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An Empirical Analysis of Deviant Homicides in Chicago

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A survey of the literature suggests that victim-offender relationship and motive are two primary characteristics that have traditionally been used to disaggregate homicide events. Previous research has clearly identified normative homicide characteristics as expressive motives between intimates and instrumental motives between strangers. However, the present research examines the prevalence of deviant homicides, or homicides with nonnormative characteristics, in Chicago. The authors test the hypothesis that deviant homicides are more likely among individuals with weak ties to social institutions. Results of a logistic regression analysis support the hypothesis that the likelihood of deviant circumstances is significantly greater when homicides involve Hispanics, African Americans, and males. In addition, deviant homicides were significantly more likely when they involved gang circumstances and, on the national level, after the appearance of crack cocaine. These findings have important implications to the explanatory power of criminological theory.

Durkheim's (1938) The Rules of Sociological Method firmly established the notion that like other phenomena, social realities exist and are subject to analytical inquiry. Social realities or social facts are forces external to individuals that exert influences over behavior. Previous research consistently finds that victim-offender relationship (VOR) and motive similarly exert influences over behavior and serve as important mediators of homicide events. VOR and motive interact in such a manner that one would expect particular motives to correspond to the level of social proximity between the victim and offender.

The VOR is often dichotomized as stranger or nonstranger, whereas motives are commonly dichotomized as either expressive or instrumental. Expressive motives involve an emotional response to a stimulus, but instrumental crimes are motivated by material gain. These classifications of lethal altercations usually occur between individuals who know one another. For example, homicides between individuals who have an intimate relationship with one another commonly involve expressive motives, whereas violent acts between individuals with little or no level of mutual recognition usually involve instrumental motives. These normative characteristics have had a significant influence on how policy makers and the public perceive and respond to crime.

Decker (1996), one of the first scholars to examine nonnormative characteristics of homicides, used the term *deviant homicides* to refer to those events that were inconsistent with our understanding of normative violence. Analysis of nonnormative events is important so we can better assess the explanatory power of theoretical models. Moreover, if these events are more common than previously thought, it suggests a need for the criminal justice community to rethink responses to lethal violence. Decker (1996) states the dilemma succinctly as follows:

> As long as the great majority of homicide events fall into these normative categories of victim, offender, and motive classifications, society possesses mechanisms to cope with homicide. However, when a substantial fraction of homicide events exceed the normative boundaries for that event, it creates a public dilemma about the nature of crime and calls into question traditional explanations of homicide. (p. 428)

Following Decker's (1996) lead, we examine the prevalence of nonnormative or deviant homicides in Chicago. This research explores characteristics of homicide events and how they correspond to deviant or nondeviant classification. We incorporate situational and victim/offender demographic information into a logistic regression model to determine which factors better predict nonnormative characteristics. The present research expands on Decker's original work by incorporating factors such as drug circumstances and gang issues, which we hypothesize will increase the likelihood of nonnormative characteristics.

LITERATURE REVIEW

Incidents of lethal violence have been explained from several possible theoretical frameworks. To date, the debate over the fundamental causes of lethal violence continues. Williams and Flewelling (1988) suggested that the failure of criminological theory to explain the causes of lethal violence is due in part to homogeneous dependent variables used in homicide research. Variables such as homicide rate encompass multiple and substantively different subcategories of crime that respond differently to various stimuli. Population density, for example, may have a differential effect on family conflicts versus crimes involving strangers. In fact, research has shown that concepts traditionally used to explain lethal violence, such as social disintegration, resource deprivation, and violent cultural orientation, differentially affect various subcategories of homicide. Thus, there is a need to disaggregate between various types of homicide (Williams & Flewelling, 1988). Disaggregation of homicide types is useful because various causal processes can have differential effects on various forms of homicide. VORs and motives are two key variables whereby researchers have disaggregated homicide events.

The VOR is a key element of every homicide. As Wolfgang (1958) stated, "Homicide is a dynamic relationship between two or more persons caught up in a life drama where they operate in a direct, interactional relationship" (p. 203). VOR has been operationalized several different ways. Some research has characterized VOR as nonstrangers and strangers (Messner & Tardiff, 1985; Sampson, 1987), whereas others categorized these relations as primary and secondary (Loftin, 1986; Maxfield, 1989; Parker & Smith, 1979; Smith & Parker, 1980). Primary or nonstranger relationships consist of relatives, lovers, and friends. In contrast, secondary or stranger relationships consist of acquaintances and strangers.

Broad relationship categories (i.e., primary or secondary) tend to discount within-group variance (Decker, 1993; Parker, 1989). Further specification of the nature of the VOR enables a distinction between different types of conceptual categories. The ability to distinguish between different types of homicide events, as

defined by VOR and motives, provides a conceptual distinction between various causes and correlates of the behavior. Decker (1993) suggested the use of six different VOR categories, namely, stranger, acquaintance, friend, other relative, romantic link, and unknown. These distinctions allow for a more lucid understanding of the role of the VOR in homicide. Use of more definitive VOR categories is a positive first step toward more accurately assessing the relationship between VOR and motive.

Most studies consistently found that homicide incidents involve victims and offenders who know each other (Decker, 1993, 1996; Maxfield, 1989; Williams & Flewelling, 1987, 1988; Wolfgang, 1958). Although this is generally accepted, there is variation between studies as to the prevalence of homicides involving strangers. Some found that nearly one third of all homicides involve strangers (Daly & Wilson, 1988; Hewitt, 1988), whereas others found less than 20% of homicides involve strangers (Decker, 1993).[1] Although previous findings remain mixed, data sources and data collection procedures are some possible explanations for the disparate findings.[2]

Similar to VOR, homicide events can be further categorized by consideration of motives. Instrumental motives exist when offenders seek to improve their position through a rational calculation or planning that involves minimizing the risk of apprehension (Decker, 1996). In contrast, expressive motives are best characterized as involving passion, emotion, and outrage and lack rational calculation. Previous homicide research has established an interactive relationship between VOR and motives (Decker, 1996; Maxfield, 1989; Riedel, 1987; Wolfgang, 1958).

Homicides occurring within primary, or nonstranger, relationships involve expressive motives (i.e., motives involving passion, emotion, and outrage). In contrast, homicides within secondary, or stranger, relationships correspond with instrumental motives (motives usually involving some sense of material gain) (Loftin, 1986; Maxfield, 1989; Rojek & Williams, 1993). Studies that further specified VOR reported expressive motives to be more common among acquaintances (36%). Homicides that involved intimate/romantic relationships were more likely to be expressive (85%), and those involving friends were also more likely to involve expressive motives (54%) (Decker, 1993, p. 599). Rasche (1993), for example, identified five different motives that often

precipitate lethal violence among intimates: possessiveness, self-defense, abuse, feelings arising out of argument, and other motives (i.e., contract killings).

It seems, then, that the level of intimacy works to protect individuals from certain kinds of violence (Decker, 1996). Based on this assumption, we would expect expressive motives among intimates because their regular and intense contact is more likely to produce levels of anger exceeding traditional protective features of the intimate relationship. Strangers, who lack the intensity caused by regular interaction, do not hold the same constraints against instrumental violence. They are not bound to the same moral code and social bonds that restrict the availability of violence for instrumental gain (Decker, 1996). At times, however, these protective features are nullified and violence ensues.

Deviant or nonnormative homicides are instances where lethal altercations deviate from expected norms. The assumption that the VOR corresponds with motives creates an interesting opportunity to determine the factors that significantly affect the likelihood of normative characteristics. The delineation of normative compared to deviant circumstances is important because it tests the explanatory power of theoretical models that explain a particular range of behavior.

Homicide data from St. Louis, Missouri, revealed that a significant number of homicides do not correspond to the expected VOR/motive categories. For example, Decker (1993) reported that the largest proportion of expressive homicides occurred between acquaintances, followed closely by expressive motives between strangers. Moreover, stranger homicides were just as likely to involve instrumental as expressive motives, with each accounting for 50% of the distribution. Even between friends, a VOR category thought to be closely analogous to the family category, 46% of the homicides involved instrumental motives (Decker, 1993). Normal homicides were most common when they involved individuals who were linked by family bonds or romantic involvement.

In a later study using St. Louis homicide data, Decker (1996) reported that more than one quarter of all homicides that involved primary relationships (e.g., family or friends) also involved instrumental motives. Furthermore, a little less than one half of homicides involving secondary relationships also

involved expressive motives. This suggested that a greater proportion of homicides involved deviant circumstances than previously thought.

Additional examination of nonnormative homicides revealed that deviant homicides were more likely for White-on-White crimes when the victim and offender were strangers. In addition, there were proportionally more deviant homicides among strangers (involving expressive violence) when both the victim and offender were males. Age also seemed to play a significant role in the likelihood of deviant characteristics. Deviant homicides occurred in greater frequency among suspects between the ages of 19 and 34 in the acquaintance/expressive motives category than either intimate/instrumental or stranger/expressive.

Several situational variables were determined to be significant predictors with the occurrence of nonnormative homicides. Deviant homicides were twice as likely when guns were used to inflict lethal injuries. When a gun was used, there was proportionally more deviant homicide between intimates with instrumental motives. Between intimates, homicides involving drug circumstances were almost twice as likely to be deviant. When alcohol was present between acquaintances and strangers, motives were more likely to be expressive.

Decker (1996) hypothesized that deviant homicides were more likely to involve persons with weak ties to social institutions. For example, in urban settings, deviant homicides would be most likely among African Americans, males, and younger persons. Changes in the economic structure of many communities significantly decreased the self-sustainability of the inner-city family unit (Anderson, 1990, 1999; Wilson, 1987). The breakdown of the family unit has been compounded by the presence of gangs and crack cocaine in urban areas, which partly explains some changes in the protective features of intimate/family relationships (Decker, 1996). It has been argued that the influx of crack cocaine, especially after 1985, into many urban centers has also altered social relations to the point that it has affected the normative character of crime (Blumstein & Rosenfeld, 1998; Decker, 1996). The current research seeks to operationalize and incorporate these characteristics into a model predicting the likelihood of deviant characteristics. If the observations of Blumstein and Rosenfeld

(1998) and others are correct, an increase in deviant homicides could be expected after 1985.[3]

The current analysis investigates the commonly held assumption that patterns in homicide follow normative patterns. Specifically, this article tests the hypothesis that the probability of deviant homicides is greater when they involve individuals with fewer ties to social institutions (Decker, 1996), involve gang and substance use/abuse factors, and occur before or after 1985. We hypothesize that in urban settings, one would expect to encounter a higher frequency of deviant homicides among African Americans or Hispanics, males, alcohol use by the victim or offender, drug motivations, street gang motivations, and homicides occurring after 1984.

Data from the Arrestee Drug Abuse Monitoring (ADAM) and Drug Use Forecasting (DUF) programs document that crack did not follow the same pattern of introduction and use equally across all major cities in the United States (Golub & Johnson, 1997). Although extensive use of crack was documented in New York as early as 1985 (Fagan & Chin, 1990; Johnson, Golub, & Fagan, 1995; Kerr, 1986), there is some evidence suggesting Chicago's crack problem started later than in other cities. Kerr (1986), for example, argued that crack hit Chicago in the late 1980s or early 1990s. After careful consideration of this potentially confounding issue, the decision was made to use the 1985 cutoff. First, consideration of pre- and post-1985 will allow for interesting comparison with arguments made by Blumstein and Rosenfeld (1998). Second, although crack in Chicago did not reach its peak in 1985, all evidence suggests it existed at some level. Therefore, if this variable is found to be a significant predictor of nonnormative characteristics, it will actually be more of a conservative predictor.

METHOD

Data

Data for this analysis were taken from 10,729[4] homicides that occurred in the city of Chicago from 1975 to 1995. The availability of quality and comprehensive data is the primary reason the

analysis is limited to Chicago. However, we believe this limited sampling frame poses several methodological advantages that offset potential problems with generalizability. First, the Chicago data set is one of the most extensive longitudinal homicide data sets available. There has been a tremendous consistency in data collection procedures that has increased the long-term comparability of the data. Second, considering that the data have been collected for more than 30 years, there has also been a significant consistency in the oversight of the project. Finally, unlike other homicide data sources, these data are regularly updated as additional information becomes available.

The current research focuses on all homicides that occurred in the city of Chicago from 1975 to 1995. This reduced the original number of available cases from 23,816 to 16,819. The sample was further reduced to include only those cases with one offender, thereby excluding those with multiple offenders. Some researchers have excluded events with multiple offenders (Williams & Flewelling, 1988) because of substantive differences in demographic and situational characteristics compared to events with one offender (Block, 1985; Decker, 1996). For example, Decker (1996) found deviant homicides between strangers (involving expressive motives) to be more likely when only one suspect was involved as compared to events with two or more suspects.

Variable Classification

The data file allows for a more precise specification of the VOR than previously possible. VOR is coded into three categories: intimates (family members, romantic links, and friends), acquaintances, and strangers (see the appendix for further information on coding scheme). This coding scheme is similar to that used by Decker (1996) and reflects various levels of interrelational intensity. The ability to differentiate between friends and acquaintances is important in the current analysis. Acquaintances differ from friends in that they do not have mutually reinforcing interactions that are more characteristic of friends or family. It is likely that acquaintances more closely resemble strangers (Decker, 1996).

Motive, also a dichotomous variable, was coded as expressive or instrumental. Motive was coded as instrumental if the

available information suggested that robbery, burglary, or other similar motives were involved. Conversely, motives were coded as expressive if the available data indicated spontaneous violent outbursts (e.g., barroom fight). The dependent variable, deviant homicide, is coded from combinations of VOR and motive categories. Homicides involve deviant circumstances if the anticipated motive was inconsistent with the type of VOR. For example, homicide events are considered normal if there are expressive motives between individuals in primary relationships (family or friends) or instrumental motives between individuals in secondary relationships. Deviant homicide is dummy coded as a binary variable and exists when expressive crimes occur within secondary relationships or instrumental crimes within primary relationships.

There was a limited ability to incorporate substance abuse dynamics into the current statistical model. Decker's (1996) findings indicated drug-related homicides resulted in a disproportionate number of deviant homicides among intimates. Similarly, alcohol resulted in a disproportionate number among strangers. The current analysis attempted to disaggregate drug circumstances into drug-motivation and drug-use dynamics (victim or offender use). This distinction is useful because the generic label of drug circumstances conceals considerable variation in event dynamics (Rosenfeld, 1989). Homicide events were coded as involving drug motivations if the sale or use of illegal narcotics was the motivating factor for the lethal altercation (see the appendix). Although drug use was not included in this analysis due to problems with missing data, the potential effects of alcohol use were also included by dummy codes reflecting if either the victim and/or offender were under the influence of alcohol.

This analysis includes several dummy-coded demographic characteristics for both victims and offenders to determine their potential independent effects on the likelihood of deviant homicides. They include victim African American, victim Hispanic, offender African American, offender Hispanic, victim male, offender male, victim young, and offender young. Although Decker's (1996) article did not hypothesize relationships to Hispanics, it is anticipated that they would be similarly detached from social institutions as African Americans in an urban setting. In addition, gang circumstances are coded and indicate events

that involve or are suspected to be gang related (see the appendix). It is anticipated that gang-related homicides are more likely to involve deviant circumstances. The final independent variable examines whether a homicide occurred[5] during or after 1985. This variable, as suggested by Blumstein and Rosenfeld (1998), focuses on whether the 1985 crack cocaine epidemic affects the likelihood of deviant homicides.

RESULTS

Logistic regression is used to analyze the likelihood of deviant homicide. The logistic regression model is used in the case of a binary dependent variable and involves several tests. First, it allows an assessment of the goodness of fit of the entire model. Second, if the model fits, then an odds-ratio calculation will determine the relative importance of each independent variable in predicting the dependent variable.

There were 4,946 deviant homicides between 1975 and 1995, with an average of 236 deviant homicides per year in Chicago. The total number of deviant homicides ranges from a low of 191 in 1975 to a high of 266 in 1985. A comparison of trends in deviant homicides in Chicago to trends in the U.S. homicide rate between 1975 and 1995 is presented in Figure 1. Standardized z scores were computed for each of the data elements to allow for comparisons between the units of analysis.[6] One of the most noteworthy findings from this analysis revealed a sharp increase in the total number of deviant homicides between 1983 and 1987. In addition, whereas deviant homicides fell sharply after 1987, the total number of homicides increased appreciably after 1987 in the United States as a whole. The peak in deviant homicides between 1983 and 1987 is interesting because it suggests that some social change resulted in a breakdown of normative homicide event characteristics.

The acquaintance category comprises the largest VOR category (49%), followed by strangers (17%), romantic links (16%), other relatives (10%), and friends (9%). VOR information is missing for 10% (n = 985) of the original 10,729 cases. Analysis indicates missing VOR information is significantly related to motives and victim and offender demographic information such as race and gender.
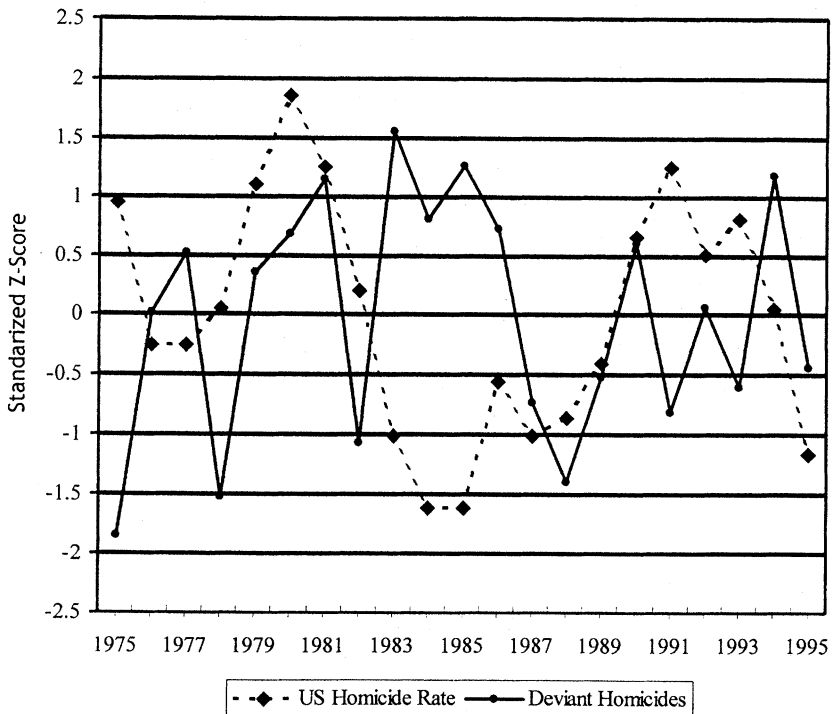
Figure 1:   Comparison of Trend in Chicago's Deviant Homicide to U.S. Homicide Rate

Unsurprisingly, cases with missing VOR information are also significantly more likely to be missing motive information. Although this figure represents a sizable amount of missing information, it is substantially better than other data sources. For example, national data sources reported missing VOR information for 31% of cases (Decker, 1993). After data percentages were recalculated by removing cases with missing VOR information, the distribution for victim-offender information in this study mirrored those of the national data. Overall, the volume of missing VOR information is substantially smaller than other data sources. The most likely explanation for lower prevalence of missing VOR information is that, as stated previously, cases are continually updated as additional information becomes available.

As shown in Table 1, nearly 80% of the 4,946 homicides in Chicago involve expressive motives between acquaintances. Expressive motives between strangers account for the second largest

TABLE 1
Breakdown of Deviant Types of Homicide (N = 4,946)[a]

Deviant Type	Frequency	Percentage of Total
Stranger/expressive	998	20.2
Acquaintance/expressive	3,861	78.1
Friend/instrumental	46	0.9
Other relative/instrumental	31	0.6
Romantic link/instrumental	10	0.2

a. "Unknown" cases removed.

proportion of deviant homicides (20%). Interestingly, nearly all of the deviant homicides in Chicago between 1975 and 1995 involve secondary relationships (acquaintances and strangers). Approximately 98% of all deviant homicides involve expressive motives between individuals in secondary relationships. Thus, there were few instances of instrumental motives between persons involved in primary relationships. This figure is in sharp contrast to previous findings. Decker (1996) reported that 22% of deviant homicides involved instrumental motives between individuals in primary relationships and 78% involved expressive motives among those in secondary relationships. It is possible this discrepancy is due in part to differences in coding schemes.

On average, approximately 53% of all homicides involve deviant circumstances. For victims or offenders, the likelihood of being involved in a deviant homicide is not equal among races. The percentages shown in Table 2 are row percentages and indicate the breakdown of deviant versus nondeviant for each demographic characteristic. The proportion of deviant homicides is largest for Hispanic victims and offenders (approximately 70%) and smallest for Whites (approximately 50%). Among offenders, Whites and Blacks have similar probability of being involved in a deviant homicide. Blacks are slightly more likely to be involved in deviant homicides as victims (52%) than are Whites (47%). There is a greater disparity between findings for Asian offenders and victims than for other races. Males were substantially more likely to be involved in deviant homicides among both offenders and victims. Finally, these data indicate that victims tend to be approximately 2 years older than offenders in deviant homicides.

As Table 3 shows, alcohol does not appear to play a role in the occurrences of deviant homicide. For both victims and offenders,

TABLE 2
Population Characteristics of Deviant Homicides:
Row Percentages and Frequencies (N = 9,281)

	Non-Deviant	Deviant		Non-Deviant	Deviant
Offender race			Victim race		
White, non-Latino	50.90	49.10	White, non-Latino	52.80	47.20
Frequency	418	403	Frequency	606	541
Black, non-Latino	49.70	50.30	Black, non-Latino	48.50	51.50
Frequency	3,457	3,493	Frequency	3,289	3,486
Latino	29.10	70.90	Latino	30.20	69.80
Frequency	380	927	Frequency	382	882
Asian, other	51.50	48.50	Asian, other	62.10	37.90
Frequency	34	32	Frequency	59	36
Offender gender			Victim gender		
Male	41.60	58.40	Male	40.30	59.70
Frequency	3,247	4,551	Frequency	2,972	4,408
Female	76.50	23.50	Female	71.70	28.30
Frequency	1,056	324	Frequency	1,364	538
Offender age			Victim age		
Mean	29		Mean	31	

NOTE: Values (except for frequencies) expressed as percentages.

TABLE 3
Distribution of Deviant Homicide by Situational Characteristics:
Row Percentages and Frequencies (N = 9,281)[a]

	Non-Deviant	Deviant		Non-Deviant	Deviant
Offender alcohol use			Victim alcohol use		
Yes	56.8	43.2	Yes	55.0	45.0
Frequency	672	511	Frequency	813	664
No	46.1	53.9	No	46.3	53.7
Frequency	3,156	3,689	Frequency	3,071	3,567
Drug motivation			Street gang motivation		
Yes	63.0	37.0	Yes	7.6	92.4
Frequency	451	265	Frequency	66	804
No	45.4	54.6	No	50.8	49.2
Frequency	3,885	4,681	Frequency	4,270	4,142
Time period					
Before 1985	48.3	51.7			
Frequency	2,212	2,371			
After 1984	45.2	54.8			
Frequency	4,336	4,946			

NOTE: Values (except for frequencies) expressed as percentages.
a. Some cases excluded due to missing data.

nonnormative characteristics were less likely when alcohol use was a factor. These findings run counter to what was hypothesized. Similar to Decker's (1996) hypothesis for drug use, we hypothesized alcohol use would increase the likelihood of deviant circumstances. However, these findings suggest alcohol did not significantly affect the likelihood of deviant circumstances.

Although drug use issues were not included in this analysis, the findings indicated homicides involving drug motivations were less likely to involve deviant circumstances. The number of homicides involving drug motivations increased considerably around 1988. The number of drug-motivated homicides ranged between 10 and 20 per year before 1988 and increased steadily until 1990 when it reached almost 75. Drug-motivated homicides also ranged from 2% to 4% of all homicides until 1988 and then increased to a high of 16% in 1990. Thus, there appears to have been a change in homicide characteristics starting around 1988. It is possible that this change is related to a later onset of serious crack problems compared to other cities such as San Diego or New York. In addition, homicides that were street gang motivated resulted in more deviant homicides (55%). Finally, homicides that occurred after 1984 were slightly more likely to involve deviant homicides.

Taken as a whole, these data reveal several interesting characteristics of deviant homicides. Minorities tend to be overrepresented among deviant homicide victims and offenders, but this relationship appears to be more dramatic for Hispanics. Males are also overrepresented as both victims and offenders in deviant homicides. This, however, might be due to the fact that deviant homicides are most likely to involve expressive motives between acquaintances and strangers. One might expect to see a larger representation of women as victims in deviant homicides when they involve romantic links or other relatives. With the relatively small number of deviant homicides between intimates or family members, their representation as either homicide victims or offenders does not increase the likelihood of nonnormative characteristics. Finally, although the number of drug-motivated homicides increased considerably after 1988, they were less likely to involve deviant circumstances. This indicates that although the influence of drug markets might have increased levels of lethal violence, it did so in a normative manner. It is important, however, to

TABLE 4
Regression Coefficients Representing Effect
of Independent Variables on Deviant Homicides $(N = 7,883)$[a]

Variable	b1	Standard Error	Odds Ratio	Standard Coefficient
Offender African American	−0.2581*	0.1266	0.7725	−0.014
Offender Hispanic	0.5572**	0.1369	1.7457	0.0365
Offender male	1.4665**	0.0764	4.3342	0.1833
Offender age	0.0004	0.0023	1.0004	0
Victim African American	0.4154**	0.1143	1.5150	0.032
Victim Hispanic	−0.2885*	0.1384	0.7494	−0.0147
Victim male	1.2982**	0.0638	3.62	0.1925
Victim age	−0.0032	0.0017	0.9968	−0.0116
Alcohol use by offender	−0.1824	0.1029	0.8333	−0.0102
Alcohol use by victim	−0.0068	0.0944	0.9932	0
Drug motivated	−0.8822**	0.0971	0.4139	−0.0859
Homicide occurred after 1985	0.1652*	0.0516	1.1796	0.0275
Street gang motivated	1.9260**	0.1425	6.8623	0.1286

a. Analysis excluded 2,846 cases due to missing data.
*Significant at $p < .05$. **Significant at $p < .001$.

consider that coding schemes, especially relating to drug and gang activity, could be artificially influenced by police priorities. One might hypothesize that police attention to drug-related crime increased as the police became more sensitized to the effects of crack cocaine in urban areas. Unfortunately, this research is limited by its ability to accept or reject this notion.

Findings from the logistic regression analysis are presented in Table 4. As stated earlier, logistic regression is an appropriate analysis technique when the dependent variable is binary (0, 1 coding scheme). All of the independent variables included in the model, except victim and offender age, are dummy coded with 1 representing the attribute and 0 representing lack of the indicated attribute.[7]

The final model included 7,883 total cases. Of the original 10,729 cases, 2,846 were rejected due to missing data. The Odds Ratio column is the odds of an event occurring. It is a multiplier of the odds of a deviant homicide (Menard, 1995) and, in this case, represents the odds of a deviant homicide. In regard to the independent variables, the only valid comparison one can make with categorical variables (as is the case here) is in relation to the reference category associated with each independent variable (SPSS

Incorporated, 1999, p. 48). For example, non–street gang moti-vated is the reference category for street gang motivated. Thus, the reference category lacks the assigned attribute.

The model has a moderate amount of explanatory power. The Cox and Snell R^2 (R^2 = .18) indicates 18% of the explained variance in the logistic regression model is attributable to the independent variables. However, this statistic is somewhat problematic in that it cannot achieve the maximum value of 1 (SPSS Incorporated, 1999, p. 45). In contrast, the Negelkerke R^2 (R^2 = .24) does not suffer from the same limitations and suggests that the model includes 24% of the explained variance.

Except for age, all of the offender-level demographic variables are significant predictors of deviant homicides. Offender race is a significant predictor when offenders are either African American or Hispanic. Homicides involving Hispanic offenders are nearly twice as likely to involve deviant circumstances. For African American offenders, the findings are opposite. Homicide events involving African American offenders are almost 25% less likely to be deviant. When all other variables were controlled, the gen-der of the offender demonstrates the largest predictive power. Homicides involving male offenders are more than 4 times more likely to be deviant. Similar to the findings for offenders, age is the only victim-level demographic variable not significantly related to the dependent variable. However, victim-level demographic variables are correlated with the dependent variable in the oppo-site direction. Deviant homicides are slightly more likely to involve younger victims. The effects of victim race are opposite those for offenders. Events involving African American victims are 50% more likely to be deviant, and those with Hispanic vic-tims are 25% less likely to be deviant. The victim's gender has a similar effect, as events involving male victims are approximately 4 times more likely to be deviant.

Differences in the relative risks of being a victim or offender in homicides involving nonnormative circumstances are not sur-prising. Risks of being a victim or offender of homicide vary by gender, age, and racial/ethnic group membership. For example, as Block and Block (1992) have reported, Latinos in Chicago have a much greater risk of being both a victim and offender of street

gang violence than do other racial/ethnic groups. In addition, whereas the homicide victimization rate for males is highest in the 15- to 19- and 20- to 24-year-old age categories, the range of rates for African American males (126 to 153 per 100,000) is far higher than the rates for White males (15 to 30 per 100,000). The patterns of differential representation as both homicide victims and offenders also tend to exist for deviant homicides. The concept of homicide syndromes proposed by Block and Block (1992) suggests that differences in vulnerabilities are partly explained by neighborhood characteristics.

The use of alcohol by either the victim or the offender is not a significant factor in the occurrence of deviant homicides. Decker (1996), in contrast, reported that deviant motives were more likely between acquaintances or strangers in alcohol-related homicides. It is not clear why this relationship differs across sites. However, variations in alcohol/violence nexus are best "explained as a function of variation[s] in social structural conditions" (Parker, 1995, p. 30).

Although this analysis was not able to include variables on offender and victim drug use, it does assess the relative effects of drug motives. Assessment of drug motives determines if the sale or use of drugs was the precipitating factor in the event (Rosenfeld, 1989). Table 4 indicates events that are motivated by the sale or use of drugs are more likely to be normative.

Finally, temporal (pre-1985/post-1985) and street gang circumstances significantly increase the likelihood of deviant circumstances. Homicides that involve street gang motives are approximately 7 times more likely to involve deviant circumstances. The findings show that gang violence in Chicago is more likely to involve expressive violence and more likely involves traditional gang violence such as disputes over territory. Finally, homicides occurring after 1985 are more likely to be deviant. This finding, in conjunction with the finding that drug-motivated homicides increased precipitously around 1988, provides limited support for the argument that the influx of drugs, namely, crack cocaine, increased levels of lethal violence. Although the influx of crack might very well have affected levels of crime, it appears to have done so in a normative manner.

DISCUSSION

Several interesting findings are apparent from these analyses. Deviant homicides are more likely among offenders who are minority and male. More specifically, events involving Hispanic offenders rather than African Americans have a greater likelihood of nonnormative characteristics. These findings differ from those for victims. Among victims, deviant homicides are more likely for males and non-Hispanics. Victim or offender age does not increase the probability of normal or deviant characteristics to a substantial degree. There is support for Decker's (1996) hypothesis arguing that deviant homicides are more likely among those with weak ties to social institutions. However, the ability to further disaggregate data indicates this relationship can be specified to Hispanic offenders and African American victims. According to Martinez and Lee (1999), substantive differences in homicide patterns between Hispanics and African Americans are due in part to economic deprivation and immigration patterns. For example, Shaw and McKay (1931) found that neighborhoods with high concentrations of immigrant populations reported the highest rates of juvenile violence. In addition, there are also important economic differences between Hispanics and African Americans. Hispanics, for example, are more likely to be considered among the working poor, whereas African Americans are more likely to be among the chronically unemployed. Hispanics also tend to experience lower prevalence of female-headed households (Martinez & Lee, 1999). Thus, there are important reasons to anticipate qualitative differences between minority groups, thereby substantiating the need to disaggregate data.

With regard to drug circumstances, it appears the original hypothesis suggesting a relationship between crack cocaine and nonnormative crimes was misspecified. Whereas previous research clearly articulates a relationship between crack and crime in general (Blumstein & Rosenfeld, 1998; Fagan & Chin, 1990), the current findings suggest that the involvement of drug motives does not diminish the protective capacity of primary relationships in the manner originally hypothesized. Thus, although the involvement of drug circumstances may increase the overall likelihood of lethal violence, it does so in a normative manner.

This finding, however, is not entirely inconsistent with previous research. Some research suggests violence associated with crack is not qualitatively different from violence associated with other drugs such as cocaine. Fagan and Chin (1990) suggest that systemic drug violence is related to the introduction of a new drug into a community and not simply attributable to psychopharmacological effects of a particular drug such as crack.

Homicides involving gang circumstances were most likely to result in deviant circumstances. These mostly involved expressive motives between acquaintances. It is not surprising that gang violence would lead to deviant homicides. Gang violence tends to occur within and between gangs. Close personal relationships would be expected among individuals who are part of the same gang, offering individuals with close personal relationships greater protection from violence. However, it is likely that rival gang members are also acquainted with each other, thereby decreasing the probability of "stranger" violence. Research from Chicago indicates that "street gang violence tends to occur within the confines of a relatively small area, usually close to the offenders' home addresses" (Illinois Criminal Justice Information Authority, 1996, p. 11). It is hypothesized that gang violence resulting in deviant homicides involves disputes over territory. In addition, these disputes could be due to systemic violence (Goldstein, 1989) associated with the drug industry. Although drugs are not often the reason gang members join gangs, selling illegal drugs can serve as a source of money, prestige, and sexual favors for gang members (Decker & Van Winkle, 1996, p. 153). In general, there is support for Decker's findings that gang violence results in a greater proportion of deviant homicides.

FUTURE RESEARCH IMPLICATIONS

The authors support the argument that research should attempt to study homicide events in more meaningful disaggregations. Separating homicide into theoretically sound subgroups allows for greater insight into their causes and correlates (Williams & Flewelling, 1987). One useful way to disaggregate homicide is based on the principle of analyzing those that run

counter to traditional characteristics, namely, deviant characteristics. Analysis of "white noise" allows for more specific and accurate findings.

This research underscores the need for a finer disaggregation of VOR. When possible, it is substantially useful to disaggregate primary relationships into family and friends and secondary relationships into acquaintances or strangers. There are, however, potential problems with the acquaintance category. A category such as acquaintance potentially contains a significant amount of variability. Specification of the VOR is based on the goal of identifying the level of regular and mutually reinforcing interaction between individuals (Decker, 1996).

We suggest that future research build on existing literature in an effort to find a more accurate measure addressing the problems of VOR. By identifying specific VORs, it is possible to conduct rigorous and systematic analyses of homicide incidents. However, for this to occur, traditional data collection must be replaced with methods that involve detailed and updated classification between victim and offenders. This detailed approach to data collection aims to remove the amount of inconsistencies in research.

Because research tends to group minority populations in one seemingly homogeneous group, the findings from this study reaffirm the need to disaggregate data among various racial/ethnic groups. The tendency to place subjects into homogeneous groups is sometimes caused by methodological issues associated with sample sizes. However, these findings support the argument that subpopulations often respond differently to similar social forces. For example, first-generation Hispanic populations are subject to acculturation issues that second- or third-generation groups might not experience. Differences in the acculturation process may be due in part to language and cultural conflicts between traditional norms and those of the dominant culture (Buriel, Calzada, & Vasquez, 1982; Sabogal et al., 1987).

This research would have benefited tremendously from a broader contextual understanding of the potentially biasing influences of policing strategies and coding schemes over time. It seems likely that police policies and practices would have changed over the data-collection period. It is also likely that differential priorities can affect processes of police investigations and coding schemes. As one anonymous reviewer suggested,

police might have been more willing to consider homicide events as drug related or drug motivated after the devastating effects of crack cocaine were realized. Consequently, future researchers are cautioned, where possible, to account for historical factors that could possibly influence research outcomes.

APPENDIX
Variable Coding Schemes

Victim-offender relationship (VOR)

Source variable: VREL1.

Stranger: stranger

Acquaintance: landlord, landlady, tenant, janitor, employer, employee, coworkers, proprietor, customer, neighbors, acquaintances, baby-sitter, teacher, student, cab driver, fare in cab, rest/bar staff, rest/bar customer, prostitute, client of prostitute, gambler, drug pusher, drug buyer/user, doctor, patient, rival gang member, sexual rivals, cell mate/inmate, nongang target, homosexual acquaintance

Friends: roommate, friends, (same) gang member, pimp

Other relatives: father, mother, son, daughter, brother, sister, half-brother, uncle, aunt, nephew, niece, cousin, grandfather, grandmother, grandson, granddaughter, boyfriend of mother, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, foster mother, foster son, foster daughter, father-in-law, mother-in-law, son-in-law, daughter-in-law, child (of mother's boyfriend), child being watched

Romantic link: husband (legal), wife (legal), husband (common law), wife (common law), ex-husband, ex-wife, boyfriend, girlfriend, ex-boyfriend, ex-girlfriend, homosexual couple, ex–common law wife, ex–common law husband

Other/unknown: relationship undetermined, police officer, security guard, suspect, target for contract, witness/informant, firefighter

Motive

Source variable: CIRCUM

Expressive: fight or brawl, other expressive

Instrumental: instrumental, both expressive/instrumental, sexual assault

Other/unknown: other motive

Drug motivation

Source variable: DRUGRELA

Drug motivated: (a) selling or drug business; (b) argument over possession, use, quality, or cost of drugs; (c) getting money for drugs or acquiring drugs for

personal use; (d) other drug involvement; (e) probable drug involvement, but no positive evidence (circumstantial evidence)
Not drug motivated: (0) no information

Gang related

Source variable: SYNDROME
Gang related: street gang motivated
Not gang related: all others

NOTES

1. Homicide research is confounded because of the proportion of homicide events with unknown victim-offender relationships (VORs). Decker (1993) reported that although national data indicated that more than one third of homicides involved strangers between 1985 and 1989, only 4% of homicides occurring in St. Louis during that same period involved strangers. There is a lack of consistency in the literature as to the relative likelihood of an unknown VOR and how best to interpret its meaning. It has been suggested that homicides with an unknown VOR most probably involve strangers because they are the most difficult to solve (Maxfield, 1989). This is a questionable argument. Decker's (1993) findings indicate that a greater proportion of homicides involve acquaintances rather than strangers.

2. Supplemental Homicide Report (SHR) data, a common source of data for homicide research, is often criticized because of the failure of many police departments to continually update records as additional information becomes available (Maxfield, 1989). Thus, part of the discrepancy between proportion of homicides with unknown VORs might be due to the quality of the data sources.

3. The relationship between the crack cocaine market and crime remains quite unclear. The criminal justice community, arguably influenced by vast amounts of media attention, made clear and possibly unfounded distinctions between the use of crack cocaine and other drugs. It was argued that the high associated with crack cocaine resulted in an almost immediate addiction. In addition, it was perceived that crack cocaine led to increased levels of criminal activity, including prostitution, theft, and violence, among crack users. Although crack did certainly have a devastating effect on many communities, research indicates that "crack . . . was never as instantly addictive or totally devastating as asserted by the media, political speeches, and statements of public policy" (Johnson, Golub, & Fagan, 1995, p. 291).

4. Data were made available through the Inter-university Consortium for Political and Social Research (ICPSR) at the University of Michigan (Block, Block, & Illinois Criminal Justice Information Authority, 1997) under Study Number 6399. Each homicide record represents one victim and contains more than 100 variables that record multiple characteristics of the criminal incident, including victim and offender characteristics, nature of VOR, and homicide location characteristics.

5. This measures the year the homicide was booked by the Chicago Police Department.

6. We are grateful to an anonymous reviewer for suggesting this procedure. U.S. homicide rate information was obtained from Maguire and Pastore (1999, p. 260, Table 3.114). Trends in deviant homicides are independent of trends in U.S. homicide rate and the total number of homicides in Chicago. This implies there are factors affecting the prevalence of deviant homicides that are not similarly affecting other homicides trends, such as the U.S.

homicide rate. Bivariate correlations indicated the relationships between number of deviant homicides in Chicago and the U.S. homicide rate were not significant ($R^2 = -.139$, $p = .273$). In addition, bivariate correlations between deviant homicides and total number of homicides in Chicago ($R^2 = .152$, $p = .255$) were also not significant. For ease of interpretation, only trends in total number of deviant homicides and the U.S. homicide rate are included in Figure 1.

7. Multiple tests were conducted to assess potential problems with collinearity. Bivariate correlations nearing .70 between some independent variables suggested a potential problem with collinearity. In regression analyses, perfect relationships between independent variables can result in least squares coefficients that are not uniquely defined. This can result in potentially unstable coefficients (Fox, 1991). Similar problems have been reported for logistic regression analyses (Ryan, 1997). Fox (1991) recommends the use of variance inflation factors (VIFs) to assess the extent of degradation of precision estimations resulting from collinearity. The highest VIF value was 3, which is less than the traditional cutoff point of 4. Because VIF values are not adequate to assess potential methodological problems with specified models, we conducted a series of nested regression models whereby each independent variable was entered into the model. This allows for an assessment of substantial changes in direction or magnitude of relationships between independent variables and the dependent variable while controlling for other variables in the model. A series of 13 regression models was conducted, and the relative effects and direction of each relationship were calculated. Except for the variable denoting African American offenders, all of the variables remained reasonably consistent across the various models. After offender age was entered into the model, the impact of African American offender changed from a positive to negative slope (.1193 to −.2821). From that point forward, the slope of the variable remained relatively constant, ultimately resulting in a slope of −.2582 for the full model. Thus, after controlling for offender age, the results showed a negative relationship between African American offender and likelihood of deviant homicides.

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