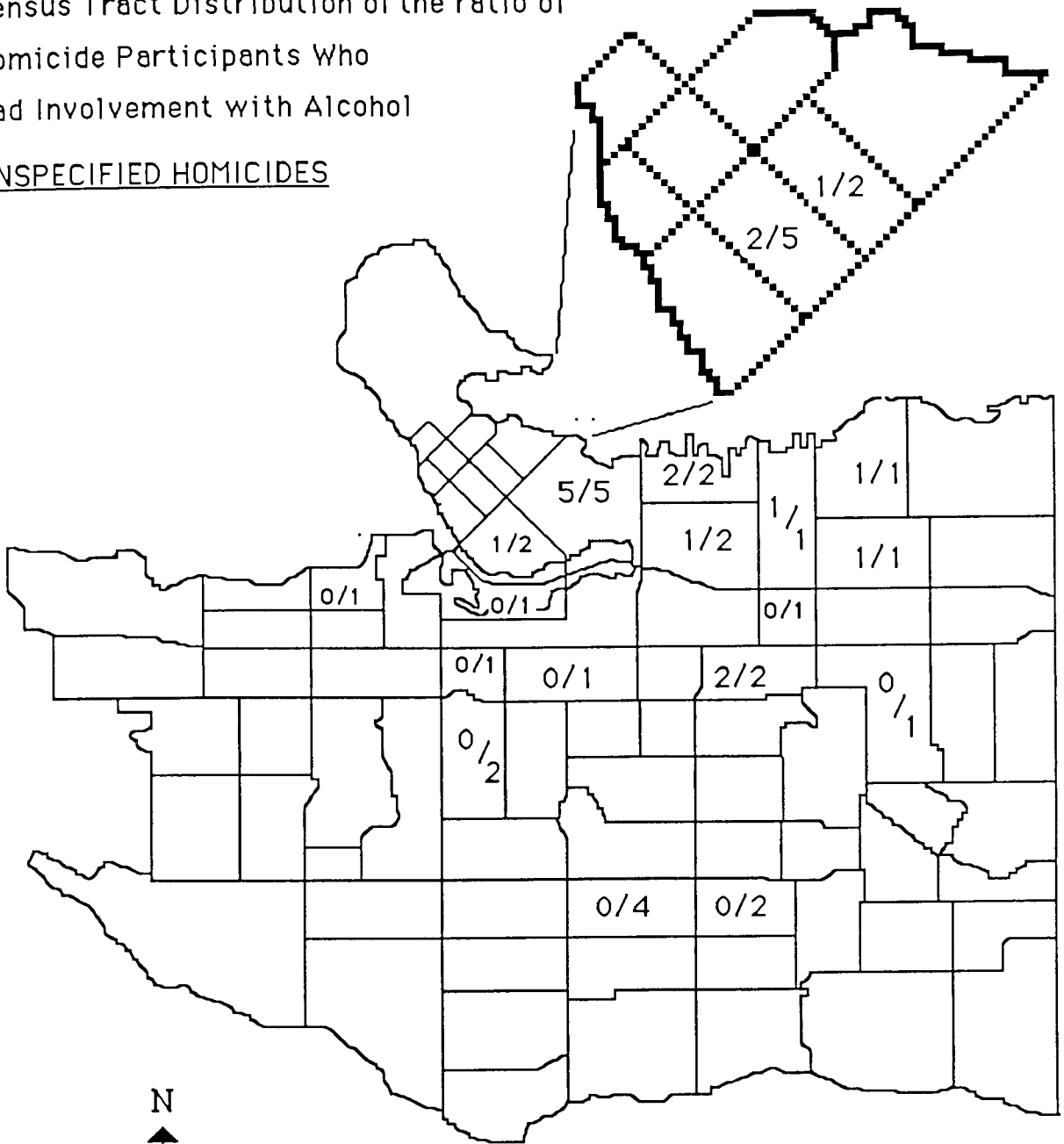
CRIME SPECIFIC HOMICIDES



Map 19

Census Tract Distribution of the ratio of
Homicide Participants Who
Had Involvement with Alcohol

UNSPECIFIED HOMICIDES



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