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RESEARCH REPORT March 2001

Violence in the District of Columbia:
Patterns from 1999

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research for safer communities

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Introduction

Violent crime continues to be a major concern in the District of Columbia. In 1999, the District recorded 14,871 violent incidents against 16,372 victims. Nearly 12,000 individuals were assaulted and almost 4,000 robbed. To inform efforts to reduce violence in the city, the Mayor's Office and the Criminal Justice Coordinating Council (CJCC) convened a small "data team" in mid-July, 2000. Composed of representatives from the Metropolitan Police Department of the District of Columbia (MPDC), the Urban Institute, the Mayor's Office, and the CJCC, the team was charged with analyzing violent incidents in the city by identifying trends and patterns that characterize violent incidents, victims, and offenders. The team focused on a small number of straightforward yet important questions:

- *What* types of violent incidents occur most frequently?
- *Who* is impacted most by the violence? Who is most at-risk for being victimized, and who is committing the offenses?
- *Where* is the violence occurring? Which neighborhoods and Police Service Areas are disproportionately affected by violence?
- *When* do the violent incidents occur? At what time of day? On what days of the week?

Under a contract from the Criminal Justice Coordinating Council, the Urban Institute used existing data to address these questions. In the report that follows, we describe the aggregate characteristics of violent crime and identify patterns and trends — the places, times and individuals most at risk of violence — to inform policymakers and law enforcement officials in the development of public safety strategies.

For this report, violent crimes include the following: homicide, sexual assault, robbery, aggravated assault, and simple assault.[1] Homicide includes murder (first and second degree), involuntary manslaughter and any other felony murder, including manslaughter (neglect). Sexual assault includes all categories of rapes, including statutory rape and attempted rape; and all categories of sexual abuse. Robbery includes all robbery categories as well as purse snatching, carjacking and attempted robberies. Aggravated assaults are more serious assaults, including assaults with a dangerous weapon, threats involving a weapon, assaults resulting in injury, and

[1] MPDC does not generally include simple assaults in their violent crime analyses. Also, here we examine the broad category of "sexual assault" rather than the narrower "rape" category. Therefore, the aggregate data presented in this report is not comparable to MPDC reports of Part I crime.

assault with intent to kill, rape, or rob. Simple assaults include assaults resulting in minor injury and those without injury. For this report, offenses are not broken down into subcategories (e.g., armed robbery, attempted robbery, purse snatching) of the major offenses.[2]

THE DATA

Offense Data. Offense report data were provided by the Metropolitan Police Department through the Criminal Justice Coordinating Council. The data file provided to the Urban Institute in August 2000 contains all offense reports filed by the MPDC in 1999. Offense data include age, race, and gender of victim, time of day, day of week, and location of the incident including address, Police Service Area, and police district. These data were analyzed in two ways. Most analyses that follow describe patterns in the number of *victims*, recognizing that a single incident may have involved multiple victims. In some places, we also describe the number of *incidents*. Throughout the report, we denote whether we are referring to victims or incidents.[3]

It should be noted that offense data reflect only offenses that were both reported to the police and filed by the police (it is MPDC's policy to file a report on every incident for which the police officer determines a crime has occurred). Still, these data undercount the *actual* level of victimization and violence in the District because they only include reported crimes. For example, according to a Department of Justice report, "Criminal Victimization and Perceptions of Community Safety in 12 Cities, 1998," it is estimated that there were more than 26,000 violent victimizations in the District of Columbia in 1998, yet only 50 percent were reported to the police. In addition to not knowing how many violent crimes were not reported to the police in 1999, we also do not know what percentage of the reported incidents were actually filed in an offense report.

Arrest Data. Arrest data were also provided by the Metropolitan Police Department through the Criminal Justice Coordinating Council. These data were delivered as two files. One file contained a list of each person arrested in 1999 in the District of Columbia, and the other file contained a complete list of charges and charge descriptions for each arrested individual. Additional information was recorded on the characteristics of the offender (e.g., age, race, and gender) and the arrest event (e.g., location, time, and date of arrest).

[2] This report only includes analysis of the major violent crime categories as described. Attempts to locate descriptions of all numeric codes used by MPDC for offense reporting were unsuccessful.
[3] The term "events" is synonymous with incidents and is used in the cluster analysis. Any reference to "victimization" denotes the number of victims reported by the police through incident reports.

The arrest data were analyzed in two ways. First, to highlight the demographic characteristics of violent crime offenders, we examined the race, gender, and age distributions of arrestees by offense type. Second, we described the victim–offender relationship in terms of the age group offenders are likely to attack. This analysis is a straightforward presentation of offenders' age, race, and gender compared with the age, race, and gender of their victims.

Population Data. Population data for the District were obtained from the U.S. Census Bureau Web site and racial distribution data were obtained from the D.C. Office of Planning. In 1999, it is estimated that there were 519,000 persons residing in the District. Of this total, blacks accounted for 60 percent of the population and nearly 30 percent were non-Hispanic whites. Where possible, data in tables and figures are shown as a rate (the number of violent crime victims per 1,000 persons).[4] For the offense report data, race is entered as either black or white, meaning all non-black minority victims are coded as white in the offense data files kept by the Metropolitan Police Department.

METHODOLOGY FOR CAPTURING VIOLENCE IN D.C.

For this report, we quantify violent victimization in terms of the number of violent crime *victims* in the District of Columbia in 1999. This approach should not be confused with the reporting of violent crime *incidents* that the Metropolitan Police Department submits to the UCR, or use for MPD official reporting on violence (i.e., Web site statistics). Our focus was to paint a detailed picture of victimization by counting every victim.

To accomplish this task, we counted each victim of a violent crime incident by offense type. Because the data file from MPD does not have a personal identification number, we identify multiple victims per offense by the number of records that have the same complaint/complainant number or "CCN." We suspected that 688 (4.2 percent of 16,372) records may have been duplicate records and not evidence of a multiple-victims incident. For these 688 we did not have details on age, gender, and race. More specifically, the event-specific information was listed (e.g., offense code, day of event, time of event) for each victim, but the demographic information was provided for only a single victim.

After a number of discussions with members of the MPD's Research and Resource Development unit, we decided that, given our limited resources, we would leave the possible duplicates in our counts. If we were to drop them, we could not be certain we were not excluding

real victims. We decided to err on the side of inclusion. However, the potential duplicates are not reflected in the tables on age, race, and gender, because demographic information was not available on the 688 records. Overall patterns described in the report should remain unaffected by the inclusion of the small number of possible duplicates. In addition, we confirmed that we have no duplicates in our count of homicides.

ANALYTICAL TECHNIQUE FOR THE SPATIAL ANALYSIS

We used geographic mapping and cluster analysis to identify patterns of violence in the District for 1999. We examined demographic information on each victim and offender, as well as the time of day of the incident, and created a geographic information system (GIS) to analyze the distribution of crime across Police Service Areas (PSA) and map concentrations of crime.

Two types of spatial analysis were conducted that related offense reports filed by the police to specific locations. First, the PSA maps show the total number of reported *victimizations* that occurred within PSA boundaries. The cluster analysis, on the other hand, analyzes entire *incidents* as a whole as opposed to the number of victims involved in each incident. For the cluster analysis, incidents with multiple victims were counted as one event.

High concentration areas or clusters were identified using the "nearest neighbor clustering" technique of the CrimeStat program.[5] Nearest neighbor clustering is a hierarchical technique that first groups points based on the next closest point (nearest neighbor). This technique then generates ellipses around clusters of incidents based on the following user-specified criteria: the probability level for the random expected nearest neighbor to isolate clusters; the minimum number of incidents (events) to form an ellipse; and the number of standard deviations for determining the size of the ellipse.

This study uses one-standard-deviation ellipses with 95 percent confidence that the clustering is spatially closer than would have happened by chance if the crimes were spread evenly over the District. Criteria for choosing the minimum number of events were selected after preliminary examination of the data. Due to variation in the frequency of the different types of violent crimes, the number of minimum events used to form the clusters varied for each crime type.

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[4] These data are based on District populations since it is unknown how many crimes are committed against non-District residents.

[5] Levine, Ned. 2000. *CrimeStat1.1: A Spatial Statistics Program for the Analysis of Crime Incident Locations*. Ned Levine and Associates, Annandale, VA, and the National Institute of Justice, Washington, D.C.

Highlights

HOW MUCH VIOLENCE?

- As reported by the MPDC, there were 14,871 violent incidents and 16,372 victims of violence in the District of Columbia in 1999 — including 241 homicide victims; 507 sexual assault victims; 3,880 robbery victims; 4,799 aggravated assault victims; and 6,945 simple assault victims.

- For every 1,000 residents there were roughly 32 victimizations in the District. The majority were victims of assault.

WHO IS AT RISK FOR VICTIMIZATION?

Data on victims of violent crime can be examined in two ways: 1) the total number of crimes experienced by a particular group, and 2) the population-based rate of violent crime victimization for each group. An aggregate count of crimes experienced by particular groups gives a general indication of how victimization is distributed across racial, gender, and age groups. Population-based victimization rates, on the other hand, provide an indication of the relative risk of victimization among different groups.

It is important to present both types of information for planning purposes. If the goal is to reduce the overall number of violent crimes, then planners should focus on the groups with the largest number of victims. However, it is also important to note whether certain groups face a disproportionately high risk of being victimized when their population size is taken into account. Examining the relative risk of victimization for particular populations may lead policymakers to focus their problem-solving efforts on the factors that appear to make these victims vulnerable.

Age of Victims

- **Persons ages 25 to 34 experienced the greatest *number* of victimizations**. Persons ages 25 to 34 were victims of violence more than any other age group. This group accounted for 31 percent of all violent crime victimization. Juveniles ages 17 and under accounted for eight percent of the victims, and youth ages 18 to 24 accounted for 23 percent of violent crime victimizations. While much of the city's violence reduction strategy focuses on youth ages 24 and under, most of the violence is committed by and against adults ages 25 and older (65 percent).

- **Persons ages 18 to 24 experienced the highest *rate* of victimization.** In terms of assessing relative risk, persons ages 18 to 24 were more than twice as likely to be victims of homicide than persons ages 25 to 34, and two-and-a-half times as likely as persons ages 12 to 17.

Race of Victims

- **Blacks experienced the greatest number of victimizations.** The majority of violent crime victims in the District were black (79 percent), although only 60 percent of the District's population is black. More than 92 percent of all homicide victims were black. However, for robbery, the difference between the number of black victims (1,360) and non-black victims (984) is much smaller—58 percent compared with 42 percent.

- **Blacks experienced more than twice the rate of victimization compared of non-blacks.** Blacks experienced a victimization rate over two times that of non-blacks. Thirty-five of every 1,000 black residents were victims of a violent crime in 1999, compared with 15 of every 1,000 non-black residents.

Gender of Victims

- **Men and women showed nearly equal rates of overall victimization.** Women were only slightly more likely than men to be victims of violent crime in the District in 1999. Nearly 28 of every 1,000 women were victimized in 1999. Men experienced only a slightly lower rate of victimization, with 27 violent crime victimizations per 1,000 men. Looking at overall victimization rates, however, masks some important variations by type of violent crime.

- **Men experienced higher rates of homicide; women experienced higher rates of sexual assault.** Most homicide victims were male (86 percent). There was nearly one homicide for every 1,000 men. The vast majority of sexual assault victims were female (92 percent).

- **Of all reported crimes, women were more likely to experience a simple assault.** Simple assaults were experienced by 4,326 women in 1999, accounting for 65 percent of all reported simple assaults. Nearly 16 of every 1,000 women reported a simple assault. We suspect that many of these cases involved an intimate partner. Unfortunately, we were not able to parse out domestic assaults in the data provided.

- **Of all reported crimes, men were more likely to experience an aggravated assault.** Aggravated assaults were experienced by 2,677 men in 1999, accounting for 58 percent of all reported aggravated assaults. Eleven of every 1,000 males reported being victims of an aggravated assault, compared with seven of every 1,000 females.

WHERE IS VIOLENT CRIME OCCURRING?

- **Violence occurs across a large number of Police Service Areas.** Half of all reported victim offenses were found in 29 of the 83 PSAs. In other words, 35 percent of the PSAs accounted for 50 percent of the violence, illustrating that while violence is not evenly distributed, nor is it significantly clustered in a few PSAs. Seventy-five percent of the violence occurred in 60 percent of the PSAs (50 of 83 PSAs). These PSAs were spread across all four quadrants of the District. No PSAs were immune from robbery: all experienced at least ten robbery offenses in 1999.

- **A small number of PSAs account for a disproportionate share of violent crimes**. Seven of the 83 PSAs accounted for more than15 percent of all violent offenses reported to the police in 1999. Six of seven of these PSAs are found south and east of the Anacostia River. Seven PSAs accounted for almost 25 percent of the homicides in 1999.

- **Locations of violence differ by crime type**. Six of the seven PSAs that experienced the most homicide incidents were not included in the seven PSAs mentioned above as having the highest overall number of victims.

- **Violent crime clusters span PSA boundaries.** Analysis of District incident data shows that a focus on crimes occurring in PSAs may give a misleading picture of the actual concentrations of crime in the District. The cluster analysis indicates that there are a number of small areas with high concentrations of violent incidents. These cluster locations are not

always within PSAs that have a large number of victimizations. Furthermore, the majority of these clusters span multiple PSA boundaries.

WHEN IS VIOLENT CRIME OCCURRING?

- **Violent crime does not occur equally throughout the course of a day**. More than 25 percent of all violent victimization occurred during the three-hour period between 9 p.m. to 12 midnight. After the decline that started at 11 P.M., violent victimization reached its lowest point between 5 A.M. and 7 A.M.

- **High-risk times for violent crime victimizations vary by age of victim**. High-risk times for youth under 17 years of age occur in the after-school time period, between 3 P.M. and 4 P.M. In the summer months, the high-risk times are weekday and weekend evenings. For older teens and young adults, the high-risk times are during weekend late evenings, followed by weekday late evenings, and weekdays after work. For people over the age of 35, the risk of violent victimization evens out across the time of day, with weekday and weekend early morning as the times of highest risk.

WHO ARE THE PERPETRATORS OF VIOLENT CRIME?

Age of Arrestees

- **Persons ages 25 to 34 experienced the greatest *number* of arrests.** Persons ages 25 to 34 accounted for nearly 32 percent of the arrests, followed by persons ages 18 to 24 (25.5 percent) and 35 to 44 (25.1 percent).

- **Persons ages 18 to 24 experienced the highest arrest *rates***. In terms of assessing relative risk, persons ages 18 to 24 were more likely to be arrested for a violent crime (43 per 1,000) compared with persons ages 25 to 34 (26 per 1,000), persons 35 to 44 (22 per 1,000), and persons ages 12 to 17 (17 per 1,000).

Race of Arrestees

- **The majority of individuals arrested for violent crimes were black**. While nearly 60 percent of the District's population is black, in 1999, nearly 90 percent of arrestees were black. A comparative analysis shows that the rate per 1,000 residents was substantially higher for black arrestees (21 per 1,000) compared with white arrestees (4 per 1,000).

Gender of Arrestees

- **Men were nearly four times more likely to be arrested for a violent crime**. The arrest rate for men was 24 per 1,000 compared with 6 per 1,000 for women.

- **Arrest rates for homicide and robbery were roughly 20 times greater for males than for females**. The homicide arrest rate was more than 20 times greater for males (0.46 per 1,000) compared with females (0.02 per 1,000). A similar pattern was observed for robbery—2.0 per 1,000 for males and 0.13 per 1,000 for females.

Offender–Victim Relationship

- **With the exception of juveniles, most offenders committed violence against those in their own age range**. Juveniles were just as likely to assault someone older than another juvenile. Looking through the victim's lens, again with the exception of juveniles, most victims were assaulted by their peers. Juvenile victims under age 17 were most likely to be assaulted by offenders ages 18 to 24.

- **Arrestees and their victims tend to be of the same race.** Of the 3,171 arrests of black individuals, 89 percent involved a black victim. Similarly, 71 percent of the 406 arrests of non-black individuals involved a non-black victim.

- **Males were more likely to be arrested for a violent crime involving a female victim.** Males arrestees were more likely to be arrested for a crime involving a female victim (62 percent) than a male victim. Females, however, were equally likely to be arrested for crimes involving males and females (50 percent for each group).

CHAPTER 1

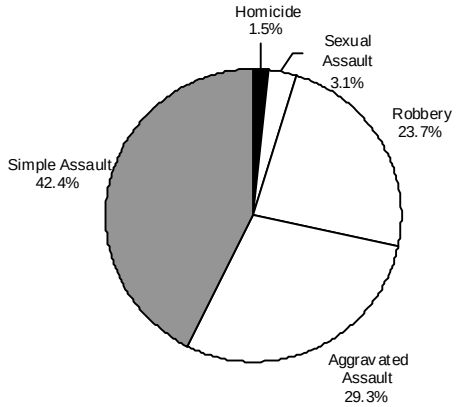
Violent Incidents — Who is Being Victimized?

In 1999, the MPDC filed reports on 14,871 violent crimes involving 16,372 victims (table 1-1). For every 1,000 District residents, about 32 were victims of violent crime. In other words, more than three percent of the city's population were victims of violence in 1999 (assuming all victims were residents of the District and no repeated victimization of the same persons). Figure 1-1 shows the distribution of victims by crime type. The majority of victims were involved in assault incidents; either aggravated assault (29 percent) or simple assault (42 percent). Nearly one-quarter of all reported violent crimes in 1999 were robberies while three percent were sexual assaults and less than two percent were homicide cases.

Table 1-1. Victims of Violent Crime Reported by the Police, Washington, D.C., 1999

	N	Rate per 1,000 persons
Homicide	241	.46
Sexual Assault	507	.98
Robbery	3,880	7.48
Aggravated Assault	4,799	9.25
Simple Assault	6,945	13.38
Total	**16,372**	**31.55**

Figure 1-1. Victims of Violent Crime Reported by the Police, Washington, D.C., 1999



A SNAPSHOT OF THE DISTRICT'S DEMOGRAPHICS

Tables 1-2 and 1-3 summarize the demographic composition of District of Columbia residents in 1998–99. These population estimates were used for calculating victimization rates for various gender, racial, and age groups. Victimization rates provide a means for assessing a group's relative risk of victimization.

As shown in figure 1-2, persons ages 24 and younger account for 27 percent of the District's population and persons ages 25 to 44 make up 35 percent of the population. In terms of gender, there are slightly fewer males (47 percent) than females (53 percent) residing in the District.

Table 1-3 shows the racial composition in the District in 1998. Nearly two-thirds of the residents are black and about 38 percent are non-black.

Table 1-2. Population by Gender and Age Group, Washington, D.C., 1999[6]

Age	Male	Female	Total
0-11	34,972	34,034	69,006
12-17	13,231	13,053	26,284
18-24	21,798	23,873	45,671
25-34	45,830	49,177	95,007
35-44	42,969	45,749	88,718
45-54	34,202	38,523	72,725
55-64	22,474	27,013	49,487
65-74	15,922	22,259	38,181
75-84	8,981	15,717	24,698
84+	2,641	6,582	9,223
TOTAL	**243,020 (47%)**	**275,980 (53%)**	**519,000**

Figure 1-2. Population by Age Group, Washington, D.C., 1999

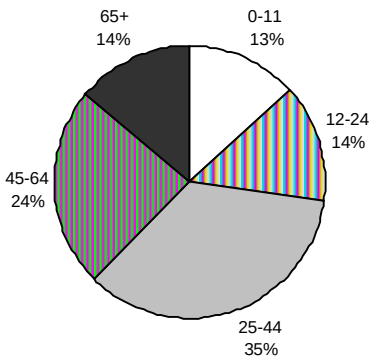


Table 1-3. Population by Race, Washington, D.C.[7]

Black	Non-black
323,337 (62.3%)	195,663 (37.7%)

[6] U.S. Census Bureau, 1999 population estimates

[7] Population by race was calculated by using 1998 racial breakdowns (provided by the D.C. Office of Planning) and applying them to the 1999 population estimates provided by the Census Bureau. The racial categories, black and non-black, are used to correspond to MPDC data so that victimization and arrest rates can be calculated.

VICTIMS OF VIOLENT CRIME: RACE

Table 1-4 and figure 1-2 describe the distribution of violent crimes by race of the victim. Although blacks make up more than 60 percent of the District population, nearly 80 percent of victims of violent crime during 1999 were black. Blacks constituted the overwhelming majority of victims of all violent crimes except robbery. More than 92 percent of all homicide victims in 1999 were black. Likewise, 80 percent of all reported sexual, aggravated, and simple assaults were committed against blacks. However, for robbery, the difference between the number of black victims (1,360) and non-black victims (984) was much smaller—58 percent compared with 42 percent.

Overall, blacks experienced a victimization rate more two times greater than non-blacks. Thirty-five of every 1,000 black residents were victims of a violent crime in 1999, compared with 15 of every 1,000 non-black residents. Of all violent crimes, simple assault was the most frequently reported crime for both black and non-black residents. However, black residents were more at risk for experiencing a simple assault than non-black residents. The second most commonly reported crime was aggravated assault for blacks and robbery for non-blacks. The two groups showed very different victimization rates for aggravated assault (12 per 1,000 black residents and 3 per 1,000 non-black residents), and more similar rates for robbery (4 per 1,000 black residents and 5 per 1,000 non-black residents).

Table 1-4. Reported Victims of Violent Crime by Crime and Race, Washington, D.C., 1999

	Number		Rate per 1,000	
	Black	**Non-black**	**Black**	**Non-black**
Homicide	218	18	0.67	0.09
(%)	(92.4%)	(7.6%)		
Sexual Assault	368	91	1.13	0.46
(%)	(80.2)	(19.8)		
Robbery	1,360	984	4.21	5.03
(%)	(58.0)	(42.0)		
Aggravated Assault	3,937	664	12.18	3.39
(%)	(85.6)	(14.4)		
Simple Assault	5,441	1,160	16.83	5.93
(%)	(82.4)	(17.6)		
Total	**11,324**	**2,917**	**35.02**	**14.91**
(% of total victims)	(79.5)	(20.1)		
Missing Data[8]		2,131 (13.0%)		

[8] There were 2,131 offense reports in the data file that did not include the race or sex of the victim.

Figure 1-3. Reported Victims of Violent Crime by Crime and Race, Washington, D.C., 1999 (*n* = 14,241)

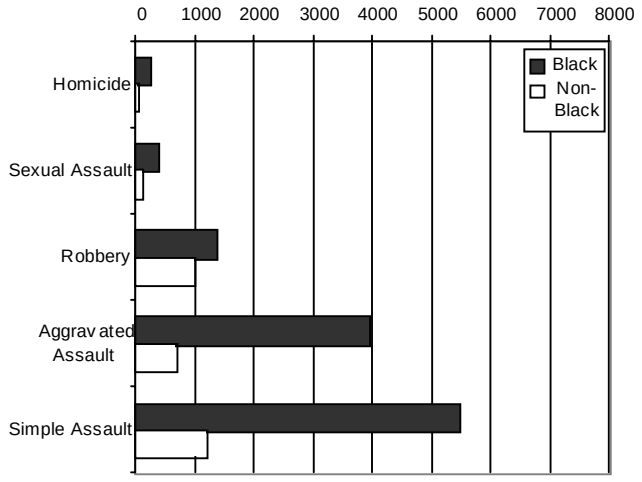
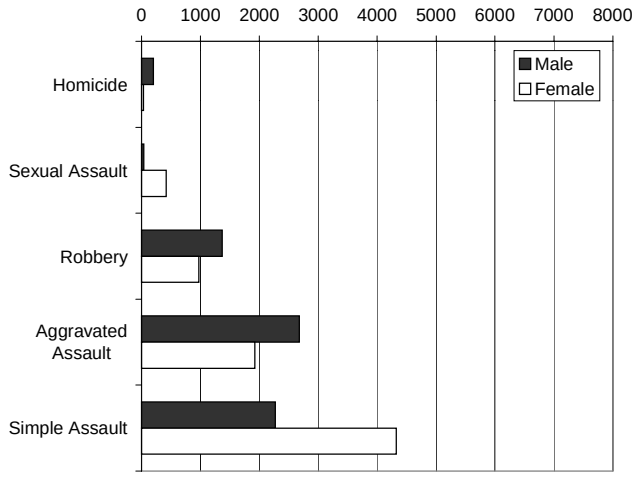


Figure 1-4. Reported Victims of Violent Crime by Crime and Gender, Washington, D.C., 1999 (*n* = 14,241)



VICTIMS OF VIOLENT CRIME: GENDER

Although men and women experienced nearly the same rate of victimization (27 per 1,000 men and 28 per 1,000 women), different victimization patterns were evident (figure 1-4 and table 1-5). Women were more likely to be victims of sexual and simple assault while men were more likely to be victims of robbery, aggravated assault, and homicide.

In 1999, the police reported 4,326 simple assaults involving female victims. This is almost twice the number of simple assault reports involving male victims. Nearly 16 of every 1,000 female residents were victims of simple assaults compared with 9 of every 1,000 males. Simple assaults involving female victims are likely to include domestic violence incidents, which could not be separately identified. Women were also more often listed as victims of rape and sexual assault. There were 420 reported incidents of sexual assault involving females, compared with 39 incidents involving male victims. When population is accounted for, there were 1.5 reported sexual assaults for every 1,000 females compared with fewer than 0.2 reported sexual assaults for every 1,000 males.

Males were slightly more likely to be victims of both robbery and aggravated assault, but the differences in victimization rates were less extreme. Males were victims of robbery and aggravated assault in nearly 60 percent of the reported cases, while female victims accounted for 40 percent of the reported cases. Taking population into account, nearly six men out of every 1,000 experienced a robbery compared with four out of every 1,000 women. In terms of

aggravated assault, the rates were 11 of every 1,000 men compared with seven of every 1,000 women. Males were also far more likely to be victims of homicide (86 percent of all homicide cases).

Table 1-5. Reported Victims of Violent Crime by Crime and Gender, Washington, D.C., 1999

	Number		Gender per 1,000	
	Male	**Female**	**Male**	**Female**
Homicide	204	32	0.84	.004
(%)	(86.4%)	(13.6%)		
Sexual Assault	39	420	0.16	1.52
(%)	(8.5)	(91.5)		
Robbery	1,369	975	5.63	3.53
(%)	(58.4)	(41.6)		
Aggravated Assault	2,677	1,924	11.02	6.97
(%)	(58.2)	(41.8)		
Simple Assault	2,275	4,326	9.36	15.69
(%)	(34.5)	(65.5)		
Total	**6,564**	**7,677**	**27.01**	**27.82**
(% of total victims)	(46.1)	(53.9)		
Missing Data		2,131 (13.0%)		

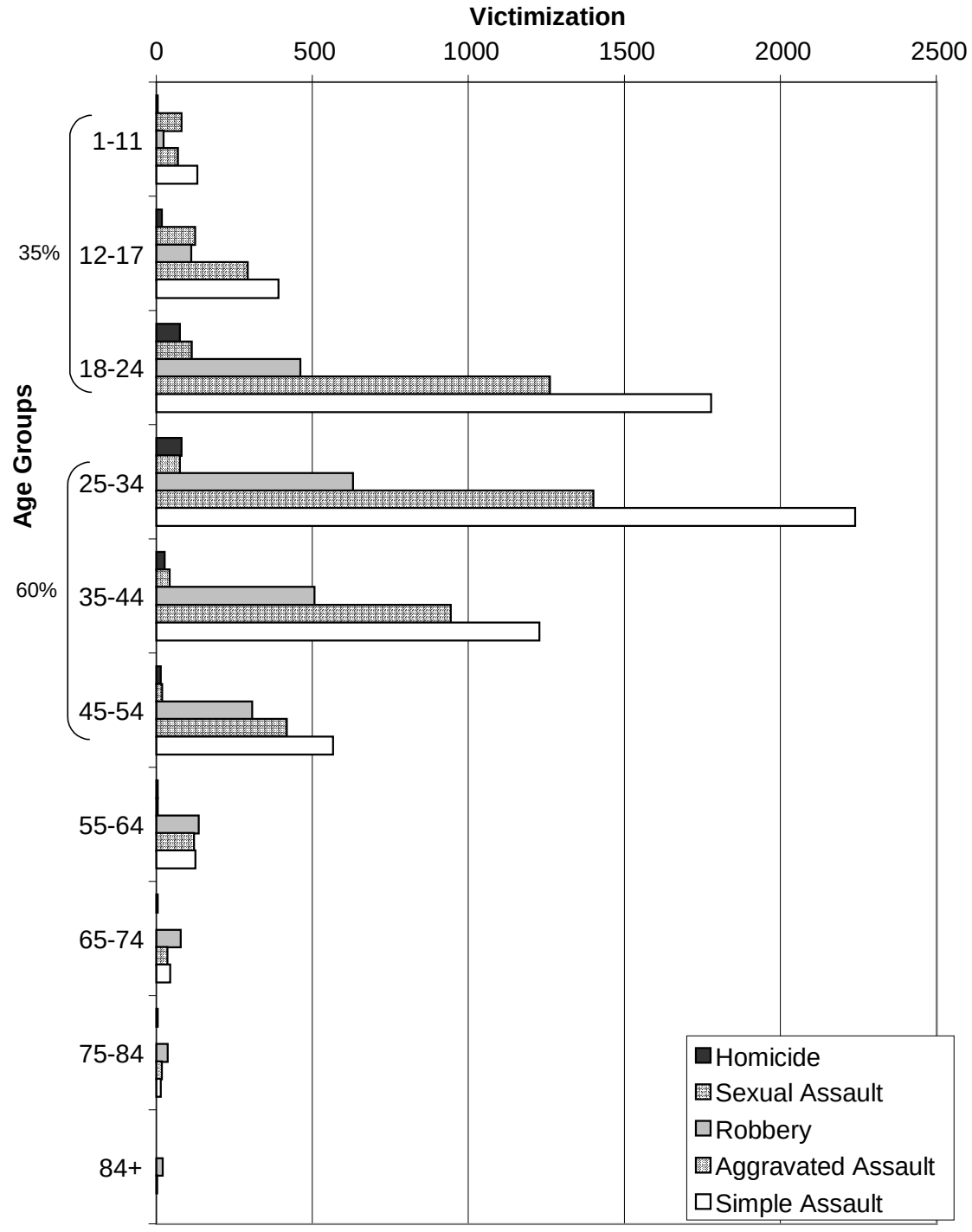
VICTIMS OF VIOLENT CRIME: AGE

Figure 1-5 illustrates the distribution of reported victimizations in 1999 by age group. The data are presented for the total number of violent crime victimizations for which the victim's age was known—14,048 victims of 16,372. Missing data account for roughly 14 percent of the total.

Absolute Numbers

Adults ages 25 to 34 were victims of violence more than any other age group (4,420 victims), followed closely by 18 to 24 year olds (3,685 victims). Juveniles ages 17 and younger were victims of 1,239 violent offenses. As figure 1-5 illustrates, youth ages 24 and under represented 35 percent of the victims while adults ages 25 to 54 accounted for 60 percent of violent crime victimization in 1999 (also see table 1-6). While much of the city's violence reduction strategy focuses on youth ages 24 and under, most of the violence is committed by and against adults ages 25 and older. (See Chapter 4 for an analysis of arrest rates.)

Figure 1-5. Age Distribution of Violent Crime Victims, Washington, D.C., 1999
(*n* = 14,048)[9]



[9] Excludes the 2,324 records in which age was missing.

Table 1-6. Age Distribution of Violent Crime Victims by Crime, Washington, D.C., 1999

Age	Homicide	Sexual Assault	Robbery	Aggravated Assault	Simple Assault	Total
1-11	4 (1.8%)	80 (17.5)	22 (.95)	69 (1.5)	130 (2.0)	305 (2.2)
12-17	17 (7.6)	124 (27.1)	111 (4.8)	292 (6.4)	390 (6.0)	934 (6.7)
18-24	74 (33.0)	113 (24.7)	460 (20.0)	1,261 (27.7)	1,777 (27.3)	3,685 (26.2)
25-34	80 (35.7)	75 (16.4)	629 (27.3)	1,399 (30.7)	2,237 (34.4)	4,420 (31.5)
35-44	25 (11.2)	42 (9.2)	507 (22.0)	942 (20.7)	1,226 (18.8)	2,742 (19.5)
45-54	14 (6.3)	18 (3.9)	307 (13.3)	418 (9.2)	566 (8.7)	1,323 (9.4)
55-64	3 (1.3)	4 (.88)	135 (5.9)	121 (2.7)	125 (1.9)	388 (2.8)
65-74	4 (1.8)	0 (0)	78 (3.4)	34 (.75)	44 (.68)	160 (1.1)
75-84	3 (1.3)	1 (.22)	36 (1.6)	16 (.35)	13 (.20)	69 (.49)
85+	0 (0)	0 (0)	20 (.87)	2 (.04)	0 (0)	22 (.16)
TOTAL[10]	**224**	**457**	**2,305**	**4,554**	**6,508**	**14,048**
Missing	17 (7.0%)	50 (9.8)	1,575[11] (40.6)	245 (5.1)	437 (6.3)	2,345 (14.3)

Table 1-7. Victimization Rates by Crime and Age Group (per 1,000 Residents in Age Group), Washington, D.C., 1999

Age	Homicide	Sexual Assault	Robbery	Aggravated Assault	Simple Assault	Total
1-11	0.06	1.16	0.32	1.00	1.88	4.42
12-17	0.65	4.72	4.22	11.11	14.84	35.53
18-24	1.62	2.47	10.07	27.61	38.91	**80.69**
25-34	0.84	0.79	6.62	14.73	23.55	**46.52**
35-44	0.28	0.47	5.71	10.62	13.82	30.91
45-54	0.19	0.25	4.22	5.75	7.78	18.19
55-64	0.06	0.08	2.73	2.45	2.53	7.84
65-74	0.10	0.00	2.04	0.89	1.15	4.19
75-84	0.12	0.04	1.46	0.65	0.53	2.79
85+	0.00	0.00	2.17	0.22	0.00	2.39

[10] Victimization numbers by age do not add up to the totals by crime type presented in Table 1-1 due to missing data on age of the victim.

[11] All records in the data file for armed robbery (38.4 percent of all robbery offenses reported to the police) are missing information on victims. We believe this is a problem with the data set and not MPDC records.

Relative Risk

When population is taken into account, 18-to-24-year old persons were victimized at a far higher rate than persons in other age groups. As shown in table 1-7, persons ages 18 to 24 were victimized at a rate of 81 of every 1,000 persons ages 18 to 24 compared with a rate of 47 per 1,000 persons ages 25 to 34. In particular, 18 to 24 year olds experienced a relatively high risk of being assaulted. Simple assaults among the 18 to 24 age group occurred at a rate of 39 per 1,000 persons and aggravated assaults at a rate of 28 per 1,000 persons.

Homicide victimizations occurred twice as often to persons ages 18 to 24 than to persons ages 25 to 34, and almost two and a half times more than the rate of homicide victimizations of youth ages 12 to 17.

When looking specifically at sexual assaults, the most at-risk group is even younger. Twenty-seven percent of all sexual assaults occurred to youth ages 12 to 17—roughly five sexual assaults per 1,000 youth in this age group. This is twice the rate of reported offenses for sexual assault of that of the next most vulnerable age group (18 to 24 year olds).

CHAPTER 2

Where is the Violence Occurring? Distribution of Crime throughout Washington, D.C.

In recent years, the Metropolitan Police Department (MPDC) has a made a commitment to move toward community policing throughout the District. MPDC divided the city into 83 Police Service Areas (PSAs) with the expectation that these divisions would serve as the basis for creating a "neighborhood" where community residents and officers could come together for proactive problem solving. This chapter highlights *where* violence is occurring in the District with an emphasis on how reported violent crime offenses are distributed among the PSAs.

The analyses that follow utilize two methods to describe the geographic concentration of violent crime offenses throughout the District:

- *PSA Analysis*: The PSA analysis examines the total number of reported *victimizations* that occurred within PSA boundaries. Graduated color maps, found at the end of the chapter, indicate levels of violent crime victimization in each of the 83 PSAs.

- *Cluster Analysis*: The second method involves a statistical procedure to locate areas or locations that have a high concentration of violent *incidents*—a clustering of incidents that is spatially closer than what could have happened by chance. The cluster analysis examines entire incidents as a whole as opposed to the number of victims involved in each incident. These maps also can be found at the end of the chapter.

The cluster or "hot spot" analysis was included to add depth to the PSA analysis because PSAs are administrative boundaries that may not reflect meaningful neighborhood boundaries. For instance, PSA 510 on Capitol Hill includes part of the well-known historic district that experiences little violent crime. However, it also extends north through the more crime-plagued H Street corridor to Florida Avenue, NE. The cluster analysis does not take PSA boundaries into account, but locates areas that experience a spatially closer number of incidents than would have been found if crime were random.

THE POLICE SERVICE AREA ANALYSIS

The section that follows describes the distribution of *victims* of violent offenses reported by the police across all PSAs, based on where the incident occurred. Population data by PSA were not available, therefore, all numbers are presented as raw numbers of victims involved in reported incidents. The PSA maps graphically illustrate the levels of violent crime across the District.

The PSA number begins with the number corresponding to one of the seven police districts. Each police district is made up of nine to fourteen PSAs of varying size. PSAs in the heart of downtown D.C. are the smallest and those on the borders of the city tend to be the largest. The first map (map 2-1) outlines all 83 PSA boundaries and is provided for reference when viewing later maps. Maps 2-2 through 2-7 show the distribution of *victims* involved in reported offenses by PSA for each violent crime, and for all crimes combined.

Distribution of Victimization by PSA

Table 2-1 provides the number of PSAs that account for 25, 50, and 75 percent of all violent victimizations reported to the police. Half of all reported victimizations occurred in 35 percent of all PSAs (29 PSAs). Seventy-five percent of the victims were found in 60 percent of the PSAs (50 PSAs). This illustrates that although violence is not evenly distributed, it does occur across a significant portion of the District's PSAs. However, while some PSAs experience high victimization numbers across all crime types, some PSAs experienced high levels of victimization in only a single category.

Homicide was the most geographically concentrated crime among a relatively small number of PSAs. Seventy-five percent of the homicides occurred in 40 percent of the PSAs (33 PSAs). Half of the 1999 homicides occurred in just 23 percent of PSAs (19 PSAs). Sexual assaults were also relatively concentrated among a smaller number of PSAs. Half of all reported sexual assaults occurred in 28 percent of all PSAs (23 PSAs); and three-quarters of all sexual assaults occurred in 52 percent of all PSAs.

Table 2-1. Distribution of Victims across PSAs by Crime, Washington, D.C., 1999

	Number of PSAs that Account for a Percentage of Victimizations		
	25%	**50%**	**75%**
All violence	13	29	50
(% of PSAs)	(16%)	(35%)	(60%)
Homicide	8	19	33
(% of PSAs)	(10%)	(23%)	(40%)
Sexual Assaults	9	23	43
(% of PSAs)	(11%)	(28%)	(52%)
Robbery	13	29	50
(% of PSAs)	(16%)	(35%)	(60%)
Aggravated Assault	11	25	44
(% of PSAs)	(13%)	(30%)	(53%)
Simple Assault	11	27	48
(% of PSAs)	(13%)	(33%)	(58%)

Most Violent PSAs

Overall, violent crime victimization for all crime types was distributed among a large number of PSAs. The total number of victims by PSA ranged from a high of 385 to a low of 34 individual victims. The PSAs that experienced the highest levels of violence during 1999 were 705 (354 victims), 703 (345 victims), 508 (344 victims), 604 (343 victims), 702 (337 victims), 105 (308 victims), and 709 (300 victims) (map 2-2.). Together, they accounted for 14 percent (2,331) of all reported victimization. Appendix table A provides total counts for all PSAs by crime type, and for all violent crimes combined.

The Seventh Police District contains the PSAs with the largest number of victims of violent crime reported by the police (2,720 victims). PSA 705 is the area north of Barnaby Terrace in Congress Heights, bordered by Stanton Road SE to the east, Suitland Parkway and 12th Place, SE, on the north, and Wheeler Road, SE, on the west. PSA 705 is contiguous with PSA 703, another high victimization PSA. The west border of PSA 703 is South Capitol Street. PSA 702 borders Prince George's County via Southern Avenue, and PSA 709 is further south in the Washington Highlands neighborhood. The remaining high violence PSAs in the Fifth, Sixth, and First Police Districts are spread throughout the city.

Though not shown in the highest category, two PSAs in the District's Northwest quadrant experienced a very large number of victimizations. PSA 409, which is bordered by Alison Street,

NW, on the north, 8th Street, NW, on the east and Arkansas Avenue, NW, on the west, experienced 281 violent victimizations in 1999. PSA 407 experienced similar counts with 270 reported violent crime victimizations. Interestingly, PSA 406, which borders 409 on the west, had significantly fewer victims (131 victims).

Map 2-2 shows that for all crimes combined, the majority of PSAs fall into the mid-level categories for violent crime victimizations (72 PSAs). Four PSAs, all in the Second Police District, reported fewer than 70 violent crime victims in 1999 (PSAs 201, 203, 205, 207).

Homicides

Of all violent crimes, homicides were the most geographically concentrated. (See map 2-3.) Seventy-five percent of the homicides occurred in 40 percent of the PSAs (33 PSAs). Half of all 1999 homicides occurred in 23 percent of all PSAs (19 PSAs).[12]

Seven PSAs experienced a high level of homicide victimization ranging from 7 to 11 total victims (PSAs 302, 312, 407, 601, 513, 705, and 605). Yet, PSAs with high homicide levels did not necessarily rank high for overall violence. For example, PSA 605 had the highest number of homicide victims (11), but was not identified as having high overall levels of violent crime. PSA 605 is located in the Southeast quadrant by Prince George's County, with East Capitol Street its north border. It seems reasonable that high drug activity may be driving up the homicide rate in PSA 605, but this data set does not shed light on whether these homicides are drug related.

The six remaining PSAs with high homicide levels were spread throughout the District. Three of these six PSAs were in the Northwest quadrant, close to North Capitol Street. Of the three in Northwest, one PSA represents part of Ledroit Park, one is near Mt. Pleasant/Columbia Heights along Harvard Street and one, PSA 407, is the Petworth neighborhood. The remaining three were spread throughout the east part of the District. These seven PSAs represent 21 percent of all homicides reported to the police in 1999, but total only 8 percent of all PSAs in the District.

Sexual Assaults

Half of the reported sexual assaults occurred in 28 percent of all PSAs (23 PSAs); 75 percent of the sexual assaults occurred in 52 percent of all PSAs (43 PSAs) (map 2-4). Only three PSAs had no sexual assault offenses reported to the police (PSAs 103, 107, and 304).

[12] The PSA recorded for homicide incidents is the PSA where the body was found. It is possible that homicide incidents occurred in a PSA other than where the body was found.

Three PSAs were identified as having a high level of sexual assault victimizations ranging from 14 to 19 total victims. PSA 604, located east of the Anacostia River, had the highest number of sexual assault victims (19). PSA 509, which runs along Florida Avenue in the Northeast quadrant and PSA 710, located in the southern quadrant, both reported 14 sexual assault victims. Nearly 10 percent of all reported sexual assaults occurred in these three PSAs. PSA 604 was previously identified as a high victimization area (more than 300 victims) for overall violent crime (343 total victims). PSA 509 was on the cusp of the high category for overall violent offenses (286 total victims) in 1999 (map 2-2).

PSA 710 was not identified as a high victimization PSA in any other crime category although it ranked in the second highest category for overall violent victimizations (269) and aggravated assaults (84). PSA 710 is bordered by the Anacostia River on the west, McGuire Avenue, South Capitol Street, and Atlantic Avenue on the North, and Prince George's County, via Southern Avenue, on the east. Since PSA 710 borders Prince George's County, it would be interesting to examine whether neighboring communities in Maryland experienced similar violent crime problems.

Robberies

Half of all reported robberies occurred in 35 percent of all PSAs (29 PSAs) (map 2-5). The highest number of reported robberies occurred in PSA 604 (91), located in the Northeast and Southeast quadrants. This was followed closely by PSA 409 (90), located in Northwest Washington. PSA 106, located near Capital Hill, reported 80 robberies. As previously discussed, PSA 604 was identified as a high victimization PSA for overall violent crime and sexual assault. PSA 604 is geographically large, so population density may be driving the high numbers.

Aggravated Assaults

Half of the reported aggravated assaults occurred in 30 percent of all PSAs (25 PSAs) (map 2-6). The PSAs that reported high levels of aggravated assault victimization (over 95 victims) were spread throughout the District with a few concentrated among the western and northern-most area of the city bordering Montgomery County.

PSAs 407 and 409, located in the Northwest quadrant of the city, experienced high levels of aggravated assault. PSA 407, with 113 aggravated assault victims in 1999, is bordered by Northeast Washington via North Capitol Street on the east, Irving Street, NW, on the south, Hamilton Street, NW, on the north, and Park Place, Eighth Street, and Ninth Street NW on the west. PSA 407 was also identified as having a high level homicides (7). Additional information

may be needed to explain this pattern, including land zoning, and frequency of clubs or bars. PSA 409, with 96 reported aggravated assault victims, had the second highest number of aggravated assault victimizations in the Northwest quadrant of the city. PSA 409 was previously ranked at the high end of the middle categories for overall violent crime victims (281) and in the high category for robbery victims (90).

Two PSAs bordering one another in the Northeast quadrant of the city were identified as having a high level of aggravated assault victimization: PSA 508 (113 victims) and PSA 509 (96 victims). Only PSA 508 was also identified as having a high number of overall violent crime victims (344). However, PSA 509 was at the high end of overall violent crime victimization (286) and ranked in the high victimization category for sexual assaults (14).

In the Southeast quadrant, five PSAs were identified as experiencing a high level of aggravated assault victimization: PSA 705 (118 victims), PSA 703 (115 victims), PSA 709 (114 victims), PSA 702 (110 victims), and PSA 707 (99 victims). PSAs 703, 705, 707, and 709 all border one another. All but PSA 707 has been described earlier. PSA 707 is surrounded by PSA 705 via Oxon Run on the north, Prince George's County via Southern Avenue on the east, Fourth Street SE on the west, and Chesapeake Street on the south. PSA 702 stands alone but is connected to these PSAs via PSA 704, which experienced 81 aggravated assault victimizations, ranking it in the second highest category for aggravated assaults.

Simple Assaults

Half of the reported simple assaults occurred in 33 percent of all PSAs (27 PSAs); 75 percent of the simple assaults occurred in 58 percent of all PSAs (48 PSAs) (map 2-7). Three PSAs were identified as experiencing a high level of simple assault victimization (more than 160 victims): PSA 705 (192 victims), PSA 703 (174 victims), and PSA 508 (162 victims). Not surprisingly, these PSAs were also ranked as high victimization PSAs for overall violent crime and aggravated assaults.

THE CLUSTER ANALYSIS

As described in the introduction, clusters are identified through the use of a hierarchical technique that begins by grouping points based on the proximity of other points (victimization incidents). All address data on incident location from the Metropolitan Police Department were "geocoded" using ArcView GIS, a desktop mapping software . Ninety-five percent of all addresses were successfully coded into map coordinates. Of the five percent that did not code, half of the addresses were not recorded in the data set.

Maps 2-8 through 2-12 repeat the maps found earlier, with the addition of the clusters, or hot spots (a map of clusters using *all crimes* is not shown). The size of the cluster represents the extent of the spatial distribution of the cluster.[13] In other words, a large cluster reflects a very spread-out or diffuse set of incidents, not a larger number of incidents contained within. For instance, a very small cluster with a large number of robbery incidents can simply mean that many robberies happened on the same few blocks.

Clusters of Violent Crime Victimization

Map 2-8, which shows homicide clusters, illustrates a point made earlier. PSA 510, which had only three homicides in 1999, contains part of a cluster. The circular cluster in the center of the map lies over North Capitol Street and touches four PSAs with varying levels of victimization. A second, more northern cluster falls on New Hampshire Avenue. These areas experienced a large number of overall violent incidents, but were not ranked as high homicide PSAs. This location also contained a cluster for sexual assaults (map 2-9).

Maps 2-10 and 2-11 depict the robbery and aggravated assault clusters, which look very different in terms of size: The robbery map (map 2-10) shows very large clusters of activity while the aggravated assault map (map 2-11) shows very small clusters of activity. The most likely explanation for the large robbery clusters is that robberies are concentrated around the most commercialized areas in the central business district and east of the Anacostia River. In other words, the robberies are not highly concentrated on a few streets or blocks. The five clusters shown each contained over 220 robbery events representing 54 percent of all robberies. The map of aggravated assault clusters, on the hand, has very tiny clusters, indicating that the assaults are happening very close together, probably even at the same locations. The six aggravated assault clusters contain a minimum of 25 events. The locations of clusters on map 2-11, which shows the simple assault cluster, are very similar to the locations of aggravated assault clusters, although the clusters are much larger and contain a minimum of 450 events.

The cluster analysis provides evidence that there are a number of areas with high concentrations of violent incidents. However, crime clusters differ by crime type and are not necessarily within PSAs that have a large number of victimizations. In fact, the majority of these clusters *span PSA boundaries*. If the PSAs are set up to encourage problem solving, it would

[13] The minimum number of events required to form a cluster were defined by the researcher. The numbers chosen and the total number of events in each cluster are noted on each map presented in this section. All clustering is significant at the .05 level.

clearly benefit residents and officers from PSAs within cluster locations to work together to solve problems, that, most likely, have common elements.

Victimization Clusters by Age

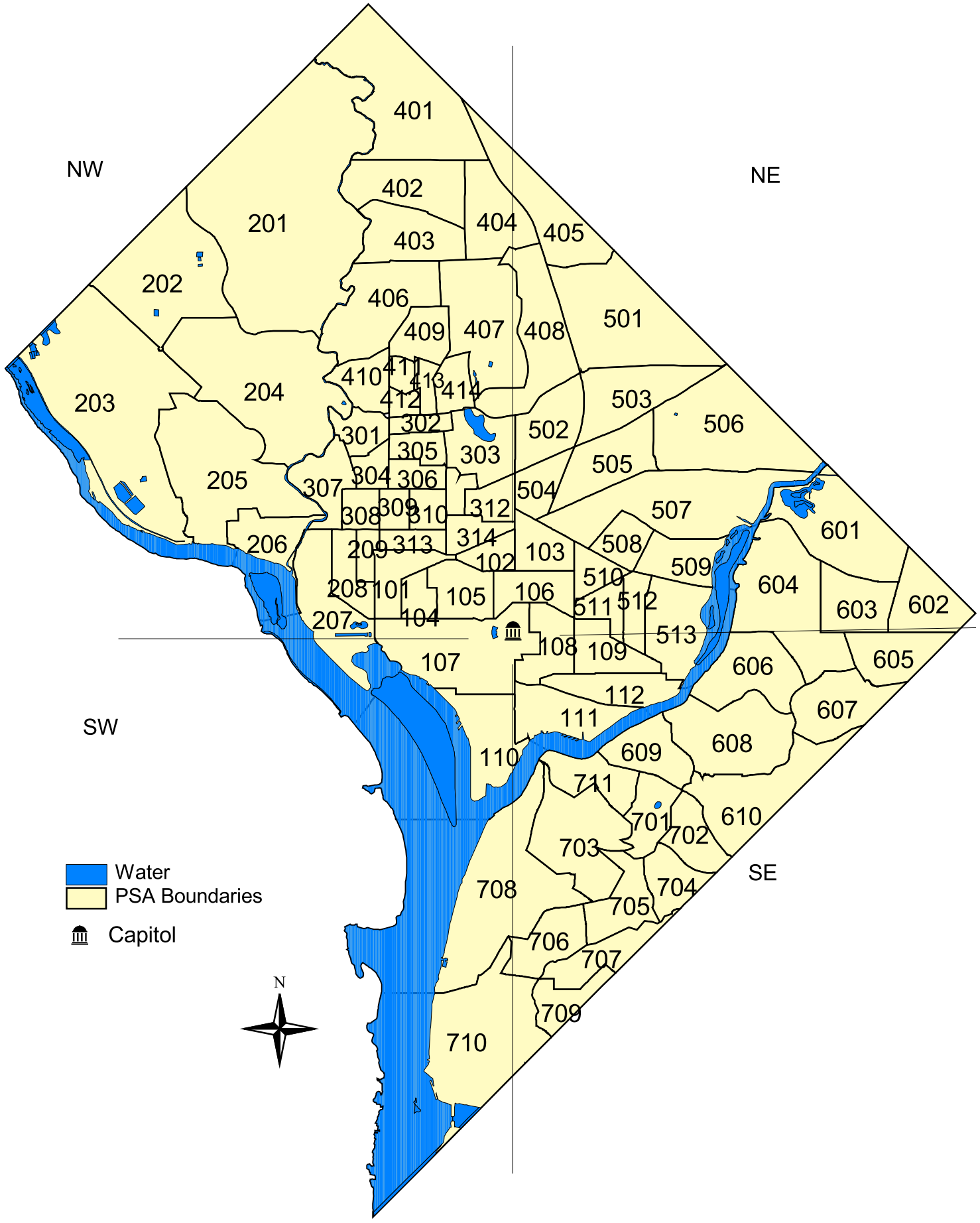
The remaining part of this chapter examines victimization clusters by age. Map 2-13 shows significant clusters of violent incidents for six age groups: 1 to 11; 12 to 17; 18 to 24; 25 to 34; 35 to 44; and 45 and older. The green clusters (there are three) show the most at-risk areas for individuals ages 35 to 44. Although persons in this age group were involved in fewer incidents of violent crime reported by the police than those in the 18 to 24 age group or the 25 to 34 age group, the clusters are much larger, which means that incidents involving 35 to 44 year olds are not as concentrated. The clusters for the other age groups are much smaller, signifying very specific incident locations where violent crime is not just a random occurrence.

The clusters are spread throughout central and southeast areas of the District. Although the locations of the smaller clusters vary, there are three general areas near or on top of the larger green ellipses where most of the clusters are located. The green cluster in the Southeast quadrant of the city, which has four smaller clusters on top of it, covers the Congress Heights and Washington Highlands neighborhoods. The cluster near the Capitol building includes East Capitol Street, NE, Maryland Avenue, NE, and Tennessee Avenue, NE, and the intersection of Benning Road, NE, Florida Avenue, NE, and Maryland Avenue, NE. The smaller blue cluster lies directly on top of this intersection. The cluster in Northwest includes most of Columbia Heights and Adams Morgan, and part of the Mount Pleasant and Shaw neighborhoods. The red cluster—representing a high-risk area for children ages one to eleven, lies directly within Columbia Heights. The smallness of the yellow clusters does not mean that there were fewer incidents in these clusters, but that the incidents may be extremely close to one another. This could be driven by high population density in those areas. However, even taking into account their small size, they represent areas where there were more than 25 violent incidents in 1999 to persons ages 25 to 34.

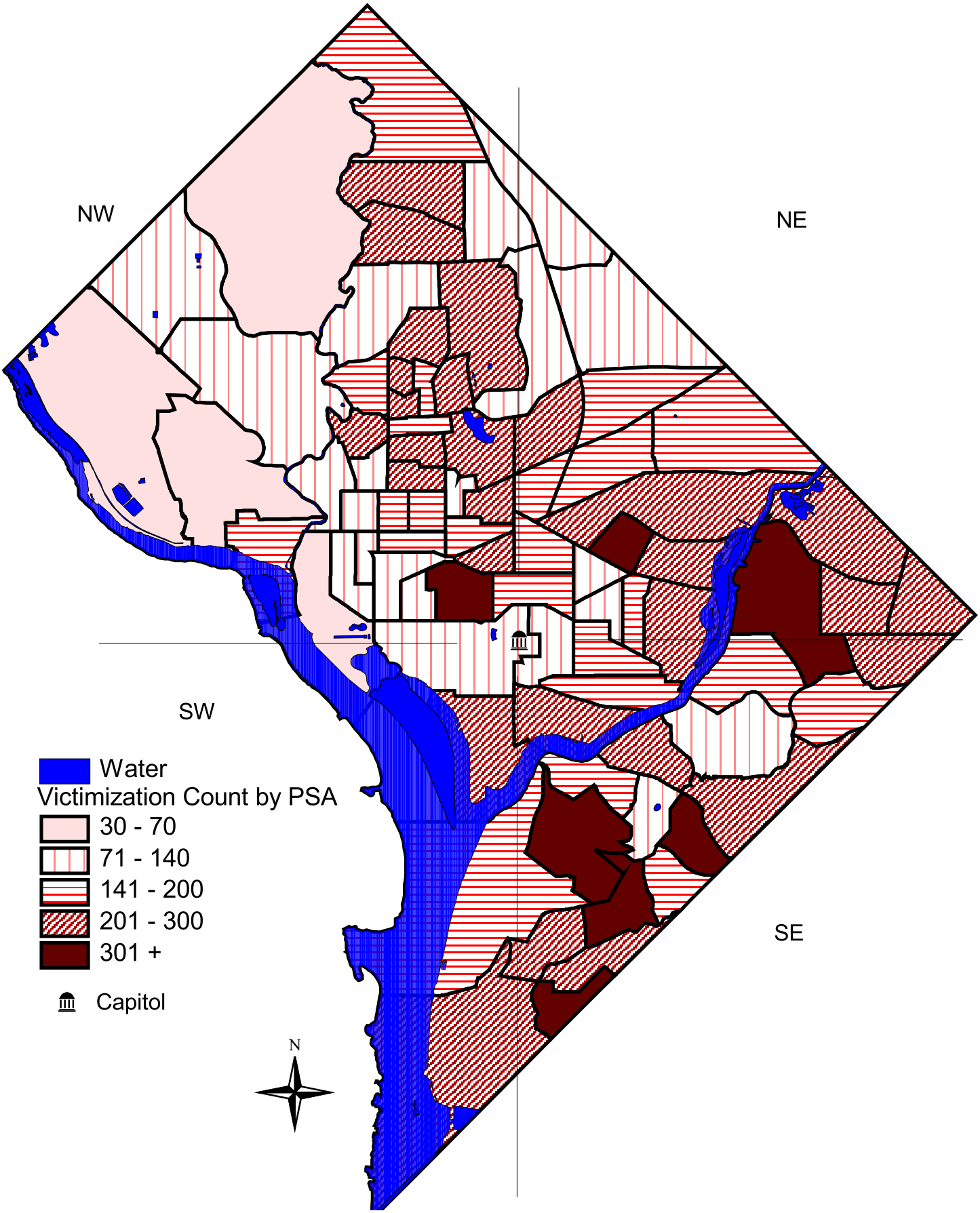
The clusters located in PSA 104 and 105 are between Ninth and Twelth Streets and F and G Streets. This area is populated with a number of bars and dance clubs. It makes sense to conclude that the night clubs may be a factor in violent crime for the 18 to 24 year olds, but is surprising to see that there is a high concentration of violent incidents involving persons ages 45 to 54 (minimum number of incidents is 15).

Officers who patrol the locations with clusters may instantly be able to identify locational features of the area (e.g., types of buildings or establishments, transportation patterns) that may be causal factors in the clustering. Breaking out clusters by age group—as opposed to grouping all victimization incidents together—may help to facilitate the identification of locational features associated with violent crime in the District.

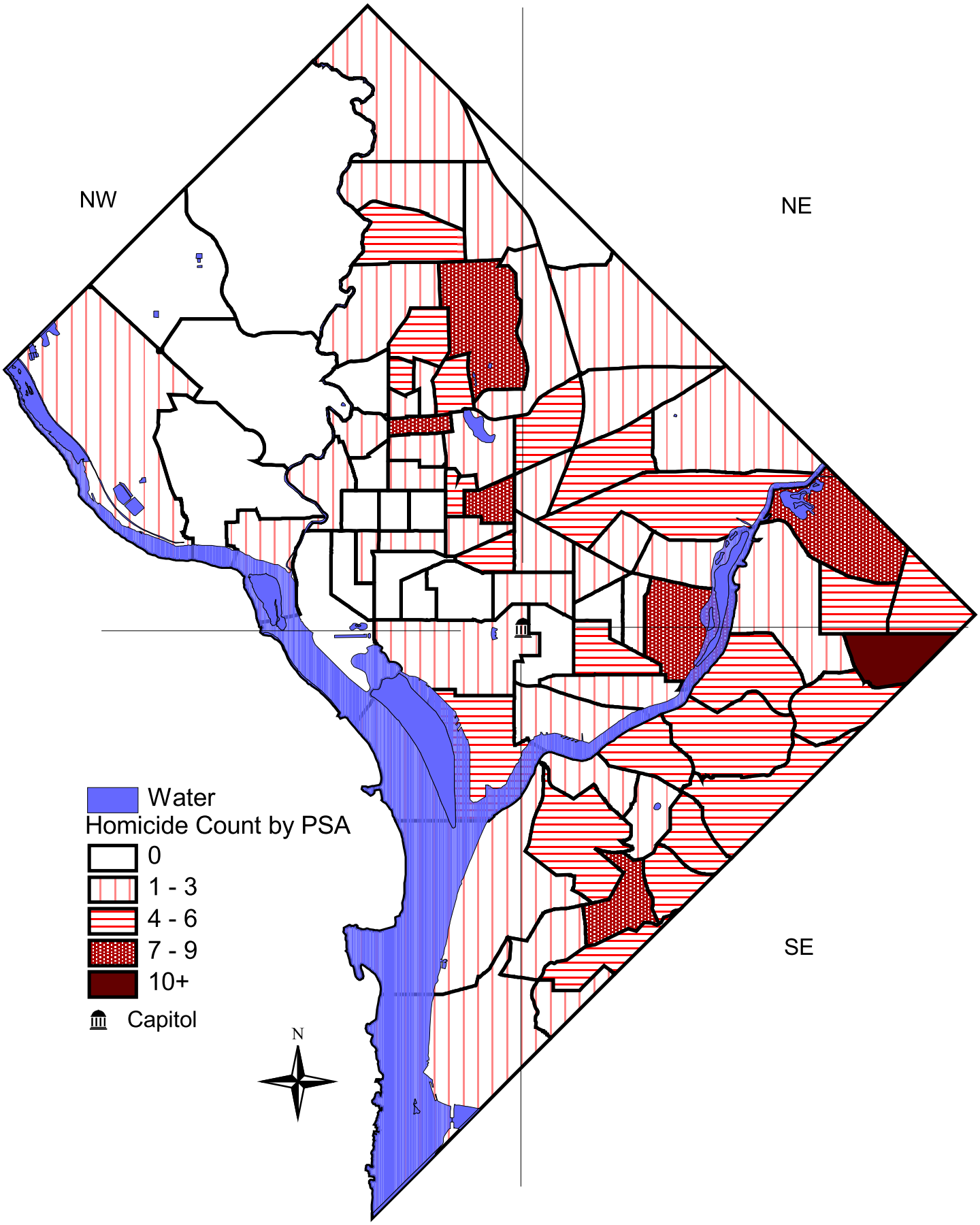
Map 2-1. Washington D.C. Police Service Area Boundaries



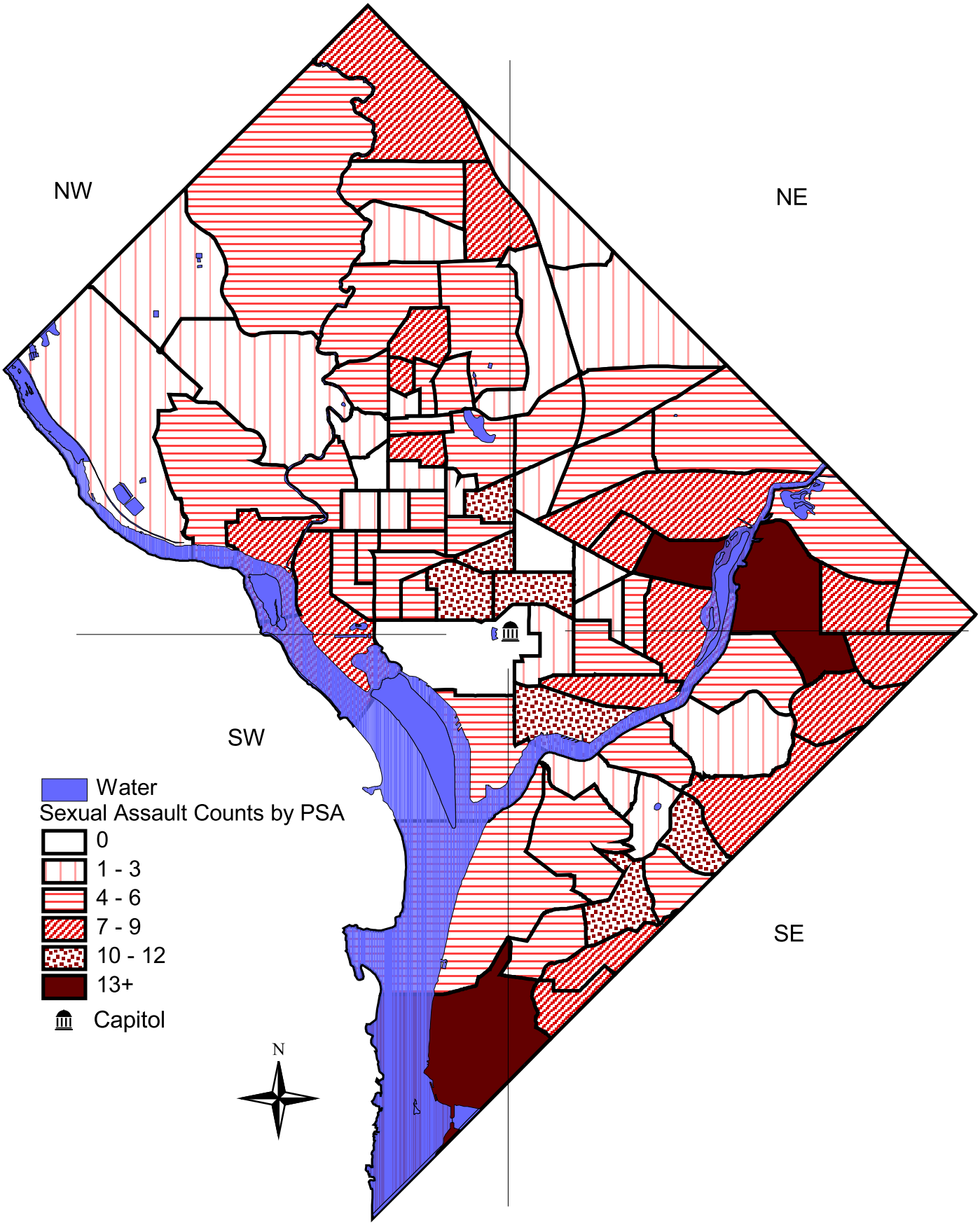
Map 2-2. Victimizations by PSA, All Crimes Combined, 1999



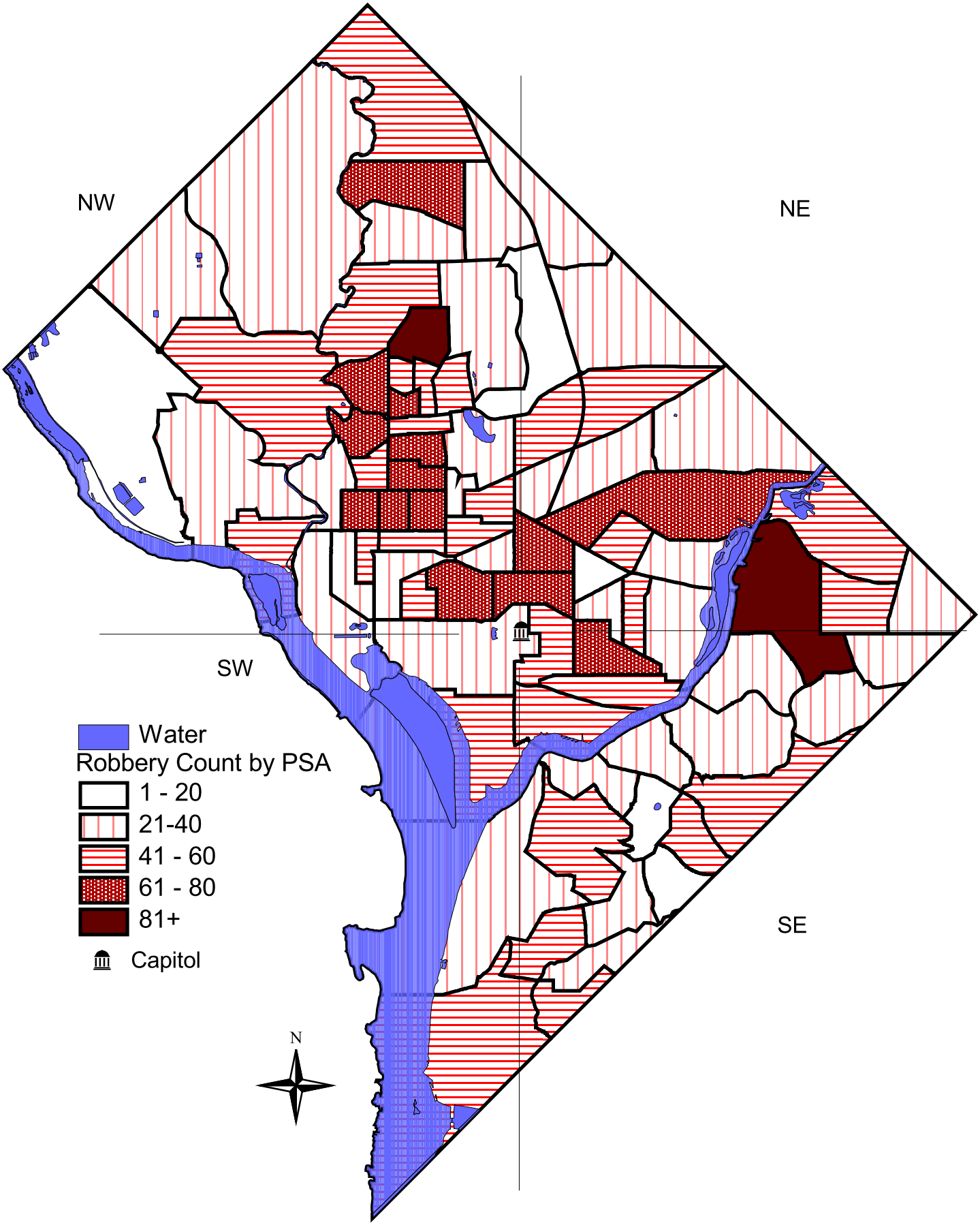
Map 2-3. Homicide Victimizations by PSA, 1999



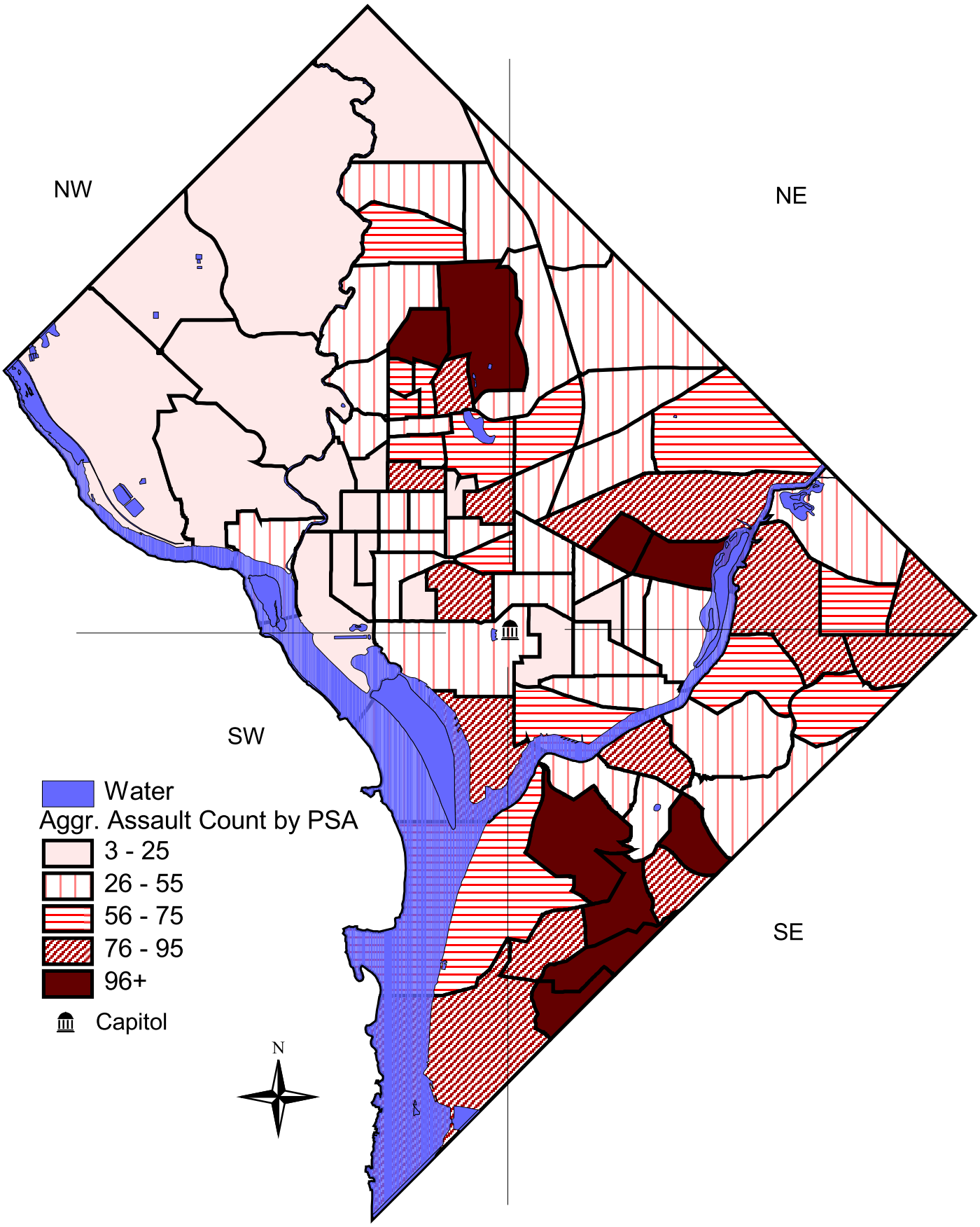
Map 2-4. Sexual Assault Victimizations by PSA, 1999



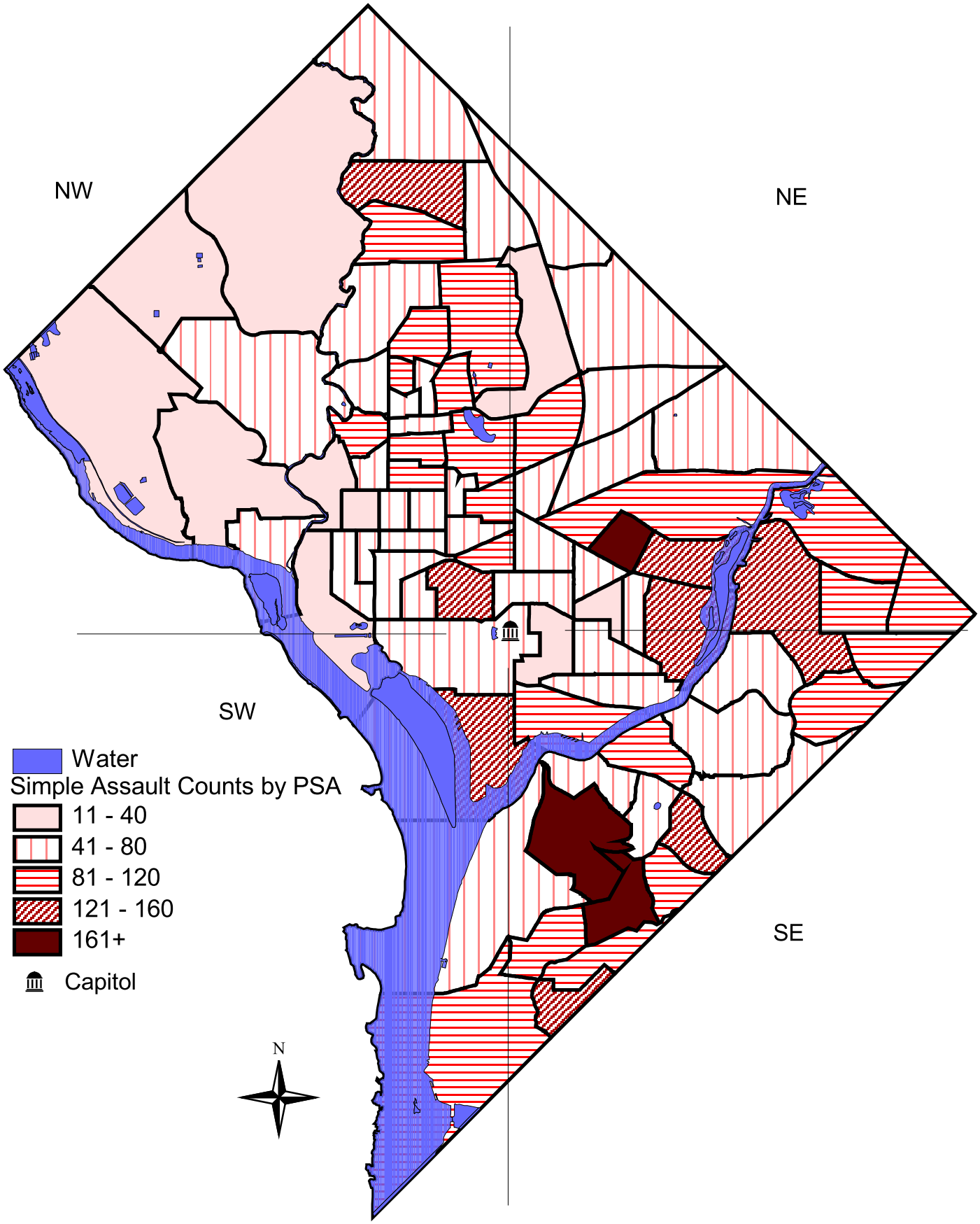
Map 2-5. Robbery Victimizations by PSA, 1999



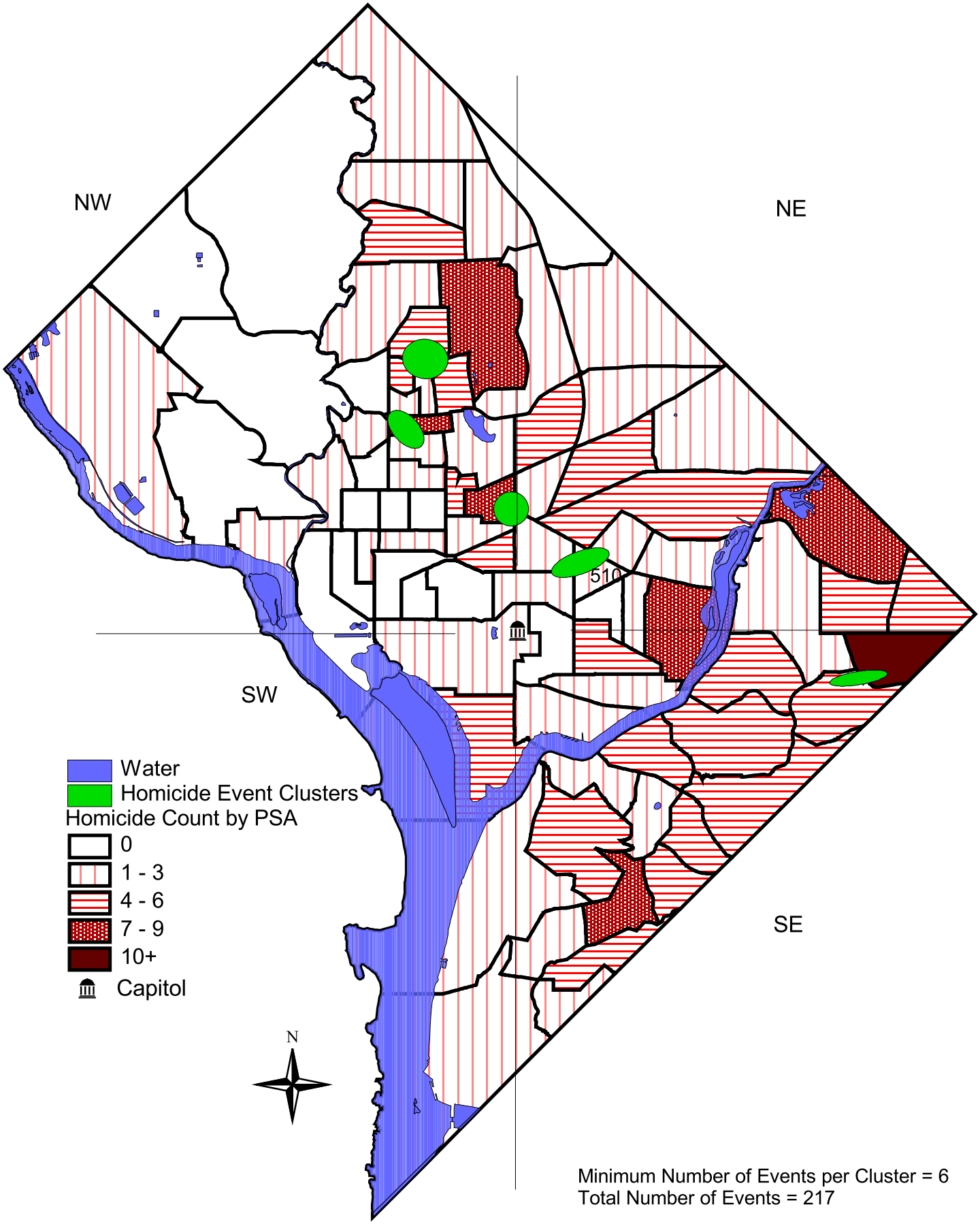
Map 2-6. Aggravated Assault Victimizations by PSA, 1999



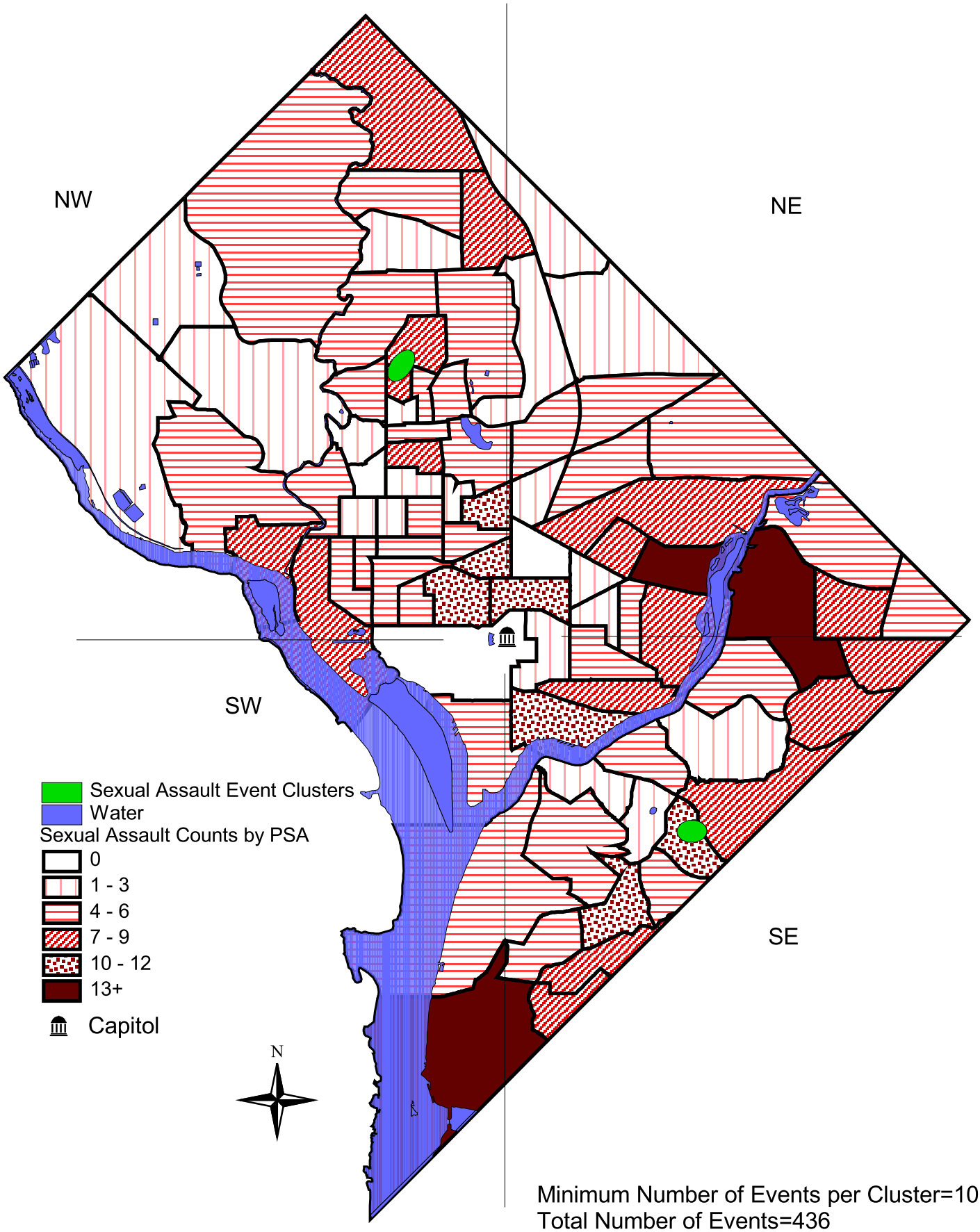
Map 2-7. Simple Assault Victimizations by PSA, 1999



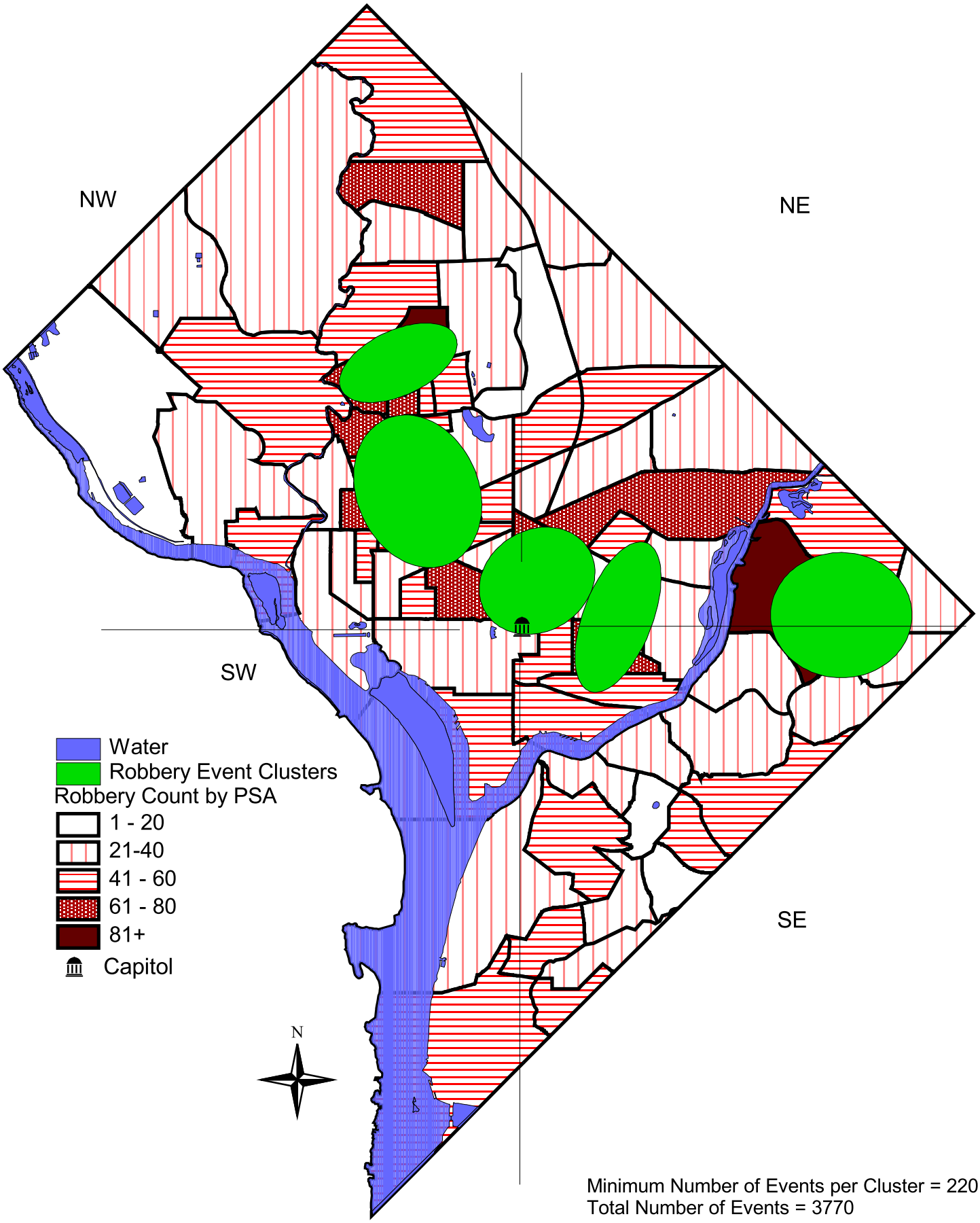
Map 2-8. Homicide Event Clusters, 1999



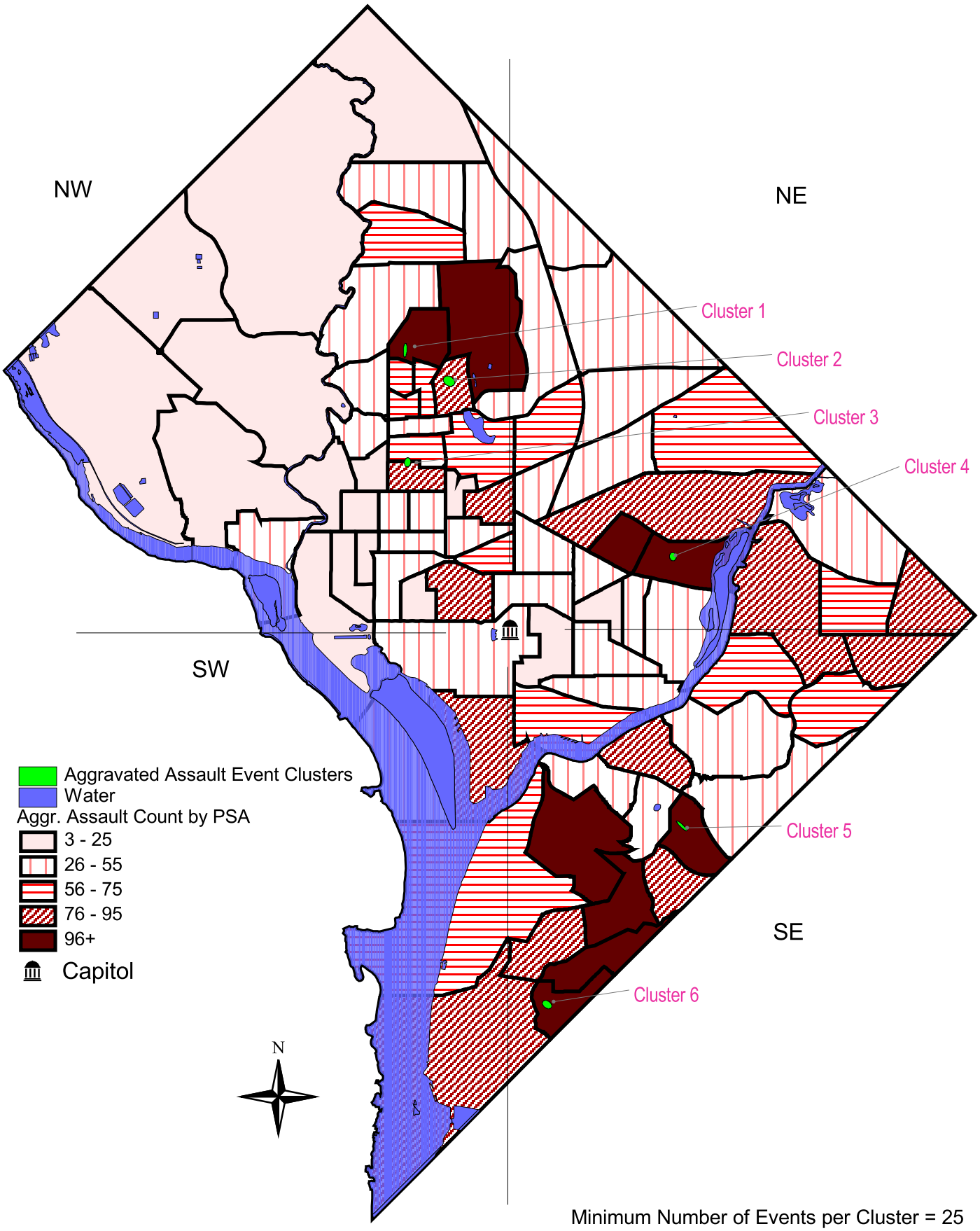
Map 2-9. Sexual Assault Event Clusters, 1999



Map 2-10. Robbery Event Clusters, 1999

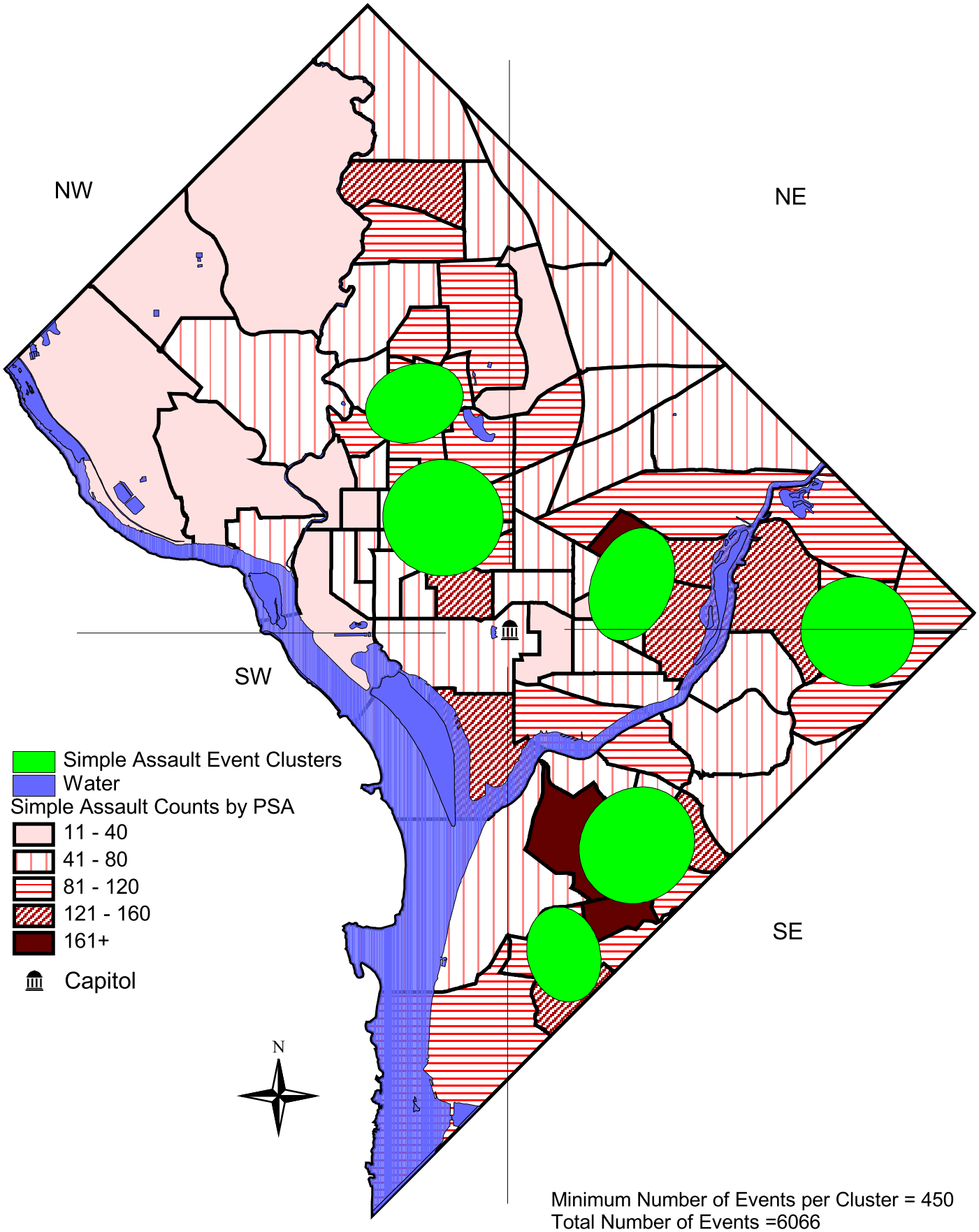


Map 2-11. Aggravated Assault Event Clusters, 1999

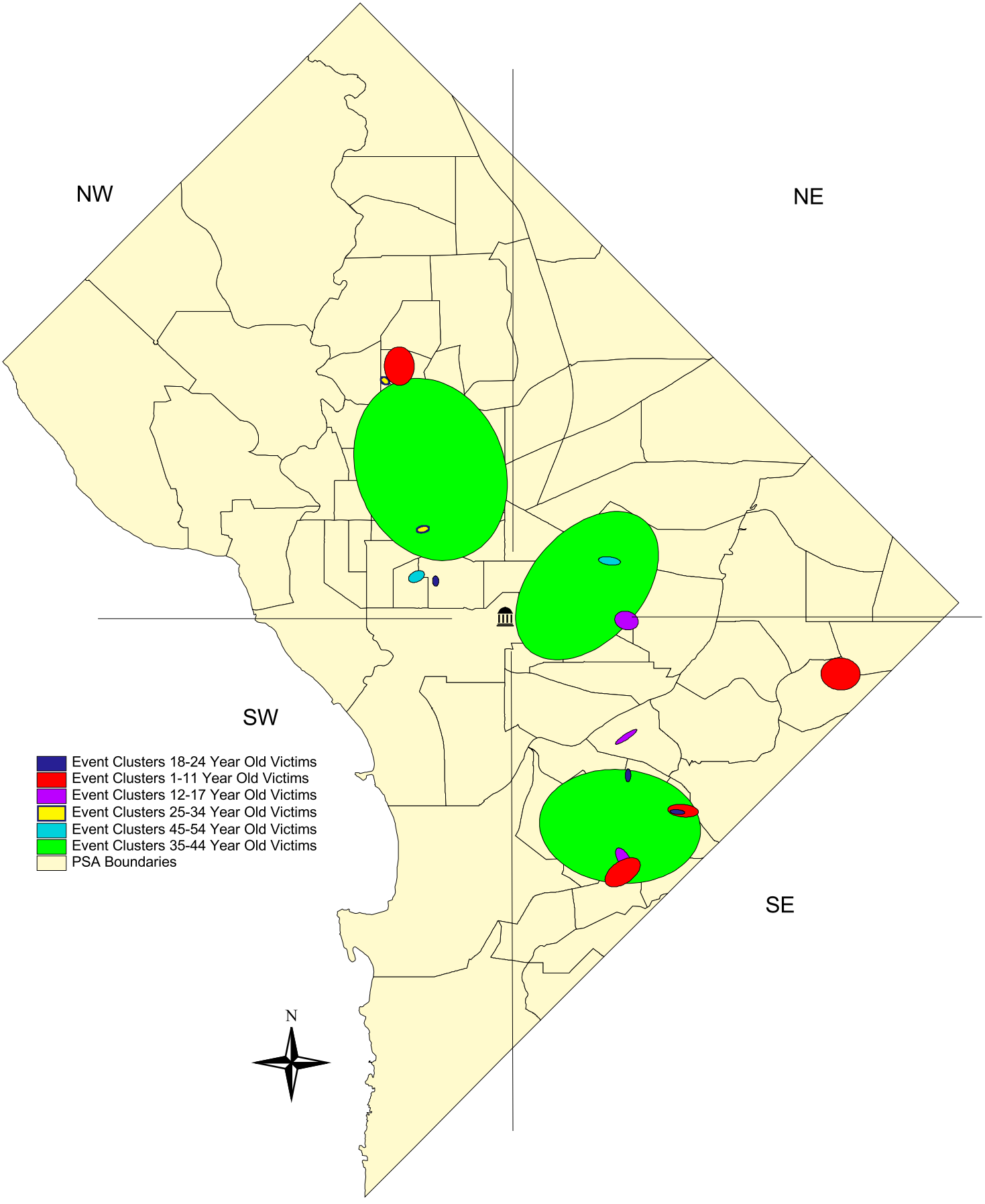


Minimum Number of Events per Cluster = 25
Total Number of Events = 4093

Map 2-12. Simple Assault Event Clusters, 1999



Map 2-13. Event Clusters by Age Group, All Violent Crimes Combined, Selected Age Groups, 1999



Note: The threshold to establish clusters is different for each age group

CHAPTER 3

When is the Violence Occurring? The Distribution of Violence across Time of Day

Criminal justice practitioners and researchers agree that crime has temporal characteristics. This chapter examines how the risk of victimization is related to the time of day and day of the week in the District of Columbia in 1999. Similar to the earlier discussion about clustering or "hot spots," we have come to understand the temporal patterns of violent crime in term of "hot times" that are characterized by high rates of victimization. Imagine for a moment a city with crime victimization spread proportionally across the all hours of the day and all days of the week. In such a case, we would say that the risk of victimization is spread evenly across each day of the week, each hour of the day, or some combination of the two. In this chapter of the report, we address this issue by examining the time periods during which victimization was most likely to occur in the District in 1999. The analysis begins by discussing the overall temporal trends and then moves to a discussion of these trends by age group.

OVERALL TEMPORAL VICTIMIZATION TRENDS

In 1999, the Metropolitan Police Department filed reports on 16,372 victims of violent offenses. Using information on the day of week and time of the incident, we were able to discern overall temporal patterns of violent crime victimization. All the figures that follow chart the total number of *victims* by the time of day that they were victimized.

As shown in figure 3-1, the number of victims of violent incidents rose steadily between 6 A.M. and 2 P.M. until it reached a peak around 3 P.M. The pattern shows a slight dip around 5 P.M. and then a steady climb until 9 P.M. where it remained relatively stable until around 11 P.M. More than 25 percent of all violent victimization occurred during the three-hour period between 9 P.M. and midnight. After the decline that started at 11 P.M., violent victimization reached its lowest point between 5 and 7 A.M. Less than 5 percent of all violent victimization occurred during the period between 5 and 7 A.M.

The overall trend was fairly similar for each of the five offense categories (figures 3-2 through 3-6). Specifically, robbery, aggravated assault, and simple assault victimization each had a nearly identical hourly trend. In fact, these figures show that victimization patterns were highest between 9 P.M. and midnight. Because the numbers of victims of homicide (241) and

sexual assault (507) were substantially lower compared with other victimization categories, the hourly trend lines are less smooth. Nevertheless, there is a steady pattern in homicide victimization that picked up at 3 P.M. and climbed to its peak around 10 P.M. before a sharp decline around 3 A.M. In contrast, sexual assault victimization climbed to a peak around 4 P.M. and dipped a few times before climbing to its peak around 8 P.M. and then again at midnight.

Figure 3-1. All Victims by Time of Day

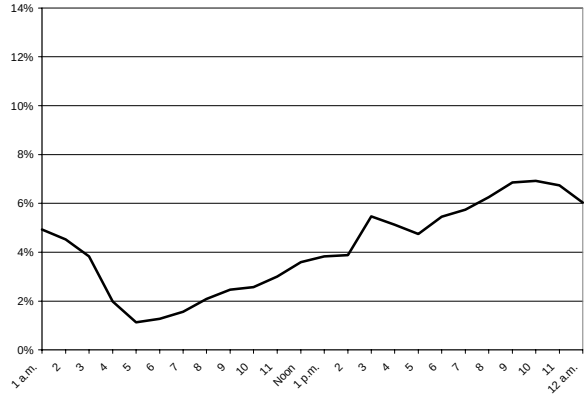


Figure 3-2. Homicides by Time of Day

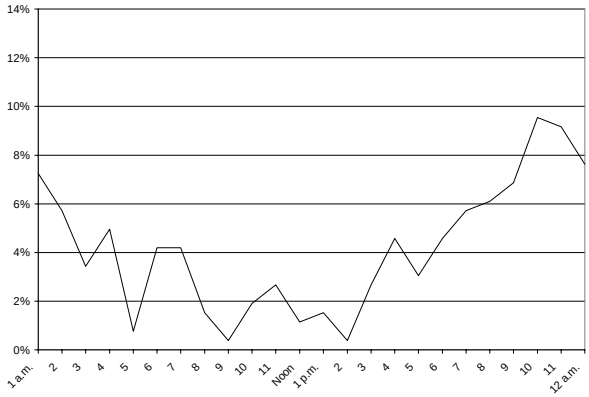


Figure 3-3. Robberies by Time of Day

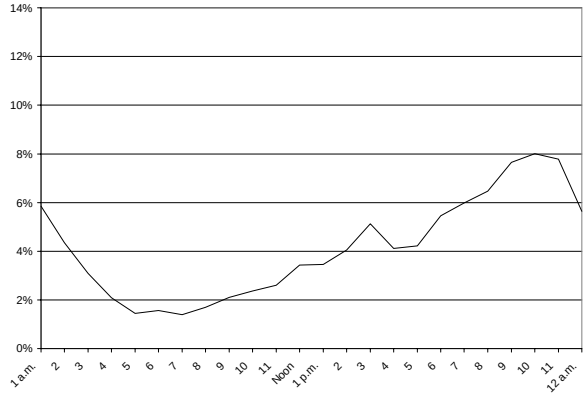


Figure 3-4. Sexual Assaults by Time of Day

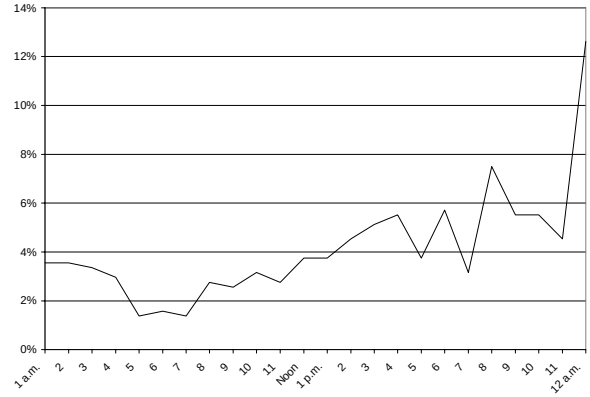


Figure 3-5. Agg. Assaults by Time of Day

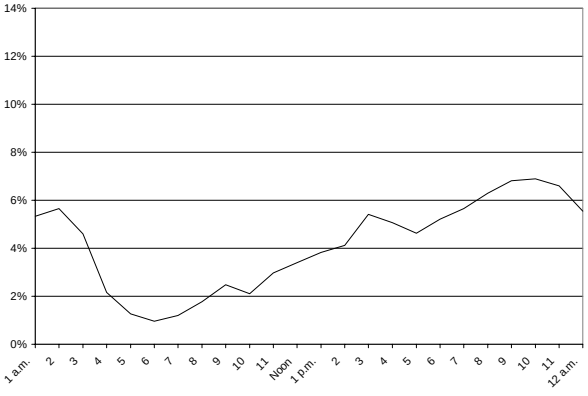
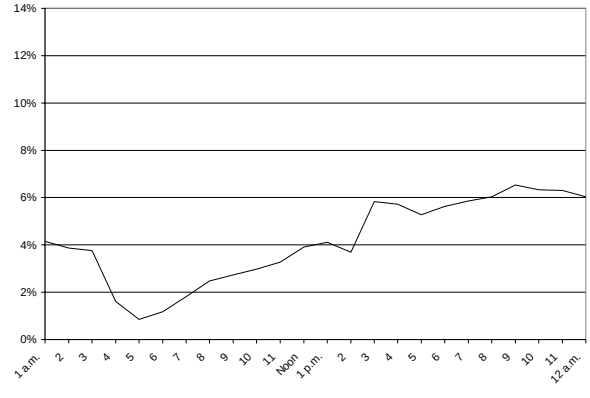


Figure 3-6. Simple Assaults by Time of Day



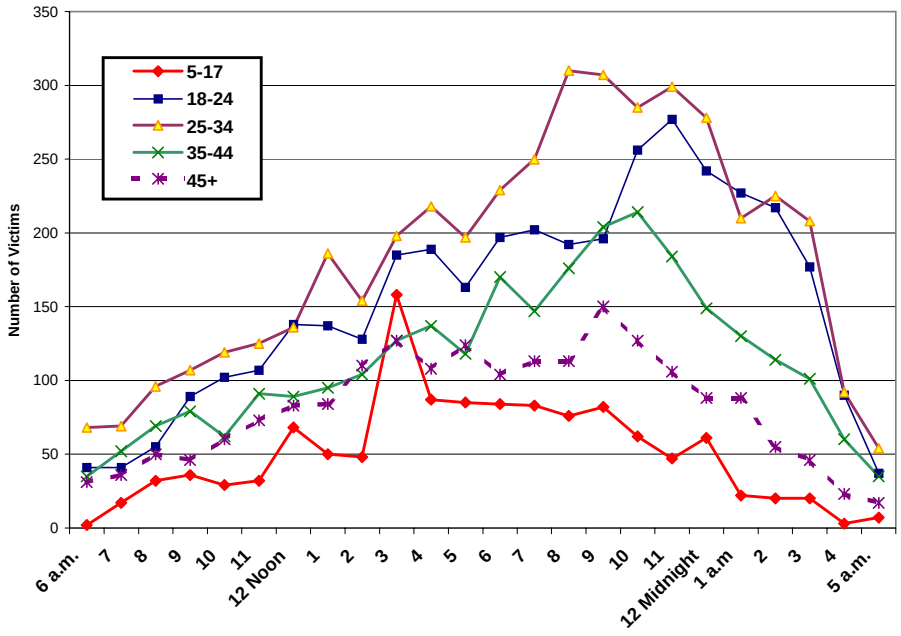
TEMPORAL VICTIMIZATION TRENDS BY AGE

To investigate these patterns by age, we constructed five age groups (5 to 17, 18 to 24, 25 to 34, 35 to 44, and 45+) and produced a set of similar line charts for each.[14] (See figures 3-8 through 3-13.) Figure 3-7 shows that violent juvenile victimization has a uniquely different trend line compared to the trend lines for each of the adult age categories.

Specifically, juvenile victimization was almost nonexistent before 7 A.M. After 7 A.M., juvenile victimization rose slowly to a midday peak and then dipped slightly before soaring to its highest peak at 3 P.M. The 3 P.M. peak (13 percent) was followed by a sharp decline to a stabilizing point (7 percent) where it remained from 4 P.M. until 9 P.M. After 9 P.M., the trend went downward to its lowest level, between 4 A.M. and 7 A.M.—a combined total of 2 percent.

Violent victimization for adults, regardless of age group, was lowest between 4 A.M. and 7 A.M. Roughly 1 to 2 percent of victimization for each adult age group occurred during this period. Adult victimization occurred most frequently between 8 P.M. and 3 A.M., with 39 to 50 percent of adult victimization taking place during this period.

Figure 3-7. All Violent Crime Victims by Age Group and Time of Day, Washington, D.C., 1999



[14] The youngest age group (5 to 17) was formed to represent school-age youth. Persons ages 45 and older were combined into one category because the number of victims over 45 years old is relatively small.

Figure 3-8. Overall Victimization, All Age Groups, by Time of Day

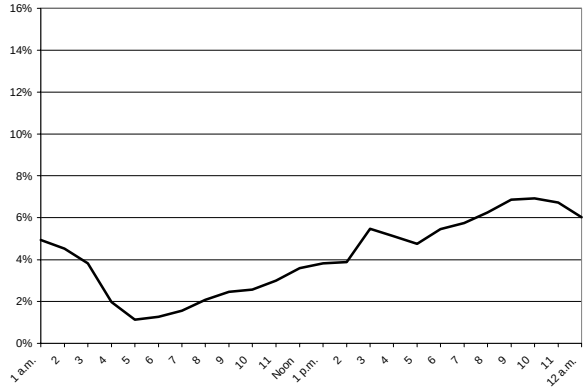


Figure 3-9. Overall Victimization, Ages 5-17, by Time of Day

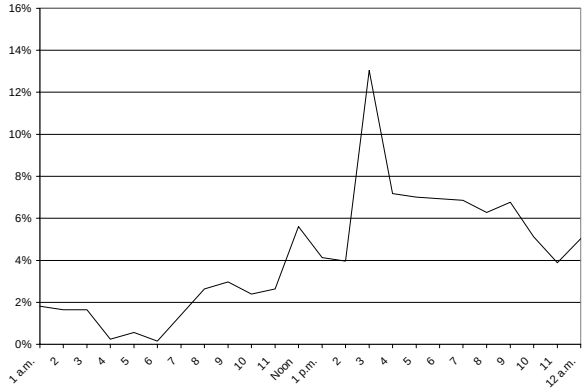


Figure 3-10 Overall Victimization, Ages 18-24, by Time of Day

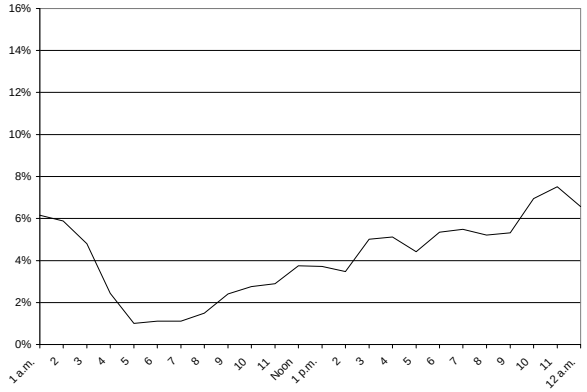


Figure 3-11. Overall Victimization, Ages 25-34 by Time of Day

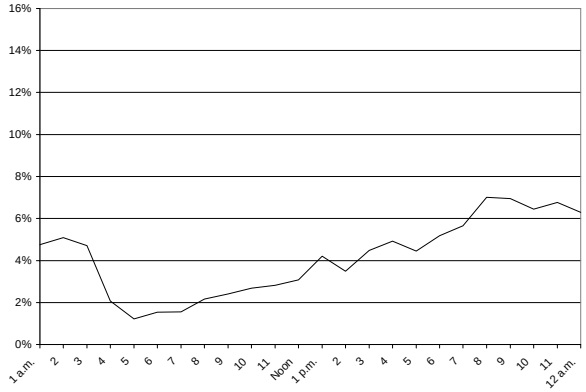


Figure 3-12. Overall Victimization, Ages 35-44 by Time of Day

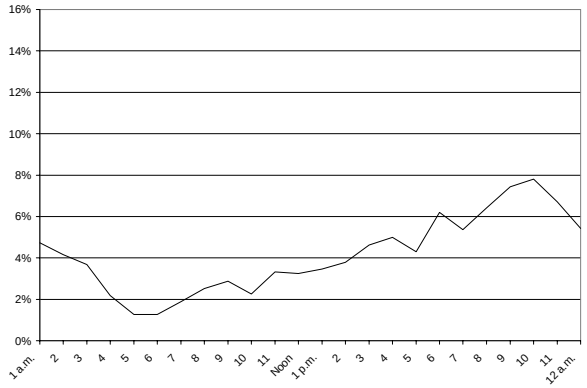
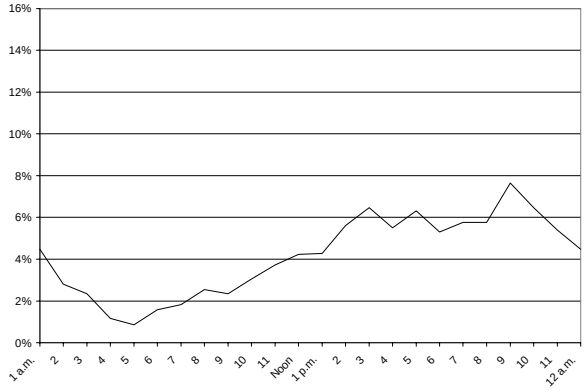


Figure 3-13. Overall Victimization, Ages 45+, by Time of Day



Time of Incidents Involving Victims Ages 5-17

In 1999, 7.4 percent of violent crimes for which age was reported were committed against children ages 5 through 17. These child victims accounted for 7 percent (17) of all homicides, 42.9 percent (196) of all sexual assaults, 5.7 percent (132) of all robberies, 7.8 percent (355) of all aggravated assaults, and 7.9 percent (511) of all simple assaults. The following discussion highlights the time periods during which these children were most likely to be victimized.

Homicide and sexual assault victimization were at their highest peaks between 10 P.M. and midnight. Nearly 47 percent of homicide victims (8 of 17) were murdered during this period. An additional 35 percent of murders (6) were committed during the combined hours of 2 A.M., 7 P.M., and 8 P.M. Slightly more than 21 percent (42 victims) of juvenile sexual assault victims were attacked during the 10 P.M. to 1 A.M. period. A nearly identical share of sexual assault victims were attacked during the combined hours of 3 P.M. to 6 P.M. (38 victims) and 7 P.M. to 10 P.M. (40 victims). Surprisingly, the same is true for sexual assault victims who were attacked during the traditional school day (9 A.M. to 3 P.M.). More than 23.5 percent of sexual assaults (46 victims) were committed during this period.

Figure 3-14. Homicide Victims, Ages 5-17, by Time of Day

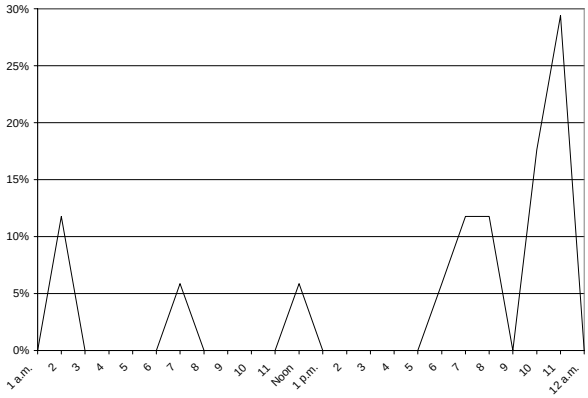
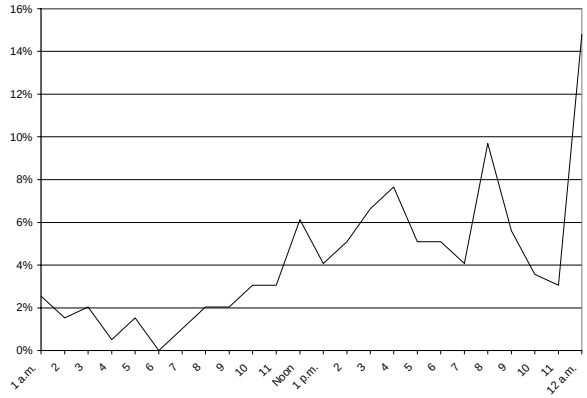
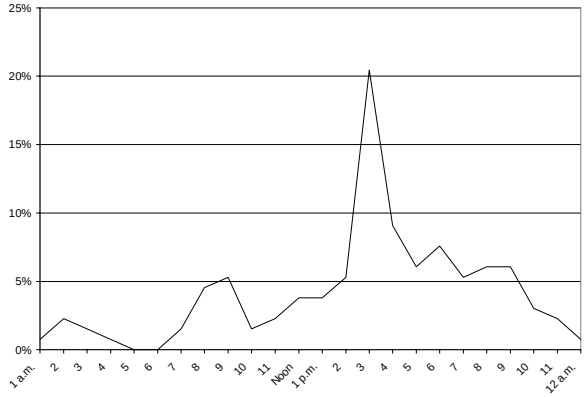


Figure 3-15. Sexual Assault Victims, Ages 5-17, by Time of Day



In contrast, juvenile robbery and assault victimization were at their highest peaks around 3 P.M.—the end of the traditional school day. Slightly more than 20 percent of robberies committed against juveniles occurred during the 3 P.M. hour. This was greater than the total number of robberies committed during the youth curfew period, as defined in table 3-1 (11 incidents; 8 percent of total). Additionally, the percentage of robberies committed during the 9 A.M. hour (5.3 percent) was greater than the percentage for any given hour during the curfew. This finding may be explained by the fact that the 9 A.M. hour marks the start of the school day and perhaps provides ripe opportunities for would-be offenders to rob school-age children.

Figure 3-16. Robbery Victims, Ages 5-17, by Time of Day



A similar pattern was observed for aggravated and simple assault. Assault against juveniles was higher between 3 P.M. and 6 P.M. than during the curfew period. Of all juvenile aggravated assault victims known to the police, 32 percent were victimized during the 3 P.M. to 7 P.M. period compared with 20 percent during the entire eight-hour curfew period. Simple assault victimization reflected the same trend, 38 percent during the 3 P.M. to 7 P.M. period compared with 8.2 percent during the curfew period.

Figure 3-17. Aggravated Assault Victims, Ages 5-17, by Time of Day

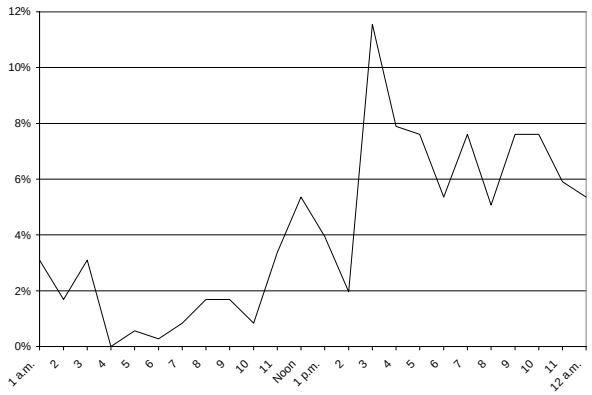
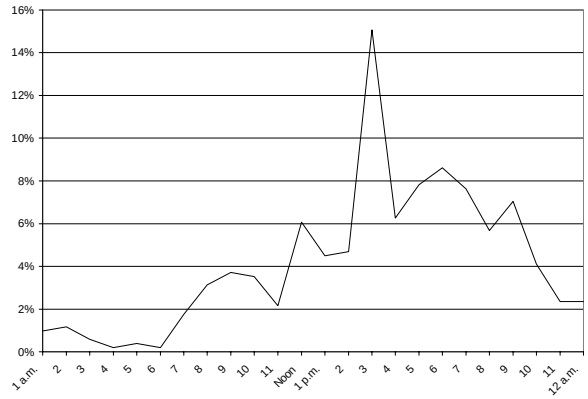


Figure 3-18. Simple Assault Victims, Ages 5-17, by Time of Day



To better understand the temporal patterns of youth victimization in terms of when youth are at greatest risk, we categorized every hour of the week into one of eight temporal categories (table 3-1). The number of victims within each category was divided by the number of yearly hours in each category to produce an hourly rate. We constructed these categories to correspond to the daily routine of young people. Additionally, we analyzed the summer months separately using a six-category scheme (table 3-1). As shown in figure 3-18, the hourly rate of victimization for the entire school year session was 0.14 victims per hour. The hourly rate was highest during the "P.M. Commute/After-School" period (0.38 victims per hour). This rate was twice the rate of

the next highest categories—both evening periods. The “Weekday" and "Weekend Evening” periods had hourly rates of 0.19 victims, followed by the “School Session” (0.14 victims per hour) and “Weekend Day” periods (0.11 victims per hour). Somewhat surprisingly, the hourly rate for the “P.M. Commute/After-School” period was nearly 10 times greater than the curfew period rates (0.04 victims per hour during each period).

During the summer months, the number of victims per hour (0.15) was nearly identical to the rate during the school year. The hourly victimization rates were highest during the evening period—“Weekday Evening” (0.31 victims per hour) followed by the “Weekend Evening” (0.29 victims per hour). These rates were at least four times greater than the rate for the “Weekday Curfew” (0.07 victims per hour) and two times greater than the rate for the “Weekend Curfew” (0.13 victims per hour).

Table 3-1. Temporal Categories for Juvenile Victimization Patterns

	Days	Times
School Year		
AM Commute	Monday — Friday	7 A.M. — 8:59 A.M.
School Session	Monday — Friday	9 A.M. — 2:59 P.M.
After-School – P.M. Commute	Monday — Friday	3 P.M. — 5:59 P.M.
Weekday Evening	Monday — Thursday	6 P.M. — l0:59 P.M.
	Friday	6 P.M. — 11:59 P.M.
Weekday Curfew	Monday — Thursday	11 P.M. — 6:59 A.M.*
	Friday	12 MID — 6:59 A.M.*
Weekend Days	Saturday — Sunday	7 A.M. — 5:59 A.M.
Weekend Evening	Saturday — Sunday	6 P.M. — 11:59 P.M.
Weekend Curfew	Saturday — Sunday	12 MID — 6:59 A.M.
Summer		
Weekday Days	Monday — Friday	7 A.M. — 5:59 P.M.
Weekday Evenings	Monday — Thursday	6 P.M. — l0:59 P.M.
	Friday	6 P.M. — 11:59 P.M.
Weekday Curfew	Monday — Thursday	11 P.M. — 6:59 A.M.*
	Friday	12 MID — 6:59 A.M.*
Weekend Days	Saturday — Sunday	7 A.M. — 5:59 A.M.
Weekend Evening	Saturday — Sunday	6 P.M. — 11:59 P.M.
Weekend Curfew	Saturday — Sunday	12 MID — 6:59 A.M.

* Note: curfew period extended by one hour

Figure 3-19. Victims during Nonsummer Months, Ages 5-17, by Time of Day

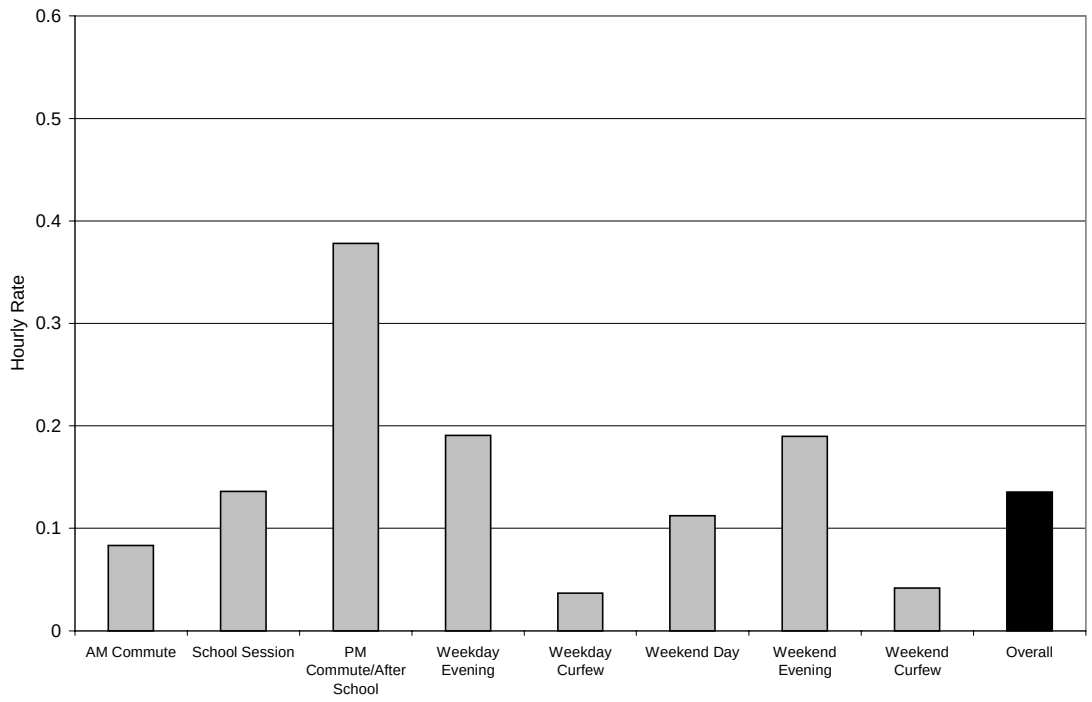
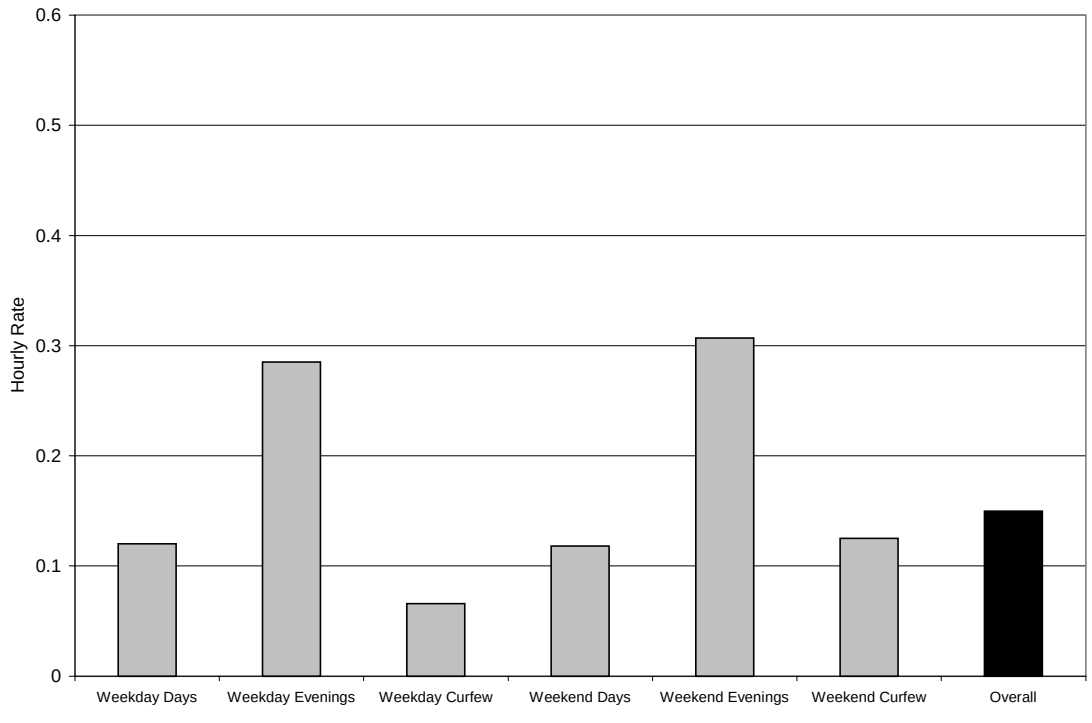


Figure 3-20. Victims during Summer Months, Ages 5-17, by Time of Day



Time of Incidents Involving Victims Ages 18-24

In 1999, 26.2 percent of violent crimes for which an age was reported were committed against persons ages 18 to 24. These victims accounted for 33 percent (74) of all homicides, 24.7 percent (113) of all sexual assaults, 19.9 percent (460) of all robberies, 27.7 percent (1261) of all aggravated assaults, and 27.3 percent (1,777) of all simple assaults. The following discussion highlights the time periods during which these victims were most likely to be victimized.

Homicide and sexual assault victims ages 18 to 24 were more likely to be victimized during the 10 P.M. to 2 A.M. period than during any other four-hour period. Nearly 44.6 percent of homicide victims (33 of 74) were murdered during this period. An additional 24 percent (18 victims) were murdered between 4 P.M. and 9 P.M. More than 28 percent (32 victims) of sexual assault victims were attacked during the 10 P.M. to 2 A.M. period. Extending that period to 4 A.M. increases the overall percentage by an additional 16 percent (16 victims). Surprisingly, sexual assault victimization also had sharp peaks at 10 A.M. (6.1 percent) and 4 P.M. (7.9 percent).

Figure 3-21. Homicide Victims, Ages 18-24, by Time of Day

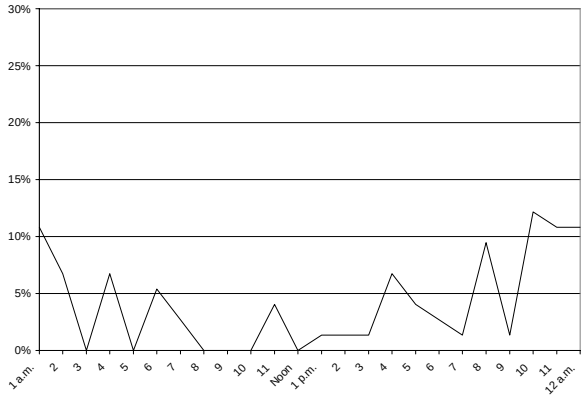
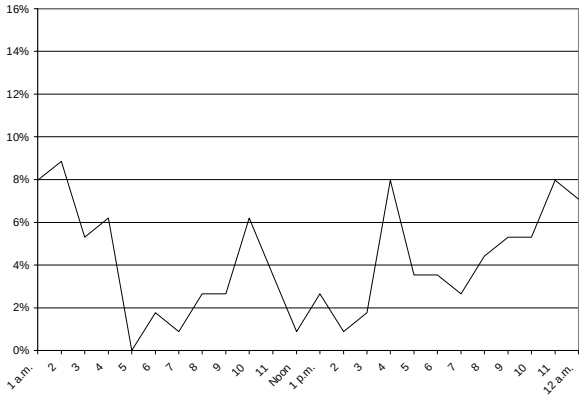


Figure 3-22. Sexual Assault Victims, Ages 18-24, by Time of Day



The hourly trends for robbery and assault victimization of 18 to 24 year olds showed similar patterns. Robbery and assault victimization were at their highest peaks during the 11 P.M. to midnight hours. More than 9.1 percent of robberies, 7.7 percent of aggravated assaults, and 6.8 percent of simple assaults were committed during the 11 P.M. hour. Using the 11 P.M. to 3 A.M. period to assess the late night risk for this age group, the data show that this period accounted for 23.3 percent of robbery victimizations, 31.2 percent of aggravated assault victimizations, and 24.3 percent of simple assault victimizations. For each of these crime categories, the early-morning period was the period with the lowest level of victimization — roughly 5 percent of all victimizations for each crime category.

Figure 3-23. Robbery Victims, Ages 18-24, by Time of Day

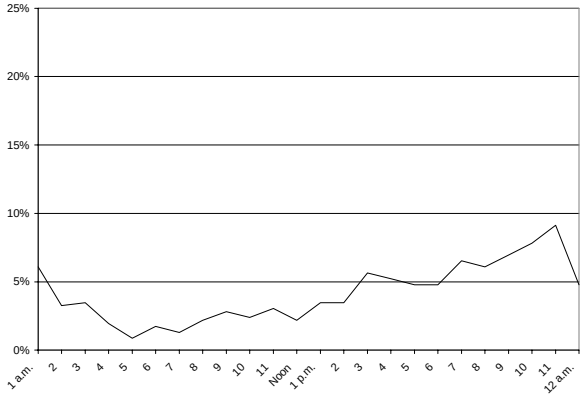


Figure 3-24. Aggravated Assault Victims, Ages 18-24 by Time of Day

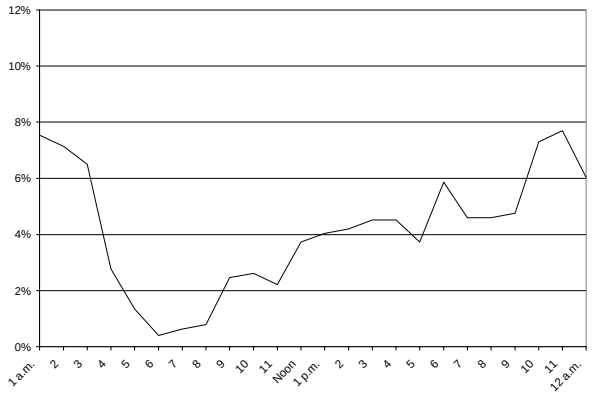
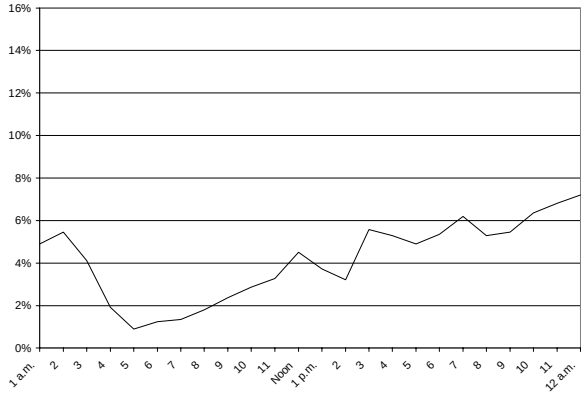


Figure 3-25. Simple Assault Victims, Ages 18-24, by Time of Day



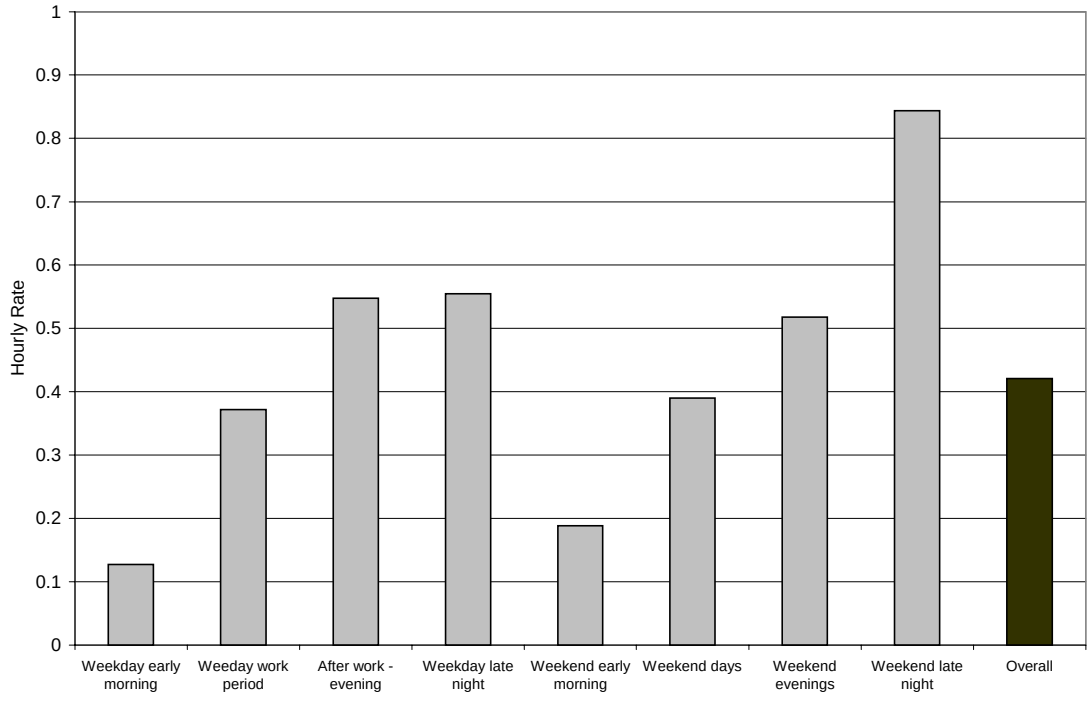
To better understand the temporal patterns of victimization in terms of when 18 to 24 year olds are at greatest risk, we categorized every hour of the week into one of eight temporal categories (table 3-2). The number of victims within each category was divided by the number of yearly hours in each category to produce an hourly rate. We constructed these categories to correspond to the daily routine of employed adults. Using this approach to assess risk of victimization, we noticed that the temporal trend was heavily influenced by victimization that occurred during the "Weekend Late Night" period.

Table 3-2. Temporal Categories for Adult Victimization Patterns for Persons Ages 18 and Older

	Days	Times
Weekday Early Morning	Monday — Friday	4 A.M. — 8:59 A.M.
Weekday Work Period	Monday — Friday	9 A.M. — 5:59 P.M.
After Work/Evening	Monday — Friday	6 P.M. — 9:59 P.M.
Weekday Late Night	Monday — Friday	10 P.M. — 3:59 A.M.
Weekend Early Morning	Saturday — Sunday	4 A.M. — 8:59 A.M.
Weekend Days	Saturday — Sunday	9 A.M. — 5:59 P.M.
Weekend Evenings	Saturday — Sunday	6 P.M. — 9:59 P.M.
Weekend Late Nights	Saturday — Sunday	10 P.M. — 3:59 A.M.

As shown in figure 3-26, approximately one person between the ages of 18 and 24 became a victim of a violent crime every two hours in the District of Columbia. The risk of becoming a victim was highest during the "Weekend Late Night" (0.84 victims per hour or approximately one victim an hour). The periods with the next highest hourly rates were "Weekday Late Night", "After Work-Evening", and "Weekend Evening," each with roughly 0.5 victims per hour.

Figure 3-26. Overall Victimization, Ages 18-24, by Time of Day



Time of Incidents Involving Victims Ages 25-34

In 1999, 31.5 percent of violent crimes were committed against people ages 25 to 34. These victims accounted for 35.7 percent (80) of all homicides, 24.7 percent (113) of all sexual assaults, 27.3 percent (629) of all robberies, 30.7 percent (1,399) of all aggravated assaults, and 34.3 percent (2,237) of all simple assaults. The following discussion highlights the time periods during which these victims were most likely to be victimized.

Homicide victims ages 25 to 34 were more likely to be victimized during the 9 P.M. to 11 P.M. period than during any other two-hour period of the day. This is slightly earlier than the high-risk time period for homicide victims ages 18 to 24. Nearly 21 percent of homicide victims (17 of 80) were murdered during this period. By extending this period to 4 A.M., the overall percent of murders committed against these victims increases to 53.8 percent (43 murders). Sexual assault victimization followed a similar pattern with victimization remaining at peak level between 11 P.M. and 4 A.M., accounting for 26.3 percent of sexual assaults committed against victims of this age group.

Figure 3-27. Homicide Victims, Ages 25-34, by Time of Day

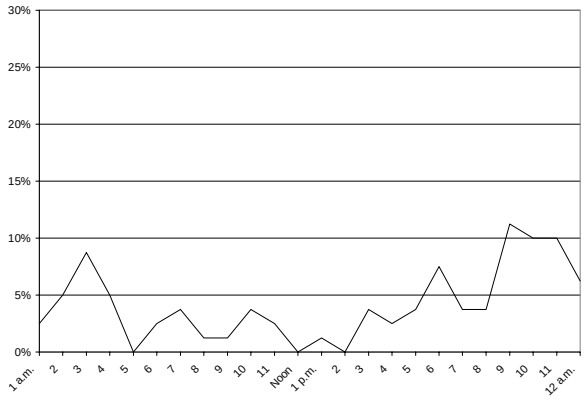
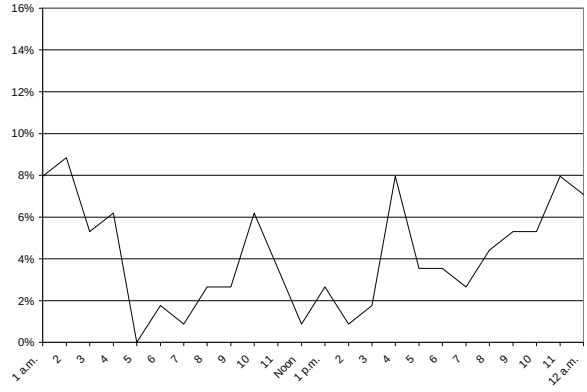


Figure 3-28. Sexual Assault Victims, Ages 25-34, by Time of Day



The hourly trends for robbery and assault victimization followed similar patterns. Robbery victimization was at its highest peak during the 10 P.M. to 12 midnight hours. Slightly more than 17.3 percent of robberies were committed against victims of this age group during this period. Between 8 P.M. and 12 midnight, 29.1 percent of aggravated assaults and 25.7 percent of simple assaults were committed against victims of this age group. Using the 11 P.M. to 3 A.M. period to assess the late night risk for this age group, we noticed that this period accounted for 26.9 percent of robbery victimizations, 23.1 percent of aggravated assault victimizations, and 21.6 percent of

simple assault victimizations. The period with relatively little activity continued to be the early morning hours between 4 A.M. and 8 A.M.

Figure 3-29. Robbery Victims, Ages 25-34, by Time of Day

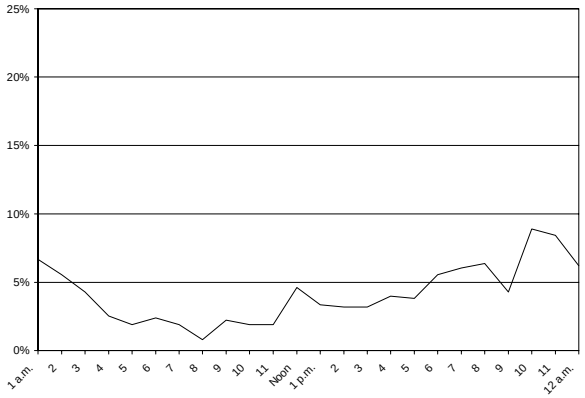


Figure 3-30. Aggravated Assault Victims, Ages 25-34, by Time of Day

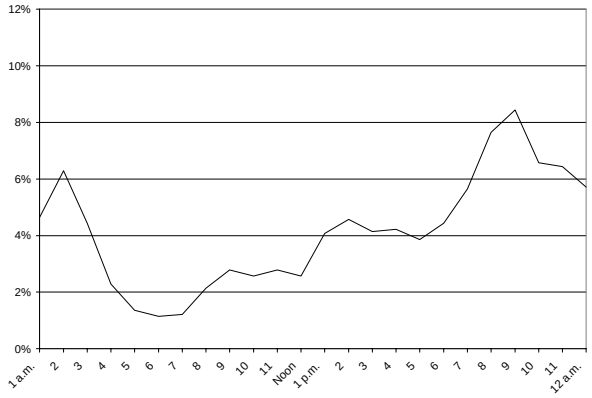
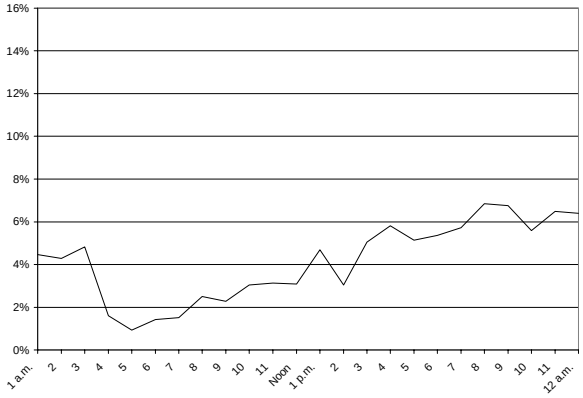
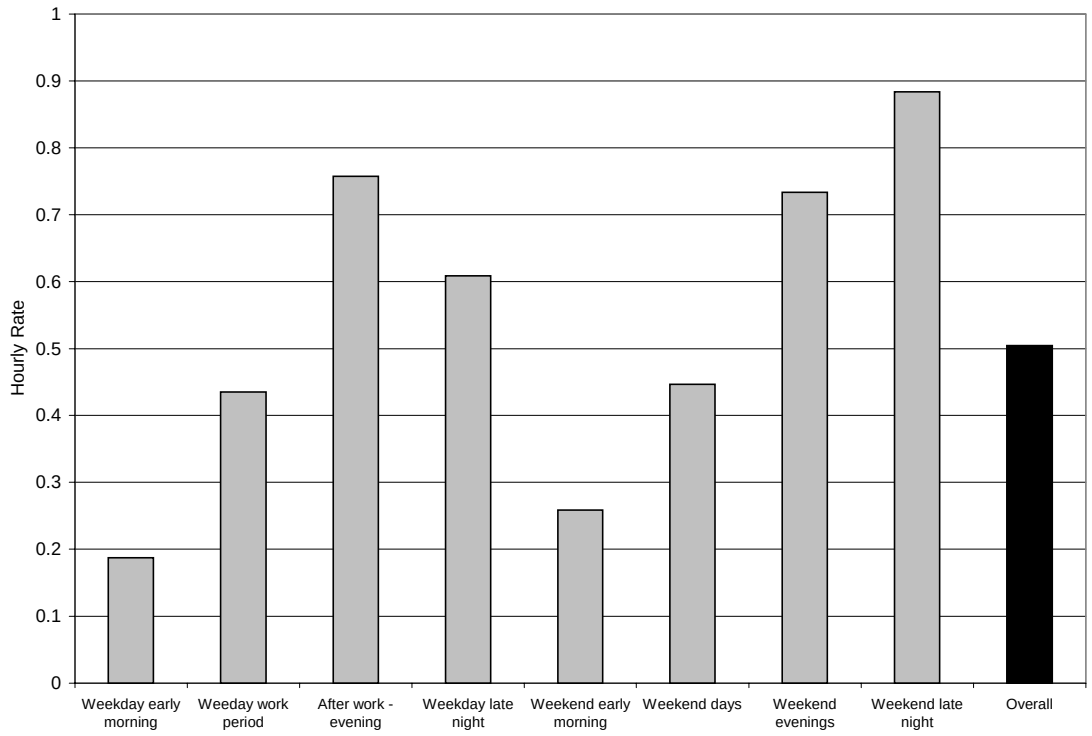


Figure 3-31. Simple Assault Victims, Ages 25-34, by Time of Day



As derived from figure 3-32, approximately one person between the ages of 25 and 34 became a victim of a violent crime every two hours in the District of Columbia. The risk of becoming a victim was highest during the "Weekend Late Night" (0.88 victims per hour or approximately one victim an hour) followed by "After Work-Evening" (0.77 victims per hour), "Weekend Evenings" (0.73 victims per hour), and "Weekday Late Night" (0.61 victims per hour). (See table 3-2 for definitions of these time periods.) The temporal patterns for this age group appear to be mostly influenced by victimization that occurred during the evening and late night periods. This pattern is consistent across the weekday and weekend periods.

Figure 3-32. Overall Victimization, Ages 25-34, by Time of Day



Time of Incidents Involving Victims Ages 35-44

In 1999, 19.5 percent of violent crimes where age was reported were committed against people ages 35 to 44. These victims accounted for 11 percent (25) of all homicides, 9.2 percent (42) of all sexual assaults, 22 percent (507) of all robberies, 20.7 percent (942) of all aggravated assaults, and 18.8 percent (1,226) of all simple assaults. The following discussion highlights the time periods during which these victims were most likely to be victimized.

Homicide victims ages 35 to 44 were more likely to be victimized during the 12 midnight to 2 A.M. period than during any other two-hour period of the day. Nearly one-third of homicide victims (7 of 25) were murdered during this period. By extending this period to 4 A.M., the overall percent of murders committed against these victims increases to 40 percent (10 murders). Sexual assault victimization followed a uniquely different pattern with victimization patterns peaking between 9 P.M. and 12 midnight. It was during this period that 41 percent (17 of 42 incidents) of sexual assaults were committed against victims of this age group. Additional peak periods were identified at 2 P.M. (12 percent of sexual assaults or 5 victims) and between 2 A.M. and 5 A.M. (19 percent of sexual assaults or 8 victims).

Figure 3-33. Homicide Victims, Ages 35-44, by Time of Day

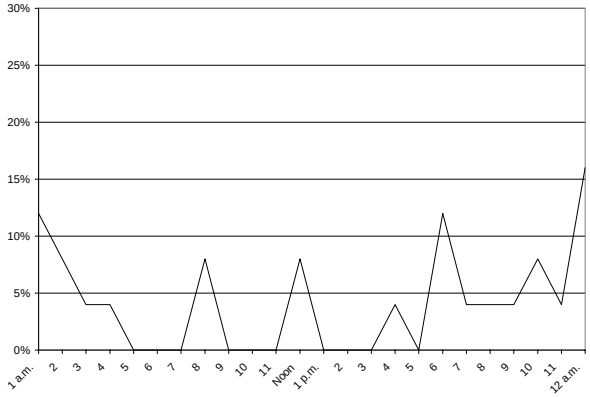
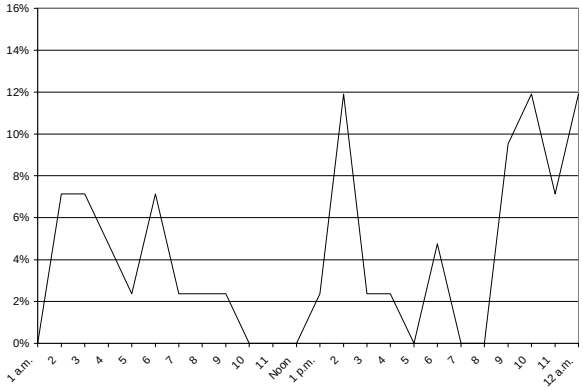


Figure 3-34. Sexual Assault Victims, Ages 35-44, by Time of Day



The hourly trends for robbery and assault victimization had slightly different patterns. Robbery victimization reached its peak at 6 P.M., accounting for more than 9 percent of robberies committed against victims ages 35 to 44. After a slight decline in the following hours, robbery victimization against this age group reached its second peak around 9 P.M. (8.4 percent) and remained relatively stable until 11 P.M. In fact, 24.2 percent of robbery victimizations committed against victims ages 35 to 44 occurred during the 9 P.M. to 12 midnight period. In contrast, aggravated and simple assault victimizations were at their peaks between 8 P.M. and 11 P.M. Nearly 30 percent of aggravated assaults and simple assaults were committed against this age group during this period. Using the 12 midnight to 3 A.M. period as category for assessing the late night risk for this age group, we noticed that this period accounted for 14 percent of aggravated assault victimization and 15.1 percent of simple assault victimization. The period with relatively little activity continued to be the early morning hours, especially for robbery victimization.

Figure 3-35. Robbery Victims, Ages 35-44, by Time of Day

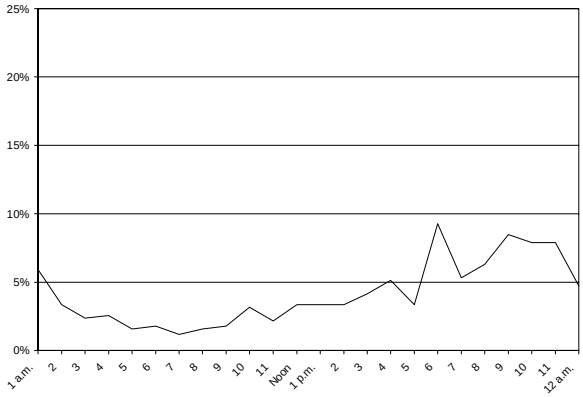


Figure 3-36. Aggravated Assault Victims, Ages 35-44, by Time of Day

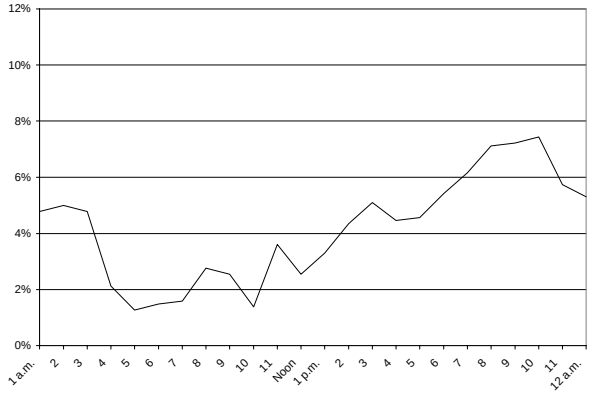
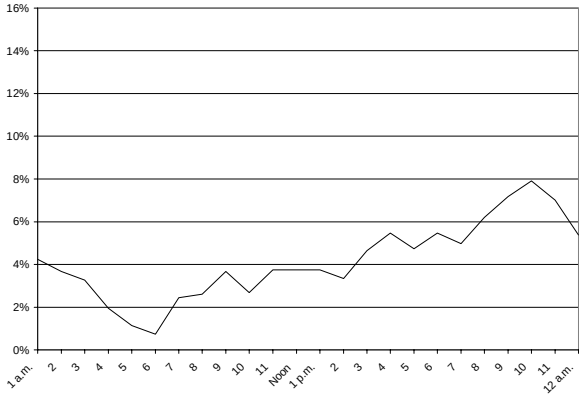
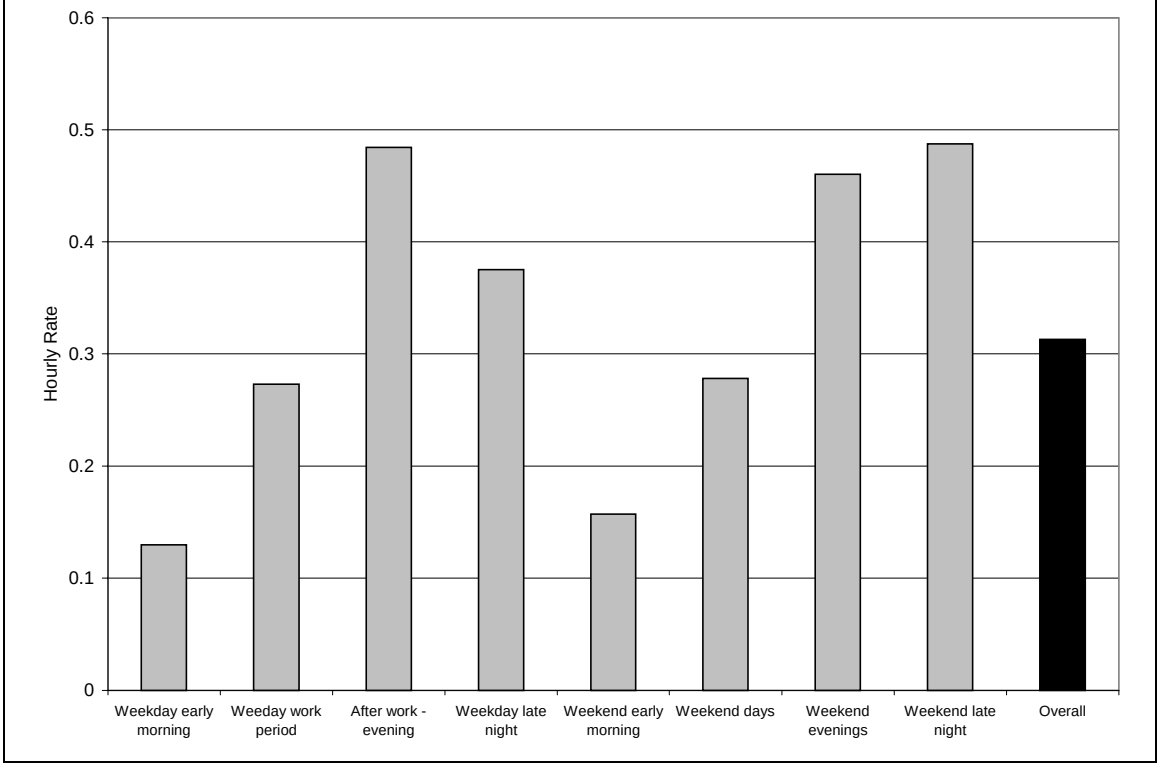


Figure 3-37. Simple Assault Victims, Ages 35-44, by Time of Day



As shown in figure 3-38, approximately one person between the ages of 35 and 44 became a victim of a violent crime every three hours in the District of Columbia. The risk of becoming a victim was highest during the "Weekend Late Night", "After Work-Evening", and "Weekend Evening" periods (nearly 0.50 victims per hour for each period). The "Weekday Late Night" was the next highest with 0.38 victims per hour. This pattern mirrored the pattern for the 25 to 34 age group but with lower hourly rates.

Figure 3-38. Overall Victimization, Ages 35-44, by Time of Day



Time of Incidents Involving Victims Ages 45 or Older

In 1999, 14 percent of violent crimes were committed against people ages 45 or older. These victims accounted for 10.7 percent (24) of all homicides, 5 percent (23) of all sexual assaults, 25 percent (576) of all robberies, 13 percent (591) of all aggravated assaults, and 11.5 percent (748) of all simple assaults. The following discussion highlights the time periods during which these victims were most likely to be victimized.

Homicide victims ages 45 or older were more likely to be victimized during the 7 P.M. to 10 P.M. period than during any other two-hour period of the day. More than 37 percent of homicide victims (9 of 24) were murdered during this period. An additional 21 percent (5 murders) of homicide victimization occurred between 3 P.M. and 6 P.M. Sexual assaults followed a slightly different pattern with the majority of victimization occurring between 6 P.M. and 2 A.M. During this period, 60.3 percent of sexual assaults (14 of 23 incidents) were committed against victims of this age group. An additional 26.1 percent (6 incidents) of sexual assaults occurred between 1 P.M. and 3 P.M.

Figure 3-39. Homicide Victims, Ages 45+, by Time of Day

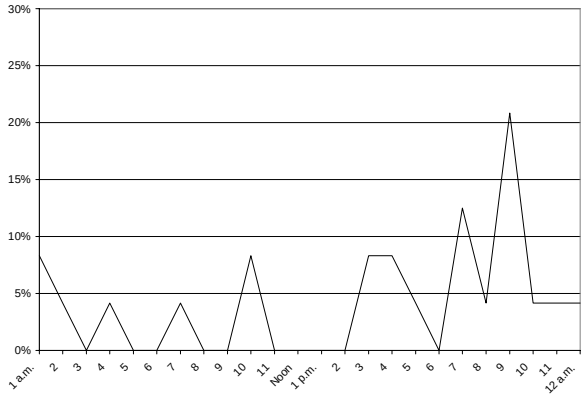
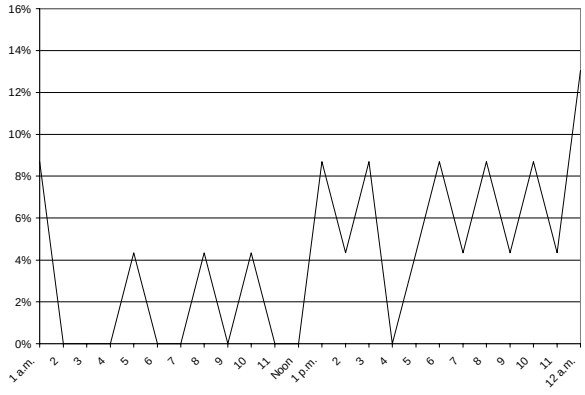


Figure 3-40. Sexual Assault Victims, Ages 45+, by Time of Day



The hourly trends for robbery and assault were fairly consistent. Victimization for each of these crime types peaked in the early afternoon — starting at 2 P.M. for robbery, 3 P.M. for aggravated assault, and 2 P.M. for simple assault — and remained relatively stable until 11 P.M. This period accounted for 64.4 percent of robbery victimization, 56.2 percent of aggravated assault victimization, and 61.2 percent of simple assault victimization. Using the 12 midnight to 4 A.M. period as category for assessing the late-night risk for this age group, we noticed that this

period accounted for 12.5 percent of robbery victimization, 16.9 percent of aggravated assault victimization, and 12.8 percent of simple assault victimization.

Figure 3-41. Robbery Victims, Ages 45+, by Time of Day

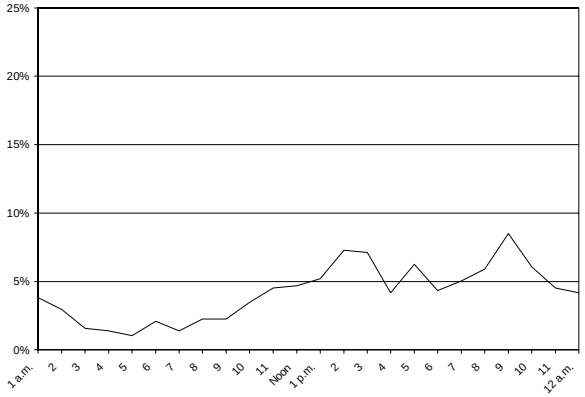


Figure 3-42. Aggravated Assault Victims, Ages 45+, by Time of Day

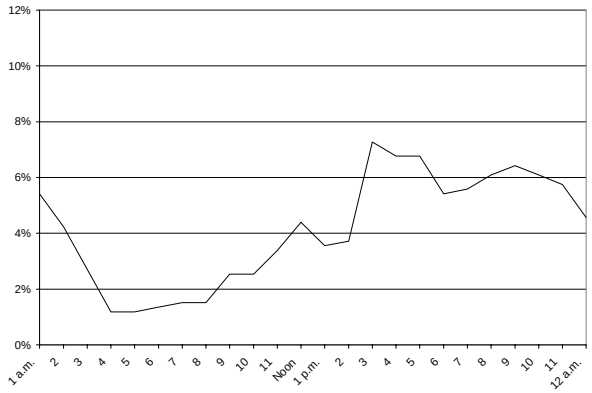
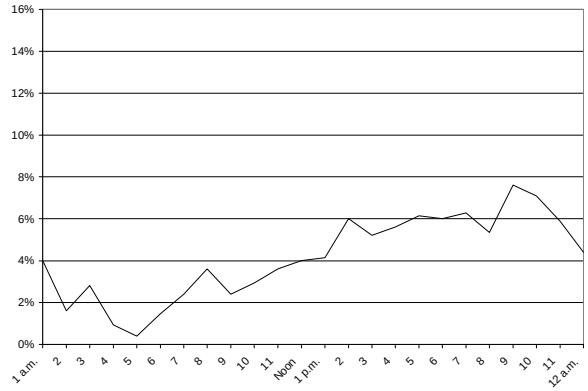
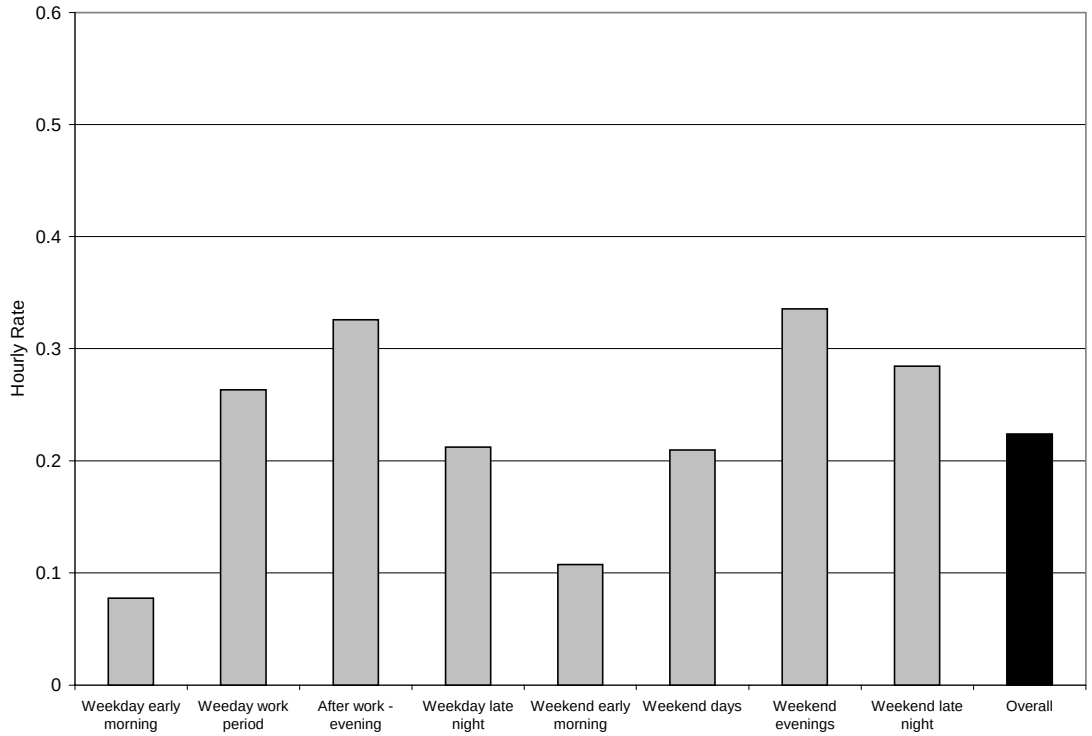


Figure 3-43. Simple Assault Victims, Ages 45+, by Time of Day



As shown in figure 3-44, approximately one person ages 45 or older became a victim of a violent crime every five hours in the District of Columbia. The risk of becoming a victim was highest during the evening hours — "After Work-Evening" and "Weekend Evenings" (0.33 victims per hour). Victims in this age group were equally likely to become a victim during the "Weekday Work" (0.26 victims per hour) and "Weekday Late Night" (0.28 victims per hour) periods. The hourly rate was at its lowest during the early morning hours irrespective of weekday or weekend designation (0.08 and 0.11 victims per hour respectively).

Figure 3-44. Overall Victimization, Ages 45+, by Time of Day



VICTIMIZATION TRENDS BY LOCATION AND TIME OF YEAR

Maps 3-1 through 3-3 illustrate victimization trends by location and time of year (all maps can be found at the end of the chapter). The ellipses representing significant clusters of violent incidents involving 1 to 11 year olds and 12 to 17 year olds mostly correspond to locations of public schools. Map 3-1 illustrates this finding. Similar to the temporal analysis presented earlier, we divided 1999 into two parts—school year (January 1 to June 18; August 31 to December 31) and summertime (June 19 to August 30) and examined the locations of violent incidents involving school-aged youth (ages 5 to 17). Map 3-3 includes the locations of all middle, junior, and high schools. The map also includes public charter schools that were operating as of January 1, 1999[15]. Each of the clusters on map 3-1 has a minimum of ten violent incidents. Of the 13 clusters shown, 9 correspond directly to school locations. The red circle highlights the two clusters with the largest number of violent incidents (both clusters within the red circle had 18 violent incidents during 1999). Map 3-2 shows that locations of clusters are not the same during the summer months. Three summertime clusters emerge in areas where clustering did not occur

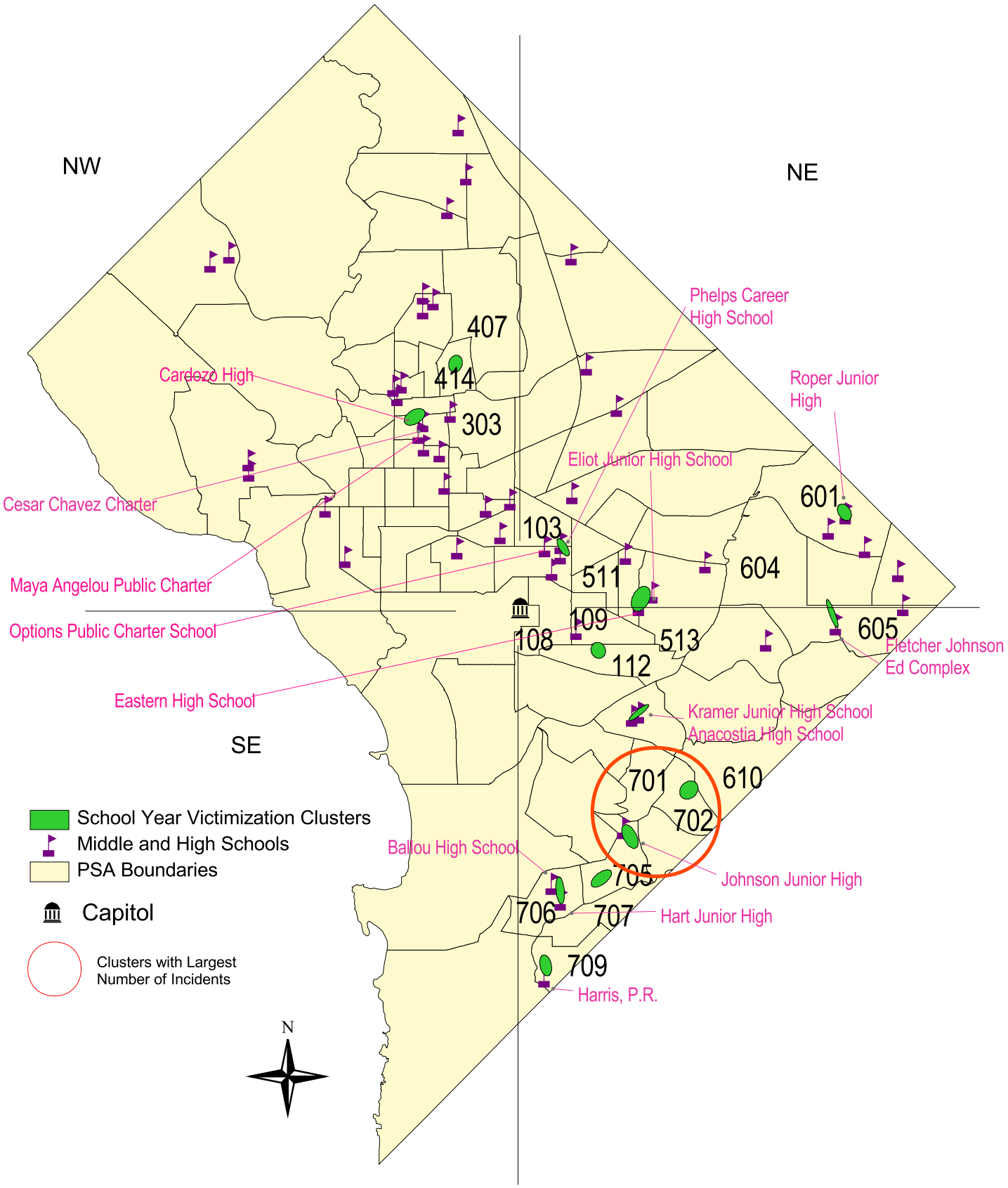
during the school year. The two clusters in the Northwest quadrant are in the Columbia Heights neighborhood.

Map 3-3 shows the 1999 event clusters for all violent crimes combined during the after-school hours for the school year, compared to the curfew-hour event clusters (only for youth ages 5 to 17 and for incidents occurring during curfew hours). For comparison purposes, we only used school months and did not include incidents that took place in the summer. All clusters had a minimum of five points. The locations of the curfew clusters are different from the after-school clusters. There are two curfew clusters and four after-school clusters. Three of the after-school clusters correspond directly to schools. The after-school cluster located in PSA 702 does not correspond to a middle, junior high, or high school, but there are two elementary schools (not shown) on each end of the cluster. This is the area where Alabama Avenue intersects Naylor Road and Twenty-fifth Street, SE.

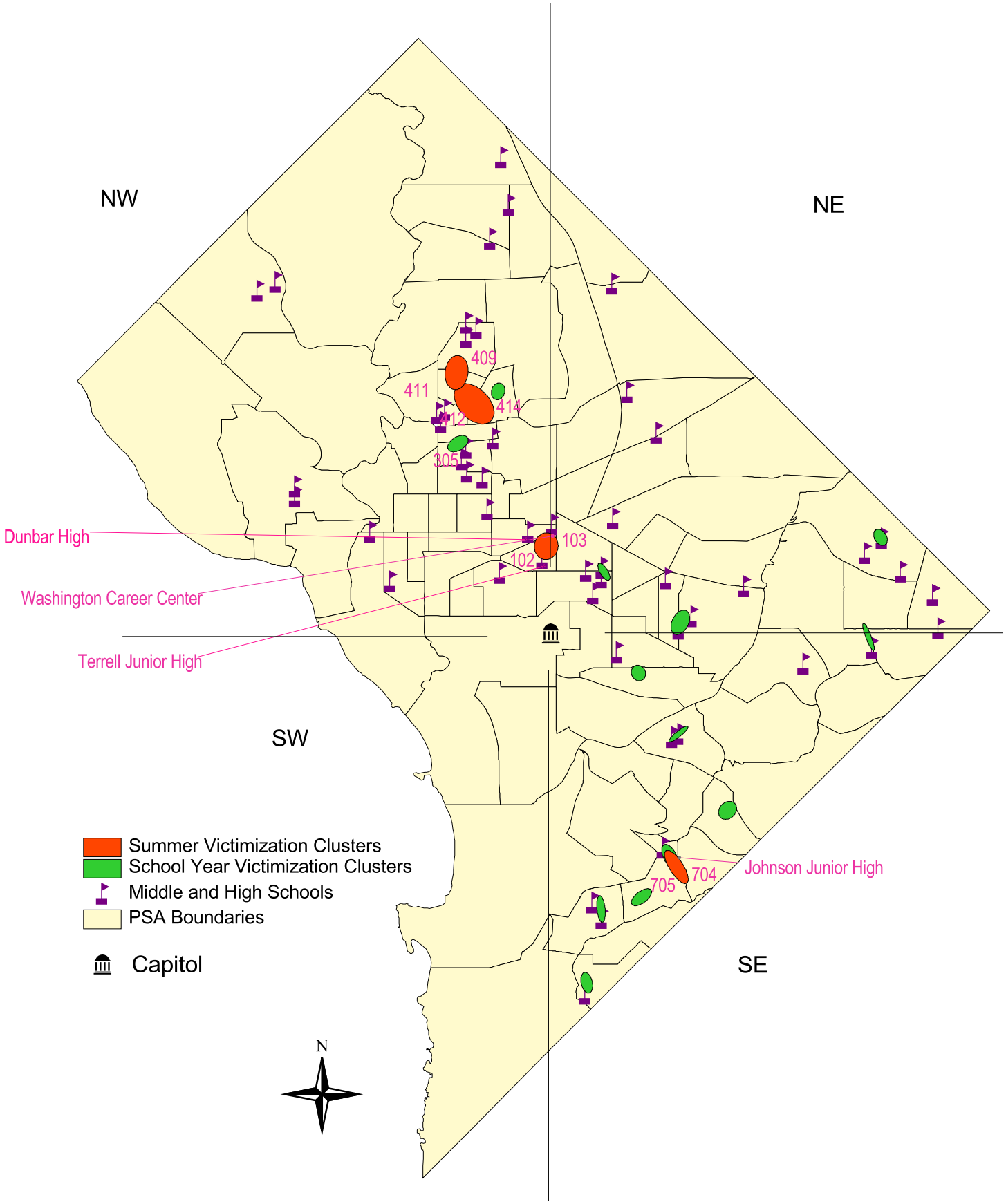
In some cases, high population or housing density could be driving the clustering. For instance, it is difficult to tell what, if anything, is behind the curfew-hours cluster near PSAs 413, 414, and 409. On a full District street map, the cluster does not appear to be near a school location, park, or anything that may attract youth activity. Similar cluster locations emerged when we examined summertime hot spots (map 3-2). Police officers may be able to easily identify what is driving the clustering. If the clusters are not simply an artifact of high density, determining what may be causing the clustering of violent incidents could help focus efforts on locations that are amenable to change. These areas may be appropriate for coordinated priorities among government officials, law enforcement, and grassroots neighborhood organizations.

[15] The map layer on District schools was created by the authors of this report. Data on public schools were obtained from the Department of Education's Center on Education Statistics. Data on charter schools were obtained from the District of Columbia Public Charter School Resource Center.

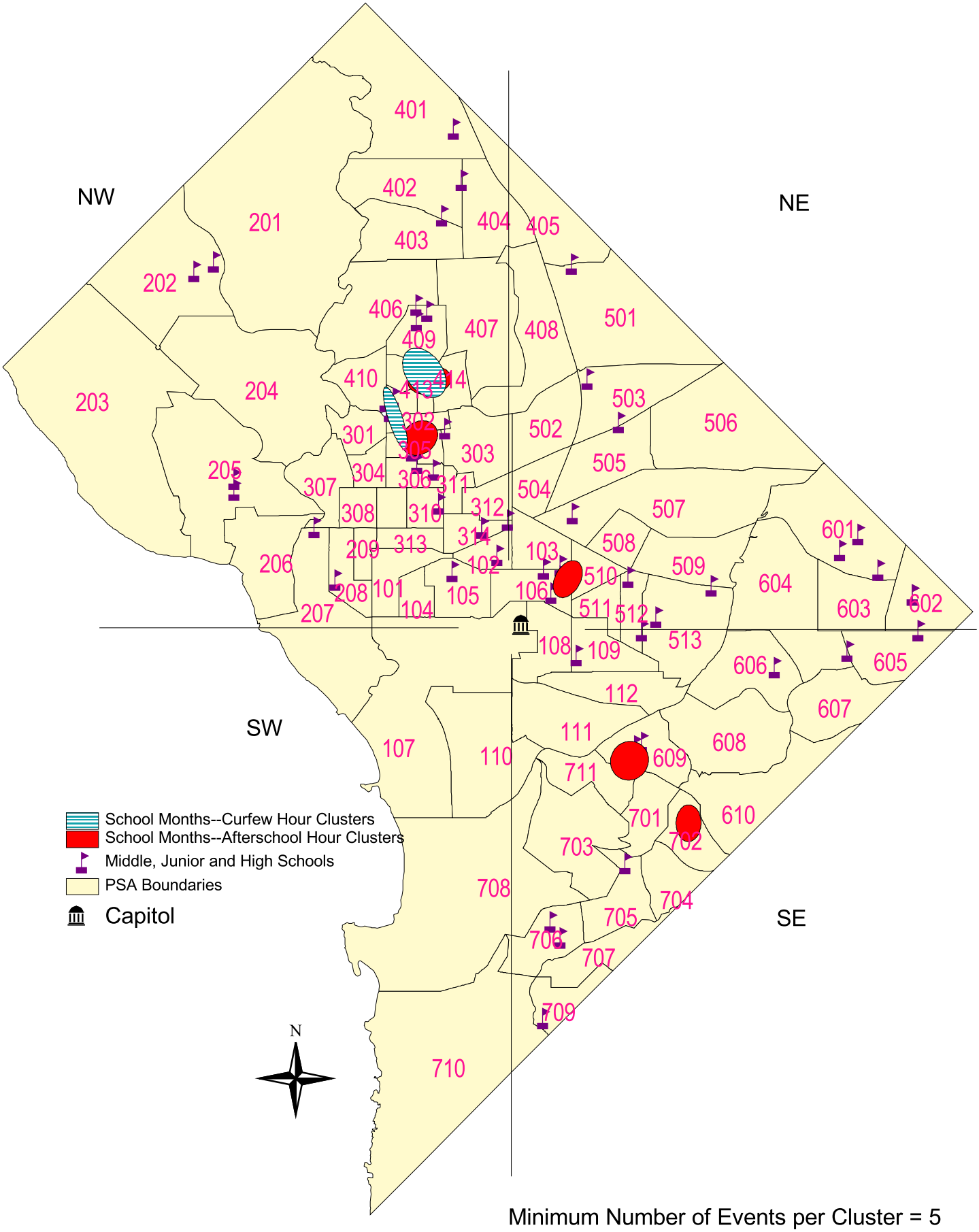
Map 3-1. School Year Event Clusters for All Violent Crimes Occurring to Youth Age 12-17, 1999



Map 3-2. Summer Event Clusters Versus School Year Clusters for All Violent Crime Occurring to Youth Age 12-17, 1999



Map 3-3. School Months: After School Clusters Versus Curfew Clusters of Violent Events, 1999



Minimum Number of Events per Cluster = 5

CHAPTER 4

Arrest for Violent Crimes Who are the Perpetrators?

In 1999, the MPDC filed arrest reports for 59,305 criminal offenses. Using the "top charge" for each individual arrested in 1999, we computed a total of 7,708 arrests for which the top charge was a violent crime.[16] Top charge reflects (for analytical purposes only) the seriousness of violent crimes. In cases involving multiple charges, we selected the most serious offense code for analysis based on the following hierarchy: homicide, rape, robbery, aggravated assault, and simple assault.

As shown in table 4-1 and figure 4-1, arrests for violent crimes were more commonly made for aggravated and simple assault. In 1999, 59 percent (4,562) of arrests were for simple assault and 29 percent for aggravated assault. The remaining 12 percent were distributed among the other three categories rather unevenly: 8 percent for robbery, 2 percent for sexual assault, and 2 percent for homicide. Nearly 9 of the roughly 15 arrests per 1,000 residents were for simple assault, twice the rate for aggravated assault (4.35). These trends mirror arrest trends at the national level. That is, the majority of arrests for violent crime involve assault.

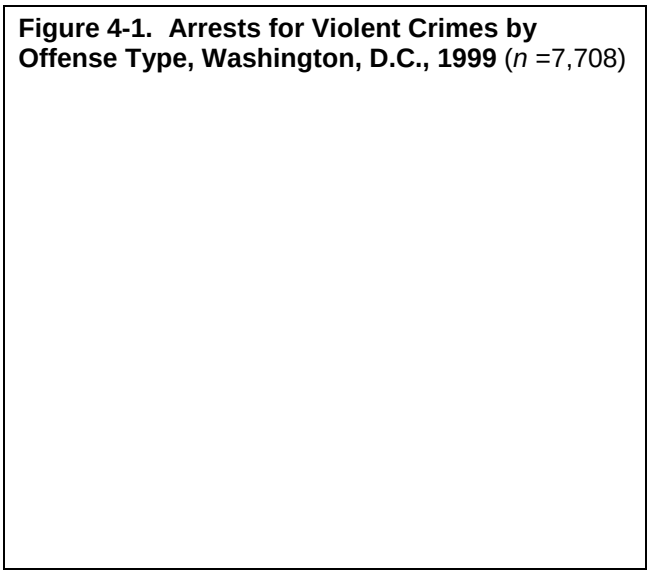
Table 4-1. Arrests for Violent Crimes by Offense Type, Washington, D.C., 1999[17]

	Total	Rate per 1,000 residents
Homicide	**123**	**0.24**
Sexual Assault	**153**	**0.29**
Robbery	**610**	**1.18**
Aggravated Assault	**2,260**	**4.35**
Simple Assault	**4,562**	**8.79**
Total	7,708	14.85

[16] An additional 4,152 arrests were classified as "other felony" or "other misdemeanor." We did not include these arrests in our counts.

[17] The numbers reported by the Urban Institute differ slightly from those reported in the MPDC annual report. The differences are likely the result of reclassifications by MPDC and additional arrests added to the system between the production of the MPDC annual report and the Urban Institute report.

Figure 4-1. Arrests for Violent Crimes by Offense Type, Washington, D.C., 1999 (*n* =7,708)



PERPETRATORS OF VIOLENT CRIMES: RACE

Table 4-2 shows the distribution of persons arrested for violent crime offenses in the District in 1999.[18] Similar to the racial distribution of victimization described in Chapter 1, the majority of persons arrested for a violent crime were black (89 percent). Of the 6,868 arrests involving blacks, 59 percent were for a simple assault arrest, followed by 29 percent for aggravated assault, 8 percent for robbery, 2 percent for sexual assault, and 2 percent for homicide. The distribution for arrests involving a non-black perpetrators followed a similar pattern: 61 percent involved a simple assault arrest, followed by 29 percent for aggravated assault, 6 percent for robbery, 2 percent for sexual assault, and 1 percent for homicide.

A comparative analysis shows that the arrest rate per 1,000 residents was substantially higher for black arrestees (21 arrests per 1,000 black residents) compared to non-black arrestees (4 arrests per 1,000 non-black residents). The difference was greatest on homicide arrest rates. The homicide arrest rate was nearly nine times higher for blacks (0.36 arrests per 1,000 black residents) than non-blacks (0.04 arrests per 1,000 white residents). On each of the other arrest categories, the arrest rate was between four and six times greater for black residents than non-black residents.

Table 4-2. Reported Arrests by Crime and Race of Offender, Washington, D.C., 1999

	Number		Rate per 1,000	
	Black	Non-Black	Black	Non-Black
Homicide	**115**	**8**	**0.36**	**0.04**
(%)	(93.5%)	(6.5%)		
Sexual Assault	134	16	0.41	0.08
(%)	(89.3)	(10.7)		
Robbery	559	51	1.73	.26
(%)	(91.6)	(8.4)		
Aggravated Assault	2,010	239	6.22	1.22
(%)	(89.4)	(10.6)		
Simple Assault	4,050	497	12.53	2.54
(%)	(89.1)	(10.9)		
Total	**6,868**	**811**	**21.24**	**4.14**
(% of total victims)	(89.4)	(10.6)		
Missing Data[19]		29		

PERPETRATORS OF VIOLENT CRIMES: GENDER

Males experienced the vast majority of arrests within each offense category (table 4-3). Both male and female perpetrators were most commonly arrested for simple assault and aggravated assault. Arrests for these two offense categories among males and females accounted for 89 percent of all arrests. These figures indicate that simple and aggravated assault account for a large share of offenses that lead to arrest.

Within the simple and aggravated offense categories, however, men were more likely to be arrested. Male perpetrators accounted for 79 percent of all simple assault arrests and 67 percent of all aggravated assault arrests. These differences between males and females were even more extreme for robbery, sexual assault, and homicide for which more than 94 percent of all arrestees were male.

In general, males were arrested nearly four times as often as females (24 per 1,000 male residents compared with 6 per 1,000 female residents). The largest differences were observed for homicide arrests (0.47 compared to 0.03 per 1,000) and robbery (2 compared to 0.13 per 1,000) — nearly a 20-fold or greater difference between the rates for males and females. The gap narrowed on aggravated assault arrests (6 per 1,000 men compared with 3 per 1,000 women) and

[18] Race of the victim and offender are recorded as either black or non-black in the offense report data files.
[19] There were 29 arrest records in the data file that did not include the race of the arrestee.

simple assault arrests (15 per 1,000 men compared to 4 per 1,000 women). These rates indicate that males and females are not arrested at the same rate, but they are closer on arrests for assaults than they are on arrests for robbery and homicide.

Table 4-3. Reported Arrests by Crime and Gender of Offender, Washington, D.C., 1999

	Number		Rate per 1,000	
	Male	Female	Male	Female
Homicide	**116**	**7**	**0.47**	**0.03**
(%)	(94.3%)	(5.7%)		
Sexual Assault	152	0	0.63	0.00
(%)	(100)	(0)		
Robbery	574	36	2.36	0.13
(%)	(94.1)	(5.9)		
Aggravated Assault	1,521	735	6.26	2.66
(%)	(67.4)	(32.6)		
Simple Assault	3,583	978	14.74	3.54
(%)	(78.6)	(21.4)		
Total	**6,868**	**811**	**24.47**	**6.36**
(% of total victims)	(77.2)	(22.8)		
Missing Data[20]		6		

PERPETRATORS OF VIOLENT CRIME: AGE

Table 4-4 provides arrest statistics by age for each of the five offense categories. Adults ages 25 to 34 accounted for the largest share of all violent crime arrests in 1999 (32 percent or 2,440). The age groups 18 to 24 and 35 to 44 each accounted for one-quarter of the proportion of all violent crime arrests (1,963 and 1,933, respectively). As was highlighted in the section on victimization trends by age group in Chapter 1, most of the violent crime was committed by and against adults ages 25 and older. Arrests of persons ages 25 to 54 accounted for 65 percent of all violent crime arrests. Young adults under age 24 were the victims and perpetrators in just over one-third of all reported violent crime victimization events.

However, there were notable differences by age group within offense categories. For instance, in cases of homicide and robbery, the 18 to 24 age group made up the majority of arrests (51 percent and 35 percent, respectively). Persons ages 25 to 34 made up the greatest share of arrests for sexual assault (32 percent), aggravated assault (29 percent), and simple assault (34 percent).

[20] There were six arrest records in the data file that did not include the gender of the arrestee.

To analyze the risk of arrests for each age group relative to its size in the local population, we computed arrest rates per 1,000 persons. Table 4-5 shows arrest rates for each age group by offense category. The overall arrest rate for persons ages 18 to 24 was the highest: 43 per 1,000 residents. Persons ages 18 to 24 were arrested at approximately twice the rate of juveniles ages 12 to 17 (17 per 1,000) and adults ages 35 to 44 (22 per 1,000); and 1.5 times the rate of persons 25 to 34 (26 per 1,000).

Table 4-4. Number of Arrests for Violent Crimes by Age Group, Washington, D.C., 1999

Age	Homicide	Sexual Assault	Robbery	Aggravated Assault	Simple Assault	Total
1-11	0	0	1	7	2	10
12-17	7	2	95	171	172	447
18-24	63	35	212	564	1,089	1,963
25-34	34	49	155	653	1,549	2,440
35-44	9	47	118	546	1,213	1,933
45-54	8	12	25	219	401	665
55-64	2	5	4	74	100	185
65-74	0	2	0	16	29	47
75-84	0	0	0	5	2	7
85+	0	0	0	0	2	2
TOTAL	**123**	**152**	**610**	**2,255**	**4,559**	**7,699**
Missing			**9**			

Table 4-5. Arrest Rates (per 1,000 residents) for Violent Crimes by Age Group, Washington, D.C., 1999

Age	Homicide	Sexual Assault	Robbery	Aggravated Assault	Simple Assault	Total
1-11	0	0	0.01	0.10	0.03	0.14
12-17	0.27	0.08	3.61	6.51	6.54	17.01
18-24	1.38	0.77	4.6	12.35	23.84	42.94
25-34	0.36	0.52	1.63	6.87	16.30	25.68
35-44	0.10	0.53	1.33	6.15	13.67	21.78
45-54	0.11	0.17	0.34	3.01	5.51	9.14
55-64	0.04	0.10	0.08	1.50	2.02	3.74
65-74	0	0.05	0	0.42	0.76	1.23
75-84	0	0	0	0.20	0.08	0.28
85+	0	0	0	0	0.22	0.22

AGE, GENDER, AND RACE OF OFFENDERS AND THEIR VICTIMS

To assess the relationship between the age, race, and gender characteristics of offenders and their victims, we linked the arrestee file with the victim file by complainant number. We began by creating two types of databases. The first data set contained matched offender and victim records (3,531) when the incident involved only one perpetrator and one victim. The second data set contained matched offender and victim records when the incident involved multiple perpetrators or multiple victims (569). Using both data sets, we cross-tabulated victim and offender characteristics. Both sets of cross-tabulations yielded similar results. Therefore, the following description of the relationships between offenders and victims in terms of age, race, and gender flows directly from the data set containing incidents involving one perpetrator and one victim (excluding weapon and drug-related offenses).[21]

Table 4-6 shows that, with the exception of juvenile perpetrators, the general trend was for violent crime perpetrators to attack victims within their age group. Looking at the diagonal elements of the table—the percentage of arrests involving a victim of the same age group—we notice that each cell accounts for the greatest share of the column's percent totals except for the ages 1 to 17 group column. This is especially true for perpetrators in the 18 to 24 (45 percent) and 25 to 34 (46 percent) age groups, who were arrested nearly 5 of 10 times for crimes committed against victims in their own age group.

Table 4-6. Arrest Distribution (Percent) of Violent Crime: *Offenders* and their Victims by Age Group, Washington, D.C., 1999

	Offender Age					
Victim Age	**1-17**	**18-24**	**25-34**	**35-44**	**45+**	**Total**
1-17	**21.8%**	7.1	3.2	3.5	2.7	174
18-24	24.4	45.3	26.9	13.5	9.5	882
25-34	**25.6**	28.1	**46.3**	32.8	23.7	1,214
35-44	17.3	11.3	15.7	**34.9**	30.5	779
45+	10.9	8.1	7.9	15.3	**33.6**	482
Total	156 (100.0)	814 (100.0)	1,108 (100.0)	968 (100.0)	485 (100.0)	3,531

[21] A weapon or drug-related arrest record was included only when it was the top charge and the reported incident involved one of the following offenses: homicide, sexual assault, robbery, or assault.

Perhaps not surprisingly, this general trend held for the offense categories typically used to gauge patterns of interpersonal violence (i.e., homicide and assault). Arrested perpetrators for these offenses generally tended to attack those in their age group. In contrast, perpetrators arrested for sexual assaults, regardless of age group, were more likely to be arrested for assaults on juveniles (40 percent overall) or young adults ages 18 to 24 (30 percent overall). Finally, the instrumental crime of robbery seems to be distributed indiscriminately across the adult age groups.[22] That is, perpetrators arrested for robbery, regardless of age group, generally tended to involve an equal share of adult victims across each age group.

Looking through the victim's lens, again with the exception of juveniles, most victims were assaulted by an offender of the same age group. Table 4-7 shows that juvenile victims under age 17 were most likely to be assaulted by offenders ages 18 to 24.

Table 4-7. Arrest Distribution (Percent) of Violent Crime: *Victims* and their Offenders by Age Group, Washington, D.C., 1999

	Victim Age					
Offender Age	**1-17**	**18-24**	**25-34**	**35-44**	**45+**	**Total**
1-17	**19.5**	14.3	**3.3**	3.5	3.5	156
18-24	**33.2**	41.8	18.8	11.8	13.7	814
25-34	20.3	33.8	**42.3**	22.3	18.2	1,108
35-44	19.4	14.8	**26.2**	**43.4**	30.8	968
45+	7.5	5.2	9.5	19	**33.8**	485
Total	174 (100.0)	882 (100.0)	1,214 (100.0)	779 (100.0)	482 (100.0)	**3,531**

Male arrestees were more likely to be arrested for crimes involving a female victim (62 percent) than a male victim (38 percent). In contrast, females were arrested at the same rate for violent crimes involving males and females (50 percent for each group) (table 4-8).

Arrestees and their victims also share similar race and gender characteristics. Of the 3,171 arrests of black individuals, 89 percent involved a black victim and 11 percent involved a non-black victim. Similarly, 71 percent of the 406 arrests of non-black individuals involved a non-black victim (table 4-9).

[22] Of the 212 offender-victim matches for robbery, only 5.6 percent (12 arrests) involved a juvenile victim.

Table 4-8. Offender–Victim Relationship by Gender, Washington, D.C., 1999

	Offender	
Victim	Male	Female
Male	2,259 (38%)	878 (50)
Female	3,687 **(62)**	878 (50)
Total	5,946	1,756

Table 4-9. Offender–Victim Relationship by Race, Washington, D.C., 1999

	Offender	
Victim	Black	Non-Black
Black	2,822 **(89%)**	118 (29)
Non-Black	349 (11)	288 **(71)**
Total	3,171	406

CHAPTER 5
Summary and Implications

Violent crime in the District of Columbia is not random. In attempting to define the problem of violent crime in the city and to craft effective responses, there is a certain level of information that is knowable. There are places, times, and persons that are particularly vulnerable to violence. Further, these high-risk places, times, and persons vary by crime type. These specific patterns can guide our crime-reduction strategies and maximize our resources by targeting those most at risk of offending and experiencing a violent crime.

There were nearly 14,871 incidents of violent crime in the District in 1999, resulting in 16,372 incidents of victimization. Although crime has been on the decline in the District since the mid-1990s, it is still a very important issue for many residents. We found that certain groups and communities face a disproportionately high risk of victimization. African Americans, while making up 60 percent of the population, accounted for 80 percent of all violent crime victims. The victimization rate among African Americans was more than two times the rate of all other racial and ethnic groups combined.[23] In terms of gender, we found that although men and women experienced nearly equal levels of violent victimization, the victimization patterns were very different. Men were more likely to be victims of homicide and aggravated assault, whereas women were more likely to be victims of a sexual or simple assault.

In addition to looking at the racial and gender victimization patterns, the report also focused on the age of victims. As is the case with many metropolitan areas across the country, the District has targeted resources to address juvenile and youth crime. The good news is that nationally and in the District juvenile crime rates have dropped significantly to their lowest levels in a decade.[24] This report helps shed light on these developments. According to 1999 MPDC data, the majority of violent crime in the District is committed by and against adults ages 25 and older. Juveniles under age 17 accounted for only 8 percent of violent crime victims, while youth ages 18 to 24 accounted for 26 percent and persons ages 25 to 34 accounted for 31 percent of all victims. Similarly, persons ages 25 to 34 also accounted for 32 percent of all violent crime arrests, followed by youth ages 18 to 24, and adults ages 34 to 44 (each group accounted for 25 percent).

[23] The MPDC data only includes two racial and ethnic categories: black and non-black.
[24] Butts, Jeffery A. 2000. Youth Crime Drop. Washington, D.C.: Urban Institute.

Not surprisingly, violent crime victimization is not only concentrated among particular groups, but also shows patterns of geographic concentration. The geographic distribution of victimization indicates that communities across the District face disparate experiences with crime. Although violent crimes occurred across the city, there are several communities (or Police Service Areas) that accounted for a disproportionate share of violent crimes. Seven of the 83 PSAs (or eight percent) accounted for 15 percent of all violent offenses reported to the police. Six of these seven PSAs are located south and east of the Anacostia River.

More important, we also found that violent crime clusters often span PSA boundaries. Administrative boundaries provide a useful tool for allocating resources and engaging in inter-agency collaboration, but crime, like other contagions, spreads without regard for jurisdictional boundaries. Therefore focusing on crime occurring within PSAs may present a misleading picture of actual concentrations of crime.

Violent crime in the District was also found to have temporal patterns that varied by age and type of victimization. The high-risk times and locations were associated with "routine" activities, such as school, work, and leisure activities, that go on throughout the day. High-risk times for youth under age 17 were associated with the after-school time period when such youth are less likely to be with a guardian. High-risk *locations* for these youth are often associated with the locations of middle, junior high, and high schools. These patterns hold during the school year, but do not exist during the summer. Curfew hours were not found to be an at-risk period for youth under age 17.

Older teens and youth in their twenties, who are most likely not in high school, were found to be most at-risk during weekends late at night. For people over the age of 35, the risk evens out across time of the day and the incidents are more spread out (i.e., not as concentrated) through the District.

The relationship between the offenders and their victims also highlights distinct victimization patterns. With the exception of juveniles, most offenders targeted victims in their own age range. Juvenile offenders were just as likely to commit a crime against an older individual as someone in their own age group. Looking through the victims' lens, most were assaulted by their peers. Offenders and their victims also tended to be of the same race. The offender–victim relationship patterns relating to gender tell a different story. Female offenders were equally likely to assault male and female individuals. Male offenders, on the other hand, were more likely to be arrested for victimizing a female.

Given what we know about violent crime patterns in the District, three broad recommendations can be made:

- **Intervene in places where violence occurs.** Strategies such as nuisance abatement and liquor license revocation may be appropriate where analyses show that violent crime is associated with these "locational" features. School-based strategies that aid in the orderly dismissal of students, such as placing officers in or nearby schools, may deter violence. Problem solving within Police Service Areas should include the neighboring PSAs when problems span PSA boundaries.

- **Intervene at times when violence occurs.** Prevention and intervention strategies should focus on high-risk times. Strategies for youth should aim to increase the level of guardianship during the after-school period, regardless of the type of program—whether it be school-based or neighborhood-based programming. The presence of police personnel or other protective guardians during high peak times can protect youth from other youth, halt feuds, and decrease youth fear that can drive children to carry weapons. Programs that can attract older youth in the late evening or late night, such as midnight basketball, may be appropriate for persons older than 18. We might also consider linking these young adults to workforce development training that could lead to employment opportunities during the evening and late nights.

- **Intervene with age groups most at risk of becoming victims of violence.** Persons ages 18 to 24 were twice as likely to be victims of violent crime than persons under age 18. Efforts to reduce violence should concentrate on age-appropriate strategies that also include persons over age 24. Persons ages 25 to 34 were also greatly at risk of being involved in violent incidents. Nearly two-thirds of all victims reported to the police were older than age 24. The city's efforts to reduce violence should include individuals up to age 44 — but should not adopt the "one-size-fits-all" philosophy.

RECOMMENDED NEXT QUESTIONS

This report highlights several important violent crime patterns. Yet there are still several unanswered questions that when addressed would help the District further define the violent crime problem and craft the most effective solutions. Answers to each of these questions could lead the District in a different direction in terms of targeting resources and developing crime reduction strategies.

- *What types of places are associated with violence?* Criminal justice research tells us that as few as 3 percent of all addresses can account for 50 percent of calls for service. Moreover, there are certain types of locations — such as liquor establishments and large apartment buildings — that can generate a disproportionate number of incidents. Accordingly, it is important to understand what types of locations in the District are generating repeat victimization.

- *What role does school enrollment play in violent crime victimization and offending patterns among youth under age 24? Is victimization immediately after school a problem that affects school enrollees, dropouts, or both?* Examining the school enrollment status of offenders and victims (especially for offenses committed before, during, and after the school session) and the prevalence of violent crime on school grounds will aide in the development of strategic interventions that target young people in and around schools.

- *What is the relationship between victims and offenders?* Specifically, do the victims and offenders know one another? How much of the violence is group- or gang-related? How much of the violence is domestic-violence-related? Different answers to these questions suggest very different intervention strategies.

- *Is there a relatively small core of individuals at risk of repeat violence? Are there substantial numbers of repeat victimization and offending?* Our study did not explore these patterns. However, most likely there are individuals who experience a higher risk of victimization and more than one violent crime incident. Answering this question would be very helpful in targeting resources more strategically to those most at risk for victimization and offending.

- *Are those at risk of violence currently under criminal justice supervision?* Studies in other cities have shown that a significant percentage of both offenders and victims may be under criminal justice supervision—either on probation, parole, or with outstanding warrants. This offers additional "levers" for changing behavior that could be maximized. For instance, at-risk individuals under supervision could have special conditions attached to their supervised release status requiring monitoring around high risk times, places, and people.

- *Do the patterns found in this report for calendar year 1999 hold true in 2000?* Discussions with MPD personnel lead us to believe that hot spots or locations of violence

may be changing, and the distribution of offenses and characteristics of victims may vary over time. Pinpointing and understanding trends on a "real time" basis are critical aspects of crime prevention and intervention.

In sum, this analysis improves our understanding about where District violence occurs, when it occurs, and who is involved. Investigating these recommended next questions will allow the city to identify more precisely the groups most at risk for offending or being the target of a violent crime. A clearer understanding of violence in the District of Columbia then gives city officials the opportunity to determine whether law enforcement strategies and prevention and intervention services are being strategically focused toward those most in need.

Appendix

Table A. Violent Crime Victims by Police Service Area and Crime Type, as Reported by the Police, Washington, D.C., 1999

	PSA	Total Victims	Homicide Victims	Sexual Assault Victims	Robbery Victims	Aggravated Assault Victims	Simple Assault Victims
1	101	120	0	4	33	32	51
	102	213	4	12	39	63	95
	103	176	3	0	80	35	58
	104	113	0	4	48	10	51
	105	308	0	12	78	80	138
	106	183	2	10	80	35	56
	107	125	1	0	36	26	62
	108	87	0	1	49	16	21
	109	168	4	4	73	35	52
	110	282	6	5	55	91	125
	111	215	2	10	47	71	85
	112	167	2	7	54	37	67
2	201	62	0	5	27	9	21
	202	81	0	2	27	18	34
	203	31	1	1	8	10	11
	204	117	0	3	51	17	46
	205	61	0	5	30	8	18
	206	174	1	8	59	33	73
	207	63	0	8	26	3	26
	208	99	0	4	27	19	49
	209	136	1	5	45	24	61
3	301	224	1	3	80	54	86
	302	192	7	4	56	54	71
	303	205	1	4	38	64	98
	304	128	0	0	54	25	49
	305	226	3	8	67	67	81
	306	258	1	3	70	79	105
	307	88	1	4	38	12	33
	308	121	0	1	62	18	40
	309	148	0	1	68	27	52
	310	156	0	5	62	31	58
	311	105	4	3	25	25	48
	312	241	7	10	50	86	88
	313	180	2	6	55	48	69
	314	180	3	5	58	55	59

	PSA	Total Victims	Homicide Victims	Sexual Assault Victims	Robbery Victims	Aggravated Assault Victims	Simple Assault Victims
4	401	146	1	8	46	25	66
	402	254	1	4	66	52	131
	403	215	4	3	35	69	104
	404	139	3	9	35	34	58
	405	95	0	3	21	28	43
	406	131	3	4	46	32	46
	407	270	7	6	28	113	116
	408	87	1	3	17	26	40
	409	281	5	7	90	96	83
	410	199	0	5	74	40	80
	411	221	4	7	47	65	98
	412	197	2	2	66	59	68
	413	168	3	6	42	61	56
	414	225	5	5	48	83	84
5	501	137	1	2	33	43	58
	502	229	6	5	55	63	100
	503	172	1	4	52	44	71
	504	160	1	1	33	53	72
	505	171	4	5	34	53	75
	506	173	1	5	37	65	65
	507	254	4	8	64	92	86
	508	344	3	7	59	113	162
	509	286	2	14	40	96	134
	510	110	3	1	16	30	60
	511	96	0	2	38	22	34
	512	157	1	5	41	51	59
	513	219	8	8	26	55	122
6	601	212	7	6	50	52	97
	602	215	6	4	33	85	87
	603	216	4	7	48	63	94
	604	343	3	19	91	79	151
	605	246	11	7	36	76	116
	606	173	4	5	22	68	74
	607	178	6	8	26	57	81
	608	134	4	2	29	51	48
	609	230	4	4	37	91	94
	610	197	4	9	59	48	77

	PSA	Total Victims	Homicide Victims	Sexual Assault Victims	Robbery Victims	Aggravated Assault Victims	Simple Assault Victims
7	701	136	2	2	12	47	73
	702	337	5	12	50	110	160
	703	345	6	5	45	115	174
	704	191	5	5	16	81	84
	705	354	8	10	26	118	192
	706	238	3	6	46	80	103
	707	245	5	7	33	99	101
	708	152	3	4	31	56	58
	709	300	3	7	45	114	131
	710	269	3	14	58	84	110
	711	153	3	3	33	52	62