SECTION V

Special Report

VIOLENCE AMONG FAMILY MEMBERS AND INTIMATE PARTNERS

INTRODUCTION

The phenomenon of violence among family members has been present in Western society throughout its history. It is a significant societal as well as an individual problem, but it has not always been considered a crime. History records instances of wife beating as early as the time of the Roman Empire. Further, the English common law as codified by jurist Sir William Blackstone in 1768 affirmed the right of a husband to physically chastise his wife as long as "the stick was no bigger than his thumb." This right was upheld by an appellate court in North Carolina as late as 1867.[1]

M. A. Straus and R. J. Gelles, who have authored several works about family violence, also categorized instances of child abuse throughout history. Some of the cases they examined date to biblical times. "Infanticide, mutilation, and other forms of violence were legal parental prerogatives from ancient Rome to colonial America."[2]

Child abuse was identified as a social problem by church and social workers in the last quarter of the nineteenth century. However, it was not until C. Henry Kemper published his 1962 study, "The Battered Child Syndrome"[3] that child abuse found its way onto the public agenda. Likewise, it was not until the 1970s that wife beating was recognized as a problem and that significant scholarly research on spousal abuse began. In their writings, Straus and Gelles (1988) and Straus (2000) listed some of the factors that led to the reformation in our society's view of family violence. Those factors included the social movements of the 1960s that undertook to aid oppressed groups; the growth in paid employment of married women; the re-emergence of the women's movement in the 1970s; the provision of shelters for battered women; public abhorrence of violence evidenced by the rising homicide and assault rates; violent political and social protests; assassinations; terrorist activity; the Vietnam War; the critical reassessment of the family; and changes in theoretical perspectives in sociology, family studies, and criminology.[4]

Measuring Domestic Violence

The subject of domestic violence is broad in scope and there are many ways to measure it. For example, the Department of Justice's National Crime Victimization Survey (NCVS) questions individuals regarding their victimization experiences. Investigators from other agencies examine hospital records and physicians' reports to determine the frequency of broken bones and use that information as evidence of child or spousal abuse.[5]

The present work investigates the problem of violence among intimate partners and other family members by examining the incidents reported to law enforcement who, in turn, submitted data to the Uniform Crime Reporting (UCR) Program. The years considered are 1996 through 2001. Although there are other studies of this criminal phenomenon from the vantage point of the victim or from a public health perspective, this study is confined to the experiences of victims in close relationships with their offenders. Some additional data presented in this report are from other sources and are tendered to underline the nature of the phenomenon. However, those data are presented only as background information.

Data from the UCR Program clearly demonstrate that violence among family members is a prevalent problem. For instance, the Program's 1996 Supplementary Homicide Report[6] (SHR) showed that 30 percent of all female victims of murder or nonnegligent manslaughter in the U.S. were killed by their husbands, ex-husbands, or boyfriends.[7] The 2000 SHR data indicated that of the 3,173 women homicide victims for which supplemental data were provided, 1,029 were killed by their husbands, former husbands, or boyfriends. Further, data from the UCR Program's National Incident-Based Reporting System (NIBRS) for 2001 showed that an estimated 38,614 women were beaten and/or sexually assaulted by family members.[8]

Intimate Partner and Spousal Abuse

Domestic violence takes many forms including intimate partner and spousal abuse, child abuse, and elder abuse. Regarding spousal abuse, data from the American Psychological Association (APA)[9] indicate that one-third of all adult women will be assaulted by a partner during adulthood. The Centers for Disease Control and Prevention reported that "nearly two-thirds of women who reported being raped, physically assaulted, or stalked since the age of 18 were victimized by a current or former husband, cohabiting partner, boyfriend, or date."[10] Further, one in three of these women were injured.[11]

Reports from the NCVS from 1992 to 1996 showed that, without adjusting for socioeconomic status, an average of 12 per 1,000 black women experienced violence by an intimate partner compared to an estimated 8 per 1,000 white women.[12]

In studies of visits to hospital emergency rooms in 1994, the Bureau of Justice Statistics reported that women accounted for nearly 40 percent of all the patients in need of treatment for violent victimizations. Thirty-six percent of these victims were attacked by their intimate partners.[13] Female victims were more likely than male victims to require medical attention, take time off work, and spend more days in bed.[14] Moreover, the National Research Council argues that the psychological costs for these victims are quite high and "can include depression, suicidal thoughts and attempts, lowered self-esteem, alcohol and other drug abuse, and post-traumatic stress disorder."[15]

According to Straus and Gelles, perpetrators of violence are more likely to have had a history of physical or sexual abuse themselves or were victims of threats of abuse. Furthermore, men who abuse their partners are more likely to abuse their children.[16]

Both victims and perpetrators of domestic violence are more likely to abuse alcohol. Statistics from the National Institute on Alcohol Abuse and Alcoholism show that more than 50 percent of male batterers and 20 percent of female victims are alcohol abusers.[17]

Surveys taken by the NCVS between 1992 and 1996 indicated that financial losses to women victims of non-lethal intimate violence amounted to more than $150 million per year. This amount was made up of medical costs (approximately 40 percent), property losses (about 44 percent), and the rest comprised lost pay.[18]

Child Abuse

Men are more likely to be the offenders in cases of physical and sexual abuse against children. Approximately 10 percent of all injuries to children under 7 years of age who are examined in emergency rooms come from abuse.[19]

More than 50 percent of murder victims under the age of 12 are killed by a parent. About 3.3 million children each year witness acts of violence by family members against their mothers or female caretakers. The APA estimates that 16 to 34 percent of girls and 10 to 20 percent of boys are sexually abused, most often by a family member or trusted family friend. The APA has for a long time indicated that children who experience violence are at greater risk of becoming adult abusers. The Association terms this the "cycle of violence."[20]

Children at risk for being abused include those who are unwanted, who have physical or mental disabilities, and whose parents are under stress (e.g., parents with more than four children, those who make less than $15,000 annually, those who abuse drugs, or young mothers who are isolated from others outside the family.)[21]

The U.S. Advisory Board on Child Abuse and Neglect reports that there are particular characteristics that are associated with child abusers. Usually, the offenders are in their mid-20s, do not have high school educations, live at or below the poverty level, suffer from depression, and may have difficulty coping with stressful situations.[22]

Elder Abuse

Elder abuse affects thousands of individuals each year, but according to the National Center on Elder Abuse,[23] the incidents are underreported. Few studies examine this topic; however, a 1997 study of case reports of various protective agencies by the National Center on Elder Abuse found that neglect is the most common form of elder maltreatment in domestic settings, and adult children are the most frequent abusers of the elderly. From the data that were available, authors Tatara, Kuzmeskus, and Duckhorn (1997) found that cases of elder neglect increased substantially over the years 1990 to 1996, rising from 47 percent in 1990 to 55 percent in 1996.[24]

Also according to Tatara, Kuzmeskus, and Duckhorn, most elderly victims of abuse were female, but from 1990 to 1996, the gap between male and female victims narrowed somewhat, changing from 68.3 percent female/31.5 percent male in 1990 to 67.3 percent female/32.4 percent male in 1996.[25] Additionally, they found that nearly a third of the murders of victims 60 years of age or older were committed by a family member. Further, most elder abuse was committed by someone with whom the elderly victim lived. Because most caregivers for the elderly are women, they found that most of the neglect cases were committed by female family members. On the other hand, the most frequent offenders of physical abuse against the elderly were male family members.[26]

OBJECTIVES

This study examines violent crime incidents in which at least one of the offenders and one of the victims are related within the family. The crimes included in this analysis are murder and nonnegligent manslaughter, forcible rape, aggravated assault, simple assault, intimidation, forcible sodomy, sexual assault with an object, forcible fondling, and kidnapping/abduction.

The relationships included in this study fall into the categories of family members and intimate partners and include spouse, common-law spouse, parent, sibling, child, grandparent, grandchild, in-law, stepparent, stepchild, stepbrother or stepsister, boyfriend, girl-

friend, ex-wife, ex-husband, and other family member.

The general objective of this study is to analyze the domestic violence data that are provided in the UCR Program's NIBRS data. It will show the types of crimes that are committed in domestic disputes (e.g., assaults, rapes, and sexual assaults). The relationships of the individuals involved (i.e., partner or ex-partner, parent, or other relationship) are examined. Further, variables such as the number and degree of injury in the cases, the weapons used, and the severity of the sustained injuries are included.

Study Question 1—Characteristics of the Incidents and Offenses

The level of analysis in this study question is the incident itself. In the NIBRS data that were used in this study, an incident includes all the family violence offenses within a single incident, whether the offense is against an intimate partner, a child, or an elder. Variables that describe the incident such as the number of incidents per year, the use of alcohol, and the violence involved (i.e., homicides, injuries, and types of weapons used) are addressed in question 1.

Study Question 2—Victims, Offenders, and Relationship Status

Question 2 concerns the victim and offender characteristics. The age, sex, and race of the victims and offenders are examined here. The incidents are broken down by the selected relationships of victim to offender (intimate partner, child/offspring, or elderly relative).

This question also concerns the relationships of the victims to the offenders. In this section, different crime categories are examined by types of incidents to show the similarities and differences between them.

DATA

The UCR's National Incident-Based Reporting System (NIBRS) data from 1996-2001

Data for this study came from the UCR Program's NIBRS database. The NIBRS, which is the redesigned, expanded version of the Program's original Summary system, was established in the 1980s, and a limited number of agencies began submitting data to the FBI via the NIBRS in January 1989. This database contains information on each single incident and arrest reported by the participating local, county, and state law enforcement agencies. The NIBRS collects data for 22 crime categories and includes information about each incident, the offenses committed within the incident, and details about the victim and offender. The data collected by this method provide a rich, disaggregated source of information that can be used to enhance law enforcement and crime research as well as assist officials in strategic and administrative decision-making.

METHODS

The years considered for this study are 1996 through 2001. Frequency distributions and cross tabulations are used to explore the data and to address the Study Questions.

For this report, relationships that fall into the spousal abuse category are defined as those in which the victim and offender were related as spouse, common-law spouse, ex-spouse, boyfriend, or girlfriend. Child abuse cases are defined as those in which at least one victim was below age 18. However, when relationships are considered in the data presented in this study, the term child can also mean the offspring (adult or juvenile) of a victim or offender. Footnotes are provided in the appropriate tables to clarify how this classification applies. Elderly abuse cases are defined as those in which as least one victim was above age 65 and had a familial relationship to one of the offenders.

FINDINGS

Incident Characteristics

Number of Incidents and Offenses

Table 5.1 shows the total number of incidents reported to the UCR Program via the NIBRS for each year from 1996 through 2001. The number of incidents reflect violent and property crimes. As expected, the numbers steadily increased over the period as more jurisdictions began reporting data via the NIBRS. The total number of incidents over the period was 12,545,546, and of those, 2,929,070 (23.3 percent) contained at least one violent offense.

Table 5.2 presents the number of incidents reported each year containing at least one violent offense. During the timeframe of this study, simple assault was the most prevalent violent crime, present in 57.6 percent of the total violent incidents. Aggravated assault and intimidation followed comprising 16.1 percent and 15.5 percent, respectively.

Table 5.3 also shows the prevalence of the violent offenses examined in this study. The highest percentages

Table 5.1

Number of Incidents Reported in NIBRS, 1996-2001

	Total incidents	*Incidents containing at least one violent crime*	*Percentage of total incidents containing at least one violent crime*
1996	1,064,763	255,111	23.96
1997	1,426,978	330,167	23.14
1998	1,822,675	435,641	23.90
1999	2,157,326	530,751	24.60
2000	2,841,523	697,230	24.54
2001	3,232,281	680,170	21.04
TOTAL	**12,545,546**	**2,929,070**	**23.35**

Table 5.2

Number of Incidents with a Violent Crime, NIBRS by Crime Type, 1996-2001

	1996	Percent of total	1997	Percent of total	1998	Percent of total	1999	Percent of total	2000	Percent of total	2001	Percent of total	Number of incidents	Percent of total
Murder/Nonnegligent Manslaughter	596	0.23	708	0.21	963	0.22	1,176	0.22	1,570	0.23	1,500	0.22	6,513	0.22
Negligent Manslaughter	67	0.03	60	0.02	105	0.02	115	0.02	146	0.02	112	0.02	605	0.02
Justifiable Homicide	18	0.01	20	0.01	14	*	25	*	40	0.01	50	0.01	167	0.01
Forcible Rape	4,957	1.94	6,868	2.08	10,213	2.34	11,408	2.15	14,310	2.05	14,531	2.14	62,287	2.13
Forcible Sodomy	1,335	0.52	1,743	0.53	2,661	0.61	3,159	0.60	3,395	0.49	3,231	0.48	15,524	0.53
Sexual Assault with an Object	741	0.29	1,079	0.33	1,447	0.33	1,648	0.31	2,165	0.31	1,759	0.26	8,839	0.30
Forcible Fondling	5,898	2.31	7,804	2.36	10,802	2.48	13,521	2.55	16,616	2.38	15,698	2.31	70,339	2.40
Incest	199	0.08	288	0.09	301	0.07	386	0.07	433	0.06	400	0.06	2,007	0.07
Statutory Rape	954	0.37	1,061	0.32	1,521	0.35	1,957	0.37	2,347	0.34	2,456	0.36	10,296	0.35
Robbery	11,809	4.63	14,719	4.46	19,735	4.53	22,973	4.33	34,577	4.96	36,521	5.37	140,334	4.79
Aggravated Assault	49,113	19.25	60,551	18.34	73,839	16.95	81,584	15.37	105,411	15.12	102,042	15.00	472,540	16.13
Simple Assault	144,141	56.50	187,857	56.90	251,316	57.69	308,361	58.10	407,021	58.38	387,315	56.94	1,686,011	57.56
Intimidation	35,283	13.83	47,409	14.36	62,724	14.40	84,438	15.91	109,199	15.66	114,555	16.84	453,608	15.49
TOTAL	**255,111**	**100.00**	**330,167**	**100.00**	**435,641**	**100.00**	**530,751**	**100.00**	**697,230**	**100.00**	**680,170**	**100.00**	**2,929,070**	**100.00**

Due to rounding, the percent of total may not add to 100.00 percent.
*Less than 1 one-hundreth of 1 percent.

of violent offenses for each year were for simple assault (57.6 percent average), aggravated assault (16.5 percent average), and intimidation (15.1 percent average). Each of the remaining crime categories reflected percentages less than 5.5 percent.

Relationships in Violent Offenses

Tables 5.4 and 5.5 show the relationships of the victims to the offenders in the violent offenses studied. Table 5.4 shows all relationship categories that were available and that applied to this study. Of the 3,031,884 violent offenses reported during the period, there were 3,534,254 offenses for which the UCR Program knew the relationships of victims to offenders. Of these, 1,551,143 were familial relationships, and the totals for each of these categories are provided in Table 5.5, broken down by year. The most prevalent relationship was boyfriend/girlfriend (29.6 percent) followed by spouse (24.4 percent). When spouse, common-law spouse, and ex-spouse were considered together, the percentage of the total rose to 32.4 percent.

Table 5.6 shows violent offenses by the type of abuse being studied. There were 873,732 offenses; 53 percent were spousal abuse; 719,752, or 44 percent, were child abuse; and 47,695, or 3 percent, were elder abuse. Simple assault was the most prevalent offense in all three relationship categories followed by aggravated assault and intimidation in the spousal abuse category.

In the case of child abuse, simple assault was the most prevalent offense, followed by the sum of the sexual assaults, then aggravated assault, and intimidation.

In the elderly abuse categories, simple assault comprised the largest offense total, followed by intimidation, robbery, and aggravated assault. Most sex offenses (i.e., forcible rape, forcible sodomy, sexual assault with an object, forcible fondling, incest, and statutory rape) fall in the category of child abuse, comprising 122,644, or 17.0 percent, of those offenses.

Weapons

The weapons used in violent offenses in which there was a familial relationship are broken down by year in Table 5.7. For each year studied, the most prevalent weapon used were those categorized by the UCR as "personal" (i.e., hands, fists, or feet). Nearly 70 percent of violent offenses involving familial relationships were carried out using this type of weapon. Following personal weapons, no weapons (11.4 percent) and knives, handguns, and blunt objects, (between 3 and 4 percent) were used most often to carry out the most common offenses reported for the period.

Weapon use in offenses involving familial relationships broken down by the three types of relationships studied is presented in Table 5.8. Personal weapons were used most often in cases of spousal and child abuse, (78.4 percent and 73.3 percent, respectively). However, in the elderly abuse category,

Table 5.3

Number of Offenses, by Violent Crime, 1996-2001

	1996	Percent of total	1997	Percent of total	1998	Percent of total	1999	Percent of total	2000	Percent of total	2001	Percent of total	Number of offenses	Percent of all offenses
Murder/Nonnegligent Manslaughter	594	0.23	702	0.21	959	0.22	1,176	0.22	1,570	0.23	1,820	0.23	6,821	0.22
Negligent Manslaughter	67	0.03	59	0.02	104	0.02	114	0.02	146	0.02	138	0.02	628	0.02
Justifiable Homicide	18	0.01	20	0.01	14	*	25	*	40	0.01	58	0.01	175	0.01
Forcible Rape	4,929	1.93	6,821	2.07	10,171	2.34	11,373	2.14	14,302	2.05	16,204	2.07	63,800	2.10
Forcible Sodomy	1,327	0.52	1,728	0.52	2,639	0.61	3,152	0.59	3,392	0.49	3,819	0.49	16,057	0.53
Sexual Assault with an Object	737	0.29	1,073	0.33	1,440	0.33	1,634	0.31	2,163	0.31	2,163	0.28	9,210	0.30
Forcible Fondling	5,854	2.30	7,733	2.34	10,743	2.47	13,481	2.54	16,607	2.38	17,796	2.27	72,214	2.38
Incest	194	0.08	282	0.09	301	0.07	380	0.07	433	0.06	458	0.06	2,048	0.07
Statutory Rape	951	0.37	1,056	0.32	1,510	0.35	1,948	0.37	2,346	0.34	2,806	0.36	10,617	0.35
Robbery	11,805	4.63	14,709	4.46	19,718	4.53	22,969	4.33	34,572	4.96	42,855	5.46	146,628	4.84
Aggravated Assault	49,083	19.26	60,524	18.35	73,818	16.96	81,569	15.38	105,405	15.12	114,002	14.54	484,401	15.98
Simple Assault	144,061	56.52	187,785	56.93	251,158	57.70	308,269	58.11	407,006	58.38	454,558	57.97	1,752,837	57.81
Intimidation	35,263	13.83	47,385	14.36	62,685	14.40	84,412	15.91	109,191	15.66	127,512	16.26	466,448	15.38
TOTAL	**254,883**	**100.00**	**329,877**	**100.00**	**435,260**	**100.00**	**530,502**	**100.00**	**697,173**	**100.00**	**784,189**	**100.00**	**3,031,884**	**100.00**

Due to rounding, the percent of total may not add to 100.00 percent
*Less than 1 one-hundreth of 1 percent.

Table 5.4

Relationship of Victim to Offender, 1996-2001

Relationship to Victim	Year 1996 Number	1996 Percent	1997 Number	1997 Percent	1998 Number	1998 Percent	1999 Number	1999 Percent	2000 Number	2000 Percent	2001 Number	2001 Percent	Total Number	Total Percent
Spouse	33,432	11.32	42,880	11.24	54,552	10.77	67,662	10.99	87,681	10.77	92,896	10.08	379,103	10.73
Common-Law Spouse	7,225	2.45	9,371	2.46	13,253	2.62	14,910	2.42	17,229	2.12	17,105	1.86	79,093	2.24
Parent	6,910	2.34	9,222	2.42	12,200	2.41	15,842	2.57	21,028	2.58	24,171	2.62	89,373	2.53
Sibling	7,505	2.54	9,605	2.52	12,815	2.53	16,177	2.63	21,206	2.60	24,588	2.67	91,896	2.60
Child	7,312	2.47	10,012	2.63	14,313	2.83	18,185	2.95	23,943	2.94	26,567	2.88	100,332	2.84
Grandparent	315	0.11	452	0.12	618	0.12	783	0.13	1,122	0.14	1,348	0.15	4,638	0.13
Grandchild	502	0.17	606	0.16	939	0.19	1,095	0.18	1,344	0.17	1,440	0.16	5,926	0.17
In-Law	2,346	0.79	2,854	0.75	3,595	0.71	4,450	0.72	5,389	0.66	6,001	0.65	24,635	0.70
Stepparent	1,165	0.39	1,485	0.39	2,258	0.45	3,000	0.49	3,804	0.47	4,345	0.47	16,057	0.45
Stepchild	1,920	0.65	2,413	0.63	3,464	0.68	4,300	0.70	5,509	0.68	6,037	0.66	23,643	0.67
Stepsibling	326	0.11	493	0.13	720	0.14	890	0.14	1,266	0.16	1,335	0.14	5,030	0.14
Other Family Member	5,784	1.96	7,313	1.92	10,947	2.16	14,336	2.33	19,112	2.35	22,435	2.43	79,927	2.26
Boyfriend/Girlfriend	35,805	12.12	48,650	12.76	62,133	12.27	77,247	12.55	108,280	13.30	126,556	13.73	458,671	12.98
Child of Boyfriend/Girlfriend	808	0.27	1,054	0.28	1,482	0.29	1,840	0.30	2,404	0.30	2,894	0.31	10,482	0.30
Ex-Spouse	3,879	1.31	4,922	1.29	6,213	1.23	7,911	1.29	10,055	1.24	11,659	1.27	44,639	1.26
Acquaintance	72,411	24.51	88,514	23.21	110,506	21.82	124,845	20.28	157,013	19.29	176,002	19.10	729,291	20.63
Friend	8,379	2.84	10,051	2.64	13,796	2.72	17,086	2.78	22,720	2.79	24,422	2.65	96,454	2.73
Neighbor	4,703	1.59	6,389	1.68	8,670	1.71	10,845	1.76	13,950	1.71	15,863	1.72	60,420	1.71
Babysittee (the baby)	346	0.12	455	0.12	595	0.12	665	0.11	742	0.09	778	0.08	3,581	0.10
Homosexual relationship	296	0.10	492	0.13	757	0.15	968	0.16	1,578	0.19	2,027	0.22	6,118	0.17
Employee	725	0.25	1,123	0.29	1,338	0.26	1,742	0.28	2,388	0.29	2,821	0.31	10,137	0.29
Employer	572	0.19	862	0.23	1,034	0.20	1,391	0.23	1,731	0.21	1,922	0.21	7,512	0.21
Stranger	36,725	12.43	44,114	11.57	53,302	10.53	60,622	9.85	83,666	10.28	95,169	10.33	373,598	10.57
Victim was Offender[1]	17,447	5.91	22,003	5.77	27,873	5.50	34,016	5.53	47,280	5.81	55,772	6.05	204,391	5.78
Otherwise Known	13,692	4.63	20,979	5.50	30,918	6.11	41,675	6.77	57,798	7.10	67,205	7.29	232,267	6.57
Unknown	24,920	8.43	35,092	9.20	58,134	11.48	72,986	11.86	95,850	11.77	110,058	11.94	397,040	11.23
TOTAL	**295,450**	**100.00**	**381,406**	**100.00**	**506,425**	**100.00**	**615,469**	**100.00**	**814,088**	**100.00**	**921,416**	**100.00**	**3,534,254**	**100.0**

[1]The category "Victim was Offender" is used in cases where all of the participants in an incident were victims and offenders of the same offense such as domestic disputes where both husband and wife are charged with assault, double murders, etc.
Due to rounding, the percent of total may not add to 100.00 percent.

Table 5.5

Relationship of Victim to Offender, Within Family Relationship, 1996-2001

Relationship to Victim	Year													
	1996		1997		1998		1999		2000		2001		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Spouse	33,432	26.38	42,880	25.86	54,552	24.97	67,662	24.90	87,681	24.27	92,896	22.82	379,103	24.44
Common-Law Spouse	7,225	5.70	9,371	5.65	13,253	6.07	14,910	5.49	17,229	4.77	17,105	4.20	79,093	5.10
Parent	6,910	5.45	9,222	5.56	12,200	5.58	15,842	5.83	21,028	5.82	24,171	5.94	89,373	5.76
Sibling	7,505	5.92	9,605	5.79	12,815	5.87	16,177	5.95	21,206	5.87	24,588	6.04	91,896	5.92
Child	7,312	5.77	10,012	6.04	14,313	6.55	18,185	6.69	23,943	6.63	26,567	6.53	100,332	6.47
Grandparent	315	0.25	452	0.27	618	0.28	783	0.29	1,122	0.31	1,348	0.33	4,638	0.30
Grandchild	502	0.40	606	0.37	939	0.43	1,095	0.40	1,344	0.37	1,440	0.35	5,926	0.38
In-Law	2,346	1.85	2,854	1.72	3,595	1.65	4,450	1.64	5,389	1.49	6,001	1.47	24,635	1.59
Stepparent	1,165	0.92	1,485	0.90	2,258	1.03	3,000	1.10	3,804	1.05	4,345	1.07	16,057	1.04
Stepchild	1,920	1.51	2,413	1.46	3,464	1.59	4,300	1.58	5,509	1.52	6,037	1.48	23,643	1.52
Stepsibling	326	0.26	493	0.30	720	0.33	890	0.33	1,266	0.35	1,335	0.33	5,030	0.32
Other Family Member	5,784	4.56	7,313	4.41	10,947	5.01	14,336	5.27	19,112	5.29	22,435	5.51	79,927	5.15
Boyfriend/Girlfriend	35,805	28.25	48,650	29.34	62,133	28.44	77,247	28.42	108,280	29.97	126,556	31.10	458,671	29.57
Child of Boyfriend/Girlfriend	808	0.64	1,054	0.64	1,482	0.68	1,840	0.68	2,404	0.67	2,894	0.71	10,482	0.68
Ex-Spouse	3,879	3.06	4,922	2.97	6,213	2.84	7,911	2.91	10,055	2.78	11,659	2.86	44,639	2.88
Victim was Offender[1]	9,744	7.69	12,318	7.43	15,868	7.26	19,239	7.08	27,397	7.58	32,634	8.02	117,200	7.56
Otherwise Known	393	0.31	572	0.34	1,226	0.56	1,943	0.71	2,301	0.64	2,506	0.62	8,941	0.58
Unknown	1,373	1.08	1,586	0.96	1,890	0.87	1,975	0.73	2,256	0.62	2,477	0.61	11,557	0.75
TOTAL	**126,744**	**100.00**	**165,808**	**100.00**	**218,486**	**100.00**	**271,785**	**100.00**	**361,326**	**100.00**	**406,994**	**100.00**	**1,551,143**	**100.00**

[1]The category "Victim was Offender" is used in cases where all of the participants in an incident were victims and offenders of the same offense such as domestic disputes where both husband and wife are charged with assault, double murders, etc.

Due to rounding, the percent of total may not add to 100.00 percent

Table 5.6

Violent Offenses, by Family Relationship, 1996-2001

	Spouse	Child	Elderly relative
Murder/Nonnegligent Manslaughter	1,226	1,061	444
Negligent Manslaughter	38	200	51
Justifiable Homicide	7	14	5
Forcible Rape	8,195	33,644	432
Forcible Sodomy	852	12,112	78
Sexual Assault with an Object	612	6,588	71
Forcible Fondling	1,920	57,941	363
Incest	88	1,789	5
Statutory Rape	2,765	10,570	3
Robbery	1,801	19,080	7,140
Aggravated Assault	115,769	102,675	6,919
Simple Assault	647,286	397,775	20,955
Intimidation	93,173	76,303	11,229
TOTAL	**873,732**	**719,752**	**47,695**

personal weapons constituted only 36.1 percent of the offenses involving weapons. Almost 44 percent of elder abuse offenses involved the use of a handgun.

Victims, Offenders, and Relationships

Substance Abuse

Table 5.9 shows the number of family violence incidents in which substance abuse was involved. The overwhelming majority of these situations involved alcohol, which was used in 99.8 percent of violent family incidents for which there was a substance abuse code.

Substance abuse in offenses involving the three domestic relationships studied is presented in Table 5.10. In all three relationships, more than 99 percent of the offenses involving abused substances involved alcohol.

Table 5.7

Use of Weapons in Violent Offenses, 1996-2001

	1996	*Percent of total*	*1997*	*Percent of total*	*1998*	*Percent of total*	*1999*	*Percent of total*	*2000*	*Percent of total*	*2001*	*Percent of total*	**Total**	**Percent of total**
Firearm (Type Unknown)	1,678	0.78	2,184	0.79	2,506	0.70	3,478	0.82	5,195	0.93	5,245	0.97	**20,286**	**0.86**
Handgun	9,330	4.36	10,808	3.92	13,214	3.68	15,165	3.58	22,821	4.08	24,791	4.60	**96,129**	**4.05**
Rifle	712	0.33	857	0.31	1,084	0.30	1,213	0.29	1,481	0.26	1,418	0.26	**6,765**	**0.29**
Shotgun	1,313	0.61	1,471	0.53	1,741	0.49	2,076	0.49	2,545	0.45	2,485	0.46	**11,631**	**0.49**
Other Firearm	384	0.18	507	0.18	757	0.21	681	0.16	969	0.17	965	0.18	**4,263**	**0.18**
Knife/Cutting Instrument	11,399	5.33	13,421	4.87	16,535	4.61	19,214	4.53	24,747	4.42	25,510	4.73	**110,826**	**4.67**
Blunt Object	11,128	5.20	12,222	4.43	13,676	3.81	14,582	3.44	19,813	3.54	19,841	3.68	**91,262**	**3.85**
Motor Vehicle	2,445	1.14	3,093	1.12	4,313	1.20	5,123	1.21	7,101	1.27	7,811	1.45	**29,886**	**1.26**
Personal Weapons (hands, fists, feet, etc.)	154,076	72.04	197,632	71.69	247,287	68.96	287,413	67.78	381,916	68.23	369,559	68.53	**1,637,883**	**69.07**
Poison	38	0.02	38	0.01	67	0.02	72	0.02	79	0.01	89	0.02	**383**	**0.02**
Explosives	42	0.02	37	0.01	72	0.02	104	0.02	132	0.02	125	0.02	**512**	**0.02**
Fire/Incendiary Device	117	0.05	145	0.05	147	0.04	205	0.05	275	0.05	293	0.05	**1,182**	**0.05**
Asphyxiation	21	0.01	34	0.01	59	0.02	111	0.03	133	0.02	100	0.02	**458**	**0.02**
Unknown Weapon	5,084	2.38	9,385	3.40	10,991	3.06	13,969	3.29	27,199	4.86	21,992	4.08	**88,620**	**3.74**
No Weapon	16,112	7.53	23,832	8.65	46,168	12.87	60,623	14.30	65,381	11.68	59,032	10.95	**271,148**	**11.43**
TOTAL	**213,879**	**100.00**	**275,666**	**100.00**	**358,617**	**100.00**	**424,029**	**100.00**	**559,787**	**100.00**	**539,256**	**100.00**	**2,371,234**	**100.00**

Due to rounding, the percent of total may not add to 100.00 percent.

Gender, Race, and Age

Victims of violent family crimes tend to be female. Table 5.11 presents the overall breakdown, indicating that 74.8 percent of the victims were female.

The races of the victims of violent crime are presented in Table 5.12. Over 70 percent of the victims were white; black victims accounted for a little more than 27 percent of all victims.

Age groups of victims of domestic violence are presented in Table 5.13. As we would expect, the 18 to 65 age group is the most prevalent, comprising 83.4 percent of the victims. The two juvenile groups follow. The elderly group is very small; the over-65 age group accounted for 1.1 percent of the violent crime victims in familial relationships.

Table 5.14 displays the number of events or confrontations by the age ranges of the victims and their offenders. The first part of the table contains the total number of all confrontations by all victims and offenders (broken down by age range). These data were reported to the UCR Program via the NIBRS from 1996–2001. Most of the confrontations involved victims and offenders in the 18 to 65 age category.

The second part of the table shows the number of confrontations where a familial relationship exists between the victim and the offender. Again, the highest number of confrontations occurred where both victims and offenders were in the 18 to 65 age group.

The third section of the table contains the number of confrontations that could be considered spousal abuse by the age groups of victims and by the age groups of offenders. As expected,

Table 5.8

Use of Weapons
Number of Offenses by Family Relationship, 1996-2001

	Spouse	*Percent of total*	*Child*	*Percent of total*	*Elderly relative*	*Percent of total*
Firearm (Type Unknown)	1,679	0.22	91	0.11	2,253	8.22
Handgun	8,997	1.18	450	0.57	11,989	43.72
Rifle	1,464	0.19	115	0.14	67	0.24
Shotgun	2,189	0.29	130	0.16	103	0.38
Other Firearm	202	0.03	29	0.04	7	0.03
Knife/Cutting Instrument	26,415	3.46	1,287	1.62	396	1.44
Blunt Object	17,721	2.32	2,078	2.62	593	2.16
Motor Vehicle	6,867	0.90	369	0.47	72	0.26
Personal Weapons (hands, fists, feet, etc.)	599,072	78.37	58,141	73.28	9,889	36.06
Poison	78	0.01	5	0.01	10	0.04
Explosives	22	*	2	*	1	*
Fire/Incendiary Device	331	0.04	73	0.09	19	0.07
Asphyxiation	200	0.03	37	0.05	8	0.03
Unknown Weapon	19,787	2.59	3,490	4.40	475	1.73
No Weapon	79,397	10.39	13,040	16.44	1,542	5.62
TOTAL	**764,421**	**100.00**	**79,337**	**100.00**	**27,424**	**100.00**

Due to rounding, the percent of total may not add to 100.00 percent.
*Less than 1 one-hundreth of 1 percent.

Table 5.9

Number of Family Violence Incidents Involving Substance Abuse, 1996-2001

Substance	*1996*	*Percent of total*	*1997*	*Percent of total*	*1998*	*Percent of total*	*1999*	*Percent of total*	*2000*	*Percent of total*	*2001*	*Percent of total*	*Total*	*Percent of total*
Alcohol	39,486	99.93	47,088	99.89	59,189	99.83	68,079	99.76	89,877	99.79	79,972	99.78	383,691	99.82
Drugs	27	0.07	52	0.11	100	0.17	163	0.24	188	0.21	173	0.22	703	0.18
TOTAL	**39,513**	**100.00**	**47,140**	**100.00**	**59,289**	**100.00**	**68,242**	**100.00**	**90,065**	**100.00**	**80,145**	**100.00**	**384,394**	**100.00**

Table 5.10

Number of Offenses Involving Substance Abuse by Family Relationship 1996-2001

Substance	*Spouse*	*Percent of total*	*Child*	*Percent of total*	*Elderly relative*	*Percent of total*
Alcohol	182,822	99.96	10,691	99.56	3,476	99.91
Drugs	77	0.04	47	0.44	3	0.09
TOTAL	**182,899**	**100.00**	**10,738**	**100.00**	**3,479**	**100.00**

the greatest number of confrontations involved victims and offenders in the 18- to 65-year-old group (891,514).

The number of confrontations between parent and child by the ages of the victims and the ages of offenders is shown in the fourth section of the table. Most of these confrontations occurred where the offenders were in the 18-to 65-year-old category.

Confrontations involving elderly victims are shown by the age groups of the victims and the age groups of their offenders in the final section of the table. Again, most of the confrontations involved offenders 18 to 65 years old (27,574).

Injuries

The types of injuries suffered by victims of domestic violence during the study period are presented in Table 5.15. Major injuries are defined as those in which the victims suffered broken bones, possible internal injuries, loss of teeth, severe lacerations, or unconsciousness. Major and minor injuries were nearly equal in number for every year except 1997 when the data showed a few more minor injuries than major. Overall, 49.3 percent of the injuries reported were major, and 46.0 percent were minor. No injuries were reported in 4.7 percent of the reported offenses.

The numbers and types of injuries by type of abuse (i.e., spousal, child, and elderly) are presented in Table 5.16. In the spousal abuse category, the most prevalent type of injuries were minor. In child and elderly abuse situations, a majority of the cases involved no reported injuries (50.0 percent in child abuse cases and 50.4 percent in elderly abuse situations). Nearly 47 percent of child abuse cases and 45.1 percent of elderly abuse cases involved minor injuries. In all three categories, less than 5 percent of the cases involved major injuries.

LIMITATIONS

There are several limitations to this study. The UCR Program's Summary data, which comprise approximately 80 to 85 percent of the Program's database, could not be used to develop an in-depth study of this type. Those data are submitted as summary counts for the seven Part I crimes—murder, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft—and cannot be

Table 5.11

Victims of Violent Crime in Family Relationships by Gender, 1996-2001

Gender	*Number*	*Percent of total*
Female	1,041,498	74.82
Male	348,267	25.02
Unknown	2,156	0.15
TOTAL	**1,391,921**	**100.00**

Due to rounding, the percent of total may not add to 100.00 percent.

Table 5.12

Victims of Violent Crime in Family Relationships by Race, 1996-2001

Race	*Number*	*Percent of total*
Asian/Pacific Islander	6,676	0.48
Black	379,884	27.29
American Indian/ Alaskan Native	5,320	0.38
Unknown	22,707	1.63
White	977,334	70.21
TOTAL	**1,391,921**	**100.00**

Due to rounding, the percent of total may not add to 100.00 percent.

Table 5.13

Victims of Violent Crime in Family Relationships by Age, 1996-2001

Age	*Number*	*Percent of total*
0-11	92,865	6.67
12-17	122,948	8.83
18-65	1,160,300	83.36
66 and up	15,808	1.14
TOTAL	**1,391,921**	**100.00**

Table 5.14

Number of Confrontations Specific to Incidents involving Family Relationships by Age of Victim and Offender, 1996-2001

		Offender age 0-11	*Offender age 12-17*	*Offender age 18-65*	*Offender age 66 and up*	***Offender all ages***
All						
	Victim age 0-11	69,911	60,730	163,449	2,892	**296,982**
	Victim age 12-17	41,498	228,466	244,432	2,495	**516,891**
	Victim age 18-65	202,189	192,708	2,095,617	18,335	**2,508,849**
	Victim age 66 and up	5,513	2,936	27,574	5,576	**41,599**
	Victim all ages	**319,111**	**484,840**	**2,531,072**	**29,298**	**3,364,321**
All Family Relationships						
	Victim age 0-11	8,473	14,031	75,443	965	**98,912**
	Victim age 12-17	2,915	30,951	98,374	807	**133,047**
	Victim age 18-65	19,579	73,687	1,077,014	6,995	**1,177,275**
	Victim age 66 and up	289	1,102	11,828	3,284	**16,503**
	Victim all ages	**31,256**	**119,771**	**1,262,659**	**12,051**	**1,425,737**
Significant Other						
	Victim age 0-11	1,707	196	12,180	84	**14,167**
	Victim age 12-17	576	8,829	23,497	54	**32,956**
	Victim age 18-65	11,821	8,548	891,514	4,037	**915,920**
	Victim age 66 and up	46	22	2,422	2,658	**5,148**
	Victim all ages	**14,150**	**17,595**	**929,613**	**6,833**	**968,191**
Parent–Child						
	Victim age 0-11	1,877	2,278	52,831	734	**57,720**
	Victim age 12-17	680	4,399	51,559	614	**57,252**
	Victim age 18-65	564	1,464	29,631	1,683	**33,342**
	Victim age 66 and up	12	5	86	28	**131**
	Victim all ages	**3,133**	**8,146**	**134,107**	**3,059**	**148,445**
Elderly Relative						
	Victim age 0-11	0	0	0	0	–
	Victim age 12-17	0	0	0	0	–
	Victim age 18-65	0	0	0	0	–
	Victim age 66 and up	5,513	2,936	27,574	5,576	**41,599**

Table 5.15

Number and Type of Injuries in Violent Offenses, 1996-2001

	1996	*Percent of total*	*1997*	*Percent of total*	*1998*	*Percent of total*	*1999*	*Percent of total*	*2000*	*Percent of total*	*2001*	*Percent of total*	***Number of injuries***	***Percent of total***
Major	102,488	48.46	129,192	47.07	176,386	48.66	215,217	49.55	285,087	49.79	276,795	50.35	**1,185,165**	**49.28**
Minor	94,422	44.65	130,012	47.37	168,686	46.53	200,054	46.06	262,678	45.88	250,099	45.49	**1,105,951**	**45.98**
None	14,573	6.89	15,239	5.55	17,434	4.81	19,091	4.40	24,794	4.33	22,891	4.16	**114,022**	**4.74**
TOTAL	**211,483**	**100.00**	**274,443**	**100.00**	**362,506**	**100.00**	**434,362**	**100.00**	**572,559**	**100.00**	**549,785**	**100.00**	**2,405,138**	**100.00**

Due to rounding, the percent of total may not add to 100.00 percent.

Table 5.16

Number of Injuries in Violent Offenses by Victim Category, 1996-2001

	Spousal abuse	*Percent of total*	*Child abuse*	*Percent of total*	*Elderly abuse*	*Percent of total*
Major	24,769	3.17	2,546	3.01	648	4.54
Minor	425,267	54.37	39,714	46.94	6,436	45.07
None	332,142	42.46	42,344	50.05	7,195	50.39
TOTAL	**782,178**	**100.00**	**84,604**	**100.00**	**14,279**	**100.00**

disaggregated to study an incident. Further, the use of the Hierarchy Rule in the Summary system limits the reporting of data to the offenses that fall inside the "hierarchy" structure of Part I crimes as defined by the UCR Program. In multiple offense situations, this procedure requires the reporting agency to count only the highest offense on the hierarchy list and ignore all others. For example, if a man beat, raped, and murdered his wife, the only offense that would be reported to the UCR Program (if the law enforcement agency was not reporting data via the NIBRS) is murder—the highest crime in the hierarchy. The other offenses would simply be lost data.

NIBRS data are richer and more disaggregated than Summary data. However, NIBRS data are not as universally submitted as are Summary data. Over the decade of the nineties, more states became certified NIBRS participants and began submitting NIBRS data. The number of states submitting NIBRS data has grown from year to year. Even so, as of 2002, there were only 4,239 law enforcement agencies from 24 states using the NIBRS. This number represents 17 percent of the U.S. population and 18 percent of the crime statistics collected by the UCR Program. These data do not represent a scientific sample to reflect the national phenomenon. There are no cities participating in the NIBRS that have populations of 1 million or more inhabitants. There are only 11 cities or consolidated counties that contribute NIBRS data whose populations are 250,000 or more.

A regional analysis would be valuable in this study. Regional variances could indicate cultural differences that could be studied to determine the causes and effects of domestic violence. For this study, however, regional analysis may hide more than it shows. NIBRS data for the period 1996–2001 are available for 20 states and the District of Columbia. Many of these states joined the program some time in the late nineties; therefore, the data for some of these states are not complete for that period. This study may better have been conducted by examining states for a particular year for which each had NIBRS data available.

Even so, until more states contribute NIBRS data, regional analysis will be limited. For example, the West is defined by the UCR Program as Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington. As of 2003, the only states from this region that were participating in the NIBRS program were Arizona, Colorado, Idaho, and Utah. The largest state in the region is California, which has the highest population and the highest number of crimes. In addition, it has many of the largest cities in the region. Its absence from regional statistics could present an inaccurate crime picture of the West.

With these limitations, NIBRS data may not represent the crime experience in the entire United States. Due to these limitations, the results of this study must be interpreted with caution and with the noted caveats.

SUMMARY AND CONCLUSIONS

The objective of depicting violence among family members and intimate partners as reported in the data collected by the FBI's UCR Program has been met. Even though the findings in this report cannot be generalized to the entire country, it has demonstrated the utility of NIBRS data for analyses of this type. Moreover, other crimes or crime categories can be examined at a more in-depth level using NIBRS data. The simple methods used here demonstrate that

characteristics of incidents, offenses, victims, and offenders can be examined across data segments.

These findings are interesting and have significant implications for law- and policymakers. This study and other research concerning the demographic characteristics of the victims, offenders, and locations of domestic violence and information on prior criminal history and probationary status of offenders could be used to paint a fuller picture of the problem. This information could be valuable in enabling law enforcement policymakers, state legislatures, and Congress to develop better, more effective strategies for preventing spousal, child, and elderly abuse.

ENDNOTES

[1] Straus, M. A. and R. J. Gelles. (1988). "Violence in American Families: How Much is There and Why Does It Occur?" In E. W. Nunnally, C. S. Chilman, and F. M. Cox. Troubled Relationships. Families in Trouble Series, v. 3. Newbury Park, CA: Sage (1988), p. 141.

[2] Straus, M. A. (2000). "Family Violence." In E. G. Borgatta and M. L. Borgatta (eds), Encyclopedia of Sociology, Second Edition, v. 2. NY: Macmillan, pp. 981-987. Straus and Gelles. (1988), p. 142.

[3] Kemper, C. Henry. (1962). "The Battered Child Syndrome," Journal of the American Medical Association.

[4] Straus and Gelles. pp. 141-142.

[5] Abbott, J., R. Johnson, J. Kaziol-McLain. (1995). "Domestic Violence Against Women: Incidence and Prevalence in an Emergency Department Population." Journal of the American Medical Association. V. 272: 1763-1767.

[6] Supplementary Homicide Report. (2002). U.S. Department of Justice, Federal Bureau of Investigation.

[7] *Crime in the United States*. (1996). U.S. Department of Justice, Federal Bureau of Investigation.

[8] National Incident-Based Reporting System. (2002). U.S. Department of Justice, Federal Bureau of Investigation.

[9] American Psychological Association http://www.apa.org.

[10] Tjaden, P., N. Thoennes. (2000). Full Report of the Prevalence, Incidence, and Consequences of Intimate Partner Violence Against Women: Findings from the National Violence Against Women Survey. Report for grant 93-IJ-CX-0012, funded by the National Institute of Justice and the Centers for Disease Control and Prevention. Washington, D.C.: NIJ.

[11] Tjaden and Thoennes. (2000).

[12] Rand, M. R. (1997). Violence-Related Injuries Treated in Hospital Emergency Departments. Bureau of Justice Statistics, Special Report. Washington, D.C.: U.S. Department of Justice.

[13] Rand. (1997).

[14] Stets, J. E., M. A. Straus. (1990). "Gender Differences in Reporting Marital Violence and its Consequences." Straus, M. A. and R. J. Gelles, editors. Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families. New Brunswick, NJ: Transaction Publishers, (1990): pp. 151-165.

[15] National Research Council. (1996). Understanding Violence Against Women. Washington, D.C.: National Academy Press, 79-90.

[16] Straus, M. A. and R. J. Gelles, eds., (1990). Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families. New Brunswick, NJ: Transaction Books.

[17] Roizen, J. (1993). "Issues in the Epidemiology of Alcohol and Violence." In S. E. Martin, ed., Alcohol and Interpersonal Violence: Fostering Multidisciplinary Perspectives. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism. NIAAA Research Monograph No. 24, pp. 3-36.

[18] National Crime Victimization Survey, 1992-1996. U.S. Department of Justice, Bureau of Justice Statistics.

[19] APA Online Press Release, http://www.apa.org/releases/facts.html.

[20] APA Online Press Release, http://www.apa.org/releases/facts.html.

[21] APA Online Press Release, http://www.apa.org/releases/facts.html.

[22] U.S. Advisory Board on Child Abuse and Neglect. (1995). A Nation's Shame: Fatal Child Abuse and Neglect in the United States. Washington, D.C.: U.S. Department of Health and Human Services.

[23] Tatara, T., L. M. Kuzmeskus, and E. Duckhorn. (1997). "Trends in Elder Abuse in Domestic Settings," Elder Abuse Information Series No. 2. Report for grant 90-am-0660, funded by the National Center on Elder Abuse. Washington, D.C.: NCEA.

[24] Tatara, Kuzmeskus, and Duckhorn. (1997).

[25] Tatara, Kuzmeskus, and Duckhorn. (1997).

[26] Tatara, Kuzmeskus, and Duckhorn. (1997).

HOMICIDE AS A COMMUNITY PROBLEM IN THE UNITED STATES

The Importance of Homicide as a Community Problem in the United States

Within the realm of criminal justice, probably no offense is as studied as that of homicide. In the United States, most certainly no other offense is treated more seriously in the criminal justice system. The most severe punishments are reserved for those individuals found guilty of homicide, and no statute of limitations exists for homicide as is found in most other types of offenses. Homicide, or fear of homicide, garners an immediate reaction from communities. As such, law enforcement continually focuses efforts on the issues surrounding violent crime such as illegal gun or drug crime crackdowns. Ultimately, they hope to lessen the likelihood of homicide victimization and, as a result, fear within a community.

Patterns of Homicide

To understand the dynamics of any criminal offense, one would focus upon general patterns, and homicide is no exception. These patterns can be expressed in terms of temporal patterns (how homicide has changed over time), spatial patterns (how homicide changes over regions or locations), patterns in the inherent characteristics in terms of victims, offenders or other qualities of the homicide incident, or any combination of these qualities. To provide a thorough review of the studies conducted about homicide is beyond the scope and purpose of this paper. Suffice it to say, there have been numerous studies focusing on any one of the major themes listed above. However, in terms of recognizing patterns in the homicide data, these studies traditionally limit themselves to analyzing only a few dimensions at one time. For example, age-specific rates for victims or offenders may be analyzed over time or space. Even though theoretically possible, difficulties in interpretation arise when traditional pattern analysis techniques, such as cross-tabulations or scatter plots, are used to analyze more than three dimensions at one time. To try to view large complex data sets such as can be found with homicide in order to recognize patterns requires a more sophisticated approach. Newer technologies have made these sophisticated pattern analysis techniques more accessible through both the availability of computing resources and the ease of use.

Pattern Recognition and Data Mining

The underlying goal of pattern recognition is, ultimately, data reduction. Instinctively, humans reduce the amount of information in the world by organizing its constituents into a series of conceptual types. This is accomplished through highlighting important characteristics that define the differences and disregarding the details that add little value. The details of criminal incidents are invaluable to law enforcement to achieve the goals of solving and reducing crime. However, making sense of those details is a challenge when the scope is broader than a single incident. In order to truly use the data, the analyst must first organize the data. This can be done in one of two ways: either conceptual classification or numerical classification.

Conceptual classification methods are often used to identify ideal or polar (extreme) types and are more likely to be drawn from a collective set of experiences that represent the concepts rather than an actual set of cases. Numerical classification uses quantitative techniques to identify like cases that translate into classes. Numerical classification has been more readily used in biology and other sciences rather than in the social realm. However, that practice is beginning to change as the technology involved has become more accessible to a wider audience (Bailey 1994).

The amount of information available to law enforcement via their incident reports and external sources, such as medical examiners offices, drug laboratories, and other sources of intelligence, have placed new demands on already overstretched resources which have limited the time and attention that each law enforcement employee can spend on investigation and analysis. Law enforcement would benefit from the application of newer computer technologies in both hardware and software to help cut a clearer path through their data in order to help define problems in their communities. For these and many other reasons, the pattern recognition capabilities in data mining have become increasingly popular with law enforcement.

Crime analysts also can use pattern recognition techniques common to data mining to examine large criminal justice data sets. In the case of homicide, the Uniform Crime Reporting (UCR) Program through its Supplementary Homicide Report (SHR) collects information on the incident for the vast majority of reported homicides from state and local law enforcement. By using pattern recognition techniques, such as cluster analysis, with homicide incident information, the patterns that occur naturally within the data set can be used to provide a deeper understanding of the

dynamics of homicide in the United States. This can aid more in-depth studies that focus on the underlying causes of or concurrent factors that contribute to homicide.

Objectives of the Study

By using incident-specific information available through the SHR, pattern recognition or data mining techniques can be applied to discern any patterns that exist in the homicide data. One methodology employed is cluster analysis. Cluster analysis uses a series of mathematical computations to identify groups that occur in data sets. These groups, or clusters, could be used to delve beneath the surface of the homicide rate so often quoted to reveal the nature of those rates and to explore them in a regional and temporal context. The objectives could be summarized by the following questions:

- What do the characteristics of homicide incidents reveal about the nature of homicide in the United States?
- How might the homicide data be decomposed to research it over time and space?
- How have the characteristics of homicide changed regionally since 1980?

Methodology

Data

The UCR Program defines murder and nonnegligent homicide as "the willful (nonnegligent) killing of one human being by another" (USDOJ 1984, p. 6). This definition does not include suicides, accidental deaths, assaults to murder, traffic fatalities, or attempted murders. Although justifiable homicides by law enforcement officers in the line of duty or private citizens during the commission of a felony are considered willful killings, they have not been used in the calculation of published murder rates. Since 1962,[1] the FBI has collected information on homicide incidents that can be employed by a variety of users to explore the nature of homicides. This information, the Supplementary Homicide Report, is collected in addition to the official reports of crime used to calculate the national murder rate. The attributes collected on the form include the age, sex, and race of both victim and offender, weapons, relationship of victim to offender, circumstances of the homicide, as well as information on multiple victims and offenders. Additionally, law enforcement submits information on those incidents classified as justifiable homicide by UCR definitions via the SHR. It is included in this analysis.

The SHR data from 1980 through 2002 were recoded to express each incident in terms of 36 characteristics. These characteristics include the presence or absence of such things as juvenile offenders or victims, male victims or offenders, a firearm, or familial relationships between victims and offenders to name a few. More detail can be found on these characteristics in the Appendix of this study. These variables become the basis for the cluster analysis. For the remainder of the analysis, the homicide data are assigned to a county based upon the location and jurisdiction of the reporting agency. These county-level files form the basis of the geographic analysis. Because the incident-level homicide data can have fluctuations based upon the reporting history of the agencies involved as well as rare or extreme events, the data used for this study are the 3-year centered moving averages for each county. For example, the 3-year centered moving average representing levels of homicide for a county for 1982 is the average of the reports for 1981, 1982, and 1983. By using this data smoothing technique, however, the first and last years in the series are lost. The final time series used in this study represent the years 1981 to 2001.

Cluster analysis of homicides incidents to determine types

The methodology of this study focuses on two primary areas: the use of cluster analysis to detect patterns inherent in the data set itself and the mapping of those homicides to a location with the help of geographic information system (GIS) technology.

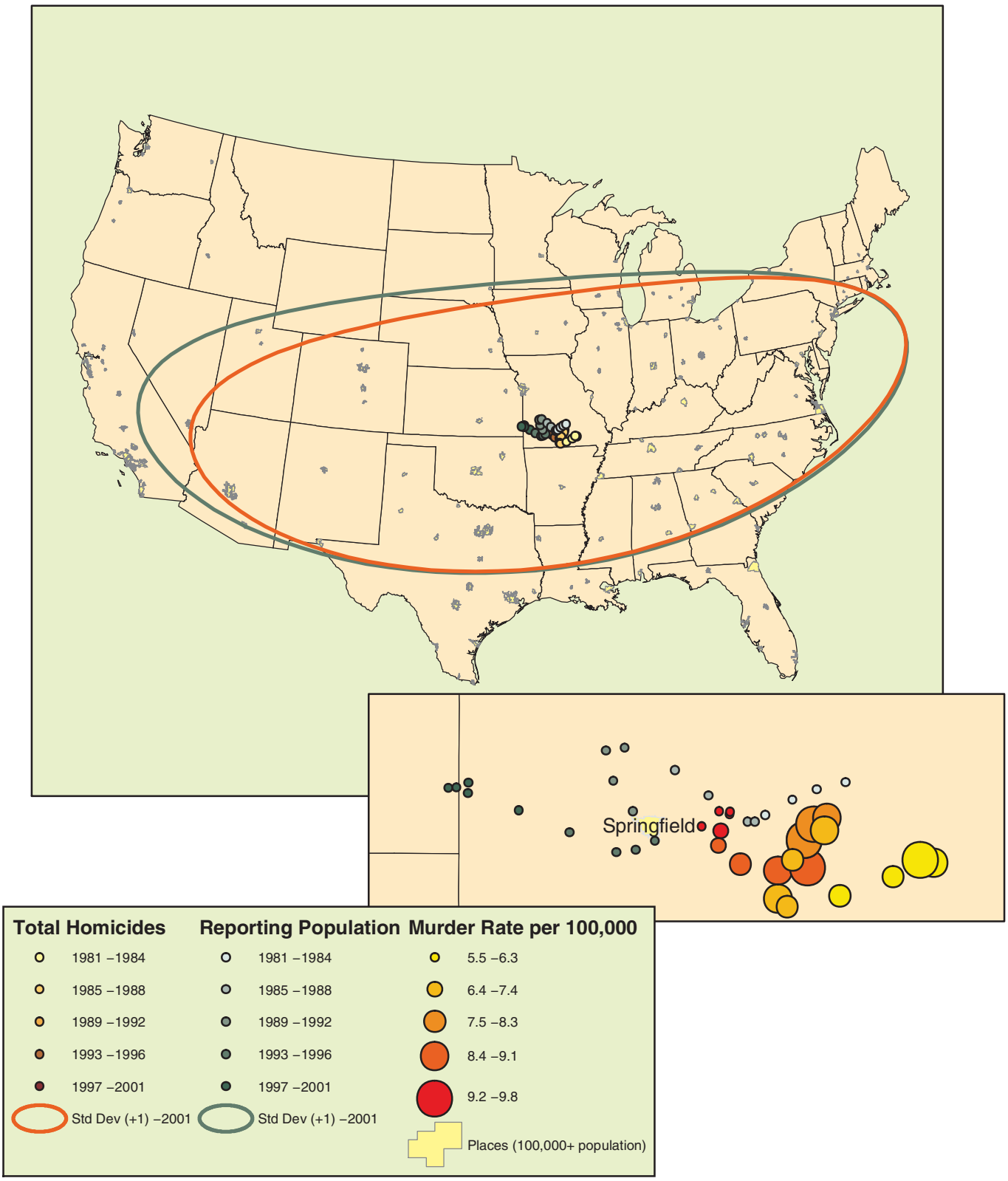
As stated previously, a cluster analysis was performed on the recoded SHR data in order to discern any patterns inherent in the data. Cluster analysis allows for the data to drive the determination of types or groups rather than preconceived ideas of how homicides occur in the nation. It uses measurements of similarity based upon the characteristics of each homicide incident to allow "clustering" of types to be identified. Once the valid and reliable "types" of homicide are determined for each year, each reporting agency's types of homicide will be analyzed within each region to track their spatial movement and to see if they are related to one another or could be considered to be related to population movements. For a more thorough discussion of the technique, including the checks on the validity and reliability of the results, a Technical Note is available upon request from the FBI's Crime Analysis, Research and Development Unit, telephone (304) 625-3600.

GIS analysis of homicide incidents

In addition to cluster analysis, the homicide information was tracked through space with the aid of GIS technology. Initially, the location of the incident-level homicides is determined

Figure 5.1

Mean Center of Homicides Reported as Incident Data
1981-2001 (3-year centered moving average)



based upon the county in which the reporting agency resides. These incidents are spatially attributed to the point of the county centroid, which is the spatial center of the county. The mean center weighted by the number of reported homicides for each year, as well as by cluster type, is calculated for the Nation and each of the four regions. The mean center is the geographic equivalent to the average in a data set, and can be thought of as the "balancing point." Additionally, the standard deviation for the mean center is calculated for each year to indicate the dispersion of the data. This standard deviation is calculated for both the x- and y-dimension in space and is represented by an ellipse. For a more thorough discussion of the calculation of the weighted mean center and standard deviational ellipse, a Technical Note is available upon request from the FBI's Crime Analysis, Research and Development Unit, telephone (304) 625-3600.

Incidents of Homicide in the United States

Spatial trend of homicide incidents from 1981 to 2001 for the Nation

An examination of the calculated mean centers for the reports of incident-level homicide revealed that they appeared to be balanced near the geographic center of the United States. However, the standard deviational ellipse for the 2001 centered value indicated that the majority of the homicide incidents drifted to the east coast, and the reporting population was more geographically dispersed than the reports of homicide. This is primarily reflected in the northwest extant of the standard deviational ellipse. In other words, homicides were more concentrated than the reporting populations of the same counties for the same time period (2001). Additionally, there appears to be an urban bias to the homicide incidents shown in this map. Approximately 66 percent of the Nation's homicides took place in an area that encompassed nearly 51 percent of the urban places with a population of 100,000 or more. (See Figure 5.1.)

The study period (1981-2001) began with a murder rate of approximately 9.8 murders per 100,000 inhabitants. However, the murder rate declined in subsequent years. The rate again rose to the same high in 1991 and then declined to the lowest point in 21 years by 2000 to 5.5 murders per 100,000 inhabitants (USDOJ 2003). Over time, the population covered by agencies reporting SHR data has shown a nearly true westerly progression from east to west. Interestingly, the Census Bureau reported the same momentum for the U.S. population. During the same time period, the incidence of homicide appears to have a western bias in its trend, and there is less movement for reported homicides. When the homicide rate is taken into consideration, there is a more easterly bias in higher crime rate years than the lower crime rate years in the latter part of the study period. This may be a reflection of a decline in the homicide rates in the East. (See Figure 5.1, Inset.)

Spatial trend of homicide incidents from 1981 to 2001 for each region

The UCR Program divides the United States into four geographic regions for data analyses: the Northeast, the Midwest, the South and the West. When the homicide data are analyzed by region, there appears to be strong evidence that the level of urbanity is tied to the incidence of homicide on a regional level, as well. Visually, the data show that urban areas are in a more geographically dispersed pattern in the Midwest and South. Although the West accounts for approximately 40 percent of the Nation's populated places with 100,000 or more in population, they are almost all concentrated around San Francisco and Los Angeles. In the Northeast, these larger urban centers are almost all concentrated around the New York City and Boston areas. Additionally, the Northeast proportionally contributes only about 10 percent to the total number of the larger urban centers for the Nation. (See Figure 5.2.)

The regional dispersion of homicides in relation to reporting population nearly mimics the results of the national analysis. Except for the Northeast, homicides tend to be more concentrated than reporting population over time. With the exception of the South, most mean centers are also geographically close to major urban centers of the region (for example, New York City, Chicago/Detroit, and Los Angeles/San Francisco). The South shows a much wider dispersion of homicide, which may reflect the geographic pull of more widely dispersed urban centers (for example, New Orleans, Washington, D.C., Houston, and Atlanta). (See Figure 5.2.)

This urban pull is also reflected in the geographic progression of the mean centers through time. Although the reporting population of the Midwest appears to split the difference between Chicago and Detroit, there appears to be a bias towards Chicago in terms of the homicide reports. The reporting population in the Northeast appears to be geographically stagnant near New York City. However, the incidence of homicide drifts westerly during the study period. The reporting population mean center of the West has been moving in a southerly direction towards Los Angeles, but homicides show a southeasterly pull between Los Angeles and Las Vegas. Again, the South does not show a bias towards any particular urban area with the reporting population mov-

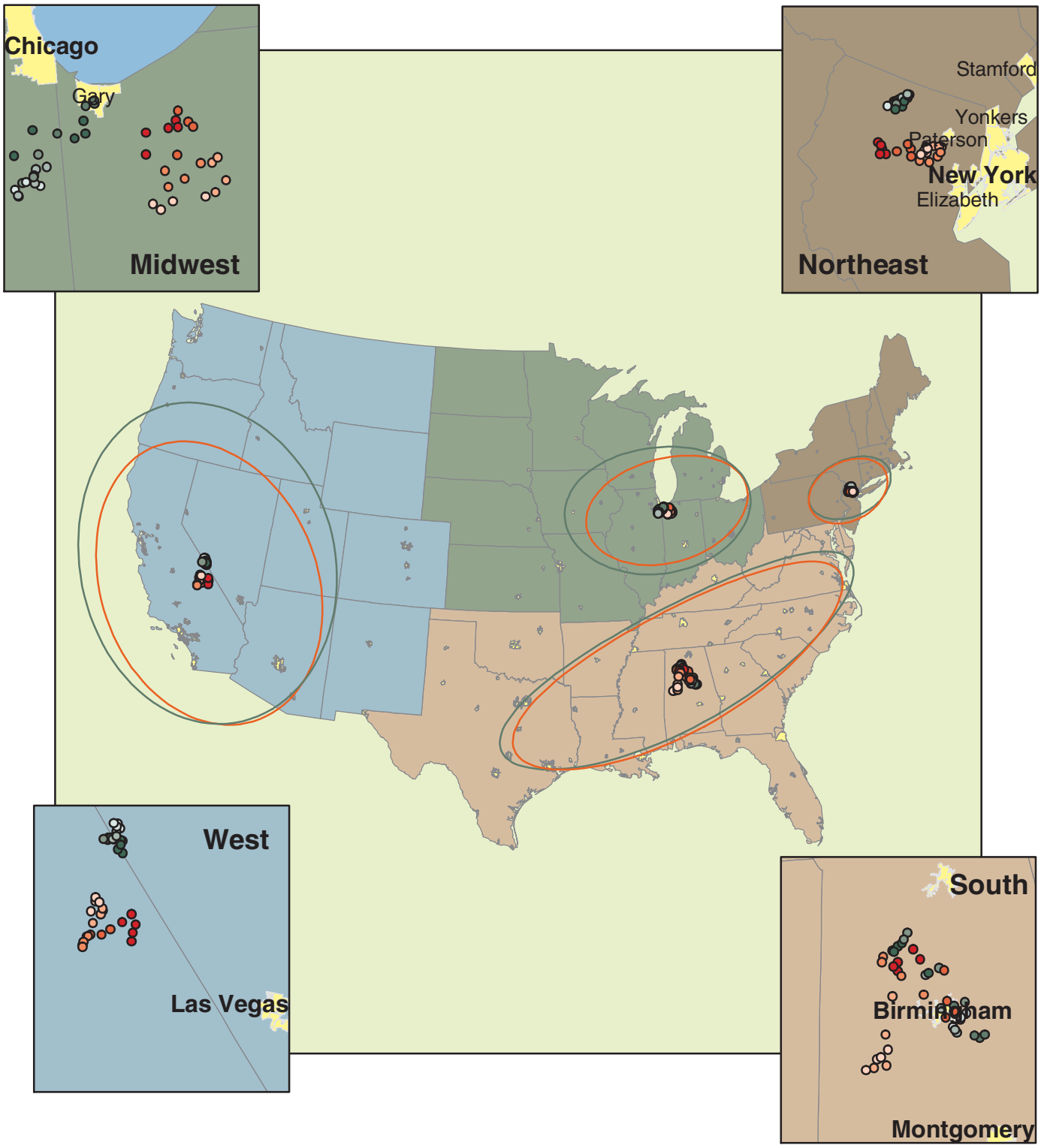
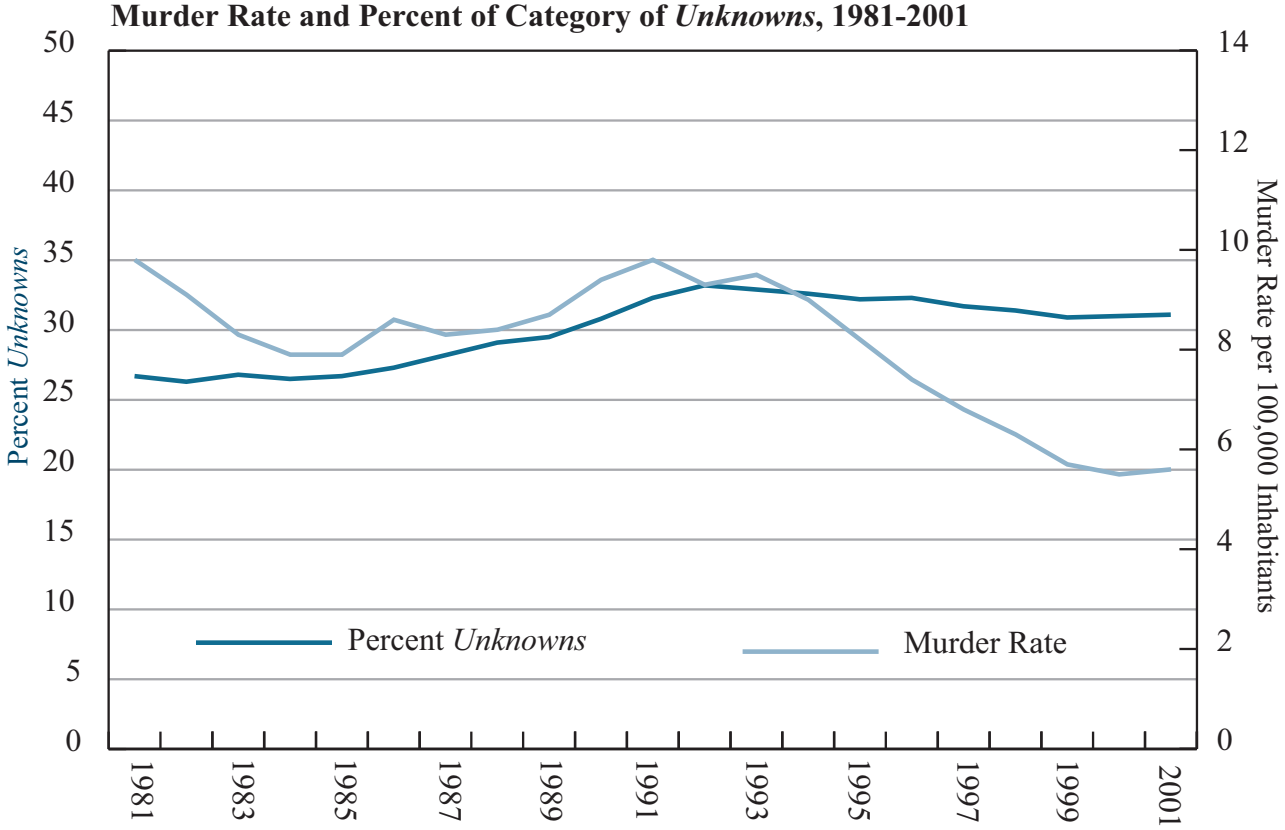


Figure 5.2

Mean Center of Homicides Reported as Incident Data by Region 1981-2001 (3-year centered moving average)

Figure 5.3

Murder Rate and Percent of Category of *Unknowns*, 1981-2001



ing towards the northwest and homicide incidents moving towards the northeast. In general, one does not see evidence that the incidence of homicide appears to be linearly related to the reporting population during the study period.

Characteristics of Detected Homicide Clusters

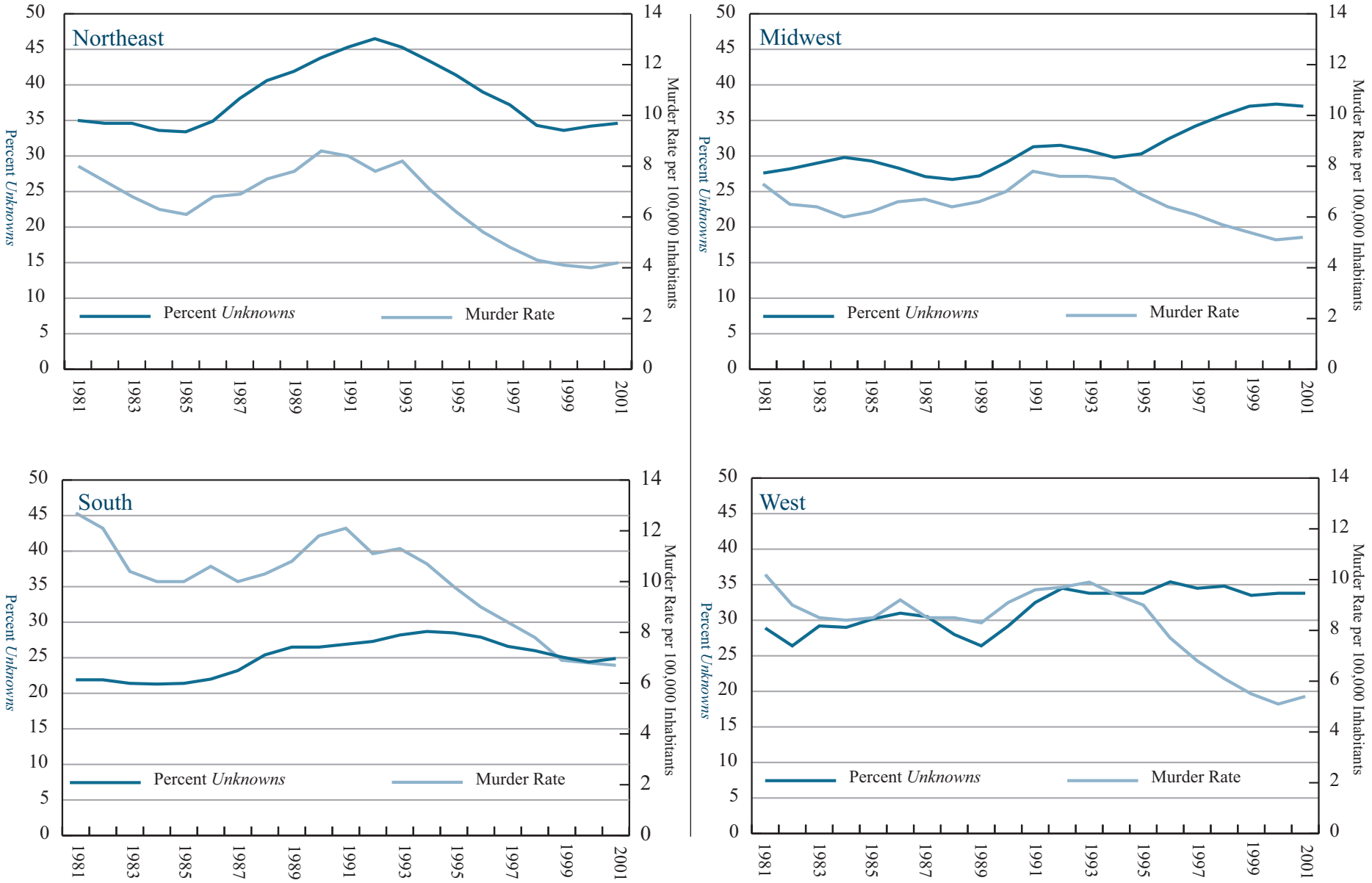
The results of the cluster analysis produced two highly robust types of homicide that can be tracked for the entire study period. The first robust cluster is comprised primarily of incidents that involve an unknown offender, and as such, much of the information about the offender and the circumstances surrounding the incident are reported as *unknown*. The remaining incidents are either clustered together as one *all other* type, or in some years, the remaining cases are divided based primarily on the race of the offender. In those years, there are two remaining clusters: one with black offenders and one with white and all other race[2] offenders. Given the consistency (reliability) of the results from each year, the clusters produced by this analysis will form the basis of the remaining analyses.

The category *unknowns* accounts for approximately 30 percent of the 417,505 homicides reported through the SHR during the study period. These are the homicides in which little to nothing is known about the offender at the time of the incident report. There is a slight urban bias to these *unknowns*, and the victims are more likely to be black, male, and adult than the rest of the victims of the homicides. However, when the *unknowns* are compared to all other homicides, both groups appear to be very similar in terms of weapons used. (See Table 5.17.) Over the length of the study period, there appears to be a slight increase in the proportion of *unknowns.* (See Figure 5.3.)

Regionally, the data reflected many of the same patterns concerning age and weapons associated with the two identified types of homicide. However, some striking differences are obscured by the national figures. In the West, one sees a significant increase in the proportion of white victims (65 and 70 percent, respectively for *unknowns* and *all other* homicides) when compared to the national figures (46 and 51 percent, respectively). Additionally, both the South and the West show a higher incidence of each type of homicide in suburban areas than do the remaining regions. In general, although many of the differences between the two types are subtle, the South also showed much more similarity

Figure 5.4

Murder Rate and Percent of Category of *Unknowns*
by Region, 1981-2001



between the *unknowns* and all other homicides than did the other regions. (See Table 5.17.) Since 1981, the proportion of *unknowns* on a regional level does not consistently track with fluctuations in the murder rate. In the Midwest, the South, and the West, the percent of *unknowns* either grew or remained stable during times of declining murder rate. It was only in the Northeast that the trends of the murder rate and percentage of *unknowns* appear to move in congruent directions (See Figure 5.4.)

Spatial Occurrence of Homicide Clusters

Spatial trend of homicide clusters from 1981 to 2001 for the Nation

Unknowns show a lot more geographic progression in a westerly direction during the study period than do all other homicides. In the early part of the study period, the mean center for *unknowns* appeared more to the east than the mean center for the remaining homicides. That bias is almost nonexistent by the end of the study period. For the entire study period, the unknown offender homicides also show a more northern bias than other homicides. The standard deviational ellipse for the centered average value for 2001 (the most current data year in the study) shows a wider dispersion for the *unknowns* on the east-to-west axis. However, the remaining homicides are more dispersed on the north-to-south axis. This indicates a more concentrated band of *unknowns* that incorporates the effects of urban areas in the northern part of the Northeast (Boston/Connecticut) as well as in southern California. The *all others* seem to incorporate the effect of more southerly urban areas such as Atlanta, New Orleans, and Houston. (See Figure 5.5.)

Spatial trend of homicide clusters from 1981 to 2001 for each region

Within the Nation's four regions, the data reflected a similar pattern where each type of homicide has distinct mean centers. These differences for the two types reflect the influence of diverse communities even within the same region. All regions but the West showed the same spatial progression through time for the two types of homicide. In all cases, this progression runs counter to the progression for the reporting population. Interestingly, *unknowns* show an almost true southerly progression in the West while *all other* homicides drift to the northeast. The standard deviational ellipse for the most recent data year (the centered average value for 2001) showed that the dispersion of *unknowns* was less than or equal to the remaining homicides in all regions but the South. (See Figure 5.6.)

Discussion and Conclusion

The differing rates of homicide amongst the regions, particularly in the South and West, have been noted in the past by law enforcement and researchers alike. However, instead of these differences in the levels of homicide being a result of global processes within a region, there appears to be evidence of more subtle processes that are connected to local urban centers. The regional incidence of homicide may be a reflection of the level of urbanity or change in urbanity rather than strictly the numbers of people that reside there. Since the patterns of

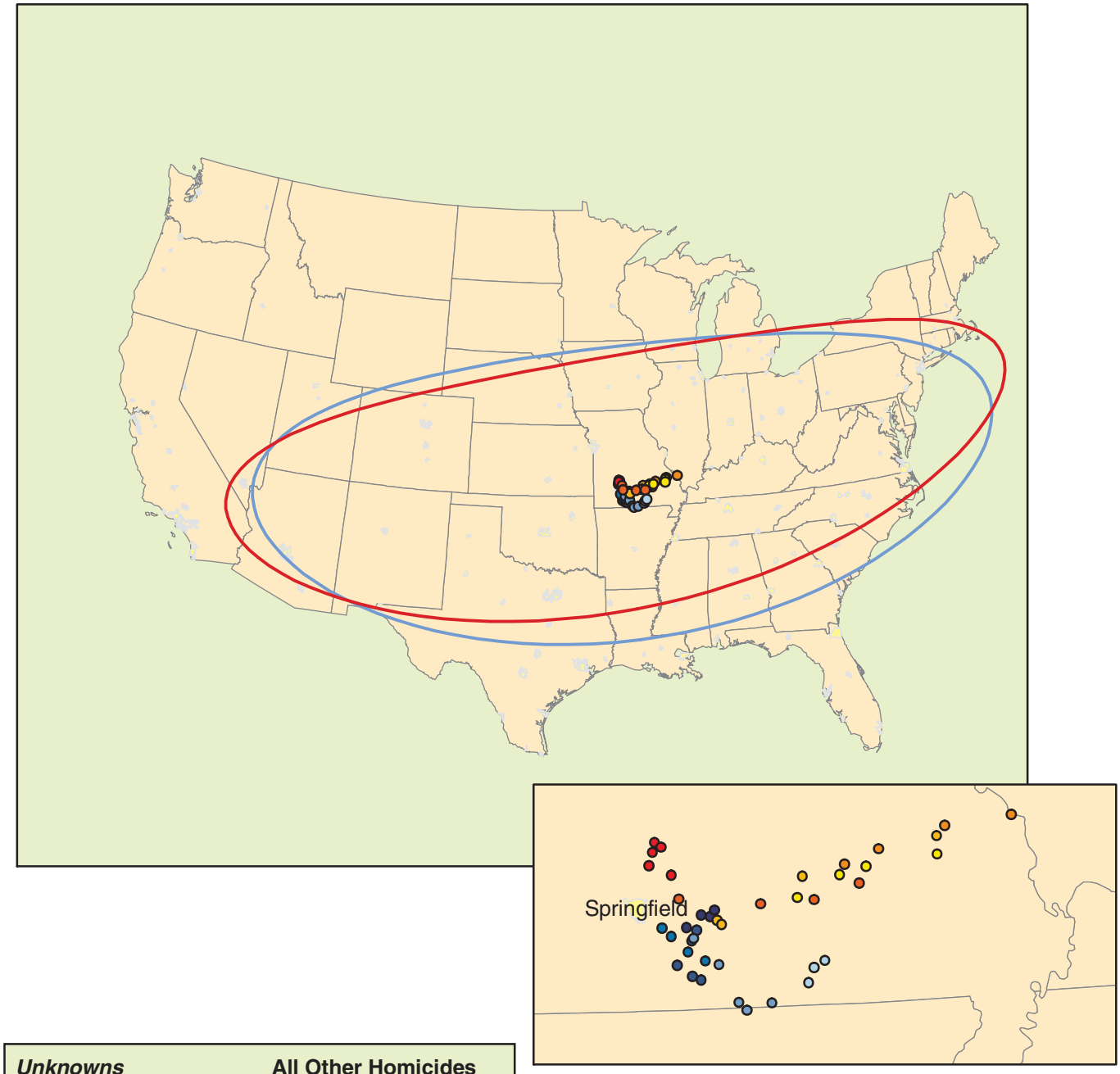
Table 5.17

Characteristics of detected homicide clusters
Percent of total

	Nation		*Northeast*		*Midwest*		*South*		*West*	
	Unknowns	*All Other*	*Unknowns*	*All Other*	*Unknowns*	*All Other*	*Unknowns*	*All Other*	*Unknowns*	*All Other*
MSA status	94.2	84.8	98.3	94.7	96.1	90.4	89.7	76.3	95.5	90.3
Suburban	18.1	21.7	8.3	17.1	11.1	15.0	22.8	24.8	25.8	24.0
Black Victim	50.6	45.9	53.1	49.2	67.8	57.8	56.2	51.5	27.7	23.4
White Victim	45.9	51.4	43.3	48.2	31.1	40.7	41.6	47.1	65.3	70.3
Female Victim	19.8	24.3	17.1	24.8	21.2	25.3	21.4	24.0	18.8	23.8
Male Victim	81.3	77.4	83.7	76.9	80.5	76.5	79.4	77.5	82.4	78.0
Juvenile Victim	7.0	10.7	6.7	11.8	7.4	12.6	5.8	8.7	8.6	12.0
Firearm Used	65.4	64.5	66.6	55.7	67.1	63.2	64.2	68.4	64.7	63.7
Other Serious Weapon Used	34.6	35.6	33.4	44.3	32.9	36.9	35.8	31.8	35.3	36.3

Figure 5.5

Mean Center of Homicide by Type
1981-2001 (3-year centered moving average)



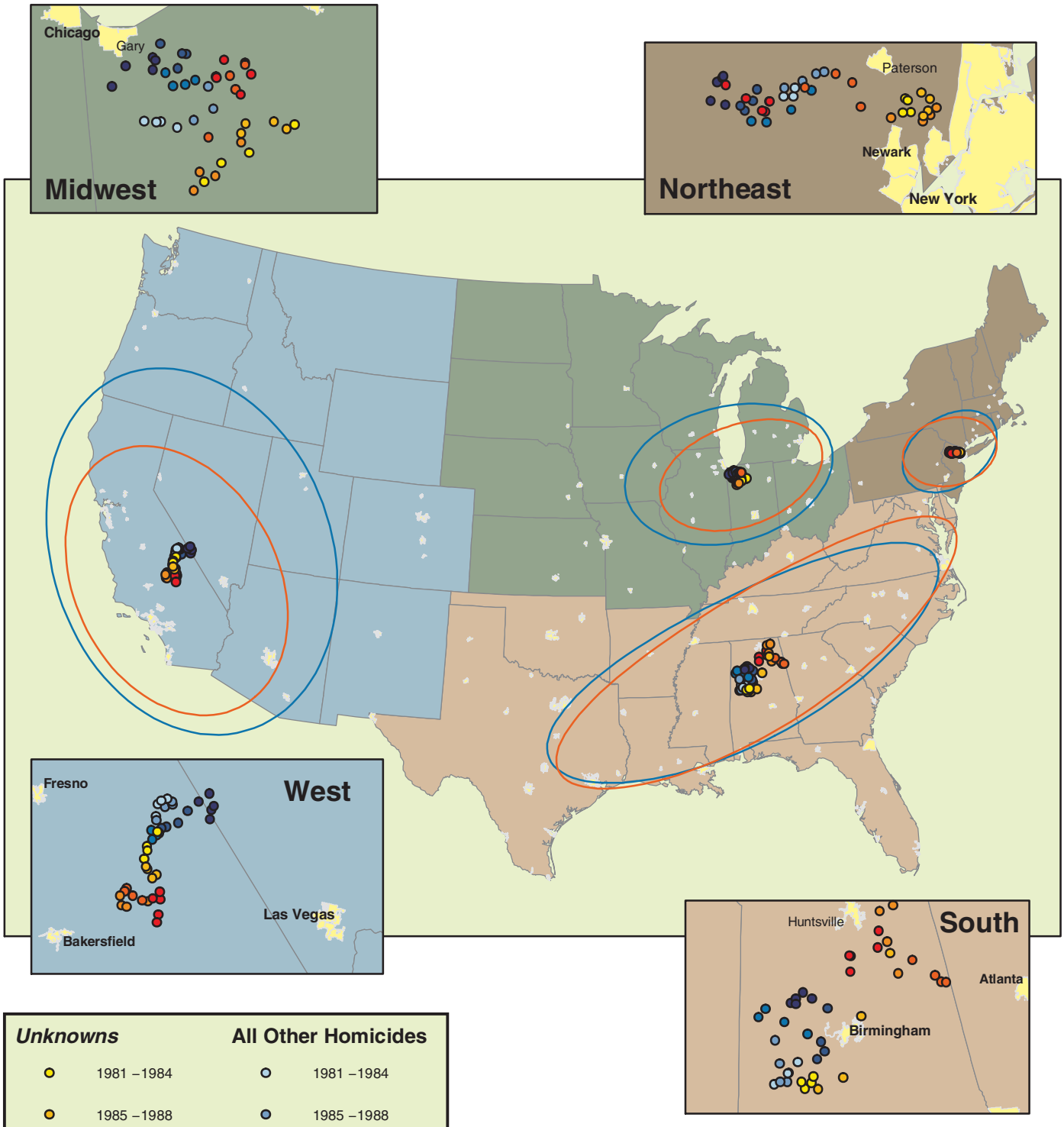


Figure 5.6

Regional Mean Center of Homicide by Type 1981-2001 (3-year centered moving average)

growth and decline vary by region, this could be one explanation for the varying results in movement and types of homicide among regions.

The *unknowns* are difficult to draw too many conclusions about, since, by definition, little is known of the circumstances surrounding the homicide. However, it could easily be seen how these homicides may differ qualitatively from the remaining homicides that are often between people who know one another and in many cases are the result of arguments. The regional differences in the trends and proportions of these unknown homicides appear to be influenced by communities different from the remaining homicides. Again, this points to the dominance of communities different from those that drive the trends for the remaining homicides. The results of this analysis show that there is a definite need for further exploration of what is driving regional trends in homicide. The evidence seems to point to a complex interaction between regional differences in the underlying factors affecting homicide and the regional differences in the types of homicide itself.

References

Aldenderfer, Mark S. and Roger K. Blashfield. (1984). *Cluster Analysis*. Newbury Park, CA: Sage Publications.

Bailey, Kenneth D. (1994). *Typologies and Taxonomies: An Introduction to Classification Techniques*. Newbury Park, CA: Sage Publications.

Goldsmith, Victor, Philip G. McGuire, John H. Mollenkopf, Timothy A. Ross, eds. (2000). *Analyzing Crime Patterns: Frontiers of Practice*. Thousand Oaks, CA: Sage Publications, Inc.

Langworthy, Robert H. and Eric S. Jefferis. (2000). The Utility of Standard Deviation Ellipses for Evaluating Hot Spots. In Goldsmith, Victor, Philip G. McGuire, John H. Mollenkopf, Timothy A. Ross, (Eds.), *Analyzing Crime Patterns: Frontiers of Practice.* Thousand Oaks, CA: Sage Publications, Inc.

Levine, Ned. (May 2002). CrimeStatII: A Spatial Statistics Program for the analysis of Crime Incident Locations. Houston, TX: Ned Levine & Associations and Washington, D.C.: the National Institute of Justice.

McCue, Colleen, Emily S. Stone, and Teresa P. Gooch. (2003). "Data Mining and Value-Added Analysis," *Law Enforcement Bulletin*. November, p.1-5.

Romesburg, H. Charles. (1984). *Cluster Analysis for Researchers*. Belmont, CA: Lifetime Learning Publications.

SPSS. "The SPSS TwoStep Cluster Component," Technical Report downloaded from www.spss.com on April 1, 2004.

U.S. Department of Justice. Federal Bureau of Investigation (2003). *Crime in the United States, 2002*. Washington, D.C.

U.S. Department of Justice. Federal Bureau of Investigation (1984). *Uniform Crime Reporting Handbook*. Washington, D.C.

Endnotes

[1] Supplementary homicide information has been collected since the beginning of the UCR Program in the early 1930s. However, this information was not made available for general dissemination until 1962 and has gone through various revisions since that time. The data used for this analysis reflect the latest version of information collected which has remained the same since 1980.

[2] These race categories include *Asian and Other Pacific Islander* and *American Indian and Alaskan Native*.

Appendix

Variable	Description
MSA	MSA location
Suburban	Suburban location
Single Victim	Incident involved only a single victim
Single Offender	Incident involved only a single offender
Unknown Offender	Incident involved an unknown offender
Juvenile Victim	Victim under the age of 18 years old
Male Victim	Male victim involved
Female Victim	Female victim involved
Unknown Victim	Unknown victim involved
White Victim	White victim involved
Black Victim	Black victim involved
AIAN Victim	American Indian or Alaskan Native victim involved
AOPI Victim	Asian or Pacific Islander victim involved
Juvenile Offender	Offender under the age of 18 years old involved
Male Offender	Male offender involved
Female Offender	Female offender involved
Unknown Offender	Unknown offender involved
White Offender	White offender involved
Black Offender	Black offender involved
AIAN Offender	American Indian or Alaskan Native offender involved
AOPI Offender	Asian or Pacific Islander offender involved
Firearm used	Includes handgun, rifle, shotgun, other gun, and general firearm
Other Serious Weapon	Includes knife/cutting instrument, blunt object, personal weapons, poison, pushed/thrown out of window, explosives, fire, narcotics/drugs, drowning, strangulation, asphyxiation, and other
Intimate Relationship	Includes husband, wife, common-law husband, common-law wife, boyfriend, girlfriend, ex-husband, ex-wife, and homosexual relationship
Other Family Relationship	Includes mother, father, son, daughter, brother, sister, in-law, stepfather, stepmother, stepson, stepdaughter, and other family
Otherwise Known	Includes neighbor, acquaintance, employee, employer, friend, and otherwise known to victim
Not Known to Victim	Includes stranger.
Unknown Relationship	All instances where relationship of victim to offender cannot be determined.
Felony Type Circumstance - Violent	Includes rape and robbery
Felony Type Circumstance - Drug	Includes narcotic drug laws
Felony Type Circumstance - Other	Includes burglary, larceny, motor vehicle theft, arson, prostitution and commercialized vice, other sex offenses, abortion, gambling, and other–not specified
Other Circumstance - Arguments	Includes lover's triangle, brawl due to influence of alcohol, brawl due to influence of narcotics, argument over money or property, and other arguments.
Other Circumstance - Organized	Includes gangland killings, juvenile gang killings, and institutional killings.
Other Circumstance - Other	Includes child killed by babysitter, sniper attack, and other.
Suspected Felony	Circumstances indicate possible felony type murder, but sufficient facts to identify type of felony not available.
Justifiable Homicide	The intentional killing of a person without evil design and under such circumstance of necessity or duty as to render the act proper. Includes felons killed by either private citizen or police.

The preceding list reflects particular characteristics captured in a homicide incident reporting through the SHR. These characteristics were recoded to reflect whether or not that characteristic was present or not present. If the characteristic was present on the incident, that variable was coded as the value *1*. Otherwise, the variable was set to the value of *0*. The cluster analysis algorithm described in detail in the Technical Note used these values in its calculations. The Technical Note is available upon request from the Crime Analysis, Research and Development Unit, telephone (304) 625-3600.