

The Varieties of Homicide and Its Research

Proceedings of the 1999 Meeting
of the Homicide Research Working Group

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FOREWORD

Crime and violence continue to be a major challenge facing the nation. Encouragingly, recent statistics show marked declines in crime in the United States (Federal Bureau of Investigation, 1999). However, as recent as just a few years ago, rates for crimes of violence and homicide were recorded to be at near all time high levels. As a consequence, various efforts to respond to an apparent “epidemic of violence” in the United States resulted. Among these New York Cities’ COMPSTAT approach to crime analysis, Richmond, Virginia’s Project Exile to curb gun use, and the Boston Gun Project are but a few of the programmatic efforts that are widely believed to have contributed to the decline of violent crime rates within these communities. Yet, each of these crime control efforts has at least one element in common. All have been, either directly or indirectly, examined for their contributions and limitations by the researchers, practitioners, and academics that comprise the Homicide Research Working Group (HRWG).

Dedicated to examining the causes, correlates, and promise for preventing both homicide and violent behavior, The HRWG, with support from the National Institute of Justice, was formed in 1991. In June 1992, at the University of Michigan in Ann Arbor several researchers and academicians assembled to discuss issues related to the measurement, research and understanding of violence and homicide. As noted above, reported rates for these crimes were at unprecedented levels in 1992. At this gathering the HRWG was formalized and annual meetings have followed. This effort has yielded a body of knowledge, a scholarly journal, programmatic directions, and collaborative relationships among researchers that significantly enhance our understanding of the problems of homicide and the potential to prevent these tragic outcomes.

In furtherance of this effort, the Training Division of the Federal Bureau of Investigation, United States Department of Justice, initially hosted the annual meetings of the 1993 Homicide Research Working Group at the FBI Academy in Quantico, Virginia. This symposium brought together approximately 50 individuals and served as a catalyst for further research and discovery. The proceedings from this 1993 symposium were then published by the National Institute of Justice. As a direct consequence of the success of these earlier HRWG meetings, the Behavioral Science Unit of the FBI Academy again hosted the 1999 meetings of the HRWG. This symposium brought together more than 80 practitioners, researchers, academicians, and others who were seeking to further work on the changing causes, correlates, and potentials for curbing the incidence of both homicide and violence.

These proceedings represent not only a compilation of the activities of these 1999 meetings but also serve to underscore the commitment by government, private industry, and the public that are necessary to understand and prevent the problems created by violence and homicide. It is hoped that the information provided herein will continue to assist individuals and organizations dedicated to broadening our understanding of the problems of violence and homicide. This symposium, and the information contained in the articles published here, have two goals: 1) the enhancement of the state of knowledge relative to homicide and violence in our society and 2) the identification of strategies to prevent such behavior now and in the future.

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1999 Crime in the United States, Uniform Crime Reports: Washington, D.C..

PREFACE

As with its predecessors, the eighth annual workshop of the Homicide Research Working Group was sponsored by a group interested in homicide research. This year's participants were equally interested in learning about, and taking advantage of, the facilities of the sponsoring organization. The HRWG is distinguished in part by its fusion of scholarly research (which probes the causes of violence on paper) with practical studies (which reveal its effects on the streets). It seemed the perfect marriage, then, when the FBI Academy -- as it had for the second annual symposium in 1993 -- offered its facilities again in 1999. This unique symbiosis afforded the opportunity for stimulating discussions on members' papers and sessions on such topics as stalking and profiling presented by agents from the FBI and the United States Secret Service. Members were also given a tour of the Academy to learn more about aspects of the FBI's work as it might relate to homicide and its investigation/research.

In the past, the Proceedings of the HRWG meetings, variously called workshops and symposia, were published by the National Institute of Justice (NIJ) of the Department of Justice, which essentially sponsored the HRWG in its early years. With the growth of the organization, to the point where Sage Publications publishes *Homicide Studies: An Interdisciplinary & International Journal*, it no longer seemed appropriate for the NIJ to continue to publish material not based on NIJ sponsorship. Fortunately, for the 1999 Proceedings, the FBI Academy decided to expand its role as host to assume the role of publisher for the Proceedings, which include copies of the papers delivered at the annual meeting, as well as summaries of the discussions related to those papers. These proceedings also include brief summaries of the panels held, involving presentations and discussions without papers, on stalking, media coverage of homicide and its research, and profiling.

It should be noted that there have been some substantive changes in format and content. Some of the authors of the various papers took advantage of the time between the oral presentation and the deadlines for submission of the written versions to update and revise their papers. Indeed, some of the titles differ between these proceedings and the more tentative titles listed in the Agenda for the meeting (first appendix), and authorship has occasionally been expanded. In addition, Discussions for each panel are based on the notes taken by the various recorders during the sessions, but have been modified for uniformity. As there are no standard rules for how notes are recorded, there is considerable variation as to what was deemed worthy of recording. Moreover, because there are two intermediate steps between participants' oral commentary during the discussions and our written summary of what was spoken, nothing reported here should be treated as a precise quotation, although we hope the gist of each statement is accurate. Lastly, in fairness to contributors and editors, it should be noted that software incompatibility and other computer glitches sometimes made aspects of conversion -- e.g., page layout, grammar, even spelling, especially related to the use of graphics -- beyond the abilities of authors and editors to correct. And, of course, allowances should be made for standard human errors. Nonetheless, these Proceedings should prove useful to scholars of lethal violence.

Grateful acknowledgment is due to all those who assisted with these proceedings and the meeting. The editors wish to thank Dwayne Smith, who, based on his experience as editor of *Homicide Studies*, has always been willing to respond to editorial inquiries. Additionally, members of the HRWG appreciate those at the FBI Academy who made it possible for the group to enjoy the educational enhancement its facilities provided. Special thanks are due to John Patrick Jarvis, of the Behavioral Sciences Unit, for orchestrating the FBI's sponsorship of the meeting and publication of these proceedings, as well as for continuing to support the HRWG and its mission. And, finally, thanks to all participants, who, through their research and dedication, continue to further that worthy mission, which aims to understand the sources of lethal violence and, ultimately, how it might be reduced.

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CHAPTER ONE

METHODOLOGY OF HISTORICAL STUDIES

A CAPTURE-RECAPTURE APPROACH TO ESTIMATION OF HIDDEN HISTORICAL KILLINGS

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ABSTRACT

Any scholar attempting to trace historic trends in homicide must grapple with the issue of missing data, some of which are yet to be uncovered, but others of which have disappeared forever. This paper shows the utility of multi-source “capture-recapture” (or “dual enumeration”) methods for estimating the number of unrecorded murders, using newspaper and archives data for the state of South Carolina, 1877-1878. Results are dramatic. In comparison with the capture-recapture estimate of total homicides, at least 58% of the state’s murders for the 2 years are not to be found in the South Carolina State Department of Archives and History; the major newspaper of the state missed at least 30%; and the combined sources missed at least 20%. Clearly, any historical trend study based on the 2 sources alone would face a formidable undercount problem. The 19th century Southern culture and social structure, and the ruralness of the state, may contribute to the problem.

INTRODUCTION

As with other historical trends, those of homicide are derived from counts from some set of sources, including coroners’ records, indictments, arrests, and newspaper accounts. But what proportion of the original incidents were recorded and – if so – still exist? Adding sources usually increases the count, but it cannot be known directly how closely this approaches the true figure. The available count for any period before the development of regular death or crime reporting likely will undershoot the true number substantially. This will make earlier periods appear less violent than they were, create false upward trends, overstate real upward trends, and mask downward trends.

The problem of missing or hard-to-count phenomena has long interested demographers, who have devised methods that may be helpful for the type of problem faced here. In this paper, I will discuss the uses and limitations of one demographic method suited to historical data. Originally called the method of Chandrasekar and Deming after its developers, the class of such methods are now usually referred to as “dual-enumeration” or “capture-recapture” methods. I will describe the method, including its major limitation, then will show its applicability for estimating the number of unrecorded or lost homicides by applying it to homicide data from post-Reconstruction South Carolina. It relies on characteristics of the individual cases that are found from different sources, so I will describe the two homicide data sources, including technical issues that the historian or historically-oriented social scientist will need to address. After deriving estimates of the number and rate of South Carolina homicides, I will discuss some implications

for the use of historical records.

CAPTURE-RECAPTURE METHODS

Chandrasekar and Deming (1949) developed the method to estimate the number of births or deaths missed by registrars. To estimate the missing number, they matched individuals from two lists, originally a registrar's list and the list obtained via a house-to-house canvas. Each list presumably misses some births or deaths, and *each* serves as a criterion for judging the completeness of the other. Technical characteristics of the method allowed estimation of the "dark figure" and, in some cases, standard errors and confidence intervals as well. Because of this, such methods have found a wide variety of applications by law enforcement, health care, and social service agencies. In a rare historical application, Crimmins (1980) used it to estimate the completeness of mortality data from the 1900 U.S. census and death registration data, but it has never, to this writer's knowledge, been used to estimate historical homicide numbers.

Beginning with the two just-mentioned lists, items are matched and divided into three categories:

N_1 = the number found only on the *first* list

N_2 = the number found only on the *second* list

C = the number found on *both* lists

The *actual* number of items is the sum of those in the three categories plus an unknown number (X) that are missing from both lists. The initial, estimate of the number of items missing from both lists is

$$X = (N_1)(N_2)/(C),$$

so the initial estimate of the total number of items is

$$T = N_1 + N_2 + C + X.$$

LIMITATIONS OF CAPTURE-RECAPTURE METHODS

There are several criteria that must be met for the estimates to be accurate, all of which probably will be violated to some extent. I will discuss four criteria that are mentioned by most scholars who use the methods. First, items must belong in the categories to which they are assigned. All items included on the lists should belong on the lists, and those excluded should not. Theoretically either they do or do not, but in practice one has to use decision criteria and there are likely to be false positives (non-homicides that are mistakenly included in the totals) and false negatives (real homicides that are mistakenly excluded). Is a reported "killing" really an accident, a suicide, or a death from some unrelated cause? Was there a death at all, or was there a false report? Including a false positive will both add a homicide to the count and add to the estimate of uncounted homicides. Excluding a false negative will have the opposite effect.

Second, items must belong in the geographical area, time period, and specific population under study. Errors of “scope” concern homicides that really happened, but in different periods, places, or populations than the one being studied. Their effects are the same as those of inclusion errors. It can be hard to get geographical and population closure with highly mobile populations.

Third, it must be clear which items from the two lists do and do not match. A “match” between items on two lists also depends on decision criteria, and there can again be false positives and negatives. Matching errors will have larger effects on the estimate of uncounted homicides than will inclusion or scope errors. Nineteenth-century newspapers were lax on names, dates, and place names, so one *can* find homicide accounts in the paper and in coroner’s records that might or might not be different accounts of the same event. To address this, it is helpful to record as much information on each event as is available, so that the number of correct matches (and non-matches) are maximized.

These first three issues are faced by anyone who categorizes and tabulates any phenomenon, and use of well thought out selection criteria can minimize the problems. The fourth one, though, causes more difficulties. Namely, the likelihood of an item from the population appearing on one list must be independent of its likelihood of appearing on the other. This receives the bulk of methodological discussion in the literature, and it will do so here. In the best case, each list will contain a more or less random sample of all items. “Correlation bias” exists where inclusion is not random. An item that is included on one list has a greater (or, seldom, lesser) chance of being included on the second list than does an item that is missing from the list. This can happen because the two sources are not independent of one another (e.g., a newspaper may draw on the coroner’s reports when reporting homicides), or because different events in the population simply have different probabilities of being noted (e.g., the death of an important person is more likely to be noted than is that of a transient). Positive correlation bias, the situation in which an item appearing on one list has a greater than average likelihood of appearing on the other list, causes the estimate of missing events to be too low, how low depending on the strength of the correlation. In the extreme case that items from one list *always* appear on the other list, the estimate of missing items will be zero; it may not be possible to determine if this situation is caused by correlation bias or by exceptionally good record keeping.

Correlation bias is non-random and not caused by faulty selection criteria, and there is no certain way to eliminate it. Chandrasekar and Deming (1949) suggested one solution for it. If there was “heterogeneity” in the likelihood of individuals being enumerated, then dividing the sample into smaller, more homogeneous groups (for example, regions) might help. Hypothetically, individuals within these areas would have a more equal chance of being counted. One could then use the method on data within each area and then sum all the results, though in practice this has not usually had much effect on overall estimates (e.g., Crimmins, 1980, p. 165). In South Carolina, some counties simply did keep less accurate records than did others (see below). It is also possible that there were race, sex, or class biases in the recording of killings, or that less “interesting” homicides were systematically underreported. One cannot investigate these all simultaneously, because dividing the set of a few hundred recorded killings among all the categories that would be formed would lead to such small numbers per category that results would be unreliable.

Some important possibilities, such as racial bias, cannot be investigated by this method because few cases known only through archives records have racial identifiers.

There are statistical models that can be used to estimate the degree of correlation bias, under certain limiting conditions, typically employing log linear analysis or logistic regression, often using additional lists. It may not, however, be practical to apply these methods to data with the ragged quality of much historical data. I will discuss only simple, fairly straightforward approaches to the problem, and refer interested readers to references in a recent review article by Hook and Regal (1995).

DATA SOURCES

The South Carolina homicide data set includes all known homicides across the years 1877-1878 from two sources. First are incidents reported in the Charleston *News and Courier*, the leading daily paper of the day that reported news from the entire state. The *News and Courier* employed a network of county correspondents and also reprinted stories from other papers. Each incident found therein is cataloged by a variety of identifying information -- county and place of occurrence, names of offender(s) and victim, and so forth. The second data source is homicide records housed in the South Carolina Department of Archives and History, including county coroners' records, county court records, and homicide data from the South Carolina Governors' papers. The two files are linked, using case information, and duplicates and doubtful cases are removed, leaving 290 homicide incidents.

The decision criteria for classifying incidents were strict. In addition to the requirement that a news article identify an actual death from homicide, inclusion required of news accounts that there be identifying information such as names, races, county, weapon, specific location, or date. Though there may be false positive incidents, there is no evidence suggesting them to be overrepresented. Temporal errors also are more problematic than they might at first appear. The *News and Courier* seldom provided exact dates of incidents, and information from local, mostly weekly or semi-weekly, newspapers could take two or three weeks before being reprinted. These raise problems for some January news stories, and there can be problems for coroner data as well. There are a few cases in which a coroner's report included only the date of filing, rather than the date of the incident or the inquisition. Filing could take place weeks after the original incident, so the year of the incident could be hard to determine for inquisitions filed in January or early February. Use of a 2-year period halves the proportionate number of such cases. Because almost all incidents could be placed within specific counties and were catalogued by several characteristics, matching was less a problem than any other issue.

There are very good reasons to suspect some positive correlation bias. The archives have records on only 45% of those homicides found in the *News and Courier*, and the archive total is only 52% of the combined archive-paper total. In most cases, this represents random loss. In fact, 14 of the 33 counties then in existence have *no* coroners' or court records for the period 1877-1878. While there are no missing newspapers, some microfilm photos were made from torn or marred pages, so some homicides stories on damaged pages probably were destroyed (the problem appears to reside in the original negatives). However, positive bias is common in human records. Some murders were simply missed or ignored by

all sources, especially in isolated areas. Other killings have characteristics that increase their chances of being found in both county records and the newspapers, including sensational crimes and those that led to public hangings. Records of killings from the governors' papers are of events that were particularly important or drawn out, and therefore likely to be covered by the press. In many cases the local correspondent talked with the sheriff or coroner, or reported directly from the court.

COUNTING AND ESTIMATING HOMICIDES

I will investigate four potential options that arise from the nature of the data and contemporary expert testimony. These are: 1) the total count -- not an estimate -- from the two sources; 2) the estimate of total homicides that is derived by the formula, using the assumption that there is no bias; 3) the estimate derived using the Chandrasekar and Deming method to correct for sample heterogeneity; and 4) an estimate derived by dividing counties on the basis of the richness of their archive holdings.

Data from two sources may be placed in a simple two-by-two table, where the upper left-hand corner contains the events found on both lists, and the lower right-hand corner contains an unknown number of events missed by both lists. The formula yields a figure for the lower-right cell that is proportionate to the values in the other cells. A test of difference such as chi-square will return a value of zero (except for rounding error) when this result is plugged into the table, as will a rank correlation coefficient like Yule's Q. If there is positive correlation bias, the unknown correct number in the cell would be higher than the calculated number, and Q would be positive. If there were negative correlation bias, the opposite situation would obtain.

As shown in Table 1 there are 290 documented homicides in 1877-1878 in South Carolina. This yields average annual homicide rates of 8.0 per 100,000 based on archives totals, 13.2 based on newspaper totals, and 15.2 based on the joint totals. The joint total is certainly high by 20th-century standards but lower than the state's rate in 1921 and well below Louisiana's in the early 1990s.

Applying the capture-recapture formula adds 46 killings, yielding an average homicide rate across the 2 years of 17.6. As we expect positive correlation, this figure should be considered to be a floor. One suggestion for determining the accuracy of vital statistics figures, when other data are not available, is through the commentaries of informed contemporaries (Willigan & Lynch, 1982, pp. 65-67). Apparently on the basis of discussions with the newspaper's editors, a 19th-century reporter who studies homicide in South Carolina (Redfield, 1880, pp. 86-87, 96) speculated that the paper

Table 1. South Carolina Homicide Counts By County and Data Source

County	<i>News & Courier</i> only	Archives only	Both		Total
Abbeville	11	0	4		15
Aiken	3	6	12		21
Anderson	4	0	3		7
Barnwell	7	1	6		14
Beaufort-Hampton	11	2	2	15	
Charleston	14	0	17		31
Chester	6	1	1		8
Chesterfield	0	1	1		2
Clarendon	2	3	1		6
Colleton	8	0	1		9
Darlington	9	0	2	11	
Edgefield	6	4	10		20
Fairfield	1	0	3		4
Georgetown	2	0	2		4
Greenville	3	3	7	13	
Horry	1	0	2		3
Kershaw	3	0	2		5
Laurens	2	5	4		11
Lancaster	6	0	0	6	
Lexington	4	3	1		8
Marion	6	0	0		6
Marlboro	1	2	5		8
Newberry	3	0	1		4
Oconee	2	1	0	4	
Orangeburg	1	1	1		3
Pickens	1	1	2	4	
Richland	7	2	9		18
Spartanburg	2	1	3	6	
Sumter	3	0	0		3
Union	1	1	8		10
Williamsburg	3	0	0		3
York	3	0	4		7
Undetermined county	2	0	0	2	
Totals	138	38	114	290	

Hampton County separated from Beaufort County in 1878. The two are kept together here for statistical purposes.

only missed about 10% of all killings. That is clearly not possible. If the 252 homicides found in the paper were 90 percent of the state total, there would only have been 280 altogether, fewer than the actual count. To have *only* the 290 documented homicides, that is no missing homicides at all, the paper would have reported just under 87% of the total. If there are only the 336 homicides estimated initially, then the paper missed a quarter of the total.

Table 2: Estimated Homicide Rates and Other Data, Various Models

Model	Yule's Q	Est. Missed	Est. Total	Est. Rate	N&C as %Tot	Archives as %Tot	Combined as %Tot
Documented Count	-1.00	0	290	15.2	86.9	52.4	100.0
Normal Estimate	.00	46	336	17.6	75.0	45.2	86.3
Co. by Co. Estimate	.21	71	361	18.9	69.8	42.1	80.3
Ratio Estimator	.30	86	376	19.7	64.0	40.4	77.1

See text for details

The rate is estimated homicides per 100,000 population per year.

The Chandrasekar-Deming technique for addressing correlation bias requires just that the sample be divided into what are thought to be more homogeneous units, such as counties. It assumes that heterogeneity in “capture” is statistically tied to geography. Following their approach will not affect the estimate much if the assumption is not correct. Two adjustments must be made to the data set before applying their approach. First, 2 of the homicides cannot be placed in any county, so they are withheld from calculations, then added in at the end. Second, 5 counties have no matching [“C”] homicides, making it impossible to calculate the missing number. Therefore, the total of each of these counties is combined with that of an adjacent county that shares its rural characteristics.

Following the adjustments, the technique yields an additional 25 hidden homicides to the total, a 54.3% increase in the estimate of unrecorded killings. Clearly, there were significant county differences in the reporting of homicides. The estimated average annual rate of homicide is 18.9. If correct this still indicates a rather modest degree of correlation bias, as shown by a Q of +.21. The newspaper coverage of total homicide incidents (counts plus estimates) is just under 70% of the estimated homicide total, and the archive total is just over 42%. Now, this corrects *only* county-based bias in recording. If race, class, sex, “importance,” or some other factor biases recording as well, the true count will be higher still.

The *News and Courier* appears to have caught different percentages of the homicides from different counties, and in an odd manner. Fewer of the homicides of counties with rich coverage in the archives appear in the paper than do homicides of counties with less thorough coverage. Why does this occur? It is hardly likely that a county professional enough to maintain records over the years will be one in which homicidal incidents are *less* likely to be reported in the papers than will be a less organized one. The opposite seems more reasonable. In her study of death registration and mortality enumeration in the census of 1900, Crimmins (1980, p. 165) found that rural counties that underenumerated deaths also tended to underregister them. In this instance what *seems* to occur is that more of the archival homicides for counties with poorer records come from the governors’ papers -- this is to say they are more “important” incidents -- so a higher percentage are reported. The percentage of *all* of those counties’ homicides that is reported is probably lower. If one can determine the true percentage, then one can use a ratio estimator method to estimate total killings. This is essentially use of a “fudge factor,” not technically a capture-recapture method.

It is easy to form an index of the thoroughness of county archives (excluding Charleston from this

part of the analysis, as it seems clear that the *News and Courier* had full coverage of all local homicides). The presence of coroner and court records are each measured on a scale of 0-to-3 (0=missing, 1=minimal, 2=some, 3=thorough), then the two are summed, yielding a score between 0 and 6. Table 3 shows the sets broken down among counties with scores below 3, with scores of 3 to 5, and with a score of 6. The percentage of archival homicides “caught” by the paper drops from 79 to 64% as we move from counties with the worst to those with the best records.

Under the assumptions that the difference is real and that the percentage of archival homicides from high index-score counties reported in the newspaper is the true percentage for the entire state outside of Charleston County -- that is that the *News and Courier* missed about 36% of homicides outside of Charleston -- South Carolina had 15 more homicides than found via the capture-recapture method and an average annual rate of 19.7. Q is +.30, indicating a moderate amount of correlation bias. If this is accurate, the archives data represent only about 40% of all killings. One must be cautious with any interpretation, though, for the index-score by newspaper “capture” rate association is not statistically significant ($X^2=2.60$, $df=2$, $p<.30$).

Table 3: Breakdown of Homicide Data by Completeness of County Archive Holdings

Holdings	<i>N&C</i>	Archives		<i>N&C</i> as	Archives
Index Score	only	only	Both	% Arch	as % <i>N&C</i>
Zero-Two	79	6	23	79.3	22.5
Three-Five	32	14	42	75.0	55.3
Six	11	18	32	64.0	74.4

Charleston county homicides and two homicides of undetermined county are excluded from the table. See text for the basis of the index score.

DISCUSSION

This exercise offers some cautions about the direct use of counts and the usefulness of capture-recapture techniques. In the case of post-Reconstruction South Carolina (1877-1878), use of a simple capture-recapture method suggests a fairly large body of unrecorded homicides. Under the assumption of no correlation bias, we estimate 46 homicides above the number found to date, jointly, in state records and news accounts. Two methods devised to correct for correlation bias add *additional* totals of 25 and 40 hidden homicides respectively. This provides important information about the nature of archival data and about the state of South Carolina.

Perhaps foremost, this indicates that coroner and criminal records are inadequate as measures of the amount of homicide in South Carolina 120 years ago, catching only about half of the actual homicides in the archives-plus-newspaper total and far fewer than half the estimated total, perhaps as few as 40%.

The average annual homicide rate calculated on the basis of archives records (8.0), would be utterly unremarkable in the late 20th-century U.S., off from the true figure by a factor perhaps as high as 2.5. An historical criminologist basing the history of murder in South Carolina on accounts from the archives might conclude that the rates increased in the 20th century, whereas it seems the opposite has actually occurred. Now South Carolina may have done an exceptionally poor job of preserving records because of its long-standing poverty, high rates of illiteracy, and decentralized justice system, but *even* the set of 5 counties that held their records with the greatest perseverance are missing a quarter of their local incidents that were reported in the *News and Courier*. It is likely that they are missing about that proportion of their own true totals.

The *News and Courier* was a much more thorough recorder of killings than are official records that are known to still exist, at least in South Carolina. Still, the paper missed a quarter of the homicides that have been found in the archives, 28% of those from outside of Charleston County. It missed between a 25 and 33% of the estimated state homicide total, which is to say that there were apparently from one-third to half again as many homicides in the state as are found in the newspaper alone. The claims of the contemporaries who would be most likely to know the extent of the paper's coverage are far below the mark.

Clearly the joint use of the archives and the newspaper yields a count much closer to the true total of killings than does either alone, but the estimates still yield from 16 to 30% more killings than are documented, that is from 46 to 86 additional deaths across the 2 years. Use of the dual enumeration approach makes it clear that homicide in post-Reconstruction South Carolina did not occur at the (by U.S. standards) moderate rate indicated by the archives or by the somewhat elevated rate shown by the *News and Courier*'s count. Rather, it had a substantially elevated rate, perhaps as high as 20.

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ESTIMATING THE ACCURACY OF HISTORIC HOMICIDE RATES: NEW YORK CITY AND LOS ANGELES¹

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ABSTRACT

By using capture-recapture sampling, the accuracy of historical homicide counts in 19th century New York City and early 20th century Los Angeles County can be established. In both cases, the original counts missed some homicide victims, the amount varying by year and how one defines missing. The accuracy of the original counts was judged to be relatively good for New York, having missed between 4 and 8%, and considerably larger, 11%, for Los Angeles. Two exceptions -- 1863, when an alternative source reported a higher count in New York City, and 1909, when water damaged coroner's inquests in Los Angeles -- show the value of the technique in correcting for more obvious missing data.

THE NEED FOR HISTORICAL HOMICIDE RESEARCH

While homicide remains an American problem of extraordinary importance, our empirical knowledge is remarkably short sighted. Simply put, most researchers focus on the past decade or two -- usually for reasons having to do with convenience, not theory -- and ignore the longer term. However, recent work has shown that the past is inherently recoverable, and that there is every reason to expect that comparable homicide rates across time and place should be used to set current research in context. This paper builds on some of my recent research and responds to the challenge of a recent paper by Douglas Eckberg, who has shown that not only can we recover the past, but that we can even estimate missing data counts (Eckberg, 1998).

The capture-recapture method of estimating a population has straightforward requirements: two samples from the same population in which the elements of each sample may be uniquely identified. The method may be applied to any kind of population, in this case the population of homicide victims from a politically and temporally bounded area, where the names of victims serve as unique identifiers. The purpose of the exercise is to estimate the true population of homicide victims. With the true population of victims thus identified, one may reconstruct homicide rates for places and times which must otherwise go unknown. Two such samples are more recoverable than one might guess: for example, McKanna (1997) has several suggestive data sets for the American West which might be used as the basis for searching the second samples.

One of the problems with the capture-recapture method for homicides is the question of correlation bias, the non independence of each list. This would not be too surprising, if, say, sample A was the coroner's list of victims and sample B was a newspaper list which might have been created by typical

¹I wish to thank my research assistant on this project, Tamara Myers, and Jeffrey Kroessler for transcribing the Hays list. This work was supported by two grants, one from the Academic Senate of UCLA, and the other from the National Consortium on Violence Research.

reporting practices, the newspapers simply reporting the more interesting cases investigated by the coroner. On the other hand, some cases in the newspaper may not have appeared in the coroner list because of practices no longer known to us, such as the coroner's sending of files to the prosecutor. Or the coroner simply might have ignored some homicides, whether because of inconvenience, poor organization, or racial bias. Such biases would produce underestimates as Eckberg has pointed out. Thus, the results of reconstructing historical homicide rates err in the undercount direction, which, we always consider the more cautious, conservative, and reliable thing to do.

Such ruminations as this hint at the basic problem in historical homicide research: the provenance of the lists is often unknown. Consider two such examples, Jacob Hays, *An Account for Prisoners Received into the New York State Prison* (c. 1822b) and *A General List of All Persons Indicted and Convicted in the City and County of New York from the end of the American Revolution to the Year 1820* (c. 1822a), the first located in the Museum of New York City and the second in the Queens Borough Public Library. These are probably the same list, and I have used the Queens copy. We know that Hays was the High Constable of New York City, but is there any reason to trust his list?

Or consider William Henry Tippetts, who at the age of 35 wrote *Herkimer County Murders: This Book Contains an Accurate Account of the Capital Crimes Committed in the County of Herkimer, from the Year 1783 up to the Present Time. Among Those of Recent Date Are the Wishart Murder, the Druse Butchery, and the Middleville Tragedy. The Facts Were Gathered from the Official Records of Herkimer County, and Other Reliable Sources by the Author, W. H. Tippetts* (Herkimer, N.Y.: H.P. Witherstine & Co., Steam Book and Job Printers, 1885.) Do we use this latter fascinating source as a single sample, then draw another one, say, from coroner's inquests, as a second? How do we know if Tippetts merged several samples? Since, in this case, it is unlikely that we will ever get a second sample, Tippetts will probably stand, but it does make clear how the sample provenance problem is real.

This paper reports some capture-recapture estimates for New York City, for the late 18th through mid-19th centuries and for Los Angeles, 1899 through 1919. In each city, I have been able to use two sources, the coroner's inquests and newspapers, to compare name by name which victims are in both sources and which in only one. In addition, the unique list of prisoners compiled by Hays allows me to construct two lists for a very early time period, 1784-1820: because the city was small and the records less consistent and sometimes lost, I have grouped all the years together to compare against my initial list. Overall, the annual added homicides vary from 3.5% to 7.5% greater than my original estimates for New York City, 11% for Los Angeles. There is no way to assess if this level of undercount was consistent across time, or if it is a reflection of my own methods of data gathering with the human error involved. Prior to doing these tests, I was guessing that my data undercounted by 5%.

New York City

My original New York City times series covers the period 1797 to the present (see Monkkonen, 1999 and in press). It is based on a wide range of sources. For the years prior to 1875, most of the annual counts come from individual level cases gathered from newspapers and coroners' reports. In addition to the counts these data give, the annual data have been supplemented from the occasional official toll

reported by the City Inspector, a precursor to a public health official. Originally called Bills of Mortality, as they had been published as handbills, these are an old English practice dating back to early 17th century London. Some of these City Inspector counts were apparently gathered from burial reports. Unless there was good reason not to, for each year I used the highest reported number of homicides, whether from my own prior list of individual cases or from some annual report. The capture-recapture estimates have been done for years where both the coroner’s reports and the newspaper reports are thorough, or for 1784-1820, when the unique Hays list made possible an estimate.

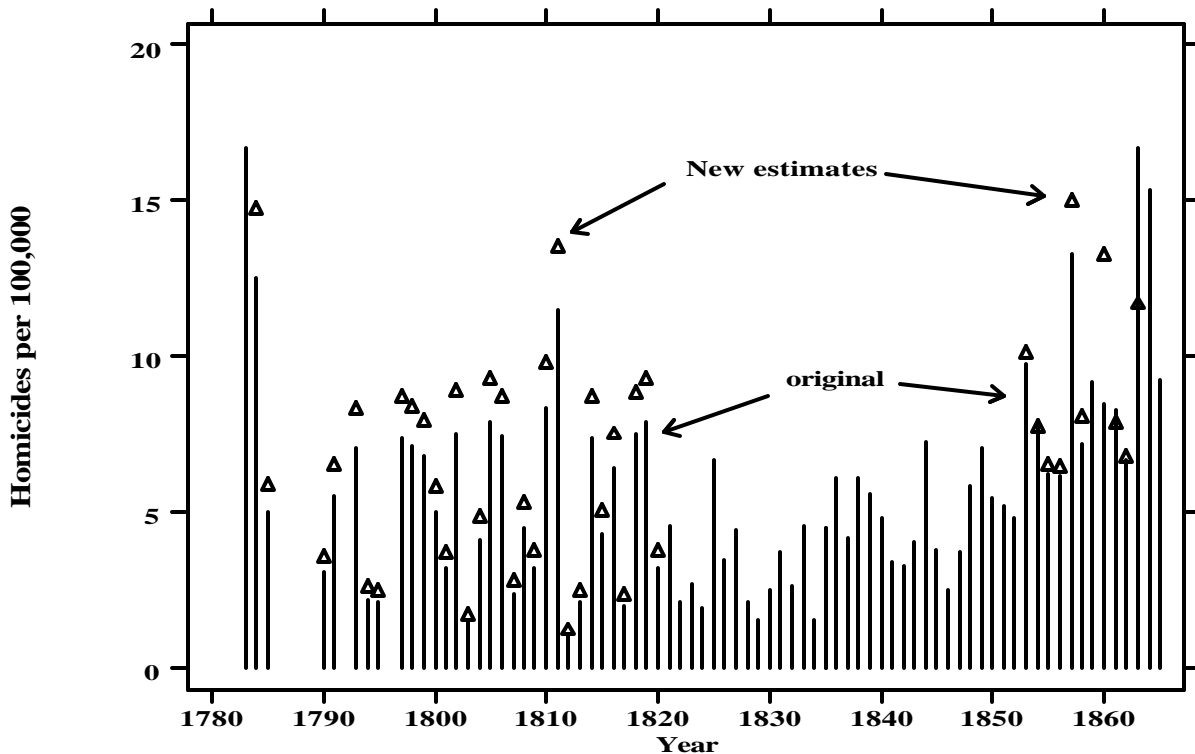
Table 1. NEW YORK CITY HOMICIDE COUNTS AND NEW ESTIMATES

Year	Original count	Capture-recapture estimate	Third source report
1784-1820	109	129	120
1853	57	59	
1854	46	47	
1855	39	41	
1856	41	43	
1857	94	106	
1858	59	60	
1860	68	108	
1861	47	63	66
1862	46	53	52
1863	59	89	127

Table 1 presents the annual estimates for New York City. Note that for many of the years, the effort paid off with only trivial changes, but for some years, the readjustment was large. In one year, 1863, a newspaper tally of homicide deaths was larger than the capture-recapture estimate, showing the conservative bias of the technique. Also, this year remains somewhat problematic, in that the July Draft Riots of that year resulted in as many as 100 deaths (which I excluded from the homicide rates). Somewhat surprisingly, the correction for the homicide counts in the late 18th and early 20th centuries was less dramatic than might have been expected, given the distance in time and greater probability of record loss. To summarize the results, the capture-recapture added 7.5% to my 1784-1820 counts, 3.5% to my 1853-1863 counts. But, had my original data used a more restricted range of counts and not incorporated the alternative counts garnered in newspaper and the occasional City Inspectors mortality reports, then the improvements would have been much more, 18 and 20% respectively.

Thus, in the case of my original data set, the effort to do capture-recapture estimates for every year down to 1874 would not have been justified. But this is a data set a decade in the making, so it should not be surprising if it is robust. Had the data set been comprised only of counts, then capture-recapture would have been a significant means of improvement. To visualize the corrections from these new estimates, Figure 1 plots difference the new estimates make. This is less straightforward than one might think. I had already used the highest reliable contemporary estimates, rather than my own counts, whenever those estimates differed from my individual level counts.

Figure 1. NEW YORK CITY HOMICIDES PER 100,000



Thus the difference made by the capture-recapture estimates had less impact than in a situation where I only had the basic count data. In essence, this figure presents a small difference, declining from 7.5 to 3.5% over the 19th century.

Los Angeles County (including the City of Los Angeles)

For Los Angeles, 1894 to 1919, a similar procedure was employed, using only coroners' inquests and newspaper mentions. Here I clustered the target years around the census enumeration years so that age standardization can be done in the future. As opposed to New York City I have so far not gathered other estimates of homicide counts, but will use vital statistics and police reports to amend the capture-recapture counts when feasible. Table 2 here shows the Los Angeles data.

Table 2. LOS ANGELES CITY AND COUNTY HOMICIDE COUNTS AND NEW ESTIMATES

Year	Coroner Inquest Count	Capture-recapture Estimate
1899	11	12
1900	10	12.4
1901	16	21.7
1909	18 (missing pages)	42
1911	44	46.4
1919	59	62.5

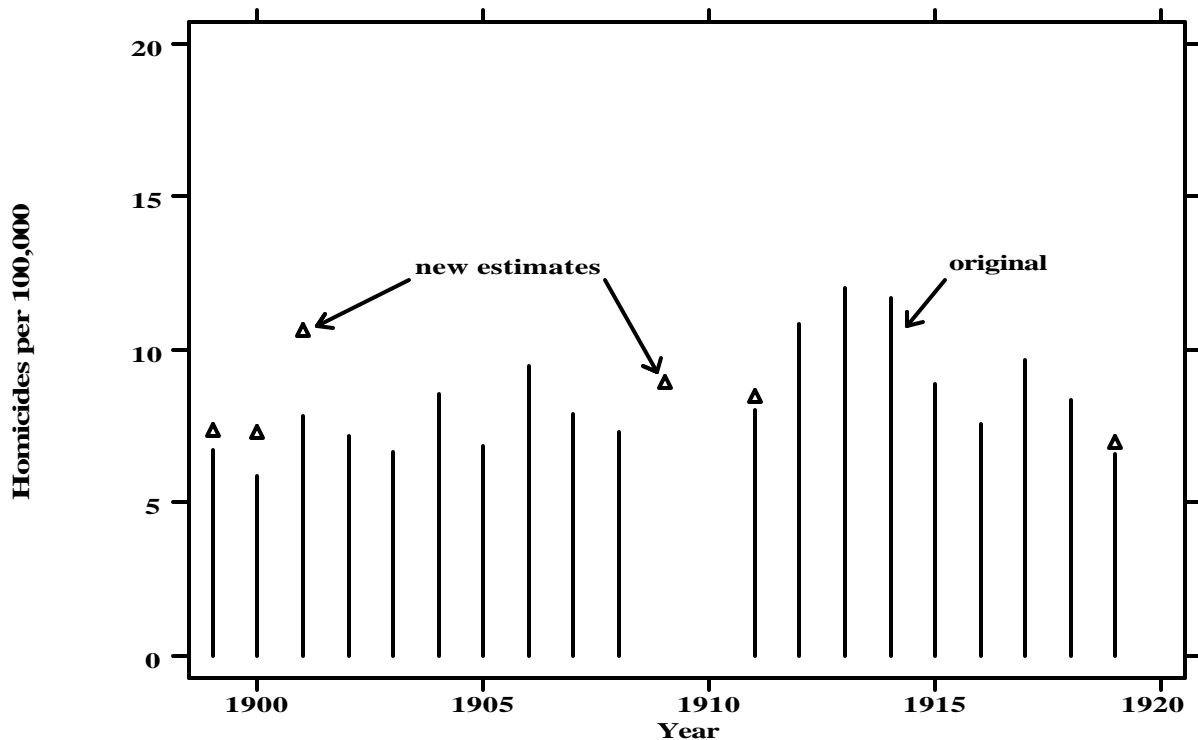
Two items are of interest in Table 2: first, that excluding 1909, the overall correction factor is larger than for New York City, 11%; and, second, that I was able to correct for water damaged inquest pages for 1909. Even capture-recapture cannot work miracles, however, and because 1910 is completely missing from the coroner's inquests, I cannot correct it. Even here, the technique spurs an archival hope: if any other list of names connected to homicides can be found, say a jail register, then with newspaper reports a full estimate can be made.

Figure 2 plots the relevant years for Los Angeles County homicide rates. This picture shows the increase in rates the new estimates yield and, for 1909, how the procedure fills in an important missing year.

CONCLUSION

The plotted data show the potential for estimating homicides from good but less than perfect lists. I note that the new estimates cannot fix other problems caused by missingness in historical data, especially ages of victims and offenders. Age variables are in some way the holy grail for dealing with past data, for with ages we can reconstruct age rates and thus make demographically different places and times directly comparable. However, good quality estimates of annual counts are where we can get using capture-recapture, and these counts in turn promise to give us new, reasonably accurate pictures of long term homicide rates.

Figure 2. LOS ANGELES COUNTY (AND CITY) HOMICIDES PER 100,000.



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HOMICIDES IN SAVANNAH (1896-1903): DATA COLLECTION

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ABSTRACT

This paper describes the collection of homicide data in Savannah for an 8-year period, 1896 to 1903. Three sources of information were used to collect this data: health officer's reports, the *Savannah Morning News*, and death certificates and registrations. The health officer's reports were only available for 6 of the 8 years. These reports included the type of homicide, race of perpetrator, and month in which the homicide was committed. The *Savannah Morning News* was examined for a 9-year period (1904 was included to determine the aftermath of homicides that occurred in 1903). These newspaper articles would usually include the location, names of suspect and victim, and circumstances of the homicide. The death certificates and registrations included the name of the victim and cause of death. A rationale for verifying each homicide is presented.

WHY THE STUDY WAS UNDERTAKEN

There are a number of reasons why the study was done. First, as a researcher, I found myself in a unique situation. I had taught at a university for six years prior to coming to the Savannah Police Department. I was hired into a civilian position, Director of Training, but also became a certified police officer. While my academic training may have given me the tools to do the research, my law enforcement status provided me with access to data. When I realized that I was able to gain material that a civilian could not get, without a continually changing handful of court orders, I felt that I should take advantage of the situation. Second, I felt that the majority of homicide research that has been done to this date has used the largest cities as research populations. This is eminently practical because there usually has been longer and more complete record keeping, and large numbers of cases allows the researcher to do a variety of statistical tests. A problem may be in generalizing what occurs in the largest cities to the rest of the population. Third, the South has lived with the onus of slavery and its aftermath. I would examine an era that took place just after Reconstruction when Jim Crow laws were in effect. In addition, there were no governmental social programs during this era, and definitely no money being redistributed by the central government. Fourth, other researchers can use the data to compare trends in Savannah to other parts of the country during the same time period.

DATA SOURCES

Municipal Reports for Savannah

Early in my research, I came across arrest reports by the Savannah police that had been submitted to the mayor to be included in his Municipal Report for Savannah. In addition to arrests for homicide, the Municipal Reports included arrests for assault and striking, assault and cutting, assault and shooting, and assaults with intent to murder, all of which were divided by race. The assault and shooting category was not included for the years 1902 and 1903. I constructed the following table based on the information found

in eight years of Municipal Reports:

Table 1

**ARRESTS BY RACE FOR VARIOUS TYPES OF ASSAULTS BY SAVANNAH POLICE
1896-1903**

YEAR	striking		cutting		shooting		intent to murder		murder	
	W	B	W	B	W	B	W	B	W	B
1896	85	214	11	63	0	2	13	45	9	18
1897	78	168	8	30	1	3	8	51	6	11
1898	61	187	6	35	2	5	18	66	1	6
1899	74	223	13	104	4	8	25	73	12	9
1900	78	168	8	30	1	3	8	51	6	11
1901	44	195	4	30	1	2	16	43	5	17
1902	63	182	0	12	----	----	6	64	5	6
1903	22	95	0	27	----	----	18	65	3	9
<i>total</i>	505	1432	51	331	9	23	112	458	47	87

Initially I felt that the above data would help correlate the various assault categories with the murder rate. As I rechecked my data in one Municipal Report, I looked through the Table of Contents and found a section titled "Health Officer Reports." I perused that section and, much to my chagrin, found out that the Health Officer had recorded the commission of approximately 40% fewer homicides than the Savannah police had arrested for! How could this be? In fact, in current times, there are always more homicides committed than those arrested because some homicides are unsolved.

After some in-depth discussions with historians, it seems that police in Savannah were attempting to show their productivity by arresting as many criminals as possible. It had nothing to do with jurisdiction. If a homicide was committed in Chatham County, where Savannah is situated, that would be counted as a homicide arrest. If the alleged murderer was arrested on a warrant from another state, the Savannah Police Department would count that as an arrest. This showed the efficiency of the Savannah Police Department in getting murderers off our streets, even though they weren't "our" murders. Many of those committing murders in rural districts fled to the "big city" of Savannah to lose themselves. If another geographical district arrested a murder suspect from Savannah, we would still count that as an arrest when that district returned the suspect to us. Some agencies still use this "shell game" to enhance their image with the public.

This supposition was reinforced by a section included in the Mayor's Annual Report for three of

the years studied: 1896, 1897, and 1898. This section included a listing of arrests for murder by Savannah Police officers. This also points to a continuing problem in using early source material that compiled “numerical representations.” There was little consistency in the material recorded from year to year. The following is an exact transcript found in each of these volumes that illustrates the problem of correlating such disparate information.

Arrests for Murder

1896

1. Mack Frazer, col., for killing Jeff Brown, col., Jan. 19. Arrested by Detective Godbold Jan. 20.
2. E.L. Gest, J.E. Conley, D.P. Walker and F. Floyd for killing Gibson, col., Feb. 18. Arrested by Detectives Wetherborn, Scully, Kily, Godbold Feb. 18.
3. Mattie Clark, alias Sanders, col., for killing Willie Sales, col., March 15. Surrendered March 15.
4. James Jackson, col. for drowning Mossa Stephney, col. July 10. Arrested by Detective Wetherborn, July 10.
5. Rosa Platz, col., for killing Laura Cuthbert, col., July 23. Arrested by Officer Cronin July 23.
6. Brister Graham, col., for killing Ben Wilson, col., Sept. 22. Arrested by Officer Eady Sept. 22.
7. George Gruver for killing Henry Voight Oct. 16. Arrested by Officers Cronin, Shea, Mendel Oct. 16.
8. P. Kearny for killing J.W. Wyness Nov. 3. Arrested by Detective Scully Nov. 3.
9. Morris Sullivan and Simon O'Neill for killing Preston Brook Nov. 9. Arrested by Officers Crimmins and Murphy Nov. 9.
10. Lovett Pitts for killing A. Thornburg Dec. 3. Arrested by Officer Mock Dec. 3, 1896.
11. J.H. Perkins, col. for killing P. Barnes, col., Dec. 24. Arrested by Officer Barrett Dec. 24, 1896.
12. William Elmore for killing a man in South Carolina, Oct. 25, 1896. Arrested by Detective Kiley.

13. James Brown and Geo. Dyer for killing Wm. Titcomb Dec. 25. Arrested by Detective Scully and Policeman Shea.¹

1897

The Chief of Police prefaced this report by saying there were 17 arrests for murder, 6 of which were for crimes committed in other states.

1. Henry Casey, colored, for killing -- ---- Brown, colored, January 28. Arrested by Policeman J. W. Woods.
2. Joe Desverges, colored, for killing Lovey Palmer, colored, May 3. Arrested by Sergeant Baughn and Policeman J.J. Deignan.
3. James Edwards, colored, for murder in South Carolina. Arrested by Detectives Barrett, Scully, and Godbold, May 10.
4. Steward Finney, colored, for murder in South Carolina. Arrested by Detectives Barrett, Scully, and Godbold, May 10.
5. William Graham, colored for murder in South Carolina. Arrested by Detective Barrett, May 10.
6. Ben Griswold, colored, for murder in South Carolina. Arrested by Detective Barrett, May 10.
7. W.H. Hinton, white, for killing Robert Jefferson, colored, August 23. Arrested by Policeman Mitchell, August 23.
8. James Jenkins, colored, for murder in Mississippi in 1889. Arrested by Policeman E.F. Davis, March 2.
9. Rosa Johnson, colored, for killing Richard Johnson, colored August 25. Arrested by Detectives Barrett, Scully and Shea, August 27.
10. Abraham Manigault, colored, for murder in South Carolina, January 12, 1897. Arrested by Policeman Ungar, January 17.
11. James Wayne, colored, for killing his wife. Arrested by Detectives Scully, Godbold, and Barrett, May 18.

¹Mayor's Annual Report, 1896, pp. 73-74.

12. Rodney Fulford, Lee Fulton, Robert McAllister and R.W. Westcott, for killing Paul Johnson, September 15. Arrested by Policeman Halford, September 15.

13. N.J. Mowrou for killing Patrick Scully, December 17. Arrested by Policeman T.C. Murphy, December 18.

14. Isaac Small, colored, for killing Matilda Farrell, colored, October 22. Arrested by Detective Shea.¹

1898

1. John Fields, colored, for killing Sam Robinson, colored, February 1. Arrested by Policeman C.W. Mock.

2. Edward W. O'Connor, for killing of Will Hunter, colored, January 25. Arrested by Detective J.J. Barrett.

3. Henry Rush, colored, for killing Lula Smith, colored, August 22. Arrested by Detective M. Scully.

4. Tiny Smith, colored, for killing Frank Osborne, April 25. Arrested by Detective J.J. Barrett.

5. Pompey Thomas, colored, for killing Sam Johnson, colored, January 6. Arrested by Policeman Jernigan.

6. William Wright, colored, for killing Wm. Wilcox, colored, August 27. Arrested by Detective Scully.

7. Ella Gordon, colored, for killing Mamie Goodwin, colored, December 17. Arrested by Policeman P.J. Kelly.

8. Queen Martin, colored, for killing Joe Hayward, December 26. Arrested by Detective Barrett.²

In point of fact, not only did some of the homicides occur out of state, as mentioned, but some occurred out of the city limits of Savannah, even though Savannah police officers made the arrests. It also became apparent that there were many other homicides committed, but that the police had not made an arrest. While this was disappointing, at least I now had the Health Officer's Report. Instead of utilizing it immediately, I decided to investigate another source.

¹Mayor's Annual Report, 1897, pp. 72-73.

²Mayor's Annual Report, 1898, p. 65.

Savannah Morning News

I found that a full set of the local newspaper, the *Savannah Morning News* (SMN) was available from 1896-1903 at the Georgia Historical Society. I thought that the commission of a homicide would have been newsworthy, and some mention would be made in the newspaper. I also thought that the examination of each page of print for nine years (I included 1904 for the purpose of including the aftermath of anything occurring earlier) would be the most time consuming part of the project, so I would finish it first. I also thought that it would be unlikely to miss a homicide because a report on the commission, capture, grand jury proceedings, trial, and sentence would usually be reported on different days of publication. This supposition proved to be correct. The information was recorded on data sheets.

Health Officer's Report

After recording all the information gleaned from the SMN, I looked at the Municipal Reports. Health Officer's Reports were available for six of the eight years. The report did not include homicide as a category in 1899, and there was no report in 1902. The annual Health Officer's Report separated homicides by month, race of victim, and type of homicide.

Health Department Death Certificates/Registrations

The Chatham County Health Department would not let me view the death certificates or registrations, but did verify my information or add information that they had, that I was unsure of. The data provided was proper name, date of death, instrument of death, race, and sex. In some cases, the registration of death had been recorded, but without issuance of a death certificate.

LACK OF AGREEMENT OF DATA

Sherman and Langworthy (1979), when discussing the difficulties of measuring homicide committed by police officers, suggested the following sources: death certificates, internal affairs records, newspaper stories, and vital statistics. In the era of 1896 to 1903, I examined all homicides using the above, except for internal affairs records, which were non-existent at the time for police.

The table below illustrates all of the data retrieved from the three different sources. This composite was made from separate tables that I made for each year. There was a lack of agreement with the data and the types of differences varied from year to year. The races of victims are included with the method by which the homicide was committed.

The method used to reconcile the data was to take each year, and use a checklist of the available sources. I listed the name of the victim (obtained from the SMN or death certificates/register) and then counted how many sources verified it. If the names and type of death appeared in both the SMN and death certificates, this means the homicide was verified by two

Table 2

VICTIM HOMICIDE DATA FROM THREE SOURCES

	HEALTH OFFICERS REPORT (6 YRS)	SAVANNAH MORNING NEWS (8 YRS)	DEATH CERTIFICATES & REGISTRATION (8 YRS)
total # of homicides	96	129	121
total black	71	99	89
incised	18	23	18
fracture	7	14	12
gunshot	41	52	50
hanging	3	8	8
beating	0	2	1
total white	25	30	32
incised	4	5	5
fracture	4	5	6
gunshot	19	20	21

different sources. I then would check the health officer's report to see if they had reported a homicide that occurred in the same month, by the same means, with the victim being of the same race.

For this study, I included any homicide that was verified twice. The following 6 years had three sources of data (SMN, health officer's report, and death certificates/register). In 1896, 8 homicides had three sources of agreement, 5 had two sources of agreement, and 3 had but one source. In 1897, 7 had three sources of agreement, and 1 had two sources of agreement. In 1898, 11 had three sources of agreement, and 1 had two sources of agreement. In 1900, 9 had three sources of agreement, 9 had two sources of agreement, and 6 had one source. In 1901, 16 had three sources of agreement, 6 had two sources of agreement, and 4 had one source. In 1903, 16 had three sources of agreement, 4 had two sources of agreement, and 4 had one source.

The following 2 years had two sources of data (SMN and death certificates/register). In 1899, 21 had two sources of agreement, and 2 had one source. In 1902, 12 had two sources of agreement, and 3 had one source.

I then went back over those homicides which were only mentioned once. I did not want to reject them completely without putting them under closer scrutiny. I found the biggest discrepancy was in the health officer's report that was available for six years. In two of the years, 1897 and 1898, there were no inconsistencies with the other data. But in 1896, 1900, 1901, and 1903 there were 10 cases where a homicide was recorded in the health officer's report, but was not found in the other two sources, and 13 cases where a homicide was recorded in the other two sources but not in the health officer's report, when matching race, month, and type. On the other hand, the health officer's reported a total of 94 homicides for those years and the SMN reported 92 for the same time period.

There is no way to rationalize the lack of accuracy in the health officer's report. For deaths by gunshot, two other categories besides homicides were used: accidental and suicide. It doesn't seem that a misclassification occurred. It appears that homicides with gunshots that never happened were recorded. In the final analysis, the total number of homicides cited by the health officer's reports was substantially correct, but only because errors in both directions were almost equal. A legal hanging was an event in Savannah, and reported in great detail by the SMN. A death certificate was available. But in 2 cases, this was not recorded in the health officer's report. The SMN ended up being the most reliable and valid of the three sources.

The other major challenge was if the homicide occurred within the city limits of Savannah. Two city maps of Savannah were used, both produced by the Sanborn-Perris Map Company of 115 Broadway, New York. The company made these maps for insurance purposes. They were quite intricate, and included an outline of the structures at most addresses. One map was made in 1888, and the other map was made in 1898. The city limits were the same from 1896 to 1901, but increased in January of 1902. In some cases, the place where the homicide occurred was described as on "the Louisville Road." The Louisville Road was partly in the city and partly in the county. The fact that the death certificates/register included the place of death (Savannah or Chatham County) was helpful. It still seems that "jurisdiction" was not as precise as it is currently on the location of the homicide. A few reasons are postulated. First, Chatham County was extremely rural and when someone was not dead at the scene of the homicide, they were brought to the same hospital in the city limits. It was thus a Savannah homicide. Second, law enforcement officers did not seem to worry about geographical boundaries within the county where they made arrests. It seems the rationale for this was that all law enforcement power is derived from the state, all murders are ultimately tried by the same superior court, and if law enforcement officers were technically out of their jurisdiction, they could still arrest as a citizen.

Two examples of this phenomenon are the following two cases. The first involved the death of Stephen Gibbons, and the second was the murder of Lucius Varnedoe.

Stephen Gibbons was a young Black male that was riding on the West Savannah line of the Electric Railway on February 16, 1896. The railway conductors had been complaining of Black males that would ride into Savannah on Saturday night, get drunk on whiskey, and then return on the line home. These Black males were unruly and threatening. On the night in question, four White males boarded the last car out. At least two of the White men drew pistols and ordered the Blacks to pay their fee (even if they already had paid) and tried to keep order. A fight ensued with Stephen Gibbons running from the car and being shot by G.P. Walker as he fled. The bullet entered the hip and ended up in the bladder. Walker and the three other White men were charged with murder by the coroner's jury in 10 minutes that same night. There was

not evidence that the shooting was justifiable. Walker hired the ex-Governor of South Carolina, John C. Sherrard, to defend him and was acquitted of murder on May 31, 1896.

Lucius Varnedoe was a motorman on the Electric Railway that connected Savannah and two adjacent communities, Thunderbolt and the Isle of Hope. He was shot twice while working on August 4, 1900 by a Black male Seabrook Hays. Hays and another Black man had both been drinking and gotten into an argument. Varnedoe had put them both off about a mile from the Sandfly Station. Hays ran up to the station and shot Varnedoe. Varnedoe drew his own pistol, but was unable to get a shot off before he was shot again. Hays ended up being convicted of murder and sentenced to death. The penalty was later commuted to life in prison.

Both the Gibbons and Varnedoe case involved the Electric Railway. They were both considered “Savannah murders,” but in point of fact occurred outside the city limits. They had to be excluded from the study.

After the data were rechecked, 123 homicides were validated. This included 12 citizens killed by those acting in a law enforcement role, 8 cases of legal hanging, 1 case of a military officer killing a private, and 1 case of a citizen killing a police officer. This left 101 civilian versus civilian homicides, with 2 homicides occurring in 1 case.

Savannah Tribune

I would like to include one potential source of corroborating information that did not provide enough information to be useful. The *Savannah Tribune* was a newspaper established in 1875. It was the Black newspaper and its editor was John Deveaux. The only known repository of issues of this newspaper are at Savannah State University. The full year of 1896, April 1897 to December 1898, 1901, 1902, and 1903 were available for viewing. There were some issues omitted from each year. After examining each year, there was very little concerning homicides mentioned. The focus of the paper was primarily on statewide and national events. The three main subjects were the support of the Republican Party, the denouncement of lynching, and the Black troops in Savannah. John Deveaux was a leader of one of the companies of these troops organized under the state's charter.

There are a number of reasons why the *Savannah Tribune* may not have focused on local crime. First, they seemed to have few writers. Most of their news came from the wire services. The paper was only published once a week, on Saturday, and did not generate a large amount of money. Second, the local articles concerning Blacks focused on uplifting stories concerning clergy and teachers. Third, the concern over criminal justice was primarily focused on chain gangs and prisons, which the state ran.

CONCLUSION

Those who conduct historical research on homicide must devise different ways to verify the reliability and validity of their data (Eckberg, 1999; Emmerichs, 1999; Monkkonen, 1999). Researchers who find different sources that report homicides for the same year will first have to value each source on its own merits. The second step is compare all sources to each other to identify their strengths and

weaknesses. This refining of data will end up producing sound research.

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GETTING AWAY WITH MURDER?: HOMICIDE AND THE CORONERS IN NINETEENTH-CENTURY LONDON

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ABSTRACT

Using the records of Coroners' Inquests from London, this paper will argue that there is suggestive evidence that the English, despite their pride in their low homicide rate and their feeling that few homicides went unprosecuted, actually missed quite a few murders, either deliberately, or owing to inadequacies in the institution of Coroners' inquests, especially in the first half of the 19th century. Despite their good intentions (or greed for fees and mileage, according to the Justices of the Peace with whom they were struggling) it is my contention that the Coroners' lack of training in either medicine or law made their verdicts on the cause of death less than convincing in many cases.

GETTING AWAY WITH MURDER?

The contentions in this paper arose tangentially from a study of London coroners I began in the summer of 1998. I had intended to examine the verdicts from 19th-century coroners' courts in order to assess the differences in verdicts that might arise depending on whether the coroner was a doctor, a lawyer, or neither. Was a physician more likely to detect murder as a cause of death than a lawyer or a "civilian"? Instead, as I read hundreds of inquest reports and explored the history of the coroners' courts, I began to realize that no matter who the coroners were, it was rare for any of them to bring in a verdict of "wilful murder" even in cases that seemed very suspicious to me.

Suggestive evidence of the inaccurate reporting and underprosecution of homicide in England in the 19th century can be found under at least three different headings. The first heading would have to be structural problems in the coroners' offices of England. Until 1860, coroners were under the complete control of the local Justices of the Peace (JP), who made the decisions about which sudden deaths would be examined at an inquest by controlling the payments to coroners (Forbes, 1979). Since inquests were expensive, the JPs wanted inquests on bodies only when there were signs of violence or a real mystery about the cause of death. Any coroner who held an inquest deemed unnecessary by the JPs did not get paid for his time or travel. Even after 1860, there seems to have been continuous conflict between coroners and JPs about this matter until 1888, when JPs lost their last bit of control over coroners' salaries (Knapman and Powers, 1985). According to J. D. J. Havard (1960), this dispute led to the proliferation of such crimes as the "secret" murders of children by poisoning in order that their parents might collect insurance money. In Manchester during the period June to October 1846, for instance, only 87 inquests were held on the deaths of people of all ages. During that same time, in just one district of Manchester -- Deansgate -- 279 children died, fewer than half having been attended by doctors. Havard argues that, by their reluctance to pay for inquests, the justices were almost complicit in the murder of children.

The second heading under which homicides could be concealed was the inability to convict women

of murder for neonaticide¹ and the subsequent substitution of prosecution for concealment of birth, the secret disposal of a dead neonate after the birth. In 1860, in all of England, 126 dead babies had been found but only 81 women were charged. In 1865, 221 were found (88 in Middlesex, generally contiguous with London) and only 120 women charged.² Few women whose dead babies were discovered and who appeared before the courts in the last part of the century were charged with murder. Instead they were charged with concealment of birth, a much easier charge on which to convict. Though there was always suspicion that a dead newborn was a homicide, few juries (made up mostly of middle-class men) were willing to convict a woman for such a crime, preferring to believe that temporary insanity had been the cause, or that the baby had been born dead. The verdict of “concealment of birth” became a common one in the coroners’ courts in the last third of the century, partly owing to the inadequacy of forensic medicine,³ and partly because of the difficulty of making homicide charges stick.⁴

The third heading would be the inadequacies of the coroners themselves. Until 1926 the only qualification for election or appointment as a coroner was the possession of property. In the London records, most coroners identified themselves as gentlemen, though there were ironmongers, builders, and other prosperous tradesmen sitting as coroners in the other counties. Thomas Wakley, a London coroner, the first to be medically qualified (1840), campaigned for medical qualifications for coroners, actually mentioning the danger of undiscovered homicides when coroners were not doctors. In the journal he founded, *Lancet*, he wrote, “case after case was reported in which the most favoured verdict of ‘visitation of God’⁵ was returned when the real cause of death had not been ascertained owing to inadequate medical evidence and insufficient knowledge on the part of the coroner.”⁶ It was an unsuccessful campaign. By 1993, though the gentlemen and tradesmen were gone, only one sixth of the coroners were medical practitioners, while the rest were barristers or solicitors (Matthews & Foreman, 1993). Wakley had insisted that “any intelligent man could in two hours learn all the law required of a competent coroner.” (Brook, 1945, p.152)

In this paper I will concentrate mainly on the inadequacies of the coroners themselves in identifying

¹Neonaticide is an infant death within 28 days of birth.

²PRO CRIM 63 5-15, Police: England and Wales: Returns for the Year ____.

³Doctors believed until the end of the century that the lungs of only a live-born baby floated in water after death.

⁴For those interested in this heading, see my article (1993).

⁵This mysterious verdict appears 9 times in 531 cases I examined.

⁶This verdict was returned in a case where 3 family members died, and only later were discovered to have eaten pie laced with arsenic. Quote from *Lancet* cited in Brook (1945, pp. 152-153).

the victims of murder, using the records of London coroners.¹ These records of inquests are preserved in several places. At the London Metropolitan Archives, the verdicts of inquests and depositions from cases that did not result in criminal prosecution are stored by the thousands. I assumed that there would be many records containing the verdict “wilful murder against person or persons unknown” -- the cases that never came to trial because no suspect had been apprehended. I examined over 1,000 inquest reports for the years from 1800 through 1809, and the years 1818, 1819, 1825, 1830, 1884, 1885, and 1889. I found only 5 such cases. Were British law enforcement agencies and the Coroners’ courts so assiduous and successful that every suspected homicide except a few in the 19th century resulted in a trial of the accused? The British boasted of their low homicide rate and their high apprehension rate at that time (Taylor, 1998, p.584). In 1851, for instance, there were only 74 murder trials in the whole country, and even by the end of the century, there were only about 150 murders recorded each year in a population of about 30 million (Taylor, 1998, pp. 584-585).

I was doubtful and eventually came to the conclusion that many homicides must not have been recognized as such, especially during the early years of the century. The coroners rarely ordered medical examination of the corpses before the middle of the century (it wasn’t until 1836 that medical witnesses were paid for their attendance at inquests, so before that time it was even rarer to have medical evidence at the inquest).

In the reports of 531 inquests held between 23 October 1800 and 18 April 1802, and in 1803, by Edward Walter, Gentleman, in East London (a notoriously poor area), 93 deaths aroused my suspicions, but at the time did no such thing for Mr. Walter. Since there had been no witnesses, and no discernible signs of violence (the bodies were often badly decomposed), 77 verdicts were simply recorded as “found drowned.” No police investigation took place. No medical examination occurred. Drowning was, of course, a common form of death in East London since the Thames River bordered the area, and few people at the time could swim. Another 75 deaths were recorded as “casually drowned.”² “Casually drowned” meant that there were witnesses who could describe the accident that led to the death. Of the 77 “found” victims, though, it would be interesting to know how many might have been recorded as homicide statistics in a later age after a thorough medical examination.

Three cases in particular, for which complete depositions from Walter’s court exist, indicate the low level of investigation carried out by police and coroners into the causes of all sorts of deaths in the early

¹Recently Martin Wiener of Rice University brought to my attention an article that might indicate the need of a fourth heading. Howard Taylor (1998) argues that economics had a great deal to do with the rationing of prosecution. Since murder trials and investigations were expensive, the trend was to prosecute only as many as were prosecuted on average in previous years. I think this argument has some explanatory value, but that it cannot be pressed too far. If, in fact, coroners failed to recognize many deaths as murders because of their inadequate training, such deaths would never be in the pipeline to be rejected for investigation and prosecution in the first place.

²London Metropolitan Archives, MJ/SPC.E/507; MJ/SPC.E/508; MJ/SPC.E/509; MJ/SPC.E/510-534-1803; MJ/SPC.E/535-560-1803; MJ/SPC.E/561-589; MJ/SPC.E/590-653.

19th century. In 1803 a mother explained to the coroner that she had meant to give her 3-month-old baby a dose of syrup of buckthorn. Instead, she mistakenly gave it a whole “phial of laudenum” (sic), a mixture of opium and alcohol.¹ The coroner did not ask the mother if the bottles for each were identical, did not ask her if she could read, nor did he ask why she would have given such a young baby an entire phial of syrup of buckthorn in the first place. Buckthorn is a violent purgative that acts by irritating the lining of the intestine, causing explosive, watery diarrhea, pain, and vomiting. It is an old herbal remedy, frequently used for children in the early 19th century, but never recommended for small children today, since it has been known to be fatal.² The verdict was “accidentally poisoned.”³

In another deposition, Walter heard evidence of a fight between two journeyman bricklayers. The wife of one combatant threw a brick at the other, hitting him in the “loins.” He later died. Neither the coroner nor the jury asked whether weapons were used during the fight, or even whether the woman’s husband was getting the worst of it. Instead, they decided there was no malicious intent; the woman was merely defending her husband and so the verdict was “casually killed.”⁴

The third case is just one example of a common verdict that explained little. “Found dead” was an uninformative verdict that appeared in Walter’s inquest reports 15 times. In very few cases was a cause of death even hinted at, and in those where one was mentioned, it was the result of almost no investigation. An unknown man was found dead on a lit brick kiln. Walter performed a cursory examination and pronounced the cause of death as “suffocation.”⁵ The corpse was not in but *on* the kiln. Kilns are hot on the outside. Who would voluntarily get on one in the first place?

By 1842, investigation into the actual cause of death did not seem to have progressed much. The coroner for Westminster, who held over 300 inquests in a year, summoned only 18 doctors to give evidence in his court and ordered only 4 post-mortems.⁶

It seems to me, then, that coroners often just guessed at the causes of death at many of their inquests. If there were no witnesses, no obvious signs of violence, and no obvious suspects, if the victims were poor, unknown, unimportant, why bother with an extensive and expensive investigation? A look at

¹London Metropolitan Archives, MJ/SPC.E/630.

²www.botanical.com/botanical/mgmh/b/buckth80.html; *A Modern Herbal* by Mrs. M. Grieve Apothecary Jar Collection, University of Texas Southwestern Medical Center at Dallas, www.swmed.edu/home_pages/library/archteam/apoth/alder.htm. In fact, today buckthorn is used only in veterinary medicine, for dogs.

³London Metropolitan Archives, MJ/SPC.E/630.

⁴London Metropolitan Archives, MJ/SPC.E/576.

⁵London Metropolitan Archives, MJ/SPC.E/647.

⁶London Metropolitan Archives, WJ/SPC/32-53.

the inquests that did contribute to the homicide statistics persuaded me that this was true.

Those inquests that did result in criminal prosecutions for willful murder or manslaughter, a very small number, are stored at the Public Records Office (PRO) at Kew, in southwest London. After the Act in 1836 which required registration of births and deaths (except for unbaptized babies), it was assumed fewer homicides would go undetected (apparently a great worry at the time, though it did not seem to bother many coroners besides Wakley). However, out of 2,674 inquests held in the County of Middlesex in 1849, for instance, only 36 resulted in criminal prosecutions, 18 for murder and 18 for manslaughter.¹

Dusty, tri-fold forms, all hand-written by the coroner who held the inquest, sometimes accompanied by the depositions of witnesses, or the proceedings from the police magistrates' hearings, the PRO records represent the deaths that were easily identifiable as murder. Very few still exist from the first half of the century. For the years 1880-1885, there are 58 coroners' inquest records of deaths in London that were judged to be willful murders available at the PRO. During the inquests on the 58 deaths, the coroners were presented with evidence from eyewitnesses or confessions in 45 of the cases. Among the remaining 13 cases, 5 involved women who, without witnesses, allegedly killed their children and insisted they knew nothing about the deaths, and 3 others pointed the finger at men whose long-standing violence against their female partners made them the obvious choices to accuse. A further 3 were cases in which 2 asylum inmates murdered other inmates, and a husband and wife burned down a building to get the insurance.

Only the last 2 cases involved mysteries. Neither victim was poor. These are the only cases that involved any extended investigation or serious clue-gathering. The first victim, his wife said, had shot himself after he had grabbed a gun, threatened her, and she fled the room. On superficial examination the doctor found three bullet wounds consistent with a finding of suicide, but at the post-mortem (becoming more common then), he found a fourth, entering the armpit from the rear. At the inquest there was much discussion of entry and exit wounds and scorch marks. The verdict of willful murder against the wife was not long in coming.² In the other case, a wealthy paraplegic schoolboy ingested aconitine brazenly administered by his greedy brother-in-law in front of the school principal. (It was in a capsule supposedly containing sugar, which the brother-in-law, a doctor, said would negate the alcoholic effects of sherry.) A post-mortem of the victim and a police investigation into the brother-in-law's shaky finances and dubious pharmaceutical purchases led to an arrest.³

Though this preliminary research makes possible only suggestions about "missing" homicides in 19th-century London, I do believe that the evidence supports the tentative conclusion that coroners' courts, medically, were not able to identify all the murders that were committed. They took the easy way out. In the early part of the century, "found dead" or "found drowned" satisfied them as a cause of death. In the

¹Report of the Special Committee appointed at Michaelmas Session, 1850, as to the Duties and Remuneration of Coroners and Resolutions of the Court, London: John Thomas Norris, 1851, p. 17. Bound in (898 d17) Reports on Public Health et Cetera (British Library).

²PRO CRIM 1/21/6.

³PRO CRIM 1/13/3

middle of the century, with no post-mortem, “rupture of a great blood vessel in the lung” replaced those verdicts in frequency.¹ By 1889, even a medically qualified coroner, George Danford Thomas, pronounced 10 unautopsied victims dead of syncope/heart failure, the new favorite. There was no investigation by Thomas of the deaths of 4 children “accidentally” suffocated in their parents’ beds, and there was only a mildly pointed question from the jury about the death of one small child with a recent bruise on the side of his head. He, said the coroner, died of pneumonia.²

Whether the number of unidentified murder victims might be in the dozens or the hundreds, we’ll never know, but preliminary examination of just a small percentage of the inquests indicates that the annual homicide rate in 19th-century London was artificially low, and that getting away with murder was a definite possibility.

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¹London Metropolitan Archives, MJ/SPC.W/1036-1092

²London Metropolitan Archives, MJ/SPC.C/1-53

DISCUSSION

Tom Marvell: Why the peak in pre-Civil War homicide?

Dougie Eckberg: The Draft Riots were a period of extreme violence, and gang violence was at a peak. Both groups were excluded from the analysis.

Dick Block: If you look at newspapers, it is difficult to differentiate multiple reports of the same, versus separate, homicide incidents. How have these researchers done so?

Dougie Eckberg: With the Charleston newspaper, there was lots of brevity in this reporting. I sought 40 pieces of information to allow me to discern separate versus repetitive reporting of an incident.

Eric Monkkenon: The newspaper typically used the transcript of the coroner's report which actually creates a new source of bias, e.g., correlation bias.

Cheryl Maxson: You describe episodic events affecting accurate data and fluctuations in resources devoted to archive maintenance. Therefore, what is the basis for using an "average" to substitute for missing data?

Eric Monkkenon: The proper way is to use an annual estimate, which is impossible in some cases. I used "smoothing" for New York City, but won't do so for L.A.

Dougie Eckberg: There is inherent bias in projecting backward when you don't have multiple sources.

Eric Monkkenon: There is still bias today, but we are getting better estimates than we've ever had before.

Dougie Eckberg: I predict we'll see rural homicide was *grossly* undercounted in earlier times, compared to urban areas.

Eric Monkkenon: The question of rural counts is really interesting.

Vance McLaughlin: Of the 101 "other" homicides, I found 97 incident locations on old maps. These were brought into the computer maps.

Everett Lee: Is the capture/recapture method similar to the Census Bureau, where you estimate death as a whole, in the past? You can undercount certain groups, especially kids. When you compare standardized rates over two times points, you can get two very different counts.

Dougie Eckberg: But I can't do standardized estimates because no ages are recorded.

Margaret Zahn: Is there a difference in the quality of the records, between New York City and L.A.?

Eric Monkkenon: For the 1860s and 1870s, individual records do vary considerably. Public health officers -- their numbers and resources -- seem to make a big difference in the quality of vital statistics.

Becky Block: There are lots of conditions in the capture/recapture method. Did you note improved data, especially by race, in active coroner periods? Is there a race bias in reporting?

Vance McLaughlin: There doesn't appear to be a race bias in recording, but the depth of the recording does vary. The numbers matched *very* closely, though there was some temporal variation in *when* they were said to have occurred.

Mitchel Roth: I study epidemics and am curious whether the reporting was better during *high* homicide periods because these would have been seen as epidemics?

Eric Monkkenon: For New York during the 18th century there was a state census every 5 years, so I could regularly adjust the denominator.

Dougie Eckberg: My homicide statistics are very close to state averages.

Jay Corzine: Rural versus urban is an issue, because access to medical care affects homicide levels. What about the case of lynchings?

Dougie Eckberg: In South Carolina, during 1877-78 there were no lynchings, but in subsequent years, I have found these and will include them.

Vance McLaughlin: For Savannah, there were no lynchings, but several legal hangings. I think the fact that there was quick, efficient, and definite punishment accounts for there being no lynchings.

Roland Chilton: To each presenter, what are your substantive conclusions from your respective studies? What were your hypotheses?

Mary Beth Emmerichs: I still believe that London's homicide rates are underrepresented and under-prosecuted. It has been suggested that, for economic reasons, it is acceptable that about 20% of homicides are prosecuted. I disagree; I think that the coroners are simply dumb. I would like to get mid-century data for chronological comparisons. I believe I will find a fairly steady homicide rate from mid-century and on, but much lower than in the 1200s.

Eric Monkkenon: When New York was at its most corrupt, crowded, and poorest, its homicide rate seemed really low. In the 1850s, due to a rise in real income, people had access to alcohol, knives, and guns, and the level of violence was very high. The post-Civil War period was surprisingly peaceful in New York City. The data suggest that there may be 60-year cycles, and we are now in the middle of a decrease in violence.

Vance McLaughlin: The conservatives and the liberals were both half-right: In the old days, if a Black man killed a White man (6 incidents in my data), half were apprehended. The strongest punishment

followed the killing of a woman, White or Black, by a Black man. In 1991, Savannah had the highest homicide rate in the U.S., and in 1944, Savannah had a huge peak as well, contrary to the literature about wartime violence. I could find no explanation for the 1944 peak. White male homicide rates in the new era are one-third what they were in the old era. And 72% of homicides in the old era, compared to 92% in the recent era, were perpetrated by Black men. If not for drugs, there might not be such a difference.

Dougie Eckberg: The aim was to recreate Horace Redfield's study on Southern violence: to what extent does South Carolina fit the Southern pattern? Pretty well. He found in the vital statistics data that Whites have slightly higher victimization rates than Blacks, and substantially higher perpetration rates than Blacks. This is a change from the early part of this century that leads to the conclusion that there has been a substantial shift in racial homicide.

Dick Block: Policies on homicide identification and investigation seem to affect rates. Did the legal definition of homicide change from the 1800s? Note that in Holland, [Herman] Franke hypothesized that tolerance of violence decreased over time, and that this led to a decrease in homicides.

Mary Beth Emmerichs: Different levels of tolerance change public order arrests more than homicide. In early and medieval England, homicide was often seen as an accident, whereas murder happened by stealth and was mysterious. England's homicide rules seem stable. Administratively, rule changes don't seem to change coroner rulings. Poor coroner rulings can be attributed to poor coroner qualifications. In England only one-sixth of coroners have medical qualifications. A coroner's inquest is often just the result of police investigating, and who may have been better at investigating.

Eric Monkkonen: Most analyses exclude kids under 5 years of age due to huge underreporting, especially in the old days, out of sympathy for the poor mothers whose temporary insanity was to blame, because no one believed that a sane mother could kill her child. Also, the tolerance of violence is sometimes confused because juries must struggle to tolerate ethnic diversity.

Dougie Eckberg: Auto accidents were often called homicides earlier in this century.

Mary Beth Emmerichs: In England, the responsible vehicle would be impounded and sold, and the money would go to the king.

Dick Block: What about self defense homicides?

Dougie Eckberg: I can't say.

Vance McLaughlin: This was an excuse that was actually often accepted. Southern honor is an issue, especially regarding a woman. These homicides were often not prosecuted. Self defense is less likely to work in modern drug interactions.

Eric Larson: What about the use of misadventure, which was used in England.

Mary Beth Emmerichs: Causes such as "chance medley" and "casually killed," for example, falling off

a wagon and then the wagon kills you, were used. A suicide might be called a misadventure for an important person.

Steve Roth: In New York State, the coroner is still only required to be 21 years old and a resident of the county. They might be tow-truck drivers or funeral directors, because they are often the first to get to the scene. Even in counties where an M.D. is required, there is still no requirement for training in forensics or pathology.

Eric Monkkonen: In 19th-century New York City, depositions were taken on the scene and were like testimony. In the 1870s, a Tammany Hall official who was also a coroner killed someone but was acquitted. Coroners received fees for each body; thus, the victim numbers are probably pretty good, except when records occasionally got lost.

Mary Beth Emmerichs: The coroner is the recorder in the English court, and writes everything.

Henry Brownstein: The measure of homicide is a social construction. Steve's example demonstrates that budgetary, political, and administrative decisions determine what gets counted.

Mary Beth Emmerichs: Social and political construction happens with all illegal behaviors.

Dougie Eckberg: This is why it is best to look for dead bodies and *then* define homicide.

Eric Monkkonen: That is the best we can do. I second Dougie's idea; the broad picture is pretty good. Also, note that multiple sources offer diminishing returns.

Tom Marvell: Did the movement of the population to the suburbs bring lower rates?

Mary Beth Emmerichs: London suburbs were uproarious; the cities were less so.

Eric Monkkonen: The unit of analysis is a universal problem. New York City expanded to incorporate the boroughs, but this did not greatly change its homicide rates. What we call suburbs may be an issue only from the mid-20th century on.

Vance McLaughlin: There aren't homicides in new areas of Savannah. There are real zones, or hot spots. In the modern era, the police have done a lot to get tricky and report lower rates. A hundred years ago, this was not a problem.

Chris Rasche: Could you compare urban and rural homicide rates?

Dougie Eckberg: In the 1870s, the highest homicide rates were not in Charleston, South Carolina's only city. The rates in rural areas that bordered Georgia were very high. Another example is that at the Tennessee/Kentucky border there were up to 75 homicides per 100,000 residents. In Louisiana, the rural rates were as high.

Chris Rasche: This wouldn't be due to better access to medical care in cities, would it?

Jay Corzine: Some of the differences may be due to medical care. Not all rural areas are more violent; there were and are hot spots. These may be attributable to local traditions.

Alan DeLine: In the first third of the last century, there was no organized police department in New York City. How do you account for law enforcement changes? Aren't these eras "apples and oranges"?

Eric Monkkonen: Yes, but there were high arrest rates and low prosecution rates throughout. There was a constable watch system; a constable would show up soon and the coroner, not the police, was responsible for investigating homicides. So police organization is not that important for the study of homicide. It isn't usually the police who discover homicides anyway.

CHAPTER TWO

HOMICIDES AGAINST WOMEN

WHEN HOMICIDE DATA BASES DO NOT ANSWER THE QUESTIONS: FIELD STRATEGIES FOR LOCATING AND INTERVIEWING PROXIES

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ABSTRACT

As a means of better understanding homicide incidents, methods for identifying, locating, and interviewing confidants of homicide victims are still in their infancy. This paper discusses a set of strategies that worked in studies conducted on risk of injury and death in intimate partner relationships in Houston and Chicago, and key factors that may affect completion rates of proxy interviews. Primary considerations when using proxy respondent methodology include maximizing the use of public records, hiring and training interviewers for fieldwork skills as well as interview skills, and developing a protocol for interviewer and respondent safety.

THE HOUSTON AND CHICAGO STUDIES: LESSONS FROM THE FIELD

Officially-maintained data bases, often drawn from criminal justice or public health records, are a mainstay of homicide research inquiry. However, as the discipline moves beyond demographics and crime scene data into retrospective queries into the interactions and events that may have led to the homicide, official records are limited. Interviews of proxy informants, people who were confidants of the victim, can provide some of this historical information. Methods for identifying, finding and interviewing proxy respondents, however, are in their infancy. This report summarizes the methods used in two proxy studies of intimate partner homicides, in Houston and Chicago.

The Houston study is part of a multiple-city study funded by the National Alcohol and Drug Administration (NADA), the National Institute of Justice (NIJ), and the Centers for Disease Control and Prevention (CDC), and coordinated by Jacquelyn Campbell, of Johns Hopkins University, which is identifying one proxy informant for 250 femicides occurring between 1994 and 1999 in 11 United States cities. Judith McFarlane, director of the Houston site team, working with a bilingual census interviewer and a public health nurse, located and interviewed a proxy respondent for every closed murder case of a woman by an intimate partner in Houston during a 5-year period, 55 women in all.

The Chicago study, both an independent study funded by NIJ and conducted by a collaborative team of medical, public health and criminal justice agencies, and concerned individuals, and part of the same multiple-city study, conducted one to three interviews of proxy respondents for each of the 85 cases of intimate partner homicide in Chicago in 1995 or 1996. Three of the authors of this paper were involved in the Chicago study, a member of the team of four proxy interviewers, the principal investigator, and the project manager of the multiple-city study liaison.

The two projects differed somewhat in their methodology. The Houston study interviewed only one proxy respondent per homicide, while the Chicago study interviewed as many as three. The Houston sample was all homicides of female victims by an intimate partner, while the Chicago sample included male intimate partner victims as well. The Houston study used only “cleared” cases, defined as cases having a final court disposition, according to police records. The Chicago study used all homicides known to the police in which the victim-offender relationship was current or former spouse, common-law spouse, boyfriend, girlfriend, or female homosexual domestic relationship, and in which the female partner was age 18 or older.

Maximizing Official Records

In both cities, official records were a starting point for identifying knowledgeable and credible proxies. The Houston project used an abstract form to gather information from the police and other official records. The Chicago project developed a file of information from official sources. Sources of information included court transcripts, police incident files, police arrest files, order of protection files, medical examiner’s records, victim’s death certificate and obituary, newspaper accounts of the murder, name searches in the newspaper for both victim and offender from a year prior to the murder to the current date, corrections records, and others.

What were we looking for in these sources?

Addresses: the murder site, as well as work site and residence of the victim and suspect at the time of the murder;

Names of surviving children, friends, and relatives of both victim and suspect, and their contact information;

The woman’s maiden name (in the death certificate or the obituary), which may lead to a parent or close relative;

Names and location information for relatives, including dependent children, may be found in the obituary, in the coroner’s records, or in the newspaper;

The name and address of the funeral home, the church or synagogue, and the name of a charity or fund for a memorial donation may be found in the obituary or in the coroner’s records, and can lead to someone who may be able to put you in contact with relatives;

Names and location information for friends, witnesses, or other people testifying in the case (found in police investigation and court records) may lead to a knowledgeable proxy respondent;

The court record may contain a list of people whom the suspect must not contact; one of these people may have been a confidant of the victim. In addition, the person(s) testifying are good sources.

Identifying information for the person(s) who identified the body, such as social security numbers, drivers license numbers and state ID numbers.

The Houston study found obituaries to be extremely useful and easily available from newspaper files, usually on Internet or on microfilm. In contrast, the Chicago study found only a few published obituaries for the 89 deaths, although those few contained useful information. It appeared that the date of the death versus the date that the body was released for burial may have presented a problem in finding the few obituaries that were published. However, in Chicago, an Internet search of newspaper articles for the names of the victim and the offender for the period beginning a year before the death through the current date produced useful information in addition to obituaries. For example, an offender who was not charged in the murder might have been arrested for another offense.

In cases where more than one person died, it is important to collect information for all of them. For example, in homicide-suicide cases, we collected information from the medical examiner's office record for both deaths. Also, if more than one victim was killed, we collected information for each victim. In addition, we searched arrest, court, and corrections records for both intimate partners, not only for the murder case but for any other record as well.

In the Chicago study, a case file for each homicide was built from four primary sources: police summary files, medical examiner files, court case files, and newspaper articles about the homicide. This study was privileged to have a diverse, active advisory board that opened avenues to many different sources of case information not routinely available to social research projects. For example, the study had access to every homicide case that occurred during the study period through the Chicago Homicide Data set project, a collaborative project with the Chicago Police Department to create the largest, most detailed data set on homicide in the United States. In addition, the Chief Medical Examiner, an advisory board member, made his office's files available to staff, although they are not generally open to the public. While court files are public information, the Clerk's Office was extremely cooperative in pulling the 60 court case files in our sample and providing office space for our staff. Even the Chicago Public Library assisted us in looking for newspaper articles from the newspapers without on-line access.

The following is a list of the types of potential proxy information gathered from each source in the Chicago study:

Chicago Police Department Murder Analysis Reports:

Age, race, sex, relationship of victim and offender

Date and time of injury

Address of occurrence

Summary of the incident, including circumstances, weapon, and the manner in which the case was cleared (by arrest of offender, death of offender, refusal of the State's Attorney to prosecute).

Medical Examiner Files:

Victim's and offender's name

Victim's and offender's last known address

Any identifying ID numbers (Driver's License number, State ID numbers)

Names and addresses of relatives identifying the body

Funeral home name and address

Cause of death

Any other available information, such as police incident numbers, criminal history record numbers, toxicology results on the victim

Cook County Criminal Court Records:

Criminal court record number

Charges filed

Names of witnesses

Pre-sentence investigation reports and victim impact statements, if any

Sentencing information, including any appeals filed

Newspaper articles:

Chicago Tribune Archive on-line search for victim and offender names, which led to articles about the incident in 15 cases

Chicago Sun Times and *Chicago Defender* microfiche searches, which led to articles on 6 more cases

Setting Priorities Among Potential Proxy Respondents

Your goal is to develop a list of people who might be knowledgeable and credible proxy respondents about the relationship between the victim and the offender in the year prior to the incident that led to the death. Prioritize the potential proxy lists. Who would be most likely to know about the relationship between victim and perpetrator? We have learned that adult children and sisters of femicide victims are more knowledgeable informants than parents. The legal guardian of dependent children is almost always knowledgeable about the relationship, as are some co-workers and supervisors, especially if the victim had worked for one company for an appreciable time. Other good proxy respondents are neighbors and close friends. Because these people may not be mentioned in any official source, you will discover their existence by talking to the people who are mentioned.

In the Chicago study, there was some concern about the danger of interviewing a proxy who had been a confidant of only one of the intimate partners, and who might have limited or biased information about the relationship. For example, if a man is murdered by his wife after years of his abuse, would a proxy interview with the man's best friend provide complete information about the abuse of his wife prior to the homicide? We discovered that it was best to use information from many sources, not all of whom provided a complete interview. For example, a buddy of the male offender might be the best source of information about his friend's drinking or drug abuse, but not much more. His mother might provide the most accurate information on his education, employment, and mental and physical health. However, the next-door neighbor might be the best person to complete an entire interview about the couple's relationship in the year before the death. In both the Houston and the Chicago studies, we used all of this information to answer as many questions as possible.

Commonly, persons mentioned in official sources were disqualified as proxy respondents, because they were eyewitnesses to the crimes but strangers to the victims. Frequently, we found a potential proxy who knew a great deal about the victim but little or nothing about the relationship. This is partial success.

One proxy with all the needed information may not be possible; however, two or three proxies, each with a different set of facts, can result in a complete interview with no missing data. For example, sometimes we located a potential proxy who had socialized with the victim and knew the victim's alcohol and illicit drug use well, but knew nothing of the relationship with the perpetrator. We recorded the needed information, knowing additional proxy(ies) would be needed.

Mail and Phone Work

Once you have compiled a foundation of information from official sources, you are ready to follow up on those sources. It is best to begin by phone calls and letters to potential proxy respondents, funeral home directors, and any other likely-looking source. Send that person a registered letter on project letterhead, stamping on the envelope "please forward." Within the letter, offer an explanation of the study and an 800 number where the investigator can be contacted toll free. In addition, enclose a one-page overview of the study, on letterhead that includes all of the local agencies collaborating on the study.

If the letter is not returned in 10 days and there is no telephone response (this is almost always the case), call them. If the phone number is no longer valid, use a criss-cross directory to find the correct number. (Also use a criss-cross directory to find the address for a phone number.) Send a registered letter to the funeral home, or the charity, following the same procedure.

The names, the spelling of the names, the addresses and the phone numbers in the various sources may differ. You may be able to decipher some of these differences as a simple typos, or an area code that has been changed.

In Chicago, phone calls alone were sufficient to obtain proxy interviews in 20 (22%) cases; a combination of phone calls and field visits were conducted in 59 (66%) cases. Proxy information in the case files was exhausted without leads in 25 (28%) of the cases. Using the criss-cross directory for neighbors' and other tenants' phone numbers yielded positive results in several cases. It also aided in locating maintenance personnel.

Preparing for Field Work: Safety Issues

Based on the McFarlane and Wiist (1997) safety plan for outreach workers contacting pregnant abused women in the community, the Houston study established a safety plan that includes the following:

Work in pairs as often as possible;

Have a cell phone available, preferably on your person;

Make someone aware of the tracking destination(s) and expected time of return to the office;

Be constantly vigilant of the surroundings;

If a situation feels uncomfortable or unsafe, for example there is yelling or intoxicated persons present,

leave immediately;

Do field work only during the daylight hours; weekends are very good;

Wear sensible attire (garments with pockets, sturdy walking shoes, minimal jewelry).

Following these common sense safety rules for 2 years, there has been no threat or breach of personal safety for any team member at either site.

Identifying a Proxy When You Have No Lead From the Official Reports

Helpful Tools

To aid field work efforts, the following tools proved to be indispensable in locating proxies:

A cooperative funeral home can yield a contact person and a telephone number.

Criss-crossing every number and address in the file can either lead to a proxy or another dead end. However, criss-crossing the neighbors or tenants in a building can yield very valuable information, as well as locating maintenance persons. This technique opened several cases in the Chicago study that otherwise had hit a stalemate.

The Internet has a number of free people-locator web sites (i.e.: Switchboard, Anywho, etc.).

The services of an agency or authorized person who has the capability of locating persons by using a social security number, driver's license number or state identification number.

Enlist the services of a private investigator.

Petition correctional facilities to allow the interviewer to come in and interview the incarcerated male or female offender.

Organizing for good results

In Chicago, interviewers were working on 10 to 20 cases at any given time. The most successful interviewers developed an organized system for keeping track of attempts being made to locate proxy respondents:

Establishing a good follow-up system will save time and give the interviewer good execution strategies.

Note-taking is invaluable in order to know what the next plan of action should be. Notes include follow-up dates, who was spoken to, what was said, usefulness of phone numbers, when to call (a.m., p.m., after work, weekends), call back requests and dates.

Keep a log of correspondence and a record of the number of attempts that were made via phone, field or mail.

Label files by the work required: phone work, fieldwork, etc. That way, you are all ready to make all of your calls during the two-hour evening peak time, without wasting time searching through all your cases.

Organize “field work” files geographically, depending on what part of town the interviewer will concentrate on a particular day.

Plan fieldwork around the time children are coming home from school. It is safer, the person you are seeking may more likely be at home, and most of all, children are good about revealing information such as phone numbers and adults’ whereabouts.

Face-to-face skills

The need for an interviewer to be relaxed cannot be stressed enough. Be cautious about appearing too official. Respondents are already suspicious about your inquiries.

Familiarity breeds good results while in the field. If people get the impression that you are a friend or casual acquaintance of the person you are seeking, they may be more comfortable talking with you.

Memorize as much of the questionnaire as possible so that you can begin interviewing spontaneously should the opportunity present itself. It also allows the interviewer to have more eye contact while conducting scheduled interviews.

When a respondent refuses to participate, gently probe for as much information as they are able to give, and ask for a referral. Always ask if you may contact them at a better time, get a phone number, and follow up!

If respondents do not give a referral and continue to refuse, respect their wishes, give the process a little time, and some weeks later re-contact this person, preferably in person. Empathize with them, and appeal for their cooperation once more. Often the lapse in time gives them a chance to reconsider.

Don’t hesitate to return to a “no” respondent. Feel your way and possibly approach the person from a different angle.

Preparing for Fieldwork: Credibility

Credibility is critical for successful fieldwork. Before going into the field, interviewers read the material on each case several times and discussed with the team leader or their interview partner. They converted to memory key facts, including names, dates, and circumstances surrounding the incident. In Houston, field workers always take the official documents with them, so when approaching a potential proxy, who is mentioned in the report, they can cite and, if needed, present the document. In Chicago,

interviewers carried letters on project letterhead, calling cards with the project name, their names and the 800 number, and wore agency badges.

In Houston as well, a badge with the interviewer's name and institutional affiliation was essential. We were always honest but sensible about our role and project description. As the general public has a long and generally very positive history with public health nurses, the nurses wore badges with RN after their names. Houston interviewers never initially introduced themselves as researchers trying to locate and interview proxies for femicides, but rather as nurses working on a study about women's health.

Once with a knowledgeable proxy, informed consent was reviewed before the interview began.

Stepping into the Field

Maintain a pile of cases for which field work is necessary, organized by area of the city. When you go into the field, take the whole pile, because you never know when an opportunity to make a contact may present itself. Similarly, have blank questionnaires with you at all times, just in case.

When you have located a potential proxy, complete a brief screening interview to assess the person's knowledge about the victim and the intimate partner relationship. This discussion is usually informal, and does not need to follow a set format. Although the Chicago study developed a formal screening questionnaire, it was not particularly useful in the field, but was more useful in helping the research collaborators to focus our ideas about the ideal proxy respondent. Whether formal or informal, proxy screening includes questions about the relationship of the potential proxy to the victim, the length of time the proxy knew the victim, knowledge about the relationship, and willingness to answer questions about it. If it is obvious that the potential proxy is not very knowledgeable about the victim or the relationship, ask the person to recommend other contacts.

First Field Visit: Accepting Funeral Home

Commonly, the proxy leads in the official records could not be located. In these cases, the first site visit was to the accepting funeral home of the deceased. Funeral home information is cited on the medical examiners report.

It is important to go in person to the funeral home, even if you have sent a letter. Calls and letters can be ignored. Begin by talking to the receptionist, a key person who functions as a "gatekeeper" to the deceased person's file. When meeting the receptionist, the team member would say something to the effect of:

"I'm a nurse working with the police department on a study to prevent the murder of women by their intimate partners. In June of 1996, there was a woman by the name of Jane Smith, who was killed by her boyfriend, Ted Jones. According to the medical examiners report, her body was received by this funeral home on June 19th. Could you help me learn who might have assisted with the payment for the funeral? I'm trying to contact the family, so that we can find out more about the relationship. This is very important as we are trying to prevent things like this from happening to other people."

The goal here is to get the person at the desk to pull the file. This person may need to consult with the director. In Houston, however, most everyone pulled the file and shared relevant information. In Chicago, our response from funeral homes was uneven. Some smaller funeral home directors were very helpful, but one of the largest, which also had many of our cases, refused to cooperate. To increase cooperation, we developed a special letter for funeral home directors, and asked our agency lawyer to determine whether there is any law preventing a funeral home from providing information. We contacted the funeral director's professional association, to get their official approval of the project. However, some funeral homes are not members of the association.

From the list of contacts in the funeral home file, you may be able to find a knowledgeable proxy respondent. If no knowledgeable proxy emerges, return to the field. Your next priority should be to visit the murder site and the victim's residence.

Second Field Visit: The Murder Site & Victim's Residence

Frequently in domestic homicides, the murder site and the victim's residence are the same. Ascertain who lived in the immediate neighborhood at the time of the murder. Your goal is to talk to each of these persons. If the murder site and/or victim's residence is a single family dwelling, begin by talking to the present occupants and next door neighbors. Did they reside in the neighborhood at the time of the murder? Did they know the victim or perpetrator? Your goal is to identify a close friend, neighbor, or confidant who may be a knowledgeable proxy.

If the victim had children, ask if there were children in the neighborhood that the victim's children played with. If so, where do these children live? Visit their homes and ask if the youngsters know where the victim's children are now living. (As guardians will frequently try to maintain children's relationships with neighborhood children, we located several proxies through neighborhood children who continued to share club, sports, and weekend visits with the victim's children.) Almost always the guardian of the victim's children knew the victim well. If you cannot locate children or adults who knew the victim's children, ask which school(s) the children attended. Visit the school(s), and seek their assistance in identifying if the children are presently attending the school, and if so, would they phone the children's guardian to request the guardian call your office. In Houston, we found the schools to be most helpful. Some schools shared information about victim's children being moved out of state, and the name of the new school. In one instance, the children had attended four schools in three states over a 2-year period. However, after explaining the purpose of the study to each school contact, we successfully located a reliable proxy, the victim's sister, who was also the guardian of her two children.

If the victim's residence was an apartment complex, begin by talking to the manager. Ask if the manager knew the victim or other residents who spent time with the victim. These residents may be a knowledgeable proxy or able to direct you to a suitable proxy. Ask the manager if you may review the lease agreement for possible proxy leads, including employer, next of kin, emergency contacts, and any references. Ask which of the tenants in apartments close by to the murder site (i.e., next door, upstairs, downstairs) are presently occupied by the same residents who were present at the time of the murder. Visit each of these residents.

Maintenance people are an additional source of information. If there was prior violence and destruction, it was probably the maintenance person who completed repairs.

Finally, never leave an apartment complex before going to the laundry and playground area. Laundry room and play areas are almost always occupied, especially on a Saturday. Ask who remembers the murder, who was the victim friends with, who did her/his children play with, who do they suggest you contact to find a knowledgeable proxy? We identified one proxy through a woman in the commercial laundromat adjacent to the apartment complex where the deceased woman had lived. The informant remembered the murder well and identified a woman in her mid-30s as a “best friend of the victim” who was “always with the victim”. Although the informant did not know the potential proxy’s name or residence, she knew she still came to the laundromat every Saturday. The next Saturday, an interviewer was at the laundromat, met the “best friend” and completed a interview with no missing or unknown information!

As you read this if you are beginning to feel, there is no way I’m hanging out at laundromats, and talking to maintenance personnel, then we must move along quickly to the last section.

Skills, Attitude, and Support are Everything

Tracking is the most important part of field research and demands a certain person(s). Frankly, methodological issues of instrumentation, sampling, data management, and analysis can be expertly handled by a fleet of people. These folks are abundant, and most eagerly awaiting to assist you. However, effective field trackers are rare and must be carefully selected and consistently supported for project success.

The right attitude is essential. The person tracking must feel safe and secure in the neighborhood. If the person does not want to talk to people, feels inadequate to do the job, or is scared of that “part of town,” the people interviewed will immediately pick up on this, and there will be little or no information shared. A positive attitude and skill acquisition will guarantee successful tracking and complete proxy interviews. Proxy informants can answer questions that will move the discipline of homicide research forward.

It is our experience that the most effective field trackers have been trained and possess professional skills in people finding. Public health nurses have traditionally worked with people in the community and most have specialized skills in outreach, follow-up, and people interviewing. Additionally, persons that work with the U.S. census bureau do routine interviews in the community, and are well prepared at tracking and interview skills. Regardless of the person’s previous experience, a successful field project will require extensive training and regular team meetings to share successful strategies and support each other.

Results

In Chicago, the overall case completion rate was 88%, or at least one knowledgeable proxy in 72 of the 85 cases. It took an average of 2 months to complete each of the 73 cases, from the time it was

assigned to the time of actual proxy interview, although there was a wide variation in this completion time, depending on the mobility of the proxies, and whether, once contacted, they needed time to decide to participate. Forty percent of the cases were completed in less than a month, although some took as long as 7 months to reach a knowledgeable proxy. It took an average of seven attempted contacts before an interview was actually conducted.

The proxies actually interviewed tended to be related to the victim, whether male or female. This might be expected, given the case information obtained. The medical examiner files collected information on the victim's relatives (whoever claimed the body), almost exclusively. Further, the most useful court documents were Victim Impact Statements, which again focused on the victim's family. Fifteen female offenders were interviewed, and in five cases, they were the only respondent, while in 10 other cases, another proxy respondent was also interviewed in the case. The most common proxies were the victim's mother (18) and the victim's sister, regardless of the sex of the victim (18). Female proxies were more common than male proxies. Females tend to be home more during the day, when most contact attempts were made, and were more likely to be confidants of the female victims.

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APPENDIX:

Previous Studies Attempting to Collect Proxy Respondent Information

Joyce Banton and the Kellermann research team identified a proxy respondent in 405 of 420

homicides (96.4%).¹ Rose (1981:27), however, was able to contact only 74% to 58% of homicide victims' next of kin and interview only 58% to 24% of those contacted in three cities. In a later study, Rose was able to interview 43% of the victims' next of kin (personal communication with Harold Rose, December 7, 1994). An important difference between Kellermann and Rose is that the Kellermann team interviewed proxies within 3 weeks following the incident, while the lag in both Rose studies was as much as 3 years. Rose cautions that the lag did make a difference in response rates.

In addition, the Kellermann proxy was not limited to next-of-kin as in the Rose studies, but involved numerous attempts to contact a hierarchy of knowledgeable people (personal communication with Joyce Banton, who was in charge of fielding the Kellermann team, and who has kindly lent her advise and suggestions to this study). Our study includes such a hierarchical series of contacts. We also learned from Rose's experience, in the second study, that matching the proxy/interviewer race seemed to matter. Finally, while the Kellermann study's questionnaire was short and non-invasive, Rose's interview schedule included 178 detailed questions, many of them open-ended, about "life history."

Prof. David C. Clark and colleagues conducted a large-scale proxy respondent of suicide victims, and stress the importance of multiple proxy interviews.² In his research (Clark & Horton-Deutsch, 1992; Clark & Fawcett, 1992), he interviews as many as seven proxies per subject, and has found that different confidants of the suicide victim have different perspectives and contribute unique, valuable information for the study. In David Clark's experience, new information is often gained from the sixth or seventh interviewed person.

CRIMINAL AND RESTRAINING ORDER HISTORIES OF INTIMATE PARTNER-RELATED HOMICIDE OFFENDERS IN MASSACHUSETTS, 1991-1995

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¹In these 15 cases, there was no knowledgeable person, or the only person was the suspect. Of those identified, 93%, 98% and 99% were interviewed in each county (Bailey, et al., 1997).

²Clark refers to proxy interview methodology as a "psychological autopsy."

ABSTRACT

Few studies have offered a detailed analysis of the criminal histories of intimate partner homicide perpetrators. A study was undertaken using multiple data sources to compile a comprehensive database of homicides related to intimate partner violence from 1991-1995 in Massachusetts. For this analysis, records of perpetrator criminal and restraining order histories were abstracted from a computerized database maintained by the Massachusetts Trial Court. Preliminary results show that perpetrators had extensive prior involvement with the criminal justice system, including both criminal and civil offenses.

BACKGROUND

Numerous studies of intimate partner homicide have been conducted. Typically, these studies report information about the victims, offenders, weapon use, and circumstances of the homicide events, to the extent that these data are available. The national data set on homicides, the FBI's Supplementary Homicide Reports (SHRs), is largely limited to information on victim and offender demographics and weapon use. These data are very limited with respect to the need to identify risk factors that might guide prevention efforts.

Local studies using data sources such as police and medical examiner records often include more detailed data about victims, offenders, and circumstances. However, most of these studies have reported only crude measures of the criminal histories of the homicide perpetrators. For example, Goetting reported that 56.6% of offenders arrested for killing a spouse in Detroit in 1982 and 1983 had been arrested at least once prior to the homicide offense, but no details about the seriousness of the offenses, or specific charges, were reported (Goetting, 1989). The Chicago Homicide Dataset, constructed from police records, and used by Block and Christakos to analyze characteristics of intimate homicide perpetrators in Chicago from 1965-1993, contains information about victim and perpetrator arrest records disaggregated into violent versus nonviolent offenses. In that dataset, 40% of the men and 18% of the women who killed opposite-sex partners had previously been arrested for a violent offense; the figures for nonviolent arrests were not reported (Block & Christakos, 1995).

Presumably, the lack of detailed criminal history information is due to difficulty in accessing these data, either because the information is not available to researchers in a usable form, or is difficult to obtain due to confidentiality restrictions. To our knowledge, no prior study has documented the restraining order histories of homicide offenders.

The present study was undertaken with the goal of accurately counting and characterizing homicides related to intimate partner violence over a 5-year period in Massachusetts (1991-1995). Multiple data sources were used to compile a comprehensive database of these homicides in Massachusetts using an expanded case definition that includes people other than partners who were killed in the context of intimate partner incidents. This definition includes two types of cases: 1) the murder of a spouse or unmarried romantic partner by a partner or ex-partner ("Partner Victims"); and 2) murders of family members, friends, acquaintances, or bystanders in the context of a partner- or ex-partner-related incident ("Other Victims").

As part of this study, the investigators gained access to a database that contains Massachusetts criminal and restraining order records for the homicide perpetrators, and it is these data that are the focus of this report. Other results from this study, including a comparison of the number of homicides detected in this study with those reported in the FBI's Supplementary Homicide Report (SHR), are reported elsewhere (Langford, Isaac, & Kabat, 1998).

METHOD

A database of all intimate partner-related homicide cases from 1991 through 1995 was compiled from news articles, Supplementary Homicide Reports, lists assembled by District Attorney's offices, and reports from domestic violence advocacy agencies. This database will be referred to as the "study database." Because SHRs do not contain names, cases identified through the SHR were matched with death certificates to identify individuals by name. Descriptive data on victims were obtained from death certificates. The study database is victim-based, in that it has one record for each victim. Offenders were those determined by our data sources to have committed the homicide, whether or not they were arrested or convicted. In 3 cases there were 2 offenders: a female partner and another male offender. In 2 of the 3 cases, the female partner was not present during the homicide but was considered by law enforcement agencies to be central to the murder's planning and implementation. Because this is a study of intimate partner homicide, the offender is considered to be the female partner in these cases.

We attempted to obtain verification for each case from two data sources and were successful in all but 3 cases. The two most common sources used to verify cases were news articles and reports from District Attorney's offices. If one of these sources of verification was not available, or additional information was needed to establish the case as intimate partner violence-related, we consulted by telephone with the police officer, detective, or prosecutor who had worked on the case. We also asked other experts in the homicide field to rule on whether certain cases should be considered intimate partner-related. In the 3 cases with only a single source of verification, the existing information indicated that the cases were related to intimate partner violence, so they were included in the study database.

Criminal History and Restraining Order Records

Massachusetts criminal and restraining order histories of the offenders were abstracted from printed records obtained from the Criminal Activity Record Information (CARI) database and the Registry of Civil Restraining Orders, two linked computerized databases maintained by the Massachusetts Trial Court. These databases are described in more detail below. Because these records contain criminal and restraining order records from Massachusetts only, the actual proportion of perpetrators with these histories is likely to be higher than reported here.

To locate the correct record, the databases were searched by perpetrator name and confirmed using other available information about the perpetrator and homicide case. For example, since nearly all of the perpetrators were arrested for the homicide, a murder charge in the record, in most cases within a few days of the homicide date, served as confirmation that the record was correctly identified. In cases where the perpetrator had committed suicide, the perpetrator's date of birth was obtained from the death certificate and used to match the criminal record. Other fields used to ensure correct matches were the

perpetrator's age, town of residence, and town of homicide.

Of 174 total perpetrators in the study, records were matched for 161 perpetrators. In 10 cases in which no record was found, the perpetrator had committed suicide. In cases of perpetrator suicide, there was no arrest for the homicide, so the absence of a record was assumed to mean that these perpetrators had no prior criminal or restraining order history in Massachusetts. These 10 cases are included in the analysis and coded as no prior history. In the remaining 3 cases, other available information indicated that there had been an arrest for the homicide; however, no matching record was found. These 3 cases were excluded as not matched, resulting in a total of 171 cases. Of the cases analyzed, 152 (88.9%) of the perpetrators were male and 19 (11.1%) were female. Perpetrator ages ranged from 14 to 82 years old, with a mean age of 36.4 (sd 12.6).

Criminal Activity Record Information Database

Each criminal record includes complete adult and juvenile records unless part of the record has been sealed (indicated by a symbol on the record). Both adult and juvenile records consist of a list of all offenses, and, for each offense, the date and location of the arraignment, the name of the offense, the disposition of the case, and the status of the case (open/closed). Some offense categories may be supplemented by additional information in the record. For example, along with the charge "assault and battery with a dangerous weapon," the specific weapon may be identified; for drug offenses, the drug may be specified.

Offenses fall into five general categories: 1) crimes against the person, or "violent crimes"; 2) property crimes; 3) motor vehicle crimes; 4) drug offenses; and 5) other or "public order" offenses. Crimes against the person include offenses such as assault, assault and battery with a dangerous weapon, robbery, rape, and violating a restraining order. Public order offenses include a wide range of offenses, including resisting arrest, some firearm offenses (possession, carrying), violating probation, disturbing the peace, liquor offenses, causing a false fire alarm, and failing to license one's dog.

Restraining Order Database

Since September of 1992, Massachusetts has maintained a computerized database of all restraining orders that is cross-referenced to the CARI database. Because the Registry was not available during the first 20 months of the study, analysis of restraining order records is limited to those cases occurring after the implementation of the database.

Each restraining order record includes the name of the defendant, the name of the plaintiff, the court where the order was obtained, the order date, the expiration date of the order, the status of the order (open/closed), and the provisions that were specified as part of the order. There are 13 possible provisions, for example, "refrain from abuse," "no contact," "vacate/stay away from the residence," and "custody of following (children) to plaintiff."

RESULTS

Statistical tests were performed on the following analyses; however, due to the small sample size, most tests did not reach statistical significance. Results from statistical tests are reported for only those tests that reached at least marginal statistical significance.

Overall Criminal History and History of Specific Violent Offenses

The proportions reported are based on charges appearing on the criminal record, regardless of whether the offender was convicted for the crime. According to preliminary analysis, at least 126 (73.7%) of all the perpetrators had been charged with one or more criminal offenses in Massachusetts prior to the homicide, including both violent and nonviolent crimes (Table 1). Ninety perpetrators had been charged with at least one violent crime as an adult, representing more than half of all the perpetrators in the study (52.6%) and 71.4% of perpetrators with a prior criminal history. Only 21.1% of all perpetrators had only a history of nonviolent crime.

The proportion of all perpetrators charged with specific types of violent crimes is shown in Table 2. Fifty-six perpetrators had been charged with a violent crime involving a weapon, which totals one-third of all perpetrators (32.7%) and almost two-thirds of violent perpetrators (62.2%) (Table 2). Nearly 40% of all perpetrators had been charged with assault without a weapon, 32.2% were charged with assault with a weapon, and 12.9% were charged with making threats. Fewer than 10% of perpetrators were charged with sex offenses, kidnapping, child abuse, child neglect, prior murder or manslaughter, or stalking (Table 2).

Table 1: OVERALL CRIMINAL HISTORY

N = 171

	Number	% of All Perpetrators	% of Perpetrators with Any Criminal History
Any Prior Criminal History	126	73.7	--
Any Prior Violent Crime ¹	90	52.6	71.4
Prior Nonviolent History ²	36	21.1	28.6

¹Charged with at least one violent crime as an adult.

²Charged with only nonviolent crimes as an adult.

Table 2: SPECIFIC VIOLENT OFFENSES

		Among All Perpetrators	Among Violent Perpetrators
		n = 171	n = 90
	No.	%	%
Any violent crime with a weapon	56	32.7	62.2
Assault without a weapon	67	39.2	74.4
Assault with a weapon	55	32.2	61.1
Threat	22	12.9	24.4
Sex Offense	10	5.9	11.1
Kidnapping	6	3.5	6.7
Child abuse	6	3.5	6.7
Child neglect	3	1.8	3.3
Murder/manslaughter	3	1.8	3.3
Stalking	1	0.6	1.1

Comparisons of Violent and Nonviolent Offenders

Table 3 shows the number of charges and arraignments of the perpetrators prior to the homicide. The number of charges refers to each count of a criminal offense that appears on the record. An arraignment is one court appearance on a single date and often includes more than one charge. Multiple counts of the same offense on the same date were counted as separate charges but one arraignment. The number of charges for all offenders ranged from 1 to 75, with a mean of 10.6 (sd 12.5) and median of 5.0 charges. The number of arraignments for all offenders ranged from 1 to 41, with a mean number of 6.0 (sd 6.5) and median 3.0. Offenders charged with a prior violent offense had a greater number of both charges and arraignments compared to offenders with a prior nonviolent history (Table 3). Examining only violent crimes (not shown in table), the number of charges ranged from 1 to 29, with a mean of 3.0 (sd 3.8) and a median of 2.0 violent crimes.

Table 3: CHARGES AND ARRAIGNMENTS BY VIOLENT VS. NONVIOLENT CRIMINAL HISTORY

	Total n = 171	Violent ¹ n = 90	Nonviolent ² n = 36
Charges ³			
Mean (sd)	10.6 (12.5)	13.4 (13.6)	3.7 (3.8)
Median	5.0	9.5	3.0
Range	1 – 75	1 – 75	1 – 21
Arraignments ⁴			
Mean (sd)	6.0 (6.5)	7.2 (7.1)	2.9 (2.9)
Median	3.0	5.0	2.0

Range	1 – 41	1 – 41	1 - 16
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¹Charged with at least one violent crime as an adult.

²Charged with only nonviolent crimes as an adult.

³A charge is each count of a criminal offense appearing on the record. Offenders may have more than one charge per arraignment.

⁴An arraignment is one court appearance.

Nonviolent crimes are divided into four categories in the CARI database (Table 4). Among all perpetrators, 43.9% had been charged with a property crime, 37.4% were charged with a motor vehicle crime, 17.5% had a prior drug charge, and 42.7% had been charged with a “public order” offense.

Violent offenders were charged with a greater proportion of nonviolent crimes compared to offenders who had committed only nonviolent crimes. For example, 64.4% of violent offenders, compared to 47.2% of nonviolent offenders, had been charged with a property crime. This difference was marginally statistically significant (chi-square, $p < .08$) (Table 4). The proportion of violent and nonviolent offenders charged with the specific property crime of trespassing, however, was not different (17.8% and 16.7%, respectively.) Compared to nonviolent offenders, perpetrators charged with violent crimes had a somewhat higher proportion of drug offenses (27.3% and 16.7%) and “public order” offenses (62.2% and 47.2%). The only category in which charges against nonviolent offenders exceeded charges against violent offenders was motor vehicle offenses (47.8% of violent offenders and 58.3% of nonviolent offenders). A much higher proportion of nonviolent offenders had been charged with “operating under the influence of liquor” (OUIL) (41.7%, versus 26.7% of violent offenders).

We examined two offenses that could cut across all crime categories: any offense involving alcohol (excluding OUIL) and any offense involving a weapon (Table 4). Offenses involving alcohol were slightly more common among violent offenders (14.4% compared with 5.6% of nonviolent offenders). As might be expected, violent offenses were significantly higher among violent criminals, with only two weapon offenses recorded among nonviolent criminals (chi-square, $p < .001$).

Among violent adult offenders, 28.9% had some charge as a juvenile compared to 11.1% of nonviolent adult offenders (Table 4). Ten percent of adult violent offenders had had a violent charge as a juvenile compared to 5.6% of nonviolent offenders.

Table 4: PRIOR OFFENSES BY VIOLENT VS. NONVIOLENT CRIMINAL HISTORIES

	Total	Violent	Nonviolent
	n = 171	n = 90	n = 36
	No. (%)	No. (%)	No. (%)
Property crime			
Any property offense*	75 (43.9)	58 (64.4)	17 (47.2)
Trespassing	22 (12.9)	16 (17.8)	6 (16.7)

Motor Vehicle crimes			
Any motor vehicle crime	64 (37.4)	43 (47.8)	21 (58.3)
Operating under the influence of alcohol (OUIL)	39 (22.8)	24 (26.7)	15 (41.7)
Drug offenses			
Any drug offense	30 (17.5)	24 (27.3)	6 (16.7)
Other (“Public order”) offenses	73 (42.7)	56 (62.2)	17 (47.2)
Cross category offense			
Any offense involving alcohol (excluding OUIL)	15 (8.8)	13 (14.4)	2 (5.6)
Any offense involving a weapon**	61 (35.7)	59 (65.6)	2 (5.6)
Juvenile Offenses			
Any prior juvenile offense	30 (17.5)	26 (28.9)	4 (11.1)
Prior violent juvenile offense	11 (6.4)	9 (10.0)	2 (5.6)

* χ^2 , $p < .08$

** χ^2 , $p < .001$

Examining the disposition of prior offenses revealed that nearly half (48.5%) of all offenders had been convicted for at least one adult charge, while 39.8% had been on probation and 19.9% had been incarcerated (Table 5). The proportion of violent offenders on probation (62.2%) was significantly higher compared to nonviolent offenders (33.3%) (chi-square, $p < .01$). A significantly higher proportion of violent offenders had been incarcerated (35.6% vs. 5.6% of nonviolent offenders) (Fisher’s exact $< .001$).

Table 5: DISPOSITION OF PRIOR OFFENSES

	Total	Violent	Nonviolent
	n = 171	n = 90	n = 36
	No. (%)	No. (%)	No. (%)
Ever convicted	83 (48.5)	64 (71.1)	19 (52.8)
Ever on probation*	68 (39.8)	56 (62.2)	12 (33.3)
Ever incarcerated**	34 (19.9)	32 (35.6)	2 (5.6)

* χ^2 , $p < .01$

** Fisher’s exact test, $p < .001$

Additional Exploratory Analyses

For all perpetrators, there were no differences in overall criminal history by sex, between perpetrators who committed suicide versus those who did not, and between perpetrators classified by the

research team as “self-defense” cases (violence initiated by the victim) compared to non-self-defense cases. More detailed analyses of these findings will be conducted.

Restraining Order History

As noted above, restraining orders were recorded in the Registry prospectively beginning in September 1992. Orders already in place at the start of the Registry were not recorded; therefore, these totals are underestimates of the actual number of restraining orders involved in these cases. Results are reported in Table 6. Among all perpetrators who committed homicides after September 1992, 28.9% had a restraining order documented in the Registry of Civil Restraining Orders. In at least 16.5% of these cases, there was an active restraining order at the time of the homicide, and a documented restraining order violation on record in at least 11.6% of all cases (note that the vast majority of restraining order violations are probably never reported or responded to by authorities).

Table 6: RESTRAINING ORDER HISTORY¹

	Total	Violent	Nonviolent
	n = 121	n = 67	n = 24
	No. (%)	No. (%)	No. (%)
Restraining order ever*	35 (28.9)	31 (46.3)	4 (16.7)
Restraining order active at time of homicide**	20 (16.5)	17 (25.4)	3 (12.5)
Ever violated RO	14 (11.6)	14 (20.9)	n/a

¹Cases before September 1992 are excluded in this analysis because the Registry of Civil Restraining Orders was not yet operation.

* χ^2 , $p < .01$

** Fisher’s exact test, $p < .05$

A significantly higher proportion of violent offenders had ever had a restraining order compared to nonviolent offenders (46.3% vs. 16.7%) (chi-square, $p < .01$). A significantly greater number of violent offenders also had an active restraining order at the time of the homicide (25.4% vs. 12.5% of nonviolent offenders) (Fisher’s exact $p < .05$). At least one-fifth (20.9%) of all violent offenders had been charged with violation of a restraining order, or 45.2% percent of violent offenders who had ever had a documented order.

Limitations

These figures must be considered lower bound estimates of the actual criminal and restraining order histories of these homicide perpetrators. These records cover Massachusetts only, and do not include records from other states or countries. Many crimes are never reported and some types of offenders may be less likely to be charged with crimes, making official criminal records an incomplete record of actual criminal acts.

As noted above, the inability of the Registry of Civil Restraining Orders to include orders issued

prior to September of 1992 suggests that this database would take several months to become a complete record of all current orders. Also, documented restraining order violations are thought to greatly underestimate the actual incidence of these violations.

The power of this study to detect statistically significant differences was greatly limited by its small sample size. Few differences achieved statistical significance, although in several cases the size of the differences found (for example, 62.2% of violent offenders vs. 47.2% of nonviolent offenders charged with public order offenses) appears to reflect meaningful differences.

The lack of a no-homicide comparison group of domestic violence perpetrators prevents any conclusions from this study regarding which traits or circumstances may differentially lead to homicide. These data were obtained as part of a descriptive study designed to document the extent of intimate partner-related homicides in Massachusetts, not an analytic study intended to identify risk factors for these homicides.

DISCUSSION

Despite their imitations, these data provide useful minimum estimates of the proportion of intimate partner-related homicide perpetrators with criminal and restraining order histories. Preliminary results indicate that these perpetrators had extensive prior involvement with the criminal justice system in both criminal and civil contexts. In particular, a substantial proportion of offenders had been charged with violent offenses, and many had restraining orders issued against them as well as violations of restraining orders. These findings contradict common stereotypes of intimate homicide offenders as “regular guys” (i.e. nonviolent) who one day suddenly “snap.” Many of these offenders showed a clear propensity for violence and a disregard for measures designed to keep their partners safe well in advance of the homicide event.

Although alarming, the fact that these homicides are often preceded by obvious warning signs also constitutes a basis for hope. While the difficulty of predicting which perpetrators will commit homicide based on a set of risk markers has been well documented, at a minimum these findings point to a potential for prevention. The fact that these offenders are frequently involved with criminal and civil justice systems suggests that opportunities may exist in these settings for monitoring and intervention designed to prevent homicides. The capacity to capitalize on these opportunities will require more refined assessment tools that examine various factors in addition to criminal history, for example current stressors, mental health issues, and perpetrator attitudes towards use of violence and compliance with laws. Many questions remain, however, and future studies are needed to determine which factors predict intimate partner-related homicide.

One important use of the information from this study might be to educate personnel in the criminal justice system about the frequency of criminal and restraining order histories among homicide perpetrators and to urge them to consider all of the information they have available to them when making decisions about cases. At minimum, we recommend that judges routinely review the restraining order and criminal history of defendants when deciding how to hold offenders accountable. In addition, efforts should be made to refine criminal justice responses to batterers who violate restraining orders.

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LEGAL REACTIONS TO INTIMATE PARTNER HOMICIDE: A PRELIMINARY LOOK AT THE ROLE OF GENDER AND INTIMACY

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ABSTRACT

Research has documented the importance of the relationship between an offender and his/her victim in examining the homicide event. This paper builds on this work by exploring how criminal justice outcomes in these cases may vary by type of victim-offender relationship. This preliminary analysis demonstrates that it is important to disaggregate intimate relationships to examine how homicides between various intimate partner dyads may lead to different criminal justice outcomes. For example, using *relationship status* and *relationship state* to differentiate among relationship types, my findings show that offenders who killed estranged partners (in the case of female homicide victims) or non-marital intimate partners were treated more punitively throughout the criminal justice process than other types of offenders.

INTRODUCTION

The social and legal construction of intimacy has obvious relevance to the behavior of law. Over time and across cultures, research has shown that more intimacy means less law (Black, 1976; Lundsgaarde, 1977; Gottfredson & Gottfredson, 1988; Horwitz, 1990). For example, offenders who victimize strangers are often treated more punitively by the courts than those who victimize family members or acquaintances. Thus, victim-offender relationship appears to be an important factor in determining how an offender is treated at various stages of the criminal justice process. However, our knowledge of the role played by victim-offender relationship is limited primarily to comparisons across broad categories (i.e., intimates and non-intimates), and to analyses that seldom control for other factors that may affect criminal justice outcomes.

This paper focuses on one component of a larger research project that examines the legal treatment of one form of criminal violence -- homicide. While there has been a great deal of research on the role of victim-offender relationship in homicides, this work seldom extends to criminal justice outcomes, particularly using more refined categories to distinguish among different relationship types. Several theoretical perspectives suggest variations may exist in legal responses to violent crime beyond the well-documented differential outcomes for homicides involving intimates and those involving strangers (Black, 1976; Lundsgaarde, 1977; Horwitz, 1990; Rapaport, 1994). Drawing from this work and, in particular, Black's (1976) concept of relational distance, I examine various relationship types, with particular emphasis on sexual intimates or intimate partners, to determine if relationships that vary along a continuum of intimacy lead to differential sanctions in homicide cases. Below, I briefly discuss relational distance and its connection to law, and describe the data sources and key variables used in my analyses before moving into a discussion of my findings.

In his theory of the behavior of law, Donald Black (1976) defines relational distance as the degree to which people participate in one another's lives, and hypothesizes that the closer the relational distance, the less severe the penal control. Some measures of relational distance identified by Black, and later by Horwitz (1990), who extended this work, are the scope, frequency and length of interactions between individuals; the age of the relationship; common social and cultural characteristics; shared interests; and common linkages to third parties. I derive two concepts from Black's definition of relational distance -- *relationship status* and *relationship state* -- to shape my research questions and to act as a framework within which more refined relationship categories, specifically among intimate partners, are developed.

Relationship status captures whether sexual intimacy exists between a victim and an offender and, if so, what type of sexual intimacy (i.e. legal spouse, common-law partner or boyfriend/girlfriend dyad). Among intimate partner relationships, *relationship state* measures whether an offender was estranged from the victim at the time of the killing. Using these two concepts, the following research questions were examined: 1) Do criminal justice outcomes vary when comparing homicide cases involving sexual intimates to cases in which no sexual intimacy exists between offenders and victims (Relationship status)? 2) Do criminal justice outcomes vary by type of intimate partner relationship (Relationship status)? 3) Do criminal justice outcomes vary depending on whether the intimate partners were estranged at the time of the killing (Relationship state)?

DATA SOURCES

I use two partially-overlapping data sources. The first data set documents all male and female homicides in Toronto, Ontario, between 1974-1990 that were dealt with through the courts (n=778).¹ Police files are the primary source of information, and includes victim, offender, and offence characteristics, as well as criminal justice outcomes. The second data set is derived from a study of intimate femicide in Ontario, 1974-1994, that documents all cases involving female homicide victims aged 15 and older (for more information, see Gartner, Dawson, & Crawford, 1999). Again, only those cases that were resolved through the court system are the focus of analysis (n=321). Similar types of information are available in this data set. Official and unofficial sources of information were used, including coroner's records, police investigation files, prosecutors' files, and newspaper articles.

VARIABLES AND MEASURES

I focus on five key official outcomes²: (Y₁) seriousness of the prosecution charge (murder=1); (Y₂) guilty plea, rather than a trial (plea=1); (Y₃) trial verdict (not guilty=1); (Y₄) seriousness of conviction (murder=1); and, (Y₅) sentenced imposed (2 years plus=1).

¹ These data are from a larger four-city study by Rosemary Gartner and Bill McCarthy that documents male and female homicides between 1900-1990 in two Canadian and two U.S. cities.

² For the purposes of these analyses, all dependent variables are dichotomous. In later analyses, both polytomous and interval level variables will be used. Moreover, drawing from Myers (1980), a sixth dependent variable will measure the number of applications of law that the defendant experienced, providing a more general measure of the amount of criminal law used in a particular case.

The role of victim-offender relationship, the key independent variable, is examined separately for each of the above stages in the criminal justice process.¹ Of secondary interest is how the sex combination of the offender and victim may condition the effect of victim-offender relationship on criminal justice responses to homicide. Thus, I first examine the role of relationship type including all control variables except sex. Sex is entered at the second stage of the analysis to determine if significant relationships remain. Three variables are entered to capture sex combination of the offender and victim (male/female, female/male and female/female). Male/male killings act as the reference category. Control variables include age of the offender (continuous), race of the offender (nonwhite=1), the offender's employment status (unemployed=1), the offender's criminal history (prior record=1), whether the offender was a primary or secondary player (secondary=1), location of killing (public=1), number of offenders (multiple=1), number of victims (multiple=1), weapon used (gun=1), year of killing (continuous).²

MULTIVARIATE FINDINGS

I use logistic regression to examine the odds of a case resulting in one type of criminal justice outcome compared to another based on the offender's relationship with the victim, controlling for other legal and extra-legal factors. Below I summarize the results of the multivariate analyses for each research question.³

The first analysis (research question #1) compared criminal justice outcomes for various types of relationships using a six-category victim-offender relationship variable: marital partners,⁴ other sexual intimates,⁵ other family/kin, friends, acquaintances, and strangers (reference category). Relationship type was significantly related to four of the five criminal justice outcomes.⁶ First, offenders who killed marital partners or other family members were less likely to be charged with first-degree murder⁷ than cases involving strangers. Second, cases involving marital and other intimate partners were more likely to be

¹ Only those defendants who were at risk of experiencing a particular outcome were included in these models. Later analyses will include a control for sample selection bias.

² Victim characteristics are not included in these preliminary analyses, but previous research suggests that such characteristics, either solely or in combination with offender characteristics, may be important predictors of criminal justice outcomes. Thus, victim characteristics will be included in later analyses.

³ Bivariate and multivariate tables are available from the author for all the above analyses, but, due to limited space, are not included here.

⁴ This category includes legal spouses and common-law partners.

⁵ 'Other sexual intimates' includes boyfriend/girlfriend relationships, initial dating relationships and off/on relationships.

⁶ When sex was entered into the equation, all significant relationships remained.

⁷ A first-degree murder charge denotes a homicide that is believed to be premeditated and intentional.

resolved through guilty pleas than trials compared to cases involving strangers. Third, offenders who killed marital partners were less likely to be convicted of murder than offenders who killed strangers. And, finally, offenders who killed family members (not including intimate partners) were less likely to be imprisoned for 2 years or more.

The second part of the analysis (research question #2) examined within-group differences among sexual intimates, comparing marital partners to other sexual intimates. Results showed that, in the initial stages of the criminal justice process, there were few differences within the intimate partner category. Differential legal responses did exist at the conviction and sentencing stage (i.e. marital killers were less likely to be convicted of murder and to be sentenced to more than two years), however, when sex was entered into the model, the sexual relationship between the offender and victim ceased to be an important predictor of criminal justice outcomes. This suggests that sex is correlated with victim-offender relationship.¹

One drawback to isolating and disaggregating intimate partner relationships is that this reduces the number of cases available for analysis. To address this, I turn to the second data set which offers a larger number of cases involving intimate partners for a more detailed examination of relationship status and relationship state. The larger number of cases allows for comparisons among legally married spouses, common-law partners and boyfriend/girlfriend relationships. While only female victims are examined, this data set is appropriate given that relationship state measures whether the offender and victim were estranged at the time of the killing, a type of homicide which is primarily a male phenomenon (Gartner, et al., 1999; Daly & Wilson, 1988).

Using this data set, I find that: 1) those offenders who killed a female partner from whom they were estranged were treated more severely by the criminal justice system than offenders who killed current female partners, regardless of relationship status; 2) non-marital killers (i.e. boyfriends) were treated more severely than marital killers, regardless of relationship state; and 3) within the marital category, offenders who killed common-law partners received the most lenient treatment. These relationships are significant at the charging, conviction, and sentencing stages.

DISCUSSION AND CONCLUSIONS

It could be argued that the more lenient treatment of homicides involving marital partners and intimate partners whose relationships were still intact at the time of the killing stems from the role of premeditation. Traditional domestic homicides in which the killer, in the privacy of his/her own home, lashes out at an intimate partner in explosive anger, are the antithesis of premeditated murder or intentional killings (Rapaport, 1994). In contrast, the offender who is estranged from his victim or who is not living with the victim (as is generally the case with non-marital relationships) may more easily be perceived as having premeditated the crime.

A second explanation of the observed relationships highlights the role of victim provocation or victim precipitation (see Wolfgang, 1958) in the criminal justice process. While victim provocation is never

¹ Only the results from main effects models are presented here. Later analyses will include interactions for victim-offender relationship and sex.

a sufficient legal basis for dismissal in cases of violent crime, it can lead to charge reduction and, consequently, shorter terms of imprisonment. For example, in order to secure a second-degree murder conviction, the prosecution must prove that the defendant killed the victim with malice aforethought, that is, that the victim was not injured in the heat of passion arising from adequate provocation. If the prosecution proves that the offender killed in the heat of passion, the offender can be convicted only of manslaughter. As stated above, traditional domestic homicides, or killings among intimates who are still living together, are generally assumed to involve provocation or some degree of victim precipitation that may preclude a murder conviction.

These two explanations are not mutually exclusive. In fact, they are interrelated because they both rely on common assumptions about intimacy and violent crime. That is, intimate violence is assumed to be predominantly expressive, committed by offenders who are out of control, and responding to some type of provocation (Rapaport, 1994). However, it appears that such assumptions may not extend to non-marital intimate partner homicides or killings by an estranged partner. The distinguishing factor may be the existence (or lack thereof) of cohabitation. That is, when intimate partners live together, it may be easier to perceive violent crimes as expressive or “crimes of passion.” Systematic assessment of these explanations is not possible here, but future analyses will attempt to explore common sense assumptions about interpersonal violence and how such assumptions are used to construct crimes of interpersonal violence within the criminal justice system.

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REPRODUCTIVE AGE WOMEN ARE OVER-REPRESENTED AMONG VICTIMS OF WIFE-KILLING

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ABSTRACT

Younger women, relative to older women, incur elevated risk of uxoricide. Some evolutionary theorists attribute this pattern to men's evolved sexual proprietariness. Other evolutionary theorists propose an evolved homicide module for wife killing. An alternative to both explanations is that young women experience elevated uxoricide risk as a byproduct of marriage to younger men, who commit most acts of violence. We used 13,670 uxoricides to test these explanations. Findings show that (1) reproductive age women incur elevated risk of uxoricide; (2) younger men are over-represented among uxoricide perpetrators; and (3) younger women, even when married to older men, still incur excess risk of uxoricide. Discussion examines competing explanations for uxoricide in light of these findings.

WIFE-KILLING AND WOMEN'S REPRODUCTIVE STATUS

According to the reports of battered wives, battering husbands, and friends and family of both parties, physical violence is a punishment inflicted by husbands on wives they suspect of sexual infidelity (Daly & Wilson, 1988; Dobash & Dobash, 1979). Male sexual jealousy or "male sexual proprietariness" is the most common cause of wife battery, cross-culturally (Daly & Wilson, 1988). Men worldwide think, feel, and act as if their wife is their exclusive sexual property. Sexual intercourse with another man, according to Daly and Wilson (1988), is treated by her husband as a property violation, demanding retribution and repayment for damages. Legal systems across cultures sometimes codify male sexual proprietariness, using phrasings for female infidelity that are similar to phrasings used for property violations (Daly, Wilson, & Weghorst, 1982; Wilson & Daly, 1987).

The fact that men attempt to control their spouses using a variety of tactics (Buss, 1988; Buss & Shackelford, 1997) suggests a conflict of interest between the sexes. According to some evolutionary arguments, women have evolved sexual strategies, such as the desire to control their own sexuality, that are at odds with the strategies of their partners. One female strategy, for example, is to secure investment and commitment from one man while securing better genes from another man (Gangestad, 1993; Smith, 1984). The conflicts between the sexes that ensue can be called forms of "strategic interference," because the woman's strategy cannot be successfully enacted without interfering with the man's strategy, and vice-versa (Buss, 1989).

According to Daly and Wilson (1988), Dickemann (1981), Buss (1988), and others, men have evolved several strategies designed to deter their spouses from committing adultery, ranging from vigilance to violence. At the most abstract level, men can control their wives by conferring benefits, by inflicting costs,

or both. Not all men possess resources that might be used to confer benefits, and so these men are predicted to be especially prone to using violence, or the threat of violence, to control their partner's sexuality.

According to Daly and Wilson (1988), there is brinksmanship in using violence, and sometimes it slips over the edge: "Men...strive to control women...women struggle to resist coercion and to maintain their choices. There is brinksmanship and risk of disaster in any such contest, and homicides by spouses of either sex may be considered slips in this dangerous game" (p. 205). More recently, they note that "...the fatal outcome in [spouse killings] is hypothesized to be an epiphenomenal product of psychological processes that were selected for their nonlethal outcomes" (Wilson, Daly, & Daniele, 1995, p. 287). According to this argument, spousal homicide per se is not an adaptation, not a designed outcome, and does not imply that the killing of one's spouse ever was adaptive. Instead, homicide is an unintended outcome of the use of violence designed for control and deterrence, not designed for death.

An alternative evolutionary theory proposes that men have evolved specific homicide modules, including a spousal homicide module (Buss & Duntley, 1998). According to this theory, there have been some historical circumstances in which killing an unfaithful spouse, or one who has defected from the relationship, might have been adaptive. An infidelity by the wife might cause a man to devote 20 or more years of effort to another man's children, and the public discovery would inflict substantial reputational damage on him. Because evolution by selection operates on a relative metric, one man's loss of a wife is an intrasexual competitor's gain. According to Evolved Homicide Module Theory, although some instances of wife killing may be "slips" or "epiphenomena," most are intentional and designed products of the evolved homicide mechanisms.

The finding that younger wives tend to be killed more often than older wives poses a puzzle, especially for the "slip-up" theory of coercive control. Why would men be more inclined to kill younger women, since such women are higher in fertility and reproductive value than are older women? This finding is especially puzzling, on the Daly and Wilson (1988) slip-up theory, in that it defies the way in which men treat all other forms of "property." Men are not more likely to "destroy" a new, expensive car than an old, cheap car, so why would "male sexual proprietariness" lead men to kill younger wives more often than older wives? Daly and Wilson (1988, p. 206) offer the following explanation: "We propose that...men are most jealous of the youngest women [presumably because of their high reproductive value] and are therefore most inclined to behave coercively toward such wives... Paradoxically, the high homicide risk incurred by young wives is indicative not of their low worth from the male perspective, but of precisely the opposite."

Evolved Homicide Module Theory offers a different explanation (Buss & Duntley, 1998). Younger women are killed more often than older women because the damage to the husband inflicted by an infidelity or defection is commensurately greater and homicide is one way to reduce the damage. When an older woman of low reproductive value defects to a rival, little may be lost in the currency of reproduction. When a younger woman defects to a rival, the husband's loss is compounded by the tremendous bonus that the rival gains. Thus, the greater risk of uxoricide experienced by younger women is consistent with Evolved Homicide Module Theory.

Both of these competing evolutionary theories may be challenged by a third explanation, which suggests that younger women incur greater risk of uxoricide not because they are so reproductively valuable, but rather as an incidental byproduct of the fact that young women happen to be married to young men. It is well known, for example, that young men between the ages of 16 and 24 commit the majority of acts of aggression, including homicide (Wilson & Daly, 1985). So it might be that the greater risk that young wives incur has nothing to do with their own age per se, but is a byproduct of a tendency of young men to use violence in general, combined with assortative mating for age which places young women into close proximity with dangerous young men. A key method for adjudicating among these competing theories is to determine whether the uxoricide rate for reproductive age women is greater than the uxoricide rate for post-reproductive age women, even after controlling for husband's age. This question can be addressed by comparing the uxoricide rate of reproductive age women with the uxoricide rate of post-reproductive age women across two groups: one in which the husband is older and one in which the husband is younger. If the uxoricide rate for reproductive age women is higher than the uxoricide rate for post-reproductive age women among those women married to older husbands, this would provide strong evidence that reproductive age women are the special targets of uxoricide, and that this targeting is not attributable to the relatively youthful age of their husbands. This was the primary goal of the study.

METHODS

Database

The United States Federal Bureau of Investigation (FBI) requests information from each state on criminal homicides. Supplementary Homicide Reports (SHRs) include incident-level data on every reported homicide, including the relationship of the victim to the offender, and the ages of the victim and offender. The database analyzed for the present project includes SHRs for the years 1976-1994 (Fox, 1996), providing information on 429,729 homicides. Uxoricide rates were calculated according to relevant population estimates provided by the United States Census (available from the first author upon request).

Procedures

Of the over 400,000 cases of homicide included in the database, 13,670 were cases in which a man killed the woman to whom he was legally married. All analyses were restricted to these cases (one case was omitted due to probable coding error: A three-year-old wife was murdered by her 31-year-old husband. Because of the large number of cases, the results do not change when this case is omitted). The average age of uxoricide victims was 39.4 years ($SD = 15.4$ years), ranging from 15 to 95 years. The average age of uxoricide perpetrators was 43.3 years ($SD = 15.7$ years), ranging from 16 to at least 98 years (ages 98 and older were coded in the database as 98 years; three such cases were coded for men).

RESULTS

Figure 1 shows uxoricides per million married women per annum as a function of the age of the murdered wife. The uxoricide rate is highest for teenage women who have the greatest reproductive value, as has been found in smaller samples (Daly & Wilson, 1988). The uxoricide rate for teenage women is about two times greater than that for women aged 20 to 24 years. The uxoricide rate for women 20 to 24

years is about 1.5 times greater than that for women aged 25 to 29 years. The clear trend is for the uxoricide rate to decrease with the reproductive value of the woman. Older, post-reproductive age women are killed by their husbands at much lower rates than are younger, reproductive age women. This trend shows a slight reversal at the oldest age category, for women who are 85 or older, a finding also reported by others and possibly reflecting "mercy killings" of wives with terminal illnesses.

We next investigated whether younger men were over-represented among uxoricide perpetrators. Figure 2 shows uxoricides per million married men per annum as a function of the age of the uxoricidal husband. Consistent with previous work, relatively younger men inflict uxoricide at greater rates than do relatively older men. The highest uxoricide rate is for men in their early 20s. Paralleling the uxoricide victimization rates for women, the clear trend in uxoricide perpetration rates for men is a decrease with age, from the early 20s to the early 80s. Also consistent with previous work, the uxoricide rate appears to increase suddenly for men who are 85 years and older.

We next conducted a test to discover whether women married to much older men incur elevated risk of uxoricide. To facilitate future work on the relationship between uxoricide rate and spousal age discrepancy, we constructed Table 1. As far as we know, no previous work has presented detailed information about uxoricide rate as a function of the age discrepancy between spouses. For the present project, our interest was in comparing the uxoricide rates of women married to relatively older men with the uxoricide rates of women married to same-age men and relatively younger men. Women at the greatest risk of getting killed are under the age of 25 and married to men between 45 and 54 years (95.9 uxoricides per million per annum). Women who are toward the end of their reproductive years, between the ages of 35 and 44, and married to men in the 45 to 54 age bracket, incur only one-seventh the risk of being killed, with an annual rate of 13.6. Other age pairings show similar trends.

FIGURE 1. UXORICIDES PER MILLION MARRIED WOMEN PER ANNUM AS A FUNCTION OF AGE OF MURDERED WIFE.

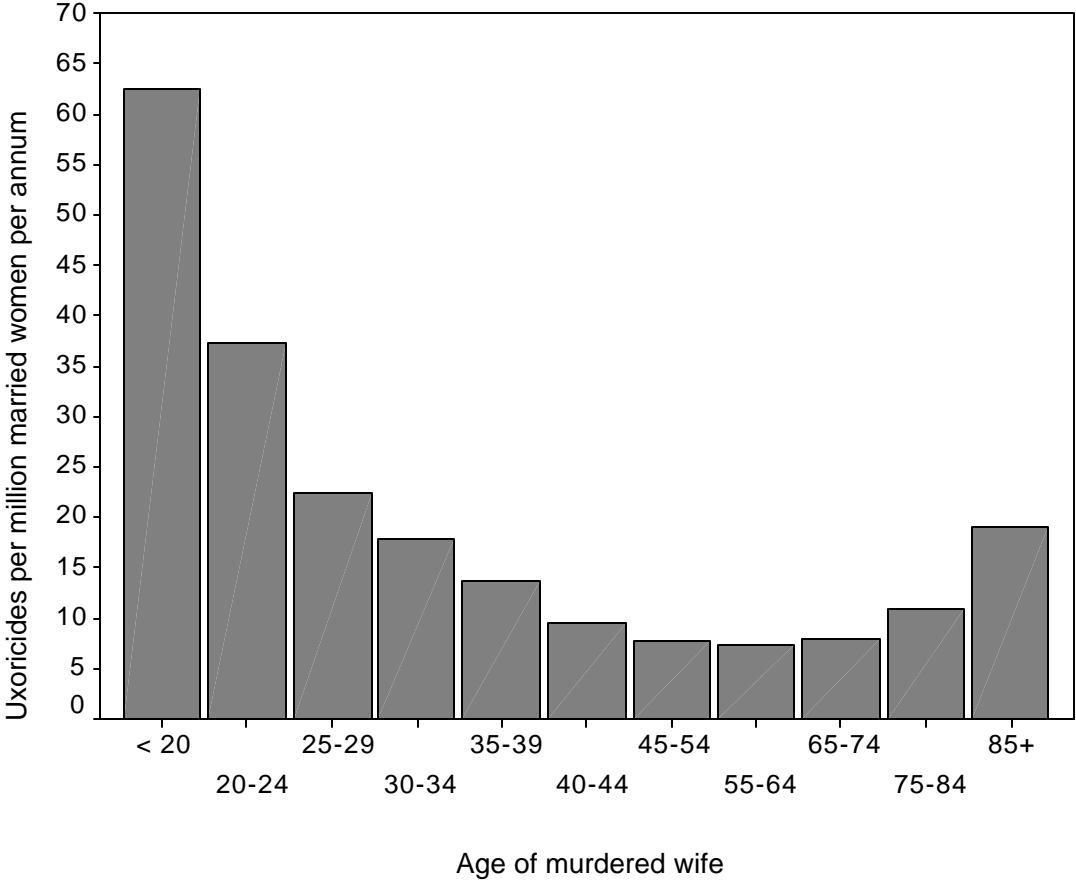


FIGURE 2. UXORICIDES PER MILLION MARRIED MEN PER ANNUM AS A FUNCTION OF AGE OF UXORICIDAL HUSBAND.

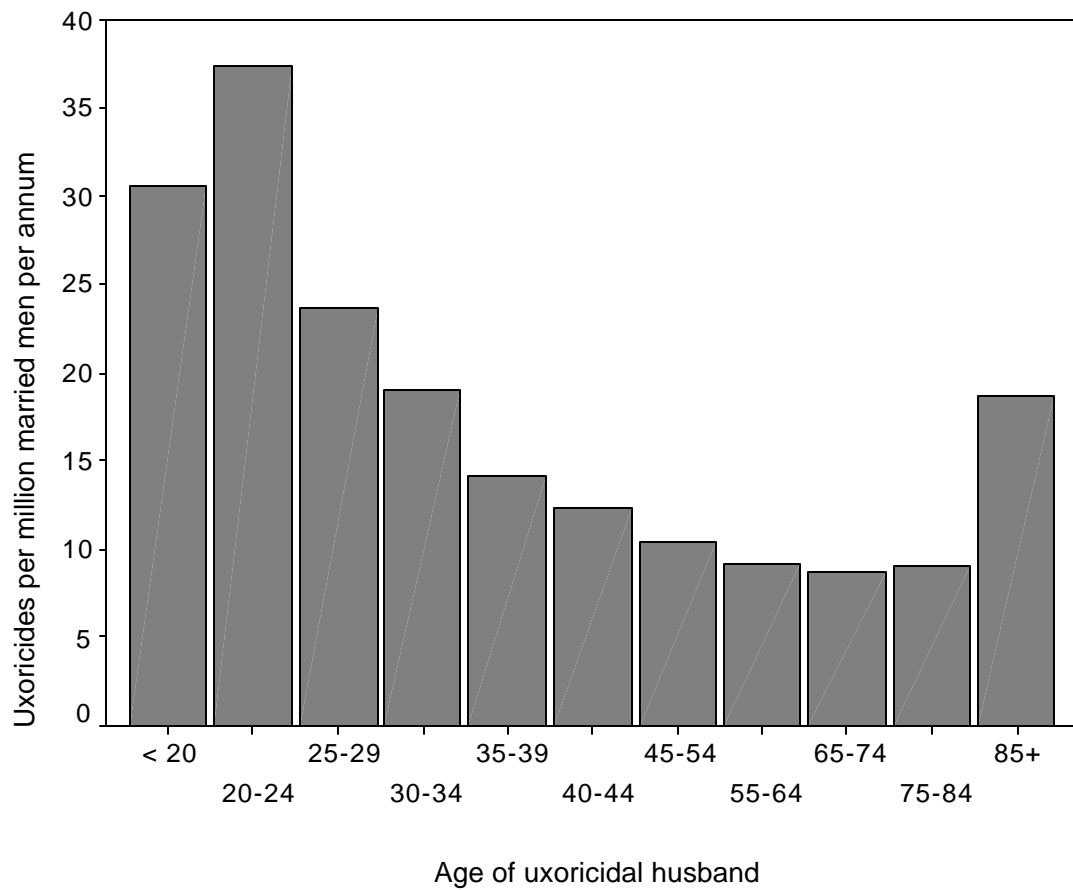


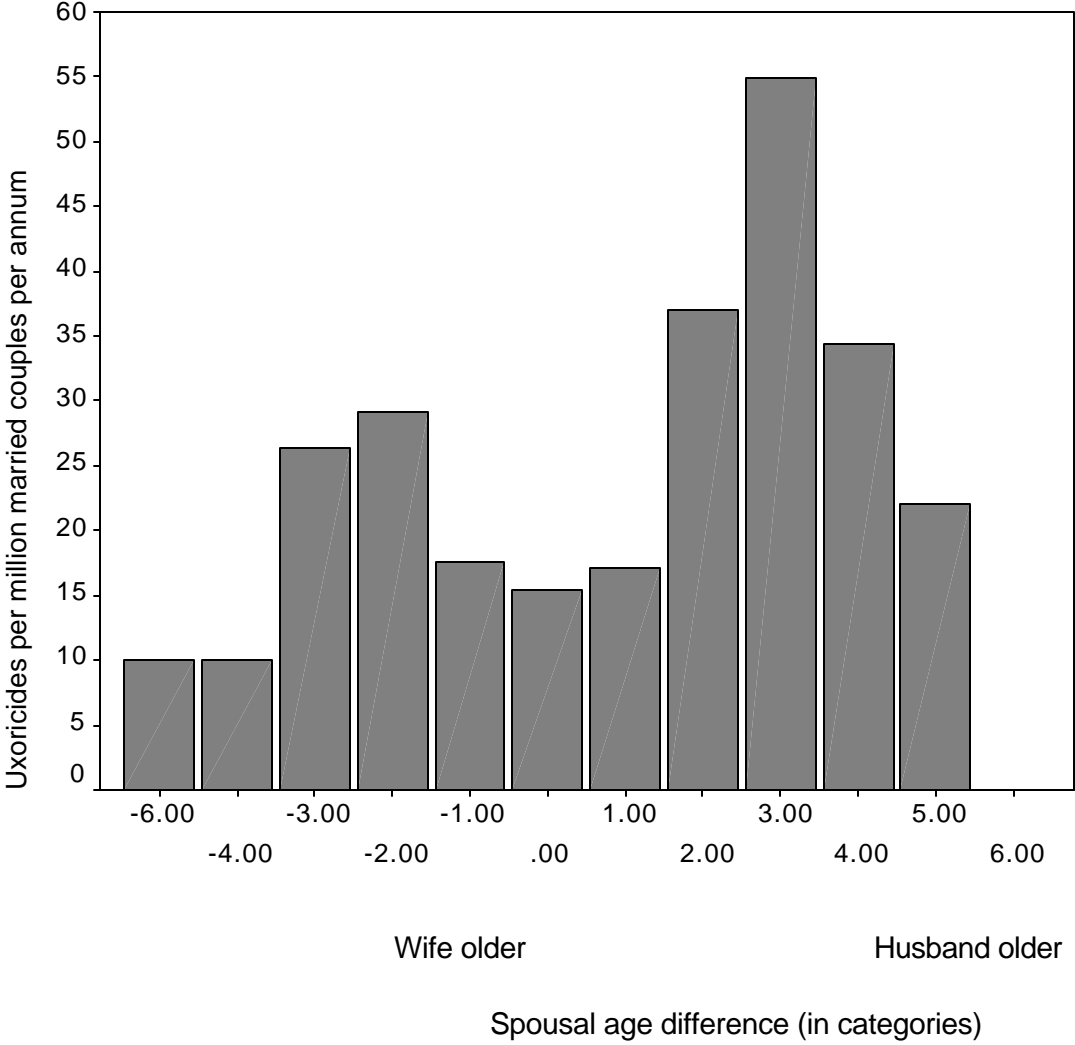
TABLE 1. UXORICIDES PER MILLION MARRIED COUPLES PER ANNUM, BY HUSBAND'S AGE AND WIFE'S AGE.

<u>Husband</u>	<u>Wife's</u>							
	<u>< 25</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65-74</u>	<u>75-84</u>	<u>85+</u>
<u>< 25</u>	41.88	34.05	62.27	33.64	N/A	N/A	10.00	N/A
<u>25-34</u>	39.75	18.27	18.38	39.04	33.64	10.00	N/A	N/A
<u>35-44</u>	81.23	23.17	9.73	10.10	26.32	22.00	10.00	N/A
<u>45-54</u>	95.91	63.68	13.64	6.49	11.42	19.47	16.25	N/A
<u>55-64</u>	61.82	61.48	29.08	11.55	6.26	13.57	13.13	N/A
<u>65-74</u>	22.00	48.18	49.07	12.80	7.90	7.21	15.99	14.55
<u>75-84</u>	N/A	22.00	13.13	13.13	14.64	7.33	9.25	19.44
<u>85+</u>	N/A	0.00	N/A	14.55	N/A	20.83	15.81	24.15

Note. N/A = Population estimate of zero; therefore, uxoricide rate could not be computed.

Figure 3 is constructed from the data in Table 1 and shows uxoricides per million married couples per annum as a function of spousal age difference, in categories. In this figure, "1" indicates a one category difference between the age of a husband and the age of his wife, "2" indicates a two-category difference, and so on. Positive values refer to categorical differences in which a husband is older than his wife, whereas negative values refer to categorical differences in which a wife is older than her husband. "0" refers to cases in which the husband and wife are in the same age category. The age categories are as follows, in years: < 25, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85 and older. Figure 3 shows that uxoricide rates for women married to relatively older men are higher than uxoricide rates for women married to same age men and relatively younger men. The uxoricide rate for women married to men who are older by three age categories is almost four times higher than the uxoricide rate for women married to same age men, and almost three times higher than the uxoricide rate for women married to men who are younger by three age categories.

FIGURE 3. UXORICIDES PER MILLION MARRIED COUPLES PER ANNUM AS A FUNCTION OF SPOUSAL AGE DIFFERENCE, IN CATEGORIES.



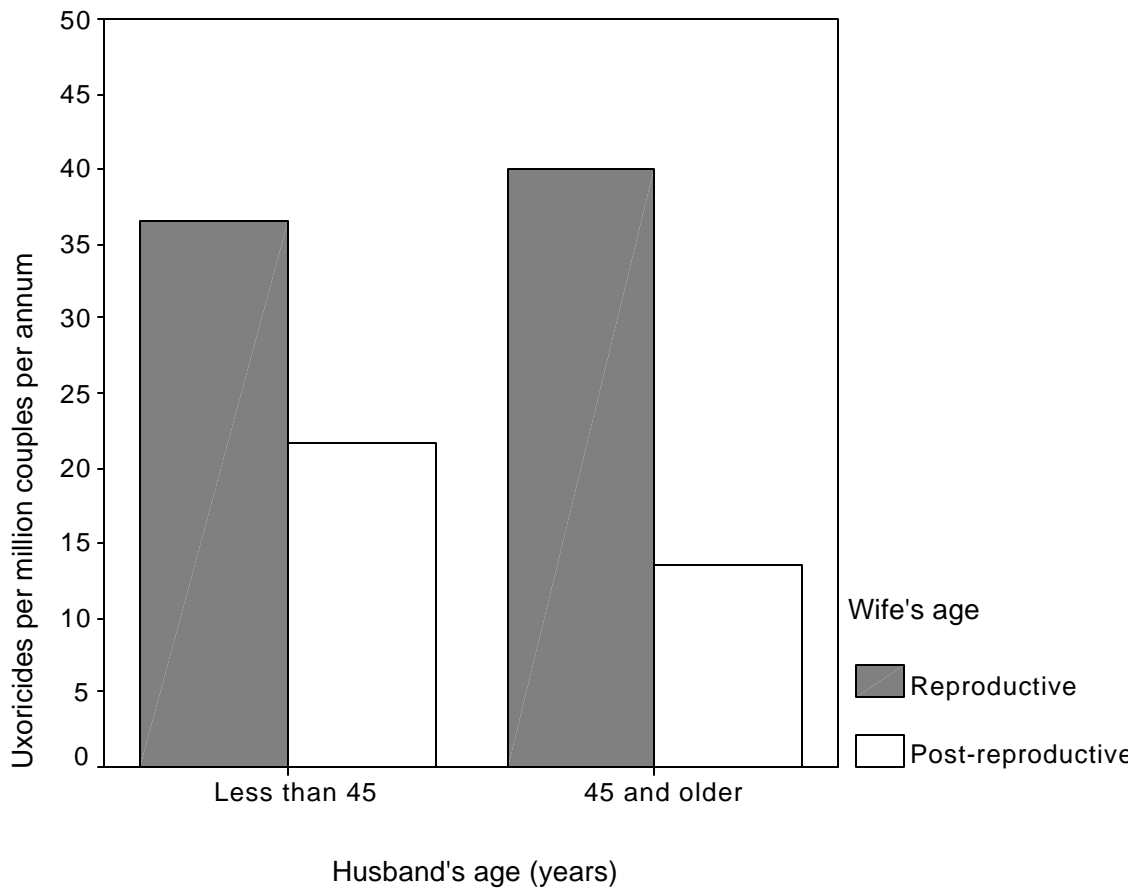


FIGURE 4. UXORICIDES PER MILLION COUPLES PER ANNUM AS A FUNCTION OF HUSBAND'S AGE AND WIFE'S REPRODUCTIVE STATUS.

A critical test of the hypothesis that reproductive age women are at special risk of uxoricide is to compare the uxoricide rates for reproductive age women and post-reproductive age women across two groups: women married to younger men and women married to older men. If reproductive age women are special targets of male sexual proprietariness, then reproductive age women should be murdered by their husbands at a higher rate than post-reproductive age women, and this should be true for women married to younger men and women married to older men. This is precisely what Figure 4 reveals.

Figure 4 is constructed from the data in Table 1 and shows uxoricides per million couples per annum as a function of husband's age and his wife's reproductive status. The uxoricide rate for reproductive age women (younger than 45 years) is higher than the uxoricide rate for post-reproductive age women (45 years and older) for marriages to younger men and for marriages to older men. Among women married to younger men, reproductive age women are killed at 1.5 times the rate of post-reproductive age women. Among women married to older men, reproductive age women are killed at 3.5 times the rate of post-reproductive age women. These rate differentials across husband age categories provide strong evidence

that reproductive age women are special targets of uxoricide and that this excess risk is not attributable to their husband's age.

DISCUSSION

Using a sample of nearly a half million homicides, we selected for analysis the 13,670 cases in which a man killed the woman to whom he was legally married. We documented that (1) reproductive age women incur excess risk of uxoricide; (2) relatively younger men are over-represented among uxoricide perpetrators; and (3) women married to much older men incur excess risk of uxoricide. These findings replicate with a much larger sample the findings of Daly and Wilson (1988), which were based on Canadian homicides.

A key contribution of the present research is a novel test of the hypothesis that reproductive age women incur excess uxoricide risk that is not solely attributable to their husband's age. Because relatively young, reproductive age women tend to be married to relatively young men, and because younger men are over-represented among homicide perpetrators in general, the elevated risk of uxoricide incurred by reproductive age women could be attributable to marriage to men who are over-represented among homicide perpetrators. We compared the uxoricide rate of reproductive age women with the uxoricide rate of post-reproductive age women across two groups: women married to younger men and women married to older men. Across both groups, the uxoricide rate for reproductive age women was higher than the uxoricide rate for post-reproductive age women. Reproductive age women are special targets of uxoricide, and this special targeting cannot be attributed solely to marriage to relatively youthful men.

The current findings in principle are compatible with both evolutionary theories of wife killing--the "slip-up" theory, which suggests that young women elicit more jealousy and more intense male feelings of sexual proprietariness (Daly & Wilson, 1988), and Evolved Homicide Module Theory, which suggests that most wife killings are intentional and designed (Buss & Duntley, 1998). Nonetheless, we note that slip-up theory, which proposes a male psychology that treats women as "property," strains credulity in that men typically do not destroy other forms of valuable "property" that they "own." To the contrary, men go to great lengths to protect the property they own, and the more valuable the property, the more effort they expend to protect it. The fact that men kill wives who are most reproductively valuable directly contradicts the view that men treat such women as prized property. In contrast, it is precisely what is predicted by Evolved Homicide Module Theory, because a spouse's infidelity or outright defection from the relationship constitutes the double-selective effect of one's own loss being an intrasexual rival's gain. Future tests must be conducted that more directly pit the competing evolutionary theories of mate killings against each other, with the above qualifications in mind.

Two additional findings are worthy of comment--the increase in the uxoricide victimization of women age 85 and older and corresponding perpetrator rates in the oldest age category (85 years and older). These wife killings may represent "mercy killings" in which an elderly man kills a sick, elderly wife who is suffering in her last weeks or months of life. If uxoricides in this oldest age category are "mercy killings," we might expect the murder to occur by the most painless methods, such as lethal injection or gassing, rather than by more painful methods such as bludgeoning that accompany the rage and anger typical of homicides of younger wives who defect or are suspected of infidelity (see Daly & Wilson, 1988).

Future work can profitably address uxoricides in this oldest age group, particularly given the backdrop of an aging Western population.

Wife killing is an abhorrent crime, but not all wives are at equal risk of being killed. Identifying a risk factor associated with the victims--in this case the age of the wife, and of the perpetrators--young men married to young women and older men married to younger women, represents a first step toward developing a theory of homicide with tangible practical implications for intervention. Future research could profitably explore other risk factors, as well as safety factors that might lower a woman's risk of being killed. The presence of extended kin of the woman, for example, might deter husbands who are otherwise enraged about a wife's infidelity or defection. In this sense, the current study represents one small step toward understanding the baffling phenomenon of uxoricide.

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DISCUSSION

Vanessa Leggett: Judy, why was there only one proxy used in Houston but two in Chicago?

Judy McFarlane: They were different studies. Chicago is in two studies.

Vanessa Leggett: How could you control for the bias involved with just one proxy?

Judy McFarlane: We validated against official statistics. It's ideal to have corroboration.

Cheryl Maxson: Could you address the criteria for reliability of your proxies?

Becky Block: It is imperative to have multiple proxies. If you can only use one, then focus on the hierarchy of proxies.

Gail Walker: Also, in female offender cases in particular, it is necessary to validate proxy against proxy.

Dougie Eckberg: How did you handle multiple proxies when there were conflicts in accounts?

Gail Walker: There weren't many discrepancies -- mostly just filling in gaps.

Judy McFarlane: In the attempted murder study, this was done by getting the victim to appoint a proxy. The proxy would get the same interview as the victim.

Orest Fedorowycz: What about privacy issues?

Judy McFarlane: Everything is all right as long as you represent why you want the information, and you assure confidentiality.

Becky Block: The law was never broken.

Dick Block: Myrna, how frequently is plea bargaining used in Canada?

Myrna Dawson: It's used extensively.

Dick Block: And how does sentencing work?

Myrna Dawson: Sentencing for 2-plus years is in the Federal system; less than 2 years in the provincial systems.

Dougie Eckberg: In South Carolina, the husband is always convicted while the wife never is. Have you disaggregated the data to see if this is the case in Canada?

Myrna Dawson: I still have to look at the interaction effects.

Mary Beth Emmerichs: Todd, why not think of women not as prized property, but vessels for producing children who will inherit property, a rational act?

Todd Shackelford: I'm not committed to either theory. I agree that most killings are not accidental; intentional is the way to look at it.

Vance McLaughlin: With middle-aged couples, murder has more a financial motive. If you take those out, the biosocial ideas might be stronger.

Todd Shackelford: I'd like to pursue that.

Jay Corzine: You can't make the assumption that all killings are motivated by sexual jealousy. I'm dubious about your age categories.

Todd Shackelford: Daly and Wilson did this. The age categories are the way the data came from the SHRs.

Derek Paulsen: Is there any reason that the research used married couples only?

Todd Shackelford: To keep it simple. We're working on adding non-married couples.

Paul Blackman: Would the SHR data allow detection of "old-foggyicide"?

Todd Shackelford: If you mean being shot 1 time rather than 19, no.

Dallas Drake: Isn't it true that young males are more vital and likely to act out? Have you considered homosexuals? It looks different if you turn it upside down.

Todd Shackelford: There is a definite bias toward heterosexuals. We haven't looked at it.

Lois Mock: Assertions of independence by younger women lead to a much greater risk at separation. Could that be an alternate explanation?

Todd Shackelford: That is not inconsistent with the data.

Roland Chilton: Is there any evidence that the offenders are thinking in reproductive terms?

Todd Shackelford: None whatsoever.

Jay Corzine: Was the assumption that all wife murders were due to sexual jealousy?

Todd Shackelford: Yes.

Jay Corzine: When verbal explanations conflict with psychological unconscious motives, why are you assuming the nonverbal explanation?

Todd Shackelford: I wouldn't attribute every response to sexual jealousy.

Tom Marvell: Do class differences play a large part in this? After all, early age and age difference are both more common to the lower class.

Todd Shackelford: Socioeconomic status is a predictor of reported battering and killing.

Dwayne Smith: Daly and Wilson point out that loss is mediated by the ability to replace; alcohol also plays a role, so intoxicated men will destroy their property (slip-up theory).

Todd Shackelford: That is an important variable to include.

Dick Block: How about pregnancy as giving an evolutionary perspective to wife killing?

Todd Shackelford: We would like to look at various clues to paternity certainty.

Jason Van Court: Another variable might be the number of children; the more children, the less reproductive value women would have.

Todd Shackelford: That's an excellent idea.

Vicki Brewer: How have you considered the issue of stepchildren? Women are at a much greater risk of femicide if they have children who don't belong to their current man.

Becky Block: Race breakdowns in our Chicago data showed differences in age distribution.

Todd Shackelford: Middle-aged women are at greater risk according to Daly and Wilson.

Becky Block: Myrna, how was estrangement defined?

Myrna Dawson: In Toronto, police specify the relationship. In Ontario, more sources are involved if they were not living together.

Becky Block: I'd recommend looking at the severity of punishment to take into account that less severe cases were already weeded out. It changes the base rate.

Myrna Dawson: There were very few cases where charges were not laid.

Ann Lee: I'd advise thinking about cohort effects. Women in 1976 differ from women today. You might break this down into small-time series.

Todd Shackelford: Another excellent idea.

Roland Chilton: Is your theory based on male-dominated society?

Todd Shackelford: Yes.

Roland Chilton: I suggest that the reason women aren't killing men is that the value of men doesn't fall. You can't back this up empirically.

Chris Rasche: If you used this model, then men's value to women is not in reproduction but protection.

CHAPTER THREE

HOMICIDE PERPETRATORS AND VICTIMS

PRIOR INVOLVEMENT WITH DRUGS, ILLEGAL ACTIVITIES, GROUPS, AND GUNS AMONG A SAMPLE OF YOUNG HOMICIDE OFFENDERS¹

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ABSTRACT

The number of homicides involving young offenders remains a concern. While research about the prior experiences of young homicide offenders with drugs, illegal activities, groups, and guns has been conducted, that research does not clearly distinguish the young offenders in terms of those experiences relative to the characteristics of the homicide event. Based on findings from a study of youth in custody in New York State for violent offenses -- Learning About Violence and Drugs among Adolescents (LAVIDA) -- what is described is the prior experience of a sample of young homicide offenders compared to other young violent offenders with drugs, illegal activities, groups, and guns. Also provided are statistical summaries of their involvement in prior drug use and trafficking, prior participation in illegal activity, and prior involvement with peer groups and guns. Then a comparative analysis is performed on those who were incarcerated for homicide in terms of variables such as victim/offender relationship, drug involvement, victim precipitation, and type of weapon used.

INTRODUCTION

Data available for the assessment of the nature and extent of violence by young people do provide some information, but all data have limitations. There are self-report studies, such as the National Youth Survey (Elliott, 1994; Elliott, Huizinga, & Ageton, 1985; Elliott, Huizinga, & Menard, 1989) and the National Crime Victimization Survey (Bureau of Justice Statistics, 1994; Rand, 1998). These are limited by the size and characteristics of their samples, however, and typically do not provide sufficient information for analyses of serious offending (Snyder & Sickmund, 1995). There are also official statistics, such as the Uniform Crime Reports (Federal Bureau of Investigation, 1998). But these are limited in that they provide

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information only about cases brought to the attention of the justice system, are aggregated, and are subject to multiple interpretations (Snyder & Sickmund, 1995). Even with these limitations, prominent scholars and policy makers have argued that, during the 1990s, violence by young people has been increasing in magnitude and severity (e.g., Allen-Hagen, Sickmund, & Snyder, 1994; Blumstein, 1995; Coordinating Council on Juvenile Justice and Delinquency Prevention, 1996; Elliott, 1994; Roth, 1994; Snyder, 1994; Snyder & Sickmund, 1995).

Particular attention has been focused on understanding and explaining the growing involvement of youth in lethal violence (Busch et al., 1990; Cornell, 1993; Heide, 1996; Malmquist, 1990). This paper examines prior experience data from interviews with 414 youth incarcerated in New York for violent offending. For homicide offenders in particular, prior experiences of the offenders and the characteristics of the homicide events (e.g., victim-offender relationship) are considered.

LAVIDA: SAMPLE AND DATA COLLECTION

This paper is based on findings from a study of youth in custody in New York State for violent offending. Learning About Violence and Drugs Among Adolescents (LAVIDA) was funded by the National Institute on Drug Abuse (NIDA) and conducted through National Development and Research Institutes, Inc. (NDRI). The respondents -- selected from youth ages 12 to 21 who were in the care and custody of the New York State Division for Youth during the period of data collection (1995-1996) -- were remanded to custodial status for one of four offenses: homicide (n=83), robbery (n=145), assault (n=115), or sexual assault (n=71). Each respondent was asked questions about his or her prior involvement with drug use or drug trafficking, and with other crime and violence; the functioning of his or her family and community of origin; his or her relationships with peers, including any gang involvement; his or her exposure to violence, as victim, offender, or witness; the extent to which he or she had available, used, or owned any guns; and so on. In all, 414 interviews were completed.

HOMICIDE AND OTHER OFFENDERS: PRIOR INVOLVEMENT WITH DRUGS, ILLEGAL ACTIVITY, GROUPS, AND GUNS

First addressed was whether the youth incarcerated for homicide were distinctive in terms of their prior involvement with drugs, illegal activity, groups, and guns. Self-reported prior experience homicide offenders in the sample were compared to those incarcerated for robbery, assault, and sexual assault. Table 1 shows the prior experience of respondents in terms of drug use and drug-trafficking. In terms of drug use, for these respondents there is little if any difference between the homicide offenders and those who were in custody for other violent offenses. In all cases, most of them had tried alcohol and marijuana. Very few had ever tried crack, cocaine, or heroin. In terms of prior experience in the drug business, those youth incarcerated for assault most often said they had ever participated in dealing drugs (70%). However, almost as many of the young homicide and robbery offenders said they had ever participated in drug-dealing (61% and 60%). In contrast, fewer than half of those in custody for sexual assault said they had ever dealt drugs.

TABLE 1. PRIOR DRUG USE AND TRAFFICKING

All Respondents (N=414)

	Homicide n=83		Robbery n=145		Assault n=115		Sexual Assault n=71	
	n	%	n	%	n	%	n	%
Ever tried alcohol	65	78	113	78	93	81	51	72
Ever tried marijuana	62	75	123	85	101	88	43	61
Ever tried Crack	0	0	0	0	1	1	1	1
Ever tried powder cocaine	4	5	9	6	9	8	2	3
Ever tried heroin	0	0	0	0	2	2	0	0
Ever involved in drug-dealing	50	60	89	61	80	70	33	46

In terms of prior involvement with illegal activity, property-offending was distinguished from person-offending. Table 2 shows that only about one-third of all categories of youth had ever participated in damaging property or stealing property. To the extent that there was a difference, robbery offenders were most likely, and sex offenders were least likely, to have said that they stole property. Proportions were similar in terms of person-offending. Since all of the youth in the sample were incarcerated for violent offending, it was expected that they would have prior experience committing violent acts against other people. This was true for all categories of respondents. Most of the respondents in all categories said they had ever thrown objects at others and had ever hit others to hurt them. In terms of ever having used a weapon or force to get something from another person, a slightly greater proportion of youth in custody for homicide than youth incarcerated for assault said they had ever done so. Given that robbery necessarily involves the use of force, it was not surprising that an even greater proportion of youth in custody for robbery said they had ever used a weapon or force to get something. Only about one-third of those incarcerated for sexual offending said they had done so.

TABLE 2. PRIOR INVOLVEMENT IN ILLEGAL ACTIVITY

All Respondents (N=414)

	Homicide n=83		Robbery n=145		Assault n=115		Sexual Assault n=71	
	n	%	n	%	n	%	n	%
Selected Property Offenses								
Ever purposely damage property	63	76	104	72	91	79	52	73
Ever steal \$5-\$100	49	59	107	74	71	62	46	64
Ever steal more than \$100	54	65	109	75	74	64	33	46
Selected Person Offenses								
Ever thrown objects, etc.	69	83	110	76	90	78	44	62
Ever hit someone to hurt them	73	88	118	81	98	85	50	70
Ever use weapon or Force to get something	52	63	116	80	56	49	25	35
Ever attack someone to hurt them	57	69	77	53	74	64	30	42

Respondents were asked about their prior participation as a member of a group of their peers. Compared to all other categories of respondents, Table 3 shows that the youth in custody for homicide less often said they had ever participated in a group. Still, more than 60% said they had done so. And of those who said they had, the things that the homicide offenders had done as part of a group were not very different from the things the other youngsters had done. About half of the respondents incarcerated for homicide who said they had ever been a member of a group said they had participated in a group that had their own location. Youth in custody for other violent offenses said the same thing. And they were as likely or more likely than most others to have participated in groups that did violent things together, sold and used drugs together, and used weapons.

While it appears that the youth incarcerated for homicide were not particularly distinctive in terms of prior participation in drug use, drug-dealing, illegal property- or person-offending, and prior participation in groups, Table 4 shows that they were somewhat different in terms of their prior involvement with guns. Compared to youth in custody for robbery, assault, or sexual assault, those youth incarcerated for homicide

more often said that they had at some point owned a gun. Similarly, they more often said they had ever used a gun. However, the proportion of youth in custody for robbery that said they had ever used a gun was almost as great. Almost 9 of every 10 incarcerated for homicide said they had ever used a gun compared to almost 8 of every 10 in custody for robbery.

TABLE 3. PRIOR INVOLVEMENT WITH GROUPS

All Respondents (N=414)

	Homicide n=83		Robbery n=145		Assault n=115		Sexual Assault n=71	
	n	%	n	%	n	%	n	%
Ever participated in a group	51	61	107	74	85	74	48	68
Of those who had ever participated in a group (n=291)								
Group had its own location	27	53	47	44	47	55	21	44
Group did violent things together	45	88	90	84	70	82	37	77
Group used drugs together	45	88	91	85	81	95	38	79
Group sold drugs together	34	67	68	64	60	71	26	54
Group used weapons	44	86	94	88	72	85	36	75

TABLE 4. PRIOR INVOLVEMENT WITH GUNS

All Respondents (N=414)

	Homicide N=83		Robbery n=145		Assault n=115		Sexual Assault n=71	
	n	%	n	%	n	%	n	%
Ever had your own gun	64	77	97	67	58	50	31	44
Ever used a gun	72	87	115	79	69	60	42	59

In Tables 1 to 4, a comparison was made between youth incarcerated for homicide to youth in custody for other types of violent offending in terms of their prior experience. A few areas showed differences, but nothing to suggest that young homicide offenders are a distinctive type of young violent offender relative to prior experience with drugs, illegal activity, groups, and guns.

In Table 5, youth incarcerated for homicide is compared to youth in custody for other types of violent offending in terms of the characteristics of the violent event that resulted in their being placed in custody. Differences here were more apparent. Homicide offenders by their own account were most likely to have used an impersonal weapon (almost always a gun). This included more than two-thirds of homicide offenders compared to more than half of robbery offenders, about one-sixth of assault offenders, and almost none of the sex offenders. Only robbery offenders said their victim was most likely to have been a stranger (72%), and fewer than half the homicide offenders said they had killed someone they did not know; assault and sexual assault offenders most often said their victim was someone they knew. More than any other type of offender, those incarcerated for assault said their victim had done something to bring on the assault (79%), though more than two-thirds of the homicide offenders said the same thing. Robbery and sexual-assault offenders rarely blamed their victims for their own victimization. Very few of the youth said the violent event that resulted in their being placed in custody was related to drugs. The proportion that said drugs had played a role was very similar for homicide, robbery, and assault offenders.

Thus, in terms of the characteristics of the violent event that resulted in their being placed in custody, the youth incarcerated for homicide stood out -- as to their choice of weapon -- from most others, in terms of victim precipitation. Because of an initial interest in the prior experience of the youth, consideration was next given exclusively to prior experience of homicide offenders relative to the characteristics of the event.

TABLE 5. EVENT CHARACTERISTICS BY OFFENSE TYPE

All Respondents (N=414)*

	Homicide n=83		Robbery n=145		Assault n=115		Sexual Assault n=71	
	n	%	n	%	n	%	n	%
Used weapon, and it was an impersonal weapon	56	69	76	56	19	17	2	3
Victim was a stranger to offender	36	46	55	71	25	28	7	12
Respondent called the event victim precipitated	52	69	37	30	82	78	12	21
Event was drug- related in some way	31	37	52	36	36	31	9	13

* Ns range from 168 to 414 due to missing and non-applicable cases.

HOMICIDE OFFENDERS:**PRIOR EXPERIENCE BY HOMICIDE CHARACTERISTICS**

More than half of the youth incarcerated for homicide said they had killed someone they knew. Compared to those who had killed strangers, Table 6 shows that those who killed someone they knew were slightly less likely to have ever used alcohol or marijuana, but much more likely to have ever participated in drug-dealing. Similarly, they were somewhat less likely to have ever participated in prior property-offending, but more likely to have ever participated in offending against people, except in the case of having ever used a weapon of force to get something from someone else. They were slightly less likely to have ever participated in a group, and equally likely to have ever used a gun.

Most of the youth in custody for homicide said the killing that resulted in their incarceration was not related to drugs. Table 7 shows that those who said the killing was drug-related more often said they had previously used marijuana and cocaine, and had previously participated in drug-dealing. Similarly, they more often damaged property, and more frequently stole things of greater value. And they more often said they had previously engaged in violence against other people, particularly in terms of using weapons or force, and attacking others with the intention of doing harm. They were also more likely to have been a participant in a group and slightly more likely to have ever used a gun.

Almost two-thirds of the youth incarcerated for homicide said their victim was at least in part responsible for the killing. Table 8 shows that of those who did blame their victim, the youths' prior drug use was comparable to that of those who did not blame their victims -- but they were less likely to have previously participated in drug-dealing. Those who did blame their victim generally were slightly less likely to say they had ever participated in prior property- or violent-offending. Further, they were slightly less likely to say they had ever been a member of a particular group, but about equally likely to say they had ever used a gun.

Almost 70% of the youth in custody for homicide said they had used an impersonal weapon, such as a gun. As Table 9 indicates, those who had used an impersonal weapon more often also said they had ever used marijuana, but less often alcohol or cocaine. Whatever type of weapon was used for the killing, the homicide offenders were equally likely to have ever been involved in drug-dealing. Their likelihood of prior involvement in both property- and person-offending was likewise about the same regardless of the type of weapon used to kill their victim. Their likelihood of previously having been a member of a group was about the same. One area where there was a noticeable difference between those who had used an impersonal weapon (such as a gun) and those who used a personal weapon (such as a knife) was that those who had used an impersonal weapon in the case that brought about their incarceration were more likely to have ever used a gun in the past.

TABLE 6. PRIOR INVOLVEMENT WITH DRUGS, ILLEGAL ACTIVITY, GROUPS, AND GUNS BY STRANGER AND NON-STRANGER HOMICIDES

n=83 Homicide Respondents*

	Stranger Homicide		Non-Stranger Homicide	
	n	n=35** %	n	n=40 %
Prior Drug Involvement				
Ever used alcohol	29	85	29	73
Ever used marijuana	30	88	25	63
Ever used crack	0	0	0	0
Ever used powder cocaine	1	3	3	8
Ever used heroin	0	0	0	0
Ever involved drug-dealing	20	59	27	68
Prior Involvement in Selected Property Offenses				

Ever purposely damage property	28	82	31	78
Ever steal \$5-\$100	23	68	23	56
Ever steal more than \$100	25	74	26	65
Prior Involvement in Selected Person Offenses				
Ever thrown objects, etc.	28	82	34	85
Ever hit someone to hurt them	30	88	36	90
Ever use weapon/force get something	24	71	24	60
Ever attack someone to hurt them	21	62	31	78
Prior Involvement with Groups				
Ever a member of a particular group	24	71	23	56
Prior Involvement with Guns				
Ever used a gun	31***	94	36	90

* Actual N = 75 due to missing data

** Actual N = 34 due to missing data

*** Actual N = 33 due to missing data

TABLE 7. PRIOR INVOLVEMENT WITH DRUGS, ILLEGAL ACTIVITY, GROUPS, AND GUNS BY ANY DRUG RELATEDNESS (BY TRIPARTITE FRAMEWORK)

n=83 Homicide Respondents

	Any Drug Relatedness in Homicide n=31		No Drug Relatedness in Homicide n=52*	
	n	%	n	%
Prior Drug Involvement				
Ever used alcohol	24	77	41	80
Ever used marijuana	25	81	37	73
Ever used crack	0	0	0	0

Ever used powder cocaine	3	10	1	2
Ever used heroin	0	0	0	0
Ever involved drug-dealing	23	74	27	53
Prior Involvement in Selected Property Offenses				
Ever purposely damage property	27	87	36	71
Ever steal \$5-\$100	18	58	31	61
Ever steal more than \$100	24	77	30	59
Prior Involvement in Selected Person Offenses				
Ever thrown objects, etc.	28	90	41	80
Ever hit someone to hurt them	29	94	44	86
Ever use weapon/force get something	22	71	30	59
Ever attack someone to hurt them	24	77	33	65
Prior Involvement with Groups				
Ever a member of a particular group	23	74	28	55
Prior Involvement with Guns				
Ever used a gun	29	94	43	88

* Actual Ns range from 49 to 51 due to missing data

TABLE 8. PRIOR INVOLVEMENT WITH DRUGS, ILLEGAL ACTIVITY, GROUPS, AND GUNS BY VICTIM PRECIPITATION

n=83 Homicide Respondents*

	Victim Precipitated Homicide n=51		Not Victim Precipitated Homicide n=23**	
	n	%	n	%
Prior Drug Involvement				

Ever used alcohol	41	80	17	77
Ever used marijuana	39	77	16	73
Ever used crack	0	0	0	0
Ever used powder cocaine	3	6	1	5
Ever used heroin	0	0	0	0
Ever involved drug-dealing	28	55	17	77
Prior Involvement in Selected Property Offenses				
Ever purposely damage property	40	78	19	86
Ever steal \$5-\$100	29	57	15	68
Ever steal more than \$100	33	65	16	73
Prior Involvement in Selected Person Offenses				
Ever thrown objects, etc.	44	86	18	82
Ever hit someone to hurt them	45	88	22	100
Ever use weapon/force get something	31	61	16	73
Ever attack someone to hurt them	36	71	17	77
Prior Involvement with Groups				
Ever a member of a particular group	29	57	15	68
Prior Involvement with Guns				
Ever used a gun	48	94	19	91

* Actual N = 74 due to missing data.

** Actual Ns range from 21 to 22 due to missing data

TABLE 9. PRIOR INVOLVEMENT WITH DRUGS, ILLEGAL ACTIVITY, GROUPS, AND GUNS BY WEAPON TYPE

n=83 Homicide Respondents*

	Used Impersonal Weapon n=56**		Used No Weapon or Personal Weapon n=25	
	n	%	n	%
Prior Drug Involvement				
Ever used alcohol	42	76	21	84
Ever used marijuana	44	80	16	64
Ever used crack	0	0	0	0
Ever used powder cocaine	2	4	2	8
Ever used heroin	0	0	0	0
Ever involved drug-dealing	34	62	15	60
Prior Involvement in Selected Property Offenses				
Ever purposely damage property	44	80	18	72
Ever steal \$5-\$100	33	60	14	56
Ever steal more than \$100	38	69	16	64
Prior Involvement in Selected Person Offenses				
Ever thrown objects, etc.	48	87	19	76
Ever hit someone to hurt them	50	91	21	84
Ever use weapon/force get something	37	67	15	60
Ever attack someone to hurt them	40	73	17	68
Prior Involvement with Groups				
Ever a member of a particular group	33	60	17	68
Prior Involvement with Guns				

Ever used a gun	52	95	20	80
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*Actual N = 81 due to missing data

** Actual N = 55 due to missing data.

CONCLUSION

For this analysis, a comparison was made between the prior experience of youth incarcerated for homicide to that of youth in custody for other types of violent offending. In terms of prior experience with drugs, illegal activity, peer groups, and guns, young homicide offenders were not a particularly distinctive category of violent offender. What was remarkable, though not necessarily surprising, was the great extent to which all of the youth in the sample reported prior involvement with drug-using and dealing, crime and violence, groups engaged in a variety of deviant and violent activity, and guns. Arguably, among young violent offenders, homicide may be just one type of violent offending.

Whether or not youth that commit homicide are distinguishable from other violent offenders, homicide is a distinctive phenomenon. Still, it is not a monolithic phenomenon. Given that homicide can take a variety of forms, youth specifically incarcerated for homicide were also examined for differences in prior experience relative to the characteristics of the homicide event that resulted in their custodial status. That is, differences that might have been masked were explored by comparing all homicide offenders to other violent offenders. A few differences were observed. As compared to youth in custody for killing a stranger, youth incarcerated for killing someone they knew reported more prior drug-dealing though less drug use, more prior offending against people and less against property, and less prior participation in groups. Compared to those who killed someone in a drug-related incident, those who killed in incidents that were not related to drugs reported less prior experience with drug-dealing, less prior offending against people, more prior experience with groups, and more prior experience with guns. Those who said their victim precipitated the killing compared to those who did not blame the victim reported more prior involvement with drug-dealing, more prior involvement in prior property- and person-offending, and more prior involvement with groups. Finally, in comparison to those who had used an impersonal weapon, such as a gun, those who had used an impersonal weapon reported more prior marijuana use and less prior experience with guns.

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THE NATURE OF EXPRESSIVENESS AND INSTRUMENTALITY IN HOMICIDE AND ITS IMPLICATIONS FOR OFFENDER PROFILING

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ABSTRACT

Most of the longitudinal literature on aggression shows that there are thematic consistencies and patterns between earlier and later life characteristics. There have also been some early indications that these characteristics can be linked to the different ways offenders commit their crimes (e.g., Canter & Heritage, 1990; Davies, Wittebrod, & Jackson, 1997; Salfati & Canter, 1999). The present study aimed to investigate and evaluate the hypothesis that consistencies would be found in the way offenders act during homicide. This would be evident in homicide crime scenes being classifiable into separate thematic “types.” These consistencies, it was hypothesized, would not only be specific to the homicide situation, but would also reflect general interpersonal strategies that would be mirrored in an offender’s general past in terms of their previous relationship with the victim, their previous criminal record, their age and their experience. These consistencies, in turn, would form the scientific base for offender profiling -- linking the way an offender acts at the crime scene with the type of person who may be responsible for those actions.

CLASSIFYING HOMICIDE CRIME-SCENE ACTIONS

Methodology

The study sample consisted of 247 (1 victim/1 offender) concluded British homicide files from the 1970s to the early 1990s (Salfati, 1998). These were content analyzed, and analyzed using the multi-dimensional scaling analysis of Smallest Space Analysis (SSA) (Lingoes, 1973).

SSA allows a test of hypotheses concerning the co-occurrence of every variable with every other variable. In essence the null hypothesis is that the variables have no clear relationship to each other. SSA is a non-metric multidimensional scaling procedure based upon the assumption that the underlying structure, or system of behavior, will most readily be appreciated if the relationship between every variable and every other variable is examined.

Initially, association coefficients between all variables are computed. It is these coefficients that are used to form a spatial representation of items with points representing variables. The more often variables co-occur during homicide, the closer will be the points representing those variables in the SSA space. The pattern of points (regions) can hence be examined and thematic structures delineated.

The hypotheses of this study are built on the assumption that actions with similar underlying themes will be more likely to co-occur than those which imply different themes. These similarly themed actions will co-occur in the same region of the plot.

Results

The results showed that the sample of homicide crime scenes could be differentiated in terms of the Expressive and Instrumental role the victim has to the offender. (Original SSA analysis plots have not been included here, but can be obtained by contacting the author.)

Behaviors in the Expressive theme comprised of behaviors centered on the victim as a specific person. Behaviors in the Instrumental theme were thematically distinct from the behaviors that fell into the Expressive theme, as they were being carried out more in terms of the consequences they had for the offender. Here the offender treated the victim as an object, or a hindrance to their ulterior motive, which looked to be either sexual or material gain.¹

Expressive Acts

The victim sustained injuries (stabbing and gunshot wounds) to the torso, head, and/or limbs -- very often to a combination of these body parts, suggesting an extreme physical attack (see Table 1). Further, offenders who injured the limbs of victims (usually described as defense wounds) could be said to have been so directed in their frenzied attack that they would continue attacking despite the fact that victims would use their hands and arms to defend or protect themselves. Indeed, bringing a weapon to the scene suggests that the offender may have been anticipating a confrontation with the victim, and/or had previous experience relating to violent confrontations. After the murder, the offender in many cases transported the body away from the scene of the crime and/or hid the body.

All of these behaviors, when examined collectively, are suggestive of actions centered on offenders' needs to separate themselves from their victims, and the places of their crimes, as these elements might aid in their identification as the killer. Each of these behaviors suggests a prior relationship between the two parties, or at least that the offender knew the victim to some extent. The lack of forensic evidence at the scene further points to offenders who need to remove evidence that can link them to the victim, which in turn may indicate that they may not have been strangers.

The more infrequent behaviors such as suffocating, drugging or poisoning, and/or blindfolding the victim are all indirect ways of dealing with a victim. Blindfolding will allow the offender to depersonalize the victim to a certain extent so that he may complete the crime. It may also be an attempt to psychologically depersonalize the victim. Suffocating or drugging/poisoning may be seen as indirect ways of killing someone to whom the offender may be too emotionally attached. Indeed, these methods of killing may indicate very weak victims, such as children and the elderly.

¹Please note that there were a number of behaviors that occurred in the majority (50% and above) of all the cases, and were thus not used to discriminate between cases. These behaviors included the victim's face not having been hidden at the crime scene (88%), the victim being found at the same crime scene where she had been killed (79%), the victim having been found where she fell (61%), and the offender inflicting multiple wounds to the victim (52%).

TABLE 1: EXPRESSIVE CRIME-SCENE ACTIONS

Percentage Occurrence
Expressive Crime-Scene Actions
30-50% Face Wounds
Head Wounds
Torso Wounds
Stab Wounds
Multiple Wounds
Distributed across Body
Offender Forensically Aware

10-30%
Wounds to Limbs
Weapon Brought to Scene
Blunt Instrument

Less than 10%
Victim Shot
Victim Bound
Victim Blindfolded
Victim Suffocated
V i c t i m
Drugged/Poisoned
Body of Victim Hidden
Body of Victim Moved from Original Crime Scene
Body of Victim Found in Water
Property Stolen (identifiable)

Instrumental Acts

Actions in this theme suggested that behaviors at the crime scene were not singularly directed at the victim as a person. Rather, the actions were part of a larger theme wherein the offender used the victim to further attain an ulterior aim such as sex or money. The offender in many cases did not come prepared for a personal confrontation, so the victim was attacked manually (strangling, hitting, and kicking) and/or the weapon used was taken from the scene (see Table 2).

Where property was stolen, it was of financial value. This could indicate that the offender decided to steal from the victim after the homicide took place, and so turned the crime into something much more financially profitable. Or the offender may have had an ulterior motive for the homicide such as burglary. Indeed, it may be that a sub-section of these crimes are what the police term “burglaries gone wrong.”

TABLE 2: INSTRUMENTAL CRIME-SCENE ACTIONS

Percentage Occurrence	Instrumental Crime-Scene Actions
30-50%	Neck Wounds Manual Wounding Weapon from the Scene Used
10-30%	Property Stolen (not identifiable) Property Stolen (of value) Victim found Partially Undressed Sexual Activity at Crime Scene
Less than 10%	Anal Penetration Vaginal Penetration Foreign Object Used to Penetrate Victim Clothing Damaged Victim found Naked Body of Victim Found Covered Arson Committed at Crime Scene

Low frequency behaviors defining part of the Instrumental crime-scene theme included a sexual subset. When taken together, these behaviors -- consisting of the offender penetrating the victim anally, vaginally, or with a foreign object; leaving other sexual evidence (e.g., semen); damaging the victim's clothing; and leaving the victim partially undressed or naked -- suggested a behavioral theme where the offender regarded the victim not as a person with whom he was having a personal interaction, but as an object ultimately to be used for his own gain.

In some cases, victims were found covered by a blanket or something similar inside their own homes. This behavior is thematically distinct from the Expressive behavior of "hiding" the body, in that it is more suggestive of a gesture of shame -- implying that the action of murdering or raping the victim did not fit his personal narrative of a "thieving" criminal. For this same reason, it may be that the offender in some cases sets fire to either (or both) the body and the scene.

Summary of Classification of Crime-Scene Actions

Fesbach (1964), Toch (1969), and Cornell et al. (1996), distinguished between Expressive and Instrumental aggression, specifying that the goal of the first kind was to make the victim, or the actual person, suffer, whereas the second kind was centered on attaining an ulterior goal such as the acquisition of material goods. On distinguishing between aggressive acts, these authors have described the event, and defined it as fitting a certain crime such as theft, robbery, or homicide. The present analysis of homicide

crime-scene behaviors has shown that not only can Expressiveness and Instrumentality be evidenced in the *actual actions* by the offender at the crime scene, but these themes can also be distinguished *between* these actions *within* the crime of homicide.

The present study -- through the analysis of the co-occurrences of the actual behaviors used by offenders at homicide crime scenes -- has focused on the behavioral components which make up different themes of homicide such as Expressive and Instrumental crime scenes. Taken singularly and out of context of the other behaviors, these components suggest that there are certain behaviors that could be interpreted differently. However, by interpreting the actual meaning of these behaviors in relation to other behaviors with which they co-occur, the thematic meaning of not only the behavior, but also of each of the two subgroups (Expressive and Instrumental), procures a more subtle definition than has been previously suggested.

Co-occurring with other behaviors within the Expressive theme of homicide crime-scene actions were the behaviors of "transporting the victim away from the crime scene" and "hiding the victim" outside. Considered individually, these two behaviors in particular have previously been thought to identify offenders who are "organized" (Ressler, Burgess, & Douglas, 1988), and "cold-blooded," and as such "Instrumental" in nature. However, when the occurrence of these behaviors is interpreted *within the context* of other behaviors that co-occur in the same cases, it can be seen that they tend to co-occur with behaviors which are Expressive and person-oriented in nature. Transporting victims and hiding them thus can be understood as actions which *are* organized and more specific, but which are so *because* of the victims involved. Because the offender knows the victim, or because the offender can be associated with the victim or the actual crime scene (e.g., the home of the victim or the offender), there is a need to remove the victim from the crime scene and hide her to avoid detection. Again, it is the importance of the victim, and the relationship between the offender and the victim, which are important in these Expressive homicides, and which define the actions which are carried out within them.

In the same way as certain Expressive behavior, taken out of context, can have an Instrumental interpretation, there were certain Instrumental behaviors which -- taken out of context of the other behaviors with which they co-occurred -- could be interpreted as having a dominantly Expressive meaning. These particular behaviors dealt with the sexual component of the homicides. Here offenders violated their victims by sexually assaulting them and invading them physically. However, when understood in the context of other co-occurring Instrumental actions, the theme of these sexual actions was in line with the offender "stealing" from the victim such things as sex and property. Although the actual victim was violated in these cases, in many of them, it wasn't the actual *person* who was targeted for the ulterior motivation of sexual gratification.

The behavioral components of Expressive and Instrumental homicides can thus be understood through a more subtle analysis and interpretation than has been put forward. Consequently, "Expressiveness" and "Instrumentality" are reinterpreted to be not only more behaviorally subtle but also more thematically specific.

EXPRESSIVE AND INSTRUMENTAL THEMES OF OFFENDER BACKGROUND CHARACTERISTICS

The results further indicated that the backgrounds of the offenders could similarly be classified as Expressive or Instrumental.¹

The analysis suggested the same 2-way thematic split (Expressive/Instrumental) of the manner in which the offender had previously dealt with situations and people. The behaviors in the Instrumental theme consisted of characteristics reflecting how the offender had previously dealt with situations and things, with particular reference to their previous criminal activity. Characteristics in the Expressive theme, on the other hand, were thematically very distinct from the characteristics which fell into the Instrumental theme -- reflecting specifically how the offender had previously dealt with intimate relationships, and how the relationship with the victim was significant.

Expressive Background Characteristics

Characteristics which co-occurred in this theme related thematically to personal relationships and emotional issues. The relationship the offender had with the victim is paramount to the structure of this theme. Here, the offender who kills a partner or an ex-partner can be seen to often have other thematically consistent characteristics in their background. These characteristics include the offenders previously having sexually/physically abused their partners, killed blood relatives, and had pre-existing psychological and psychiatric problems. Killing relatives is often considered “mad” or “psychologically unstable” in the literature due to the illogical act of killing close kin in whom many sociobiological resources have been invested (Daly & Wilson, 1988).

TABLE 3: EXPRESSIVE OFFENDER CHARACTERISTICS

Percentage Range	
Expressive Offender Characteristics	
30-50%	Previous Current/Intimate Relationship with Victim

¹²It must be noted that the offender background variables available for analysis were limited, and such limitations may thus have implications on the results.

Previous Psychological or Psychiatric Problems

Fraud (CR)*

10-30%	
Past Abuse to Partner	
Less than 10%	Victim is Consanguineous Relative

* CR = offenses recorded in offender's criminal record

This theme reflects offenders who deal with other people and situations which have a direct emotional impact on them. In this theme, it is important to offenders that the victim is a particular person, not just a body or a representative of a person.

Instrumental Background Characteristics

Offender characteristics that co-occurred in this theme of the plot were thematically distinguishable from the characteristics in the Expressive theme of the plot in that all the variables in the Instrumental theme almost exclusively dealt with the offender's previous criminal record. These variables included previous convictions for theft and burglary, as well as whether the offender had been unemployed. The fact that these variables co-occurred across these cases of homicide is not surprising as most criminals are unemployed, and this unemployment may be associated with financial-gain crimes such as burglary and theft. Another co-occurring variable was the variable of previous imprisonment, which is concordant with seasoned criminals having several counts of offenses. Although to a lesser degree, also co-occurring with these variables was the previous criminal record of sexual offenses, which by its co-occurrence with the economical-gain variables suggests its thematic link to these variables. In this case, this is suggested presumably because, like theft and burglary, it is a crime which is invasive on the victim, and from which the offender stands to gain something (sexually or monetarily) instrumental. Previously, this association has also been found in an earlier study (see Salfati & Canter, 1999). The nature of sexual offenses, in that the offender needs to be much more physically close to the victim during the offense, perhaps partly explains why, although related to the other variables in this theme, it is so to a much lesser degree.

Also in this theme are previous criminal record variables where a theme of violence can be seen; namely, previous convictions for public disorder, damage, and violence offenses. Co-occurring with these criminal antecedent variables is the variable of previously having been involved in the armed services, which again is thematically consistent in that it broadly deals with the same theme of violence against people.

TABLE 4: INSTRUMENTAL OFFENDER CHARACTERISTICS

Percentage Range	
Instrumental Offender Characteristics	
30-50%	Unemployed

Theft (CR)*

Burglary (CR)

Prison

10-30%	Violence (CR)
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Disorder (CR)

Damage (CR)

Armed Services

Less than 10%	Sexual Offenses (CR)
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* CR = offenses recorded in offender's criminal record

Summary of Classification of Offender Background Characteristics

The co-occurrences of the 17 variables chosen for the SSA analysis of offender background characteristics could be seen to divide into two themes of Expressive and Instrumental background characteristics.

When looking at the pattern of the distribution of the Instrumental and the Expressive variables, it is important that all the Instrumental variables (in particular the variables relating to the offender's criminal record) co-occurred in a very close cluster in the SSA plot -- signifying that not only do criminals often have several different crimes in their backgrounds, but that taken together, as a pattern, they signify individuals who lead very criminal lifestyles.

In contrast to the Instrumental theme, the variables in the Expressive theme were very spread out in the SSA plot, suggesting a much bigger variety of background characteristics which are not necessarily as closely linked as are the criminal characteristics variables.

VALIDATING MODEL

In order to validate the model, and to test the hypothesis that offenders behave consistently across time and situations, the next step of the research aimed to test that an offender exhibiting a specific theme (e.g., Expressive) at the crime scene, would exhibit that same theme in their background characteristics.

Each one of the 247 offenses in the dataset was individually examined to ascertain whether it could be assigned to a particular crime-scene theme on the basis of the variables that occurred during the incident.

Every offense was given a percentage score for each of the two crime-scene themes, reflecting the proportion of Expressive or Instrumental variables that occurred during the crime.

To be classified as belonging to one theme, a case needed to have twice the occurrence in one theme than in the other. Cases were classified as being either Expressive or Instrumental by using stringent criteria.

TABLE 5: NUMBER OF CASES HAVING THE SAME THEME IN BOTH CRIME-SCENE ACTIONS AND BACKGROUND CHARACTERISTICS

<p>Expressive</p> <p>Instrumental</p> <p>Mixed</p>
<p>30%</p> <p>25.1%</p> <p>44.9%</p>

From this it was found that using stringent criteria, over half (55%) of all cases exhibited the same theme in both their crime-scene actions and in their background characteristics (see Table 5). This finding

supports the idea that parallels can be drawn between the way offenders act at the crime scene and their general characteristics. However, the results also show that individuals do not exclusively have the same theme in both the way they commit their crime and in their background characteristics. Further research must aim to unravel the psychological processes that may underlie this finding.

IMPLICATIONS OF STUDY

The results from this study are discussed in relation to two major issues. First, results are discussed in terms of classifying homicide into the two categories of Expressiveness and Instrumentality. Secondly, the results are discussed in terms of the implications they have for offender profiling.

Expressive/Instrumental Classification

Although the concepts of Expressiveness and Instrumentality have been widely used to classify aggressive events and situations, the specifics of these two types of aggression have never been defined in any great detail. In particular, no descriptions have previously been put forward as to how -- through specific description of the behavioral makeup of these events -- Expressiveness and Instrumentality are exhibited during an event. Through its analysis of the co-occurrences of the actual behaviors used by offenders at homicide crime scenes, the present study has underscored the behavioral components which make up different themes of homicide such as Expressive and Instrumental crime scenes. Our understanding -- not only of what Expressiveness and Instrumentality signify, but also *what* behaviors during homicide are considered Expressive or Instrumental, and *why* -- has been questioned.

Profiling

Pinizzotto and Finkel (1990) pertinently concluded from their research that psychological profiling is much more complex than just a "multilevel series of attributions, correlations and predictions" (p. 230). They go on to point out that much of the psychological profiling used in investigations to date has been guesswork based on hunches and anecdotal information accumulated through years of experience, which is consequently full of error and misinterpretation. Indeed, currently, psychological profiling has been largely linked to individuals rather than specific tested and established scientific methods.

One of the main areas of concern regarding investigative profiling has been the general lack of extensive empirical studies on the psychological processes. The lack of any robust empirical studies has led to a lack in the validity and reliability of current methods used in the area of investigative profiling.

The results from this empirical study of actions and characteristics of homicide offenders have aided in establishing a classification system of homicide crime scenes and related offenders that has gone beyond the mere experience and expertise of the "profiler." It has been possible to establish the foundations for a scientific approach of the study into the principles and limitations that underpin this system. This in turn has led to a more informed conception of what can be expected from this process. Future research must now develop this further and more fully explore the possibilities and limitations of offender profiling as a valid and reliable method.

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VICTIM AND PERPETRATOR CHARACTERISTICS FOR FIREARM-RELATED HOMICIDES OF YOUTH DURING 1991-1997¹

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ABSTRACT

Characteristics of all 363 firearm-related homicide victims under age 25 and of the suspects are described for Milwaukee County from 1991-1997. Data were from one medical examiner, 19 law enforcement agencies, and the State Crime Lab. The average number of suspects per incident was 2.1. Among homicides of White victims, 69% of suspects were White, whereas for Black victims 96% of suspects were Black ($p < .001$). When the victim was female, 24% of the time the suspect was a present or past intimate partner. This was the case less than 1% of the time for male victims. Among 306 victims with toxicology information, 32% were positive for alcohol, 25% for marijuana, 19% for cocaine, and 2% for opiates; 56% were positive for any drug or alcohol. Handguns were used in 96% of homicides, and the proportion of medium- and large-caliber handguns has increased over the study period.

INTRODUCTION

Firearm violence continues to be a major cause of mortality among U.S. teens and young adults. A 1997 study found that the firearm homicide rate among U.S. children under the age of 15 was nearly 16 times higher than among children in 25 other industrialized countries combined (CDC, 1997). The 1996 firearms homicide rate among males aged 20 to 24 was more than five times higher than the firearms homicide rate for all Americans (Violence Policy Center, 1999).

There have been few studies of the relationships between victim, suspect, and firearm characteristics for firearm-related urban youth homicides. One study of firearm deaths in Philadelphia between 1985 and 1990 found that the percentage of victims who were ages 15 to 24 more than doubled in the 5-year period (McGonigal, et al., 1993). They also found an increase in the use of high caliber semi-automatic handguns. The study also reported that nearly two-thirds of the victims tested positive for an intoxicating substance in 1990.

The purpose of the present study was to describe characteristics of the victims, suspects, and firearms involved for all firearm-related homicides involving victims under age 25 in a defined urban population from 1991-1997.

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METHODS

Data for all 374 firearm-related youth homicides in Milwaukee County, Wisconsin, were abstracted and linked from the Medical Examiner, 19 law enforcement agencies, and the State Crime Laboratory. This data linkage in the Firearm Injury Reporting System (FIRS) has been described in detail elsewhere (Hargarten, et al., 1996; Tymus, O'Brien, & Hargarten, 1996). Medical examiner/coroner records provided demographic information, alcohol and other drug use, and type of weapons. Records from law enforcement agencies provided additional information on the firearms, circumstantial information from the Supplemental Homicide Reports of the Uniform Crime Reports, and demographic and probation/parole information for persons identified by the police as suspects. There were 8 felons killed by police officers and 3 justifiable homicides, based on information in the Uniform Crime Report. These were omitted, leaving 363 homicides for analysis. Information on the suspects was available for 324 of the homicide events. Toxicology results were available for 306 of the victims.

There were 635 suspects; 27 of these were suspects in homicides involving more than one victim (range 2-4 victims). There were a total of 669 distinct victim-suspect combinations. When analyzing relationships between victim and suspect characteristics, the unit was the victim-suspect combination.

The statistical significance for differences in categorical variables was determined using chi-square tests. Differences in the percentage of suspects of a particular race or sex by race or sex of the victim were compared using t-tests or using a regression model weighted by the number of suspects for each victim.

RESULTS

Eighty-nine percent of the victims were male. Fifteen percent of victims were White, 81% Black, and 4% were classified as other races (including Native American or Asian).

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF THE YOUTH HOMICIDE VICTIMS, 1991-1997

	Number	Percent	Rate*
Sex			
Male	323	89.0	27.0
Female	40	11.0	3.4
Race			
White	56	15.4	3.7
Black	293	80.7	38.2
Other	14	3.9	15.1

*Homicide rate per 100,000 population under age 25 per year.

For 324 cases with information on the suspects, the average number of suspects per victim was 2.1 (range 1-8). In 50% of the homicides (n=191), there was a single suspect. Ninety-five percent of suspects were male, and 14% of suspects of known race were White, 81% Black, and 4% other races (Table 2).

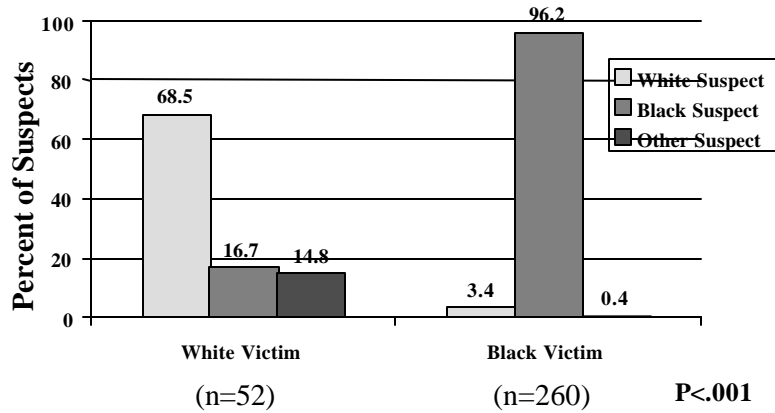
TABLE 2: DEMOGRAPHIC CHARACTERISTICS OF SUSPECTS FOR HOMICIDES OF YOUTH

	Number	Percent
Suspects per Victim (average, range)	2.1 (1-8)	
Sex		
Male	597	95.1
Female	31	4.9
Unknown	7	
Race		
White	84	13.6
Black	511	82.7
Other	23	3.7
Unknown	17	

The relationship of the race of victims and suspects was studied for 312 homicides involving a Black or White victim. Victims of other races were not included in this comparison because of the small number. For 52 homicides involving a White victim, 69% of 108 suspects of known race were White, 17% Black, and 15% other races. For 260 homicides involving a Black victim, 96% 524 suspects were Black and 3% were White (Figure 1). The difference in percentages was significant at $p < .001$ using either an unweighted comparison or an analysis weighted by the number of suspects for each victim.

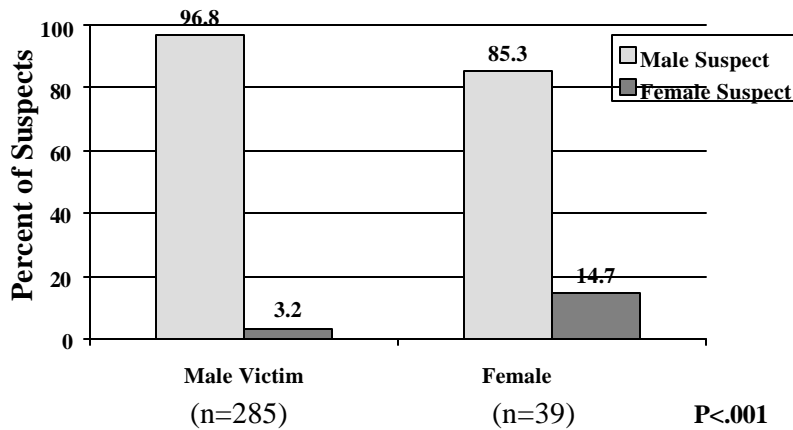
For 39 homicides of a female victim for which there was suspect information, 15% of suspects were female. In 284 homicides of a male victim, 3% of suspects were female (Figure 2). The difference in these percentages was significant at $p < .04$ in an unweighted comparison and $p < .001$ in an analysis weighted by the number of suspects for each victim.

FIGURE 1: RELATIONSHIP OF VICTIM AND SUSPECT RACE FOR HOMICIDES OF YOUTH*



*For 632 victim-suspect combinations (108 for White victims and 524 for Black victims). Homicides of non-White, non-Black victims were excluded from the analysis.

FIGURE 2: RELATIONSHIP OF VICTIM AND SUSPECT GENDER FOR HOMICIDES OF YOUTH*



* For 662 victim-suspect combinations (567 with male victims and 95 with female victims).

The average age of the victims was 19.1 (range 3-24) and that of the suspects was 20.8 (range 13-76). Eighty-five percent of suspects were under age 25. The age distribution of the victims and of the suspects is shown in Figures 3 and 4.

FIGURE 3: AGE DISTRIBUTION FOR YOUTH HOMICIDE VICTIMS

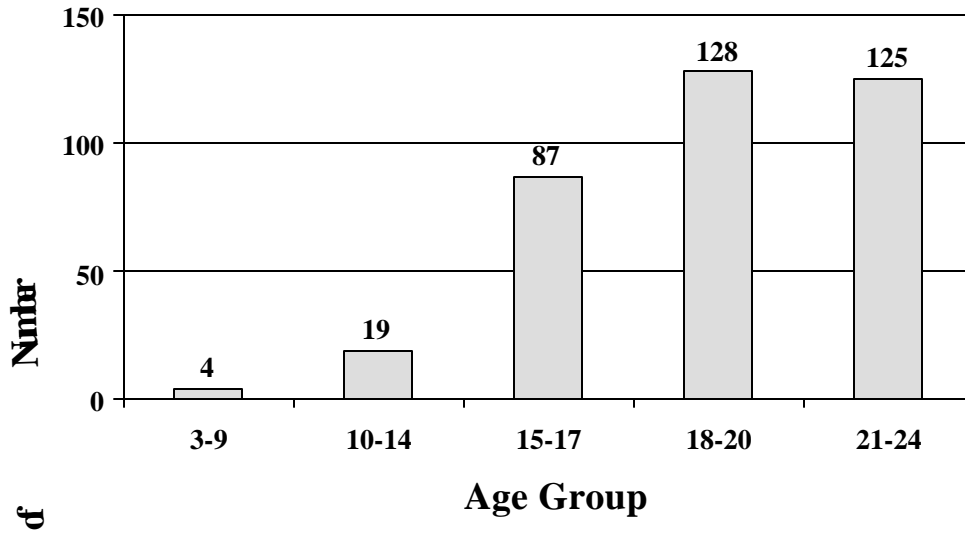
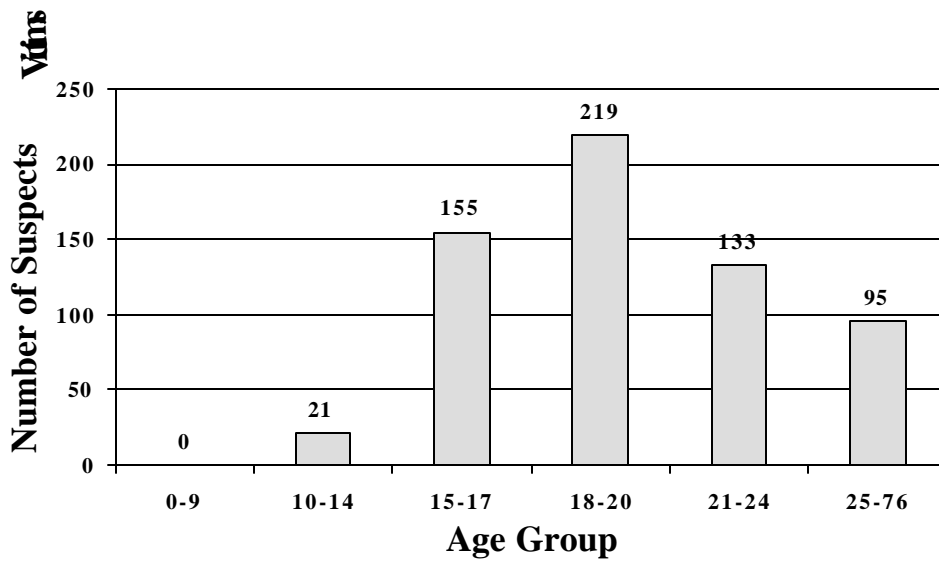


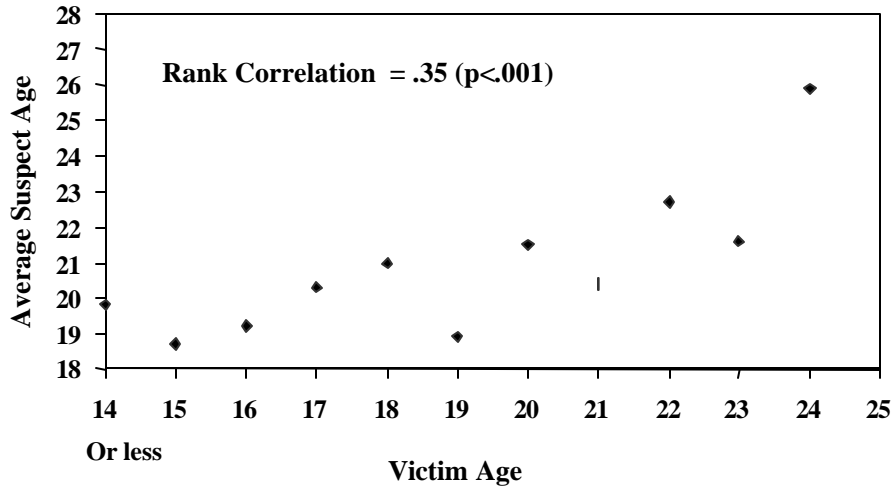
FIGURE 4: AGE DISTRIBUTION OF SUSPECTS IN HOMICIDES OF YOUTH*



*no age information for 12 suspects.

Figure 5 shows the average suspect age by victim age. The suspects were an average of 2.4 years older than their victim. The rank correlation between the victim age and average age of the suspects for each victim was 0.35 (n=322).

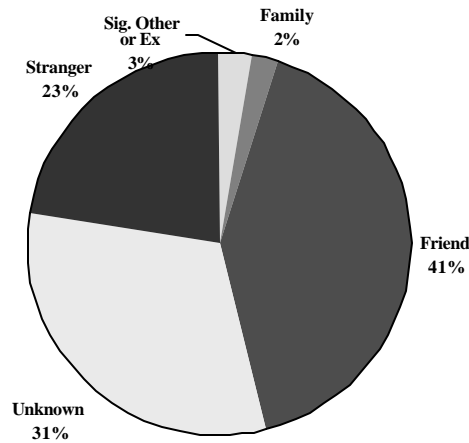
FIGURE 5: AVERAGE SUSPECT AGE BY AGE OF VICTIM



Among 420 suspects with information on probation, 24% had been on probation at some time. Among 399 suspects with information on parole status, 11% had been on parole at some time.

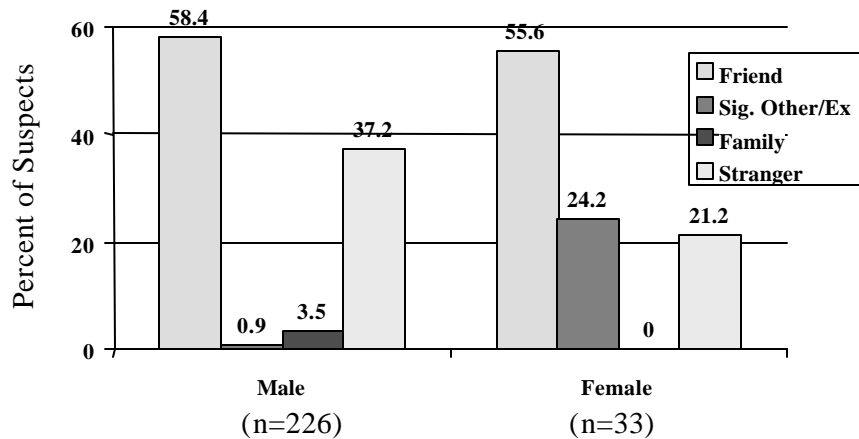
The relationship between the victim and the suspect, based on the Uniform Crime Reports, was family/significant other in 5%, a friend or acquaintance in 41%, a stranger in 23%, and unknown in 31% of cases (Figure 6).

FIGURE 6: RELATIONSHIP OF VICTIM TO SUSPECT FOR HOMICIDES OF YOUTH



Among 33 female victims with information on the victim suspect relationship, 24% of the time the suspect was a present or past significant other. This was the case less than 1% of the time for male victims (Figure 7).

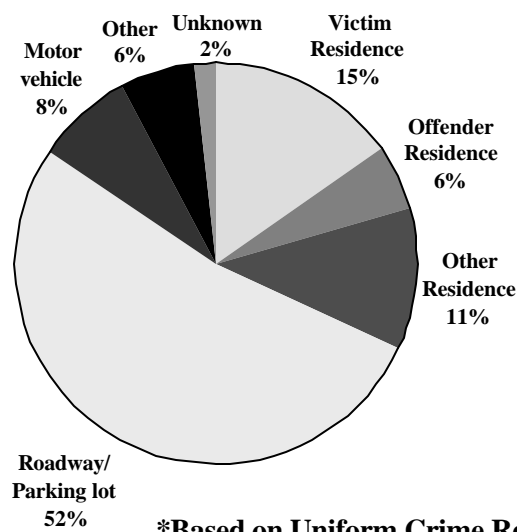
FIGURE 7: RELATIONSHIP OF VICTIM TO SUSPECT BY SEX OF VICTIM*



*P<.001; unknown relationship excluded

The majority of the homicides (52%) took place in a roadway or parking lot. Thirty-two percent were in a home/residence environment: 15% at the victim’s residence, 6% at the offender’s residence, 11% in another residence (Figure 8).

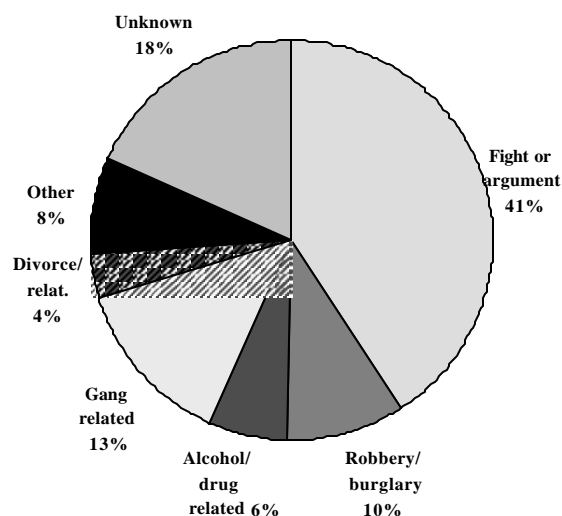
FIGURE 8: LOCATION FOR HOMICIDES OF YOUTH



*Based on Uniform Crime Reports

Figure 9 presents the circumstances surrounding the homicides based on the Uniform Crime Reports. The majority of homicides occurred during a fight or argument. Approximately 13% were considered to be gang related, and about 6% were listed as involving drugs or alcohol (including during an argument). On the separate Uniform Crime Reports question regarding “Drug/Alcohol Involvement,” 17% were listed as drug or alcohol related (including under the influence).

FIGURE 9: CIRCUMSTANCES FOR HOMICIDES OF YOUTH*



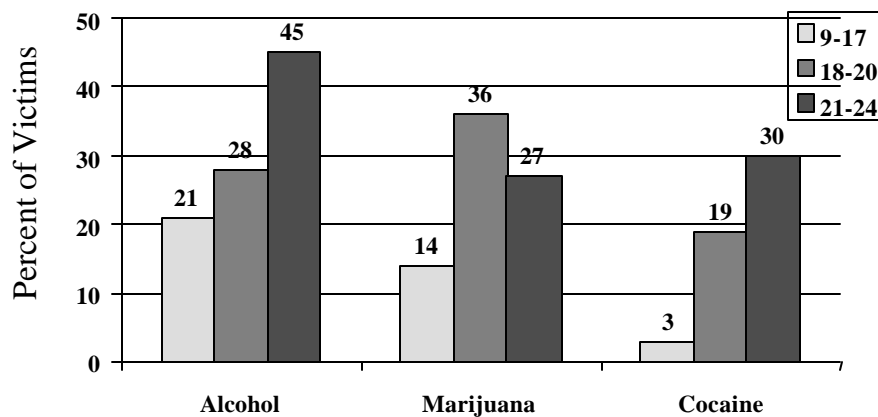
Toxicology information was available for 306 victims. Thirty-two percent were positive for alcohol, 26% for marijuana, 19% for cocaine or metabolites, and 2% for opiates or metabolites (Table 3).

TABLE 3: PERCENT OF YOUTH HOMICIDE VICTIMS WITH POSITIVE TOXICOLOGY FINDINGS (N=306)

Substance	N	Percent
Alcohol	98	32.0
Marijuana	80	26.1
Cocaine (or metab.)	57	18.6
Opiates (or metab.)	6	2.0
Any drug (non-alcohol)	113	36.9
Drug or alcohol	171	55.9

The percentages of victims positive for drugs or alcohol by age group are shown in Figure 10. The percentages positive for alcohol were: 21% for under age 18, 28% for ages 18-20, and 45% for ages 21-24 ($p < .001$). The percentages positive for marijuana among the same three age groups respectively were 14%, 36%, and 27% ($p < .01$), and the percentages positive for cocaine were 3%, 19%, and 30% ($p < .001$). Thirty-seven percent of victims were positive for one or more drugs (excluding alcohol), and 56% were positive for drugs or alcohol.

FIGURE 10: PERCENT OF VICTIMS WITH POSITIVE TOXICOLOGY FINDINGS BY AGE GROUP

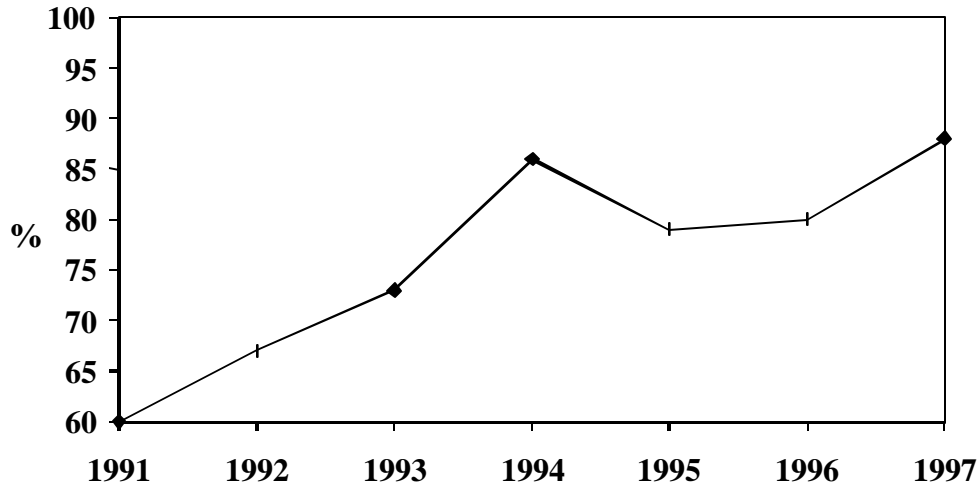


* $P < .005$ for all three age comparisons. Two three year old victims were omitted.

The type of weapons used for the homicides was determined. Ninety-six percent of the homicides were committed with a handgun. The percentage of homicides committed with a handgun did not vary significantly by age of victim or average age of suspect.

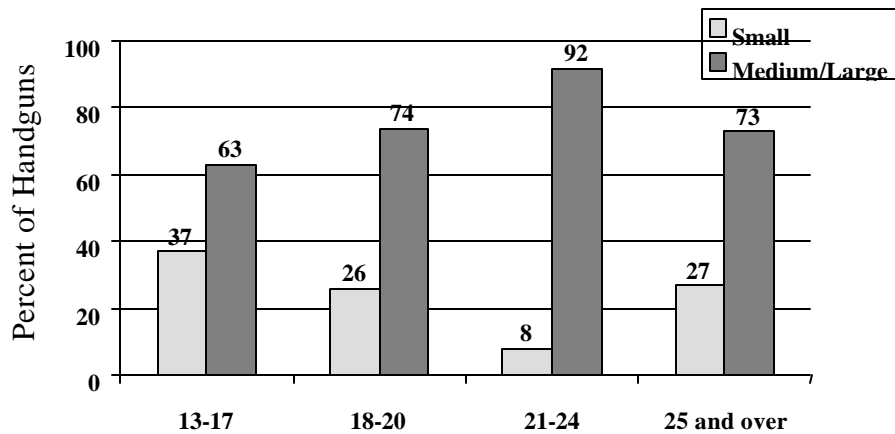
Among handguns of known caliber, 24% were small caliber (.22 or .25), 67% were medium caliber (.32, .357/.38, .380, 7.65 mm., 9 mm.), and 9% were large caliber (.40-.45). The percentage of medium- and large-caliber handguns used in the homicides increased over the period 1991-1997 (Figure 11).

FIGURE 11: PERCENTAGE OF HANDGUNS USED IN HOMICIDES WHICH ARE MEDIUM OR LARGE CALIBER BY YEAR



Older victims were somewhat more likely to have been killed with a medium- or large-caliber weapon (not shown) ($p < .06$). Homicides in which the average age of the suspects was between 21 and 24 years were particularly likely to have been committed with a medium- or high-caliber weapon (Figure 12).

FIGURE 12: HANDGUN CALIBER FOR HOMICIDES OF YOUTH BY AVERAGE SUSPECT AGE



$P < .005$ for differences in caliber by suspect age.

DISCUSSION

Among homicides of youth in Milwaukee County, about 80% of both victims and suspects were Black, and about 15% of victims and suspects were White. Approximately 22% of the Milwaukee County population is Black, and 70% White, based on 1995 population estimates (U.S. Census Bureau, 1997). In the city of Milwaukee, in which the majority of the homicides occurred, non-Whites make up 33% of the population, based on the 1990 census (Wisconsin Legislative Reference Bureau, 1997).

There was a strong relationship between the race of a homicide victim and that of the suspects, and a weak association between victim and suspect ages. The Bureau of Justice Statistics reported that for all types of homicide from 1976 to 1997, 85% of White victims were killed by Whites, and 94% of Black victims were killed by Blacks (Bureau of Justice Statistics, 1999).

Eleven percent of Milwaukee County victims and 5% of suspects were female. The percentage of female suspects when the victim was female was somewhat higher (15%) than when the victim was male (3% of suspects). The Bureau of Justice Statistics reported that among all types of homicide, 24% involved female victims. They also reported that approximately 10% of offenders in homicide of all types were female, both in cases involving a male victim and in those involving a female victim (Bureau of Justice Statistics, 1999).

For female victims in the current study, the suspect was a past or present intimate partner in 24% of cases in which the relationship was known; this was true for only 1% of homicides of male victims. In a California study of all types of homicide, almost half of the women were killed by their spouse, partner, or other family member, compared to 11% of men (Pratt & Deosaransingh, 1997).

Over half of the victims tested positive for alcohol or drugs. Victim substance use showed age-specific patterns. Alcohol was the most common substance identified in victims under 18 and victims ages 21-24, and marijuana was the most common substance among victims 18-20 years. Almost one third of victims 21-24 years of age were positive for cocaine, and over half were positive for at least one substance. In a study based on autopsy reports in Louisiana, 60% of homicide victims had detectable levels of alcohol or drugs; cocaine was the most prevalent substance, and was present in 40% of the victims (Clark, 1996). A New York study found that 31% of homicide victims dying within 48 hours of injury tested positive for cocaine (Tardiff, et al., 1994). McGonigal, et al. (1993), reported that 33% of victims in 1985, and 84% in 1990, had prior drug arrests.

Approximately one-quarter of suspects with information were listed as having been on probation at some time and 11% as having been on parole. However, information was available for only two-thirds of suspects, and law enforcement records may have incomplete information on this subject. McGonigal, et al. (1993), found that 43% of victims in 1985, and 67% in 1990, in Philadelphia had a prior criminal record; however, they did not have information on the suspects.

It is important to note that the suspects included in our study were identified by the police as suspects in the homicide events. We do not currently have complete information on the final disposition for these suspects. A further linkage currently underway in the FIRS system will use information from the

Wisconsin Department of Justice Criminal Information Bureau. From this information, we will obtain the final disposition for the suspects in these homicide events.

Between 1991 and 1997, 68% of homicides in the United States were committed with a firearm, and 81% of the firearms were handguns (Bureau of Justice Statistics, 1999). The percentage of homicides committed with a gun varied with the age of the offender. It was reported to be 68% for those under 14, 79% for those 14-17, 75% for those 18-24, and 59% for those 25 and over (Bureau of Justice Statistics, 1999). In the Philadelphia study, handguns made up 90% of firearm deaths in 1990 and 95% in 1995, and, over this time period, semi-automatic firearms increased from 24% to 38% (McGonigal, et al., 1993). In the current study, handguns were the predominant type of firearm (96%). The percentage of medium- and high-caliber handguns compared to small caliber increased over the period of this study. Medium- and large-caliber handguns were more likely to have been used in homicides involving older victims and older suspects.

The FIRS system does not currently have information on the purchase or ownership for most of the firearms used in the homicides. Almost two-thirds of the suspects in this study were under the age of 21, and could not have legally purchased a handgun from a licensed dealer. In a further linkage being developed as part of the FIRS, the Bureau of Alcohol, Tobacco and Firearms (ATF) firearm trace data will be used in order to determine the time and place of first purchase of all weapons used in the homicides.

Information obtained from a linked data system such as the Firearm Information Reporting System, combining medical examiner/coroner, law enforcement, crime lab, Department of Justice, and ATF data, can provide a comprehensive picture of homicide of and by youth. Complete information on the homicide victims, suspects, circumstances, and firearms involved is needed to provide a basis for developing and evaluating prevention programs. Characteristics of such programs may have to be targeted to specific age groups.

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THE HOMICIDE AND DRUG CONNECTION¹

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ABSTRACT

Homicide is not a criminal act that is common or committed by rational, sane people. But circumstances can arise whereby homicide becomes an all too common outcome. Typically, an act of homicide requires the use of a lethal weapon, and the use or influence of an agent like a drug to facilitate the use of the lethal weapon. According to the Uniform Crime Reports (UCR, 1997), 68% of homicides are committed with firearms. While there are no precise statistical figures on drug use or drug trafficking as it relates to homicide, there is increasing evidence that drugs play a significant role in facilitating a homicide event. In most cases, two causal "ingredients" normally need to be present for a homicide to occur: a firearm, plus the presence of drugs either in terms of use or drug trafficking.

NEUROANATOMY

The world of neurotransmitters and neuroanatomy is rarely discussed in homicide research. However, there is much to be said for understanding what drugs can do and cannot do, and how different drugs can produce different reactions. The nervous system is comprised of four essential parts: dendrites, which receive signals from other nerve cells; the cell body (soma), which nourishes the nerve structure; the axon, which carries the message from the dendrites to the cell terminal; and the synaptic gap, which is the microscopic gap that exists between the cell terminal and the next nerve receptor. The "message" must jump the synaptic gap from the pre-synaptic terminal to post-synaptic terminal. The nerve impulse crosses the synaptic gap not as an electrical signal but as a biochemical signal. This biochemical impulse crosses the synaptic gap via neurotransmitters. Some of these neurotransmitters are called dopamine, endorphin, enkephalin, serotonin, GABA, and there are at least 50 others (Inaba, Cohen, & Holstein, 1997). Each nerve cell usually produces one type of neurotransmitter. A single neuron, however, might cause the release of several types of neurotransmitters at different synapses.

Psychoactive drugs such as barbiturates, amphetamines and hallucinogens, can disrupt the process of message transmission in the synaptic gap. Generally, drugs that produce signals are called agonists, and drugs that block signals are called antagonists. Some drugs can chemically imitate part of a neurotransmitter and cause the receptor site to accept a nerve transmission. Hallucinogenic substances can confuse the message impulse and generate a sensation of sound that was originally a stimulus brought on by color or taste. Other drugs can release an excess of neurotransmitters and thereby produce an exaggerated effect. Cocaine and other stimulants can enhance the original nerve impulse. Finally, other drugs can slow down the release of neurotransmitters or completely block their release such as with the case of painkillers.

¹Editors' note: Due to computer-incompatibility problems, most of the graphics for this paper could not be included. For a complete copy, contact the author.

Heroin will block the release of a neurotransmitter called substance "P," causing pain to be reduced or eliminated.

The first neurotransmitters were discovered in the 1920s, but it was the discovery of the endorphins and enkephalins in the 1970s that led to a greater understanding of how psychoactive drugs work in the body. For the first time, reaction and addiction to psychoactive drugs could be specifically described and the reaction to certain drugs understood. For example, alcohol alters GABA (gamma-aminobutyric acid) and serotonin neurotransmitters, which alters the mood of the alcohol user who experiences increased self-confidence and increased sociability. Alcohol lowers GABA, which is the major inhibitory neurotransmitter, and thus lowers inhibitions. Thus, moderate amounts of alcohol will facilitate behaviors that the same individual who is sober would never engage in. On the other hand, cocaine is a stimulant and operates quite differently. Cocaine causes the release of certain neurotransmitters that disrupt the central nervous system and produce a euphoric rush, increased confidence and energy. This is caused by the added boost of norepinephrine which increases blood pressure and heart rate, causes rapid breathing, produces tense muscles, and induces shaking. Cocaine will also lead to the release of dopamine which causes paranoia, and acetylcholine causes muscle tremors. Conversely, cocaine use can result in the depletion of serotonin, which results in agitation and depression, and epinephrine, which causes severe depression and extreme lethargy.

Cocaine and alcohol are two drugs that consistently appear in the context of homicides. Alcohol use along with the presence of a firearm results in increased aggression, and impaired judgment. Parker and Auerhahn (1999) argue that alcohol serves as a selective disinhibitor, depending upon the situation. Cocaine use produces what is referred to as anhedonia, or the lack of ability to feel pleasure. Cocaine will produce a very rapid and intense "high" that produces a craving for another "high." However, cocaine is metabolized very quickly and the initial euphoria quickly turns to a "crash" which produces depression and anxiety. The symptoms of craving or withdrawal lead to a compulsive urge to regain the initial rush. Thus, cocaine use leads to irritability, depression, and an insatiable urge to experience the cocaine high again.

DRUG USE IN THE U.S.

Figures 1 and 2 show the degree of high school senior drug use for the past nine years based on data from Monitoring the Future (Johnston, Bachman, & O'Malley, 1975-1997). Figure 1 shows the top three drugs in terms of frequency of use. Alcohol is the most popular drug used by high school seniors. While the percentage of use over a 30-day period has declined from a high of 70% in 1981, the current use is still over 50%. Cigarette usage has remained fairly constant at around 30%, but in the past few years this has been increasing. Finally, marijuana use has declined in the decade of the 1980s, but has been increasing in the 1990s. For the most recent decade, hallucinogen, stimulant, cocaine, and sedative use hovers between 2 to 5% for the past 30 days. Thus, while drug use among high-school students may appear to be lower than commonly assumed, and than in the 1980s, the use of alcohol is alarmingly high.

High School Senior Drug Use

Used in past 30 days

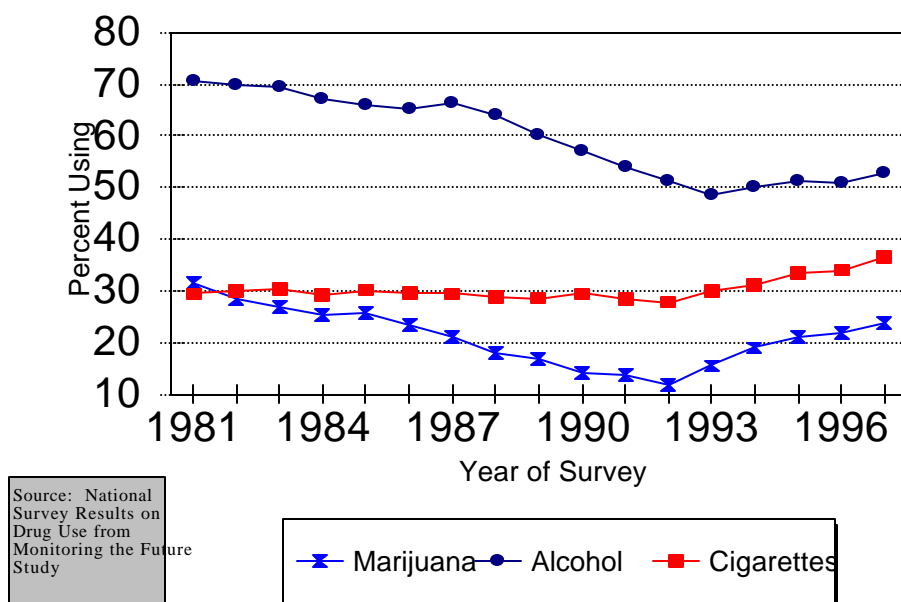


FIGURE E 1

Johnston, O’Mallye, and Bachman (1975-1997) also report the amount of drug use among young adults for the past year. Not surprisingly, alcohol ranks number one with over 80% of young adults reporting having used that substance. Cigarette use ranks second at around 40%, followed by marijuana at 30%. Stimulants, hallucinogens, cocaine, and sedatives cluster at 5% or less. The data suggest that 1991 was a low point in drug use, but, in the 1990s overall, there has been a slight increase in drug involvement. It is obvious that alcohol use clearly dominates the drug scene for high-school youth and young adults. Because of alcohol's disinhibiting effects, and its widespread use, this should be cause for concern in any homicide prevention strategy.

ADAM

A relatively new data source is the Arrestee Drug Abuse Monitoring Program (ADAM) that is being conducted by the National Institute of Justice. Over the course of one year, approximately 1,000 arrestees in 35 different cities are given a urine test and a questionnaire within 48 hours of arrest. This drug testing is done on a quarterly basis to random male and female arrestees to help account for seasonal variation. ADAM tests for amphetamines, barbiturates, benzodiazepines, cocaine, opiates, PCP, methadone, marijuana, propoxyphene, and methadone. A test for alcohol is not administered although there is some evidence to suggest that this will be added to the ADAM program. The results for 1998 show that nearly 70% of all male arrestees and 67% of female arrestees tested positive for one of the ten listed drugs. This ranged from a high in New York City where 77% of males and 82% of females tested positive, to a low of 43% for males in Anchorage, and 33% for females in Laredo, Texas. However, the vast majority

of the cities in the sample produced results in the 60-70% range. The implications of these findings are enormous when one considers that the range of possible offenses varied from larceny/theft to homicide. Regardless of the offense, over 60% of arrestees tested positive for drugs.

Approximately 40% of male arrestees tested positive for cocaine; for female arrestees, it was 45%. Of those arrested who tested positive for marijuana, nearly 50% were male, and 30% were female. Opiate use was in the 10% range, followed by methamphetamine and PCP. Methamphetamine was virtually 0% in most sample cities but certain cities in the western region of the country had a high rate of usage (Las Vegas, 14% for males, and 24% for females; Phoenix, 16% for males, and 22% for females; Sacramento, 25% for males, and 29% for females). The remaining five drugs (barbiturates, benzodiazepines, methadone, propoxyphene and methaqualone) were close to 0%. The test used was Enzyme Multiplied Immunoassay Testing (EMIT). This test is at least 95% accurate but it only tests for the presence of specific drugs. EMIT does not give the concentrations of each drug. However, the inference is that a disproportionately high number of homicide offenders are under the influence of a drug -- and the tests do not account for alcohol.

Some drugs, such as cocaine and various opiates, are metabolized fairly quickly, while other drugs are detectable over a much longer period. If the drug test is administered 48 hours after the arrest, it is possible that the offender may test negative for such substances despite being under the influence of a drug at the time of the offense. On the other hand, other substances, most notably marijuana, remain in the system for an extended period of time and may have little to do with the offense in question. Marijuana is detectable up to 30 days, and may give the false impression that it is related to many offenses, when, in fact, it leaves the blood stream quickly, attaches itself to fat cells in the body, and then remains in the body for weeks.

The problem of drug testing is could be shown graphically. The detection period for alcohol is measured in terms of hours with the use of a blood sample or a urine sample. Alcohol is metabolized very quickly, and within 24 hours an individual will test negative for alcohol. For approximately the first 10 hours after consuming alcohol, it is detectable in the blood. A urine sample would be more appropriate from 3 to 24 hours. Cocaine is detectable in the blood for the first 24 hours and then after that time period it is detectable in urine for an additional 48 hours. Finally, the detectable time period for marijuana is extremely long. Marijuana is present in the blood for up to 10 days and in urine for up to 30 days. Marijuana was found in approximately 50% of male arrestees and 30% of female arrestees. It is difficult to give a precise meaning to the data when each drug has a different rate of metabolization, and the tests are administered up to 48 hours after the arrest.

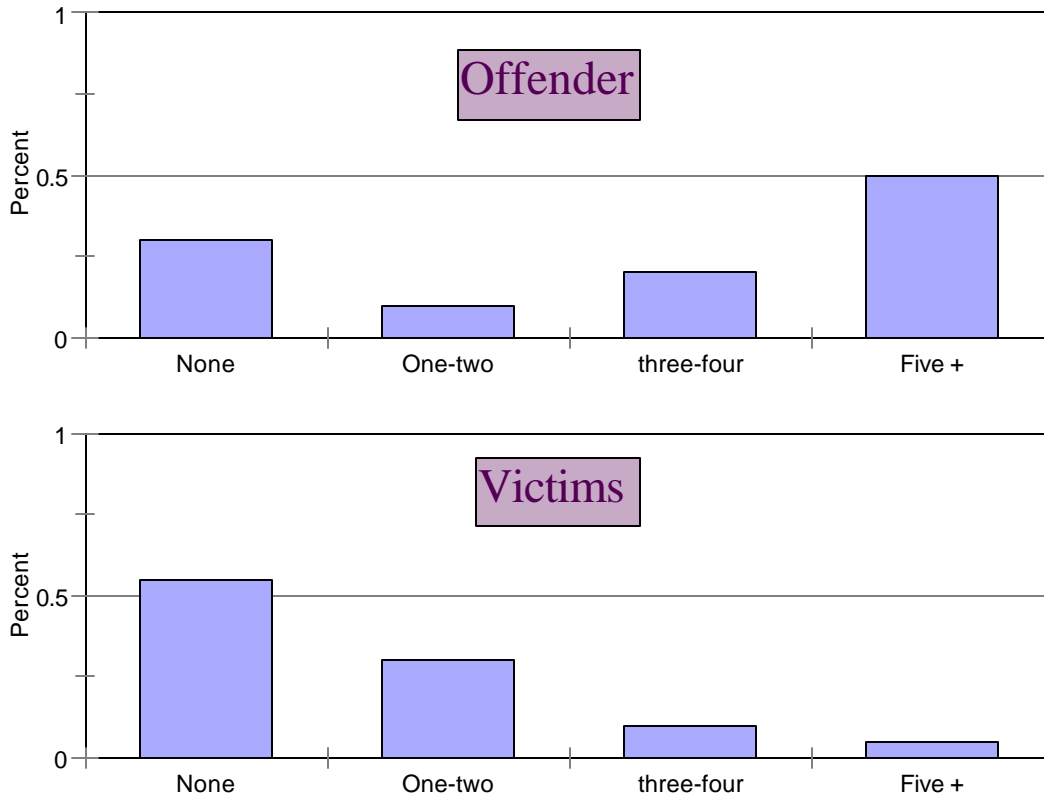
An additional complication is the way the drugs are ingested. The absorption the rate for cocaine when it is taken intravenously, smoked, and ingested through the nasal membranes and orally. The most rapid ingestion is via intravenous injection, but cocaine is then metabolized very rapidly, and after 15 minutes there is a rapid decline in its effects. Smoking cocaine (referred to as "crack") is less intense and the effect lasts less than 2 hours. Nasal ingestion is not as rapid but the "high" or the "rush" may last for two hours. Finally, the oral ingestion of cocaine is slow, with no discernible impact for the first 30 minutes, but then a sudden "rush," that may last for 2 hours, is experienced. Again, testing for a drug without being cognizant of the method of ingestion may produce problematic results.

DRUG TESTS RESULTS FROM ATLANTA

The remainder of this discussion will focus on findings in Atlanta, Georgia. Atlanta has the dubious distinction of having the highest crime rate in the nation. It is also thought to be a major drug market and distribution center. The results from ADAM for the city of Atlanta show that nearly three-quarters of male and female arrestees tested positive for a drug. Cocaine use is extraordinarily high in Atlanta, with 51% of male and 61% of female arrestees testing positive. Marijuana emerges at a distant third (36% of male and 28% of females testing positive), and opiate use is less than 3%. Methamphetamine and PCP drug tests were 0% for males and females. In 1997, 80% of homicide offenders and 60% of homicide victims had a criminal record of a drug violation. Figure 2 shows that of homicide offenders, nearly 50% had 5 or more prior drug offenses, 20% had 3 or 4 prior drug offenses, and 10% had 1 or 2 prior drug offenses. A prior drug offense was not as prolific for homicide victims, but a high proportion of homicide victims did have prior drug-offense records. Thus, drugs are present in an inordinately high number of homicide cases, and this must be taken into consideration in any explanation of the causes of homicide and how it might be prevented.

FIGURE 2:

Homicide Victims & Offenders Prior Criminal Record



DRUG INTERACTIONS

A complicating factor in understanding the impact of drugs on an individual is that the ingestion of multiple drugs may result in a drug interaction. That is, the use of two or more drugs may not be a simple additive effect on the individual but may produce a totally different effect. Homicide victims and offenders tend to be high users of cocaine, and toxicology findings from the medical examiner's reports indicate that homicide victims tend to use alcohol as well. It was just recently discovered that the combination of alcohol and cocaine results in a completely new pharmacological substance that is called cocaethylene. Using a "feel good" scale, the effects of cocaine and alcohol separately are quite modest when compared to taking them in combination. That is, cocaethylene produces a much more intense effect that lasts considerably longer than cocaine or alcohol. Similarly, as is shown in Figure 3, the monitored heart rate of subjects using cocaethylene as compared to either cocaine or alcohol individually reveals a much more dramatic effect and the duration period of cocaethylene is significantly longer.

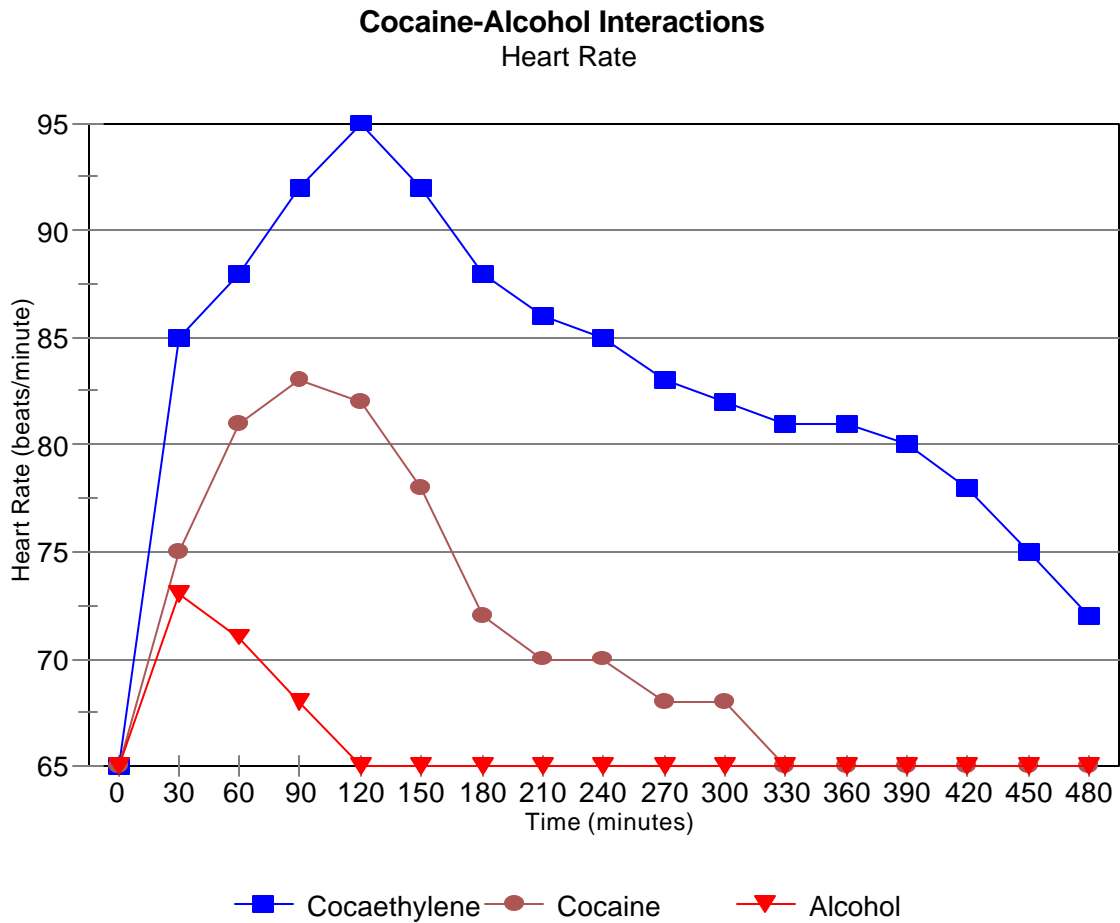


FIGURE 3

Toxicology reports on homicide victims indicate that nearly 40% of homicide victims tested positive for cocaine, 25% tested positive for alcohol, and 20% tested positive for alcohol and cocaine. This means that 85% of homicide victims were under the influence of cocaine, alcohol, or cocathylene. Marijuana is also present in approximately 25% of homicide victims as well. Surprisingly, virtually no other drug appears in the toxicology reports. Only 15% of homicide victims did not test positive for alcohol, cocaine, or cocathylene.

CONCLUSION

Homicide is not the act of a sober, sane, individual. When the possession of a handgun is combined with the use of psychoactive drugs, specifically alcohol, cocaine or cocathylene, the likelihood of homicide occurring increases substantially. A cursory reading of police homicide reports clearly suggests that

spontaneous anger or a petty dispute can lead to homicide. The 30 seconds of rage, when combined with a lethal weapon and the influence of alcohol or cocaine, invariably results in actions that are conducive for a homicide outcome. Thus, it appears that underlying many homicide events is the confounding influence of alcohol and/or cocaine. It is estimated that there are 250- million guns in the United States. A very small percentage of these weapons are used in criminal actions. But a gun in the hands of an individual who is "under the influence" produces a highly volatile situation. Clearly, alcohol and cocaine must be seen as powerful contributing agents in explaining homicide, and any successful homicide prevention program must focus on the problem of drug use and abuse.

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STATE HOMICIDE VICTIMIZATION RATES: DO REGRESSION RESULTS DIFFER BY SEX OR RACE?

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ABSTRACT

Factors such as race and sex that could affect homicide victimization are examined. The study is conducted with both state and national data, disaggregated by race and sex. The analyses use time-series procedures with independent variables that are commonly used in homicide studies: age structure, economic variables, prison populations, and death penalty enforcement, among others. The coefficients for male and female regressions differ no more than would be expected by chance, but there is some difference between races. The state-level analysis indicates that there are differences between races and sexes on variables about which little or nothing is known.

INTRODUCTION

In comparing regression results for homicide victimization disaggregated by race and sex, both national-level data (1930-95) and state-level data (1950-96) are used. Both use Vital Statistics homicide-victimization data for White males, White females, non-White males and non-White females. Also, both analyses use time-series procedures, with independent variables that are commonly used in homicide studies -- including age structure, economic variables, prison populations, and death penalty enforcement.

NATIONAL-LEVEL REGRESSIONS

In the national-level study (Marvell & Moody, 1999), the findings supported those of Smith and Kuchta for 1946-90 (Smith & Kuchta, 1995): that there is no discernible difference between male and female homicide-victimization rate trends since 1930.

National-level homicide rates -- disaggregated by sex and race -- were regressed on a sizable list of putative factors that affect homicide trends (Table 1). These include:

- 1) *Economic variables*: unemployment rate, real personal income, inflation (consumer price index), real welfare expenditures, and female labor-force participation rate.
- 2) *Demographic variables*: percent population in age groups 15-17, 18-24, and 25-34.
- 3) *Law enforcement response*: prison population (average of current year and prior year) and the number of executions.

4) *Military variables*: number of military personnel and two dummies for World War II (1942-45 and 1943-44).

5) *Dummy variable*: crack trend (for years 1985-1991).

All variables, except the crack-trend variable are per capita and logged.

Earlier, in a cross-section regression analysis, Brewer and Smith (1995) found little difference between males and females for a number of similar variables, and the same results were reached in this study.

TABLE 1. FACTORS AFFECTING HOMICIDE VICTIMIZATION RATES, NATIONAL LEVEL, 1930-95.¹

	Non-Whites			Whites		
	Female Regression coef. t	Male Regression coef. t	Chow F prob	Female Regression coef. t	Male Regression coef. t	Chow F prob
Unemploy- ment rate	.05 1.24	.04 1.07	.83	.11 2.24*	.10 2.36*	.87
Personal income	.44 1.44	.23 .82	.57	-.11 .31	-.56 1.80	.26
Consumer price index	.14 .60	.48 2.09*	.21	.92 3.29*	.01 .06	.01*
Public assistance	.05 1.45	.13 4.02*	.03*	.05 1.46	.02 .43	.39
Female labor force	-.30 .78	-.75 2.12*	.25	-.48 1.13	.55 1.34	.05*
Divorce rates	-.21 1.38	-.07 .51	.39	-.17 1.00	.06 .41	.22
Population 15 to 17	.05 .21	.09 .36	.87	.45 1.53	.21 .78	.43
Population 18 to 24	.82 1.92	.75 1.89	.85	.72 1.53	.97 2.27*	.64
Population 25 to 34	.42 .91	.28 .65	.76	.23 .46	.25 .55	.96
Prison						

¹ Asterisks indicate significance to the .05 level. Dependent variables are homicide-victimization rates. All substantive variables are per capita, logged, and differenced (except that inflation, World War II, and the crack phenomenon are not per capita, and the latter two are not logged). Chow tests are for whether the female regression coefficient differs significantly from the corresponding male regression coefficient -- for the same variable. Columns 3 and 6 give the probability levels from the F tests. F tests were not conducted for last three variables, which are not substantive.

population	-1.08	3.44*	-1.38	4.66*		.41	-1.43	4.11*	-1.39	4.30*	.92
Death											
penalty	.01	.57	-.02	1.26	.11		.02	.99	.04	1.77	.57
Military											
personnel	-.07	2.19*	-.04	1.43	.34		-.01	.22	-.01	.31	.92
WW II, 1942-											
1945 dummy	-.06	.98	.00	.01	.33		-.03	.43	.02	.37	.50
WW II, 1943-											
1944 dummy	-.14	2.93*	-.11	2.52*	.57		-.03	.62	-.12	2.28*	.19
Crack, 1985											
1991 trend	.12	4.04*	.15	5.58*	.29		.06	1.97	.08	2.76*	.66

A common issue in regression research is how to tell whether regression coefficients in separate regressions differ. Apparent differences might be well within the realm of chance. The fact that a coefficient is significant in one regress but not in another does not mean that the two coefficients differ. In the present analysis, the standard econometric test, the Chow test (Table 1) is used, which shows that only a few coefficient differences are significant -- about the same number as one would expect by chance.

STATE-LEVEL REGRESSIONS

The national-level study has several drawbacks which are addressed using state-level data. First, whether differences between coefficients are significant is affected by sample size as well as the size of the difference. The single national time series in Table 1 is unusually long for criminology time-series research; still a larger sample size might uncover significant differences. A pooled state-level multiple time-series design provides a much larger sample size than the national-level design.

Second, the only relevant data for homicide victimizations before 1950 are the four categories used in Table 1. One can only compare the four. It is not feasible to compare males and females, or Whites and non-Whites. This can be accomplished, however, with state data starting in 1950.

The state-level regressions use procedures similar to the national-level study in Table 1, except that only six of the independent variables have state data. The sample size is very large, with data for 48 states (excluding Alaska and Hawaii) for 1950-96. (Because of the loss of the first 5 years, the regression starts in 1954 as variables are differenced and four dependent variable lags are entered.) This is a multiple time-series analysis with a fixed-effects model. For each state and for each year, there is a dummy variable which controls for unknown factors, (Marvell & Moody, 1996).

The results are shown in Table 2. Again, the dependent variables are Vital Statistics homicide victimizations, but here they are broken down by sex (all males and all females), and by race (all Whites and all non-Whites). One is added to homicides before logging, because there were no homicides in these categories for several states in some years. (Again, the data are logs of differences.) Only six of the

independent variables used on Table 1 have state-level data (as listed in Table 2). The regressions are weighted by population.

The Chow F tests again suggest that there is little difference between sexes with respect to coefficients on the six substantive variables. None are significant (Table 2, Column 3), and the Chow F test for all six variables combined is far from significant ($F = .719$ prob. = .63).

TABLE 2. FACTORS AFFECTING HOMICIDE RATES, STATE-LEVEL, 1954-96

	<u>Sex Differences</u>				<u>Race Differences</u>					
	<u>Male</u>		<u>Female</u>		<u>White</u>		<u>Non-White</u>		<u>Chow</u>	
	<u>Victims</u>	<u>Victims</u>	<u>Victims</u>	<u>Victims</u>	<u>Victims</u>	<u>Victims</u>	<u>Victims</u>	<u>Victims</u>		
	coef.	t	coef.	t	coef.	t	coef.	t	prob	
Prison Pop	-.17	-3.01	-.12	-1.71	.59	-.11	-1.85	-.17	-2.15	.53
Per. Inc.	.47	2.51	.32	1.37	.63	.64	3.39	-.04	-.17	.03
% Pop 15-17	1.10	3.40	.31	.78	.13	.66	2.03	1.12	2.57	.39
% Pop 18-24	.67	2.00	1.06	2.52	.47	.38	1.15	1.46	3.22	.06
% Pop 25-34	1.12	2.23	1.01	1.61	.89	1.02	2.04	.50	.74	.54
Executions	.01	1.18	.01	1.49	.66	.02	1.92	.00	.22	.33
1956 dummy	.03	1.00	.08	2.26	.25	.04	1.34	.07	1.75	.53
1957 dummy	.06	2.11	.10	2.58	.48	.08	2.57	.08	2.06	.89
1958 dummy	.03	1.11	.14	3.60	.03	.11	3.50	.03	.73	.13
1959 dummy	.11	3.79	.14	3.87	.50	.14	4.89	.08	2.07	.21
1960 dummy	.14	4.38	.17	4.26	.54	.16	4.98	.14	3.36	.79
1961 dummy	.08	2.10	.08	1.68	.99	.13	3.40	-.00	-.02	.04
1962 dummy	.01	.30	.09	1.95	.17	.06	1.80	.02	.54	.52
1963 dummy	.04	1.29	.06	1.37	.78	.07	2.10	.04	.98	.63
1964 dummy	.06	1.77	.11	2.43	.42	.10	2.77	.08	1.72	.79
1965 dummy	.15	3.83	.05	1.02	.11	.14	3.45	.13	2.36	.87
1966 dummy	.11	3.04	.15	3.35	.47	.14	3.94	.14	2.84	.95
1967 dummy	.19	5.08	.19	4.26	.86	.20	5.45	.20	4.09	.96
1968 dummy	.17	4.46	.13	2.62	.46	.19	4.80	.22	4.21	.60
1969 dummy	.12	3.19	.11	2.41	.90	.14	3.67	.16	3.19	.71
1970 dummy	.15	4.19	.17	3.84	.71	.20	5.60	.15	3.04	.36
1971 dummy	.13	2.97	.13	2.35	.98	.17	3.83	.14	2.32	.67
1972 dummy	.07	1.62	.06	1.03	.83	.09	2.00	.13	2.09	.62
1973 dummy	.02	.52	.19	3.71	.01	.15	3.57	.06	1.06	.20
1974 dummy	.09	2.20	.17	3.07	.30	.19	4.36	.06	1.02	.07
1975 dummy	.06	1.60	.13	2.51	.33	.16	3.72	.00	.02	.02
1976 dummy	-.08	-2.21	.00	.17	.13	-.01	-.44	-.07	-1.42	.38

1977 dummy	-.01	-.41	.04	.90	.33	.04	1.26	-.03	-.65	.20
1978 dummy	.03	.91	.01	.36	.77	.06	1.97	-.01	-.26	.16
1979 dummy	.13	3.71	.08	1.89	.39	.15	4.16	.11	2.31	.54
1980 dummy	.19	5.01	.12	2.54	.25	.21	5.42	.16	2.99	.41
1981 dummy	.10	2.60	.09	2.06	.99	.11	2.90	.13	2.66	.67
1982 dummy	.05	1.39	.10	2.38	.31	.07	2.06	.08	1.73	.87
1983 dummy	-.05	-1.50	.00	.02	.33	-.05	-1.63	.00	.02	.32
1984 dummy	-.05	-1.76	.00	.25	.19	-.05	-1.62	-.01	-.24	.43
1985 dummy	.01	.40	.03	.86	.67	.00	.05	.03	.71	.58
1986 dummy	.11	3.57	.11	2.95	.95	.06	1.96	.18	4.30	.02
1987 dummy	.07	2.32	.15	3.91	.10	.06	2.16	.14	3.32	.16
1988 dummy	.15	4.55	.15	3.71	.94	.07	2.26	.26	6.03	.01
1989 dummy	.21	5.80	.12	2.77	.14	.12	3.36	.26	5.30	.02
1990 dummy	.23	7.47	.11	2.82	.01	.15	4.84	.29	6.79	.01
1991 dummy	.22	7.01	.17	4.43	.35	.18	5.90	.26	6.01	.17
1992 dummy	.09	3.23	.08	2.40	.87	.09	3.20	.13	3.49	.35
1993 dummy	.09	3.31	.14	3.83	.35	.08	2.86	.14	3.78	.17
1994 dummy	.04	1.75	.04	1.16	.85	.04	1.64	.05	1.45	.84
1995 dummy	-.04	-1.44	.03	.85	.11	-.00	-.14	-.03	-1.02	.46
1996 dummy	-.07	-2.70	-.05	-1.55	.63	-.05	-2.01	-.09	-2.55	.38

As for differences between races, the results are less clear. The coefficients for personal income are significantly different (Table 2, Column 6), and coefficient differences for the percent of the population 18-24 are nearly significant. The Chow F for all six variables -- 1.907 (prob. = .094) -- is not significant to the .05 level but significant to the .10 level.

In contrast, there is clear indication that the year dummies differ between sexes and between races. The Chow test F's for differences in the 45 dummies are 3.195 (.0001) and 3.467 (.0001), respectively. This means that the races and sexes are affected by factors other than the substantive variables entered, but the regression does not indicate what these factors might be. Table 2 gives the coefficients for the year dummies (which estimate the proportional change -- that is, the percent change divided by 100 -- occurring each year that is not explained by the six substantive variables), and it can be seen that occurrences in 1958, 1973, and 1990 largely account for the sex difference. As for differences between races, occurrences in 1961, 1975, and 1986-1990 are especially important. The latter are the years of the growth of the crack epidemic, and the findings suggest that crack use caused non-White homicides victimizations to increase more than White homicides victimizations. Otherwise, Table 2 does not suggest what might cause the differences.

SUBSTANTIVE RESULTS

As for the substantive results at the national-level, the major finding is that the large impact of prison populations occurs for all four victimization types (Table 1). This impact for total homicides at the national

and state-levels (Marvell & Moody, 1997 and 1998) was discovered earlier. Another notable finding is that the threat of execution appears to offer no deterrence.

The implication is that homicide rates are dominated by factors related to offenders rather than victims. For example, imprisonment incapacitates potential murderers irrespective of the sex and race of the victims. Thus, crime prevention activities should focus on potential offenders, rather than on situational factors. Males comprise 90% of those who murder both males and females. In Marvell and Moody (1999), literature is compiled concerning the criminal history of men who assault or murder women. On average, the 21 studies found that these men had substantial criminal records -- almost as remarkable as records for murderers in general.

A comparison of Tables 1 and 2 shows that with respect to the variables having state-level data, the substantive findings in the state-level analysis are consistent with those in the nation-level -- with one exception: prison population. The coefficients in the state-level analysis, although significant, are far smaller than in the national-level analysis. The authors have written before about this difference (Marvell & Moody, 1998), and the larger impact of the national prison populations is probably due to movement of criminals, such that imprisonment in one state largely reduces crime in others.

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**FABRICATED ILLNESS AND HOMICIDE OF CHILDREN:
SOLVING COMPLEX MEDICAL PROBLEMS WITH THE HELP OF
A COMPUTERIZED DATABASE SYSTEM**

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ABSTRACT

Homicide investigations occasionally involve massive amounts of medical data. A computerized database system that could hold, organize, sort, and report on large amounts of complex medical data was not available, so one was developed. The database was designed for use in any case that involves medical data. It is especially useful in cases of suspected Munchausen Syndrome by Proxy, a particularly macabre form of child abuse that may terminate only with the homicide of a child.

MUNCHAUSEN SYNDROME BY PROXY

A small percentage of children who are seen repeatedly for medical care are not genuinely, or were not originally, ill. Instead, they are victims of persistently fabricated illness, usually at the hands of their mothers. This is Munchausen Syndrome by Proxy. The child victim may suffer devastating illness as a result; all the while, his mother, usually appearing loving and concerned, repeatedly presents him for medical care.

The most common ways of fabricating illness include: repeated suffocating; poisoning with a variety of substances that cause vomiting, diarrhea, decreased level of consciousness, or seizures; tampering with the child in various ways to cause bleeding; or surreptitiously introducing dangerous contaminants, such as feces or saliva, into a child's intravenous line.

Substantial proportions of children are killed in the context of Munchausen Syndrome by Proxy. Sometimes their deaths are misdiagnosed as natural or accidental, and their cases are closed permanently. In other instances, the possibility that a child's antemortem illnesses were due to fabrication is considered only postmortem, when someone involved in the death investigation recognizes a red flag (see Figure 1).

FIGURE 1: MUNCHAUSEN SYNDROME BY PROXY -- RED FLAGS

Considering possible genetic, metabolic, toxicologic, infectious, structural or environmental causes of death in the differential diagnosis, Munchausen Syndrome by Proxy should be suspected when a dead child's clinical history reveals one of the following:

- 1) A history of repeated medical visits for unusual, ill-defined or unpredictable illness [especially apnea and seizures that were never confirmed to be witnessed at their starting moment by anyone other than the mother]
 - and* a full medical evaluation of the child which revealed no organic abnormality that could fully account for the child's reported illness;
 - or* a partial medical evaluation of the child which excluded major medical causes for the child's reported illness;
 - or* any medical evaluation which came to a conclusion about the child's diagnosis but whose accuracy, upon review, is seriously questioned;
 - or* death at any age with cause listed as SIDS.
- 2) The age of child at death is outside the 2-4 month age range, and the cause of death is listed as SIDS;
- 3) The deceased child has a living sibling with current, or past, chronic ill-defined medical problems;
- 4) The deceased child has a (previously or subsequently) deceased sibling
 - and* the sibling's death is not clearly explained;
 - or* the sibling's listed cause of death is an illness that is rarely fatal in childhood;
 - or* the sibling's cause of death is listed as related to an accidental intoxication, or a highly unusual accident;
 - or* the sibling died following an illness that was presumed to exist, but which was either unsubstantiated or excluded at autopsy;
 - or* the sibling died following an ill-defined illness;
 - or* the sibling's cause of death is listed as SIDS.
- 5) An unrelated child in the same home has previously or subsequently died;
- 6) The deceased child's mother has chronic, ill-defined medical problems.

A red flag is not a diagnosis. The presence of any of the above clinical findings should spur further investigation, but none of them is a diagnostic criterion for Munchausen Syndrome by Proxy. A diagnosis of MSBP rests only upon clear evidence of illness falsification in the particular child at hand.

NEED FOR COMPUTERIZED DATABASE SYSTEM

If a child's death is suspected to have occurred homicidally in the context of Munchausen Syndrome by Proxy, it is important when possible to definitively include or exclude the diagnosis. Diagnostic strategies that might have been employed when the child was alive -- such as covert video monitoring in hospitals -- are no longer available once the child is dead. Further, other strategies, such as postmortem toxicology

tests, even when positive, may not help differentiate between an accidental and homicidal manner of death.

One diagnostic strategy, however, is almost universally possible and often diagnostically decisive: medical records review. In order to comprehensively conduct a records review, a computerized database system was needed for the following reasons:

1) *The data are voluminous*: Some medical records run to tens of thousands of pages, with each page containing dozens of pieces of information. The pivotal facts, and the *pattern of those facts*, though present in the medical record, have frequently been obscured by the sheer volume of information.

2) *The data are complex*: The significance of some information only becomes clear when seen in the context of other information. In other words, there are relationships -- some already known, some discoverable only by careful searches -- between pieces of information. These relationships do not figure importantly, or at all, in most other medical circumstances, but when trying to sort factitious from real illness, they may be pivotal. Thus, when Munchausen Syndrome by Proxy is suspected, the questions eventually asked of the data are significantly more sophisticated than those asked using a standard database that catalogs medical information about a patient.

3) *The legal implications are broad*: A wide range of civil and criminal matters is covered.

4) *The stakes are high*: Failure to correctly *identify* a case of Munchausen Syndrome by Proxy has resulted in the permanent disability or death of other children in the family; the failure to prosecute a killer; the enrichment of a killer who is remunerated with insurance benefits (life, property, fire), or is a successful litigant in a lawsuit against the doctor or hospital. Likewise, failure to correctly *exclude* a case of Munchausen Syndrome by Proxy could result in a serious genetic disease or environmental hazard going undetected; unwarranted governmental interference into the lives of grieving parents; unnecessary and devastating removal of siblings from the home; or wrongful prosecution, conviction, incarceration, or execution of an innocent mother.

NECESSARY SOFTWARE FEATURES

The first step was to choose the software in which the database would be developed. Since all software is flawed, the goal was to find the software that had the best combination of necessary capabilities, acceptable limitations, and endurable vexations. Microsoft Access 97 was chosen. It had the following necessary features:

1) *Storage Capability*: capacity to hold hundreds of thousands of records; each record able to hold up to 250 fields of data;

2) *Relational Capability*: permits bridging or -- "relating" -- collections of information, as long as the collections share a common component;

- 3) *Extensive Query Capabilities*: methods in which data can be searched for and filtered; and
- 4) *Technical Support Availability*: assistance by actual persons, rather than just books or technical support lines.

ASKING THE RIGHT QUESTIONS, IN THE RIGHT WAY, AND TRANSLATING THEM INTO DATA FIELDS

Records review will yield a reliable answer only if the right questions are properly asked. This involves:

- 1) *a first-pass read of the record* to determine if an organic illness that accounts for the child's illnesses and death was present. If so, no further assessment is necessary;
- 2) *creation of a list of initial major symptoms* to cite the reason child was brought for medical care and document signs (physical findings) of the child;
- 3) *development of the definitive set of questions* to address each symptom or sign;
- 4) *operationalization* of each question as a set of fields; and
- 5) *a second, exhaustive review of the records*.

For example, a first-pass read of a record reveals that a deceased infant had suffered recurrent apnea episodes (arrested breathing) for 3 months prior to death. The history, physical findings and laboratory tests appear to exclude an organic illness. Apnea is the major symptom. A few things that might be important to know about the apnea include: Who, if anyone, was with the child at the onset of each episode? What intervention was used by the person who saw or found the child? What was the condition of the child upon arrival of the paramedics? What tests were performed on the child? What was the child's course in the hospital, and over what period of time? The *operationalization* of each question means that the question is distilled to its component parts; then, an observable measure is selected for each part.

MAXIMIZING ACCURACY, COMPLETENESS, RETRIEVABILITY, AND UTILITY OF THE DATA

Records review must be done by someone intimately familiar with the meaning of both inpatient and outpatient pediatric records. This effectively means that a pediatrician should review the records.

All pages in the medical record must be numbered, and each piece of information entered into the database must reference the page.

It is usually neither necessary nor realistic to enter all data found in a medical record into the

database. In general, the data chosen must be pivotally important in illuminating the answers to the basic "Wh" questions: *What* is/are the diagnosis or diagnoses (discriminating between an organic diagnosis and fabricated illness)? If the diagnosis is inflicted illness, *who* did and did not have the opportunity to perpetrate it? If the diagnosis is inflicted illness, *where* was it perpetrated? *Where* was it not perpetrated? If the diagnosis is inflicted illness, *when* was it perpetrated?

At the outset, conventions that guide the selection of information for database entry must be established:

- 1) Decide which data will be entered completely (e.g., convention dictates that all sodium values ever performed on the child will be entered into the database);
- 2) Determine which data will be entered partially (e.g., established standard is that only abnormal hemoglobin results will be entered);
- 3) Formulate a consistent location of data within the database (e.g., when data could potentially be entered in more than one field in the database, determine where in the database this type of information is stored); and
- 4) Develop a standard code to indicate instances of unclear words or numbers (e.g., CRW means **Can't Read Word**).

UTILIZING THE DATABASE -- CASE EXAMPLES¹

Following is a demonstration of what the database system looks like and some examples of its capabilities.

The opening page of the database gives the user the choice of 3 major forms: 1) Hospital & Appointments Summary; 2) Medical Records; and 3) Tests and Test Results. Each form can be accessed by clicking on the respective button for that category.

The first form, Hospital & Appointments Summary, is where summary data are entered. When reported in chronological form, these data give a useful overview of the child's medical appointments and hospital admissions.

The second form, Medical Records, and all of its subforms, contain the relevant data on the child's medical histories, physical findings, diagnoses, physician orders, medical and surgical interventions, ward placement, visitors and contacts, and medical events. This category also records non-medical observations

¹A real-time demonstration of the database, projected onto a large screen, accompanied oral presentation. Unfortunately, it cannot be replicated in print.

of the child and family.

The third form, Tests and Test Results, and all of its subforms, store all the relevant data on the child's tests -- including Hematology, Chemistry, Urine, Coagulation, Microbiology, Radiology, Toxicology, Serology, Pathology and Other.

Following are two examples that show the utility of the database.

Example 1: Simple Use of the Database

F.K. was a male toddler. At age 3 he died from a fatally high level of sodium (salt) in his blood. Prior to his death, he had had a complex medical history and over 20 hospitalizations. There were 8,703 pages in his medical record.

One particular question required an answer: Did F.K. have evidence of a disorder of sodium -- a disease -- that could have caused the fatal sodium level? His medical record was searched for all values of premortem blood sodium tests. Each value was entered into the database, along with its test date, time, and location, and the page number in the medical record where the information was found.

All the values were then compiled into a report. There were over 200 tests for blood sodium. Analysis of the cumulative sodium data contributed to answering the above question -- determining that the child did not have a disease that caused his fatally high blood sodium.

Example 2: Complex Use of the Database

F.K. is the previously mentioned 3-year-old male who died of sodium poisoning. Approximately a year prior to his death, he was hospitalized because of recurrent episodes of bacterial infection of his blood. Once the possibility of immune disease was excluded by a series of tests, the question remained: Why was he getting these blood infections?

The answer to the question depended upon knowing the answers to a host of subquestions: With what was his blood infected? To which antibiotics were each of the bacterium sensitive? What antibiotics was he taking, in what dosages, when, and with what proof of adequate efficacy? When were blood cultures positive? When were blood cultures negative? When did he have a central venous catheter in? When and on which body sites did he have a peripheral intravenous line, and with which dates of complete IV site change? In which ward was he and when? When did he have constant nursing observation? When was each of his 64 nurses with him? Which family members were with him, and when?

Data corresponding to each of the above questions were stored in the database and for each question, a report was generated. For example, a report showing the dates, types, and sensitivities of the child's blood infections was generated.

Inspection of this report shows one of the reasons why a relational database system is necessary. There are three levels of so called *one-to-many relationships*. Commonly, *one* blood culture yields *many* different bacterial results. Each *one* of the bacterial results, in turn, yields *many* different antibiotic sensitivity results. A relational database system is equipped to handle multilevel one-to-many relationships.

For the critical six-week period when F.K was hospitalized and was repeatedly developing blood infections, other reports documented:

- 1) which antibiotics the child was taking;
- 2) when the child had blood studies to determine if the antibiotics were at therapeutic peak and trough levels;
- 3) when the child had negative blood cultures;
- 4) where on his body the child had intravenous sites;
- 5) when he had complete changes of intravenous sites;
- 6) which ward the child was on;
- 7) whether or not he had constant nursing observation;
- 8) which of the child's 64 different nurses was attending him at all dates and times; and
- 9) which visitors he had during this critical period, and the dates of the visits.

Examination of the data showed that the child's blood infections featured bacteria derived from contaminated water, soil, or feces. With that information, a timeline was developed using all of the data from the above reports. Examination of a timeline may show or exclude important patterns of events. Having all the data *simultaneously* and *visually* available was necessary to answer the original question: Why was F.K. acquiring these blood infections?

First, the timeline showed that F.K. did not develop the infections as a result of treatment failure, accidental central venous catheter, intravenous line or gastrostomy site contamination of his blood, or from ingestion of contaminated breastmilk. Thus, the only viable explanation for F.K.'s recurrent blood infections was intentional contamination of his intravenous lines.

Second, the timeline showed that the pattern of the child's infections did not coincide with the pattern of care by any of the 64 nurses, nor with the pattern of visitation by the child's father, more distant relatives, or friends. The timeline showed that the child's mother was the only person whose pattern of contact coincided with the child's pattern of infections.

SUMMARY

A computerized database system can be a useful tool in distinguishing a homicidal death from a death of some other manner. Such a database system was developed for child death cases where there are extensive medical records, and where analysis of those records would help characterize the cause of death and the medical events that preceded death.

The main asset of such a database is that it organizes and reports on vast amounts of data. While it is unquestionably more efficient than any non-computerized system, the main liability of the database is that it is still labor-intensive, and the possibility of data entry error exists. The main limitation of the database is its inability to interpret the meaning of the data. Interpretation of the data falls within the province of the physician.

DISCUSSION

Tom Petee: Henry, how was the role of victim precipitation addressed?

Henry Brownstein: Victim precipitation was assessed by means of asking the offenders a series of qualitative questions. In many instances, violence resulted from what the offender perceived as an insult or show of disrespect from the victim.

Dwayne Smith: Victim precipitation is in some respects a social construct and a subjective -- and often retrospective -- assessment of the offender.

Chris Rasche: Which may allow an opportunity for the offender to rationalize his or her behavior.

Tom Petee: In order to justify the crime.

Dick Block: I would suggest disaggregating the homicide offenders into those involving robbery and assault circumstances in which homicide is the outcome of another event.

Kathleen Heide: In Henry and his colleagues' study, it appears many offenders cite drug use at the time of the offense to rationalize their behavior.

Evelyn Kuhn: In our study of Milwaukee youth homicides during 1991 to 1997, alcohol and drug use was common among victims as well.

Becky Block: It is difficult to define victim precipitation. You may want to refer to a previous edition of the *Proceedings* for more information.

Gaby Salfati: My study showed how homicide crime scenes can be distinguished to a degree as expressive or instrumental.

Vanessa Leggett: Because most offenses/crime scenes possess both expressive and instrumental characteristics, the expressive/instrumental differentiation should be viewed as existing more on a continuum than as a dichotomy.

Becky Block: The expressive/instrumental scheme can be further disaggregated into rationally planned versus spontaneous characteristics.

Tom Marvell: In my study, I wasn't looking for absolute rates, but trends in victimization rates.

Dick Block: In Table A of your handout, Tom, is this percent change? Overall, the same things affect homicides in males and homicides in females. I advocate field studies -- multiple time series, with large

numbers and powerful controls for missing variables.

Cheryl Maxson: What does it mean?

Tom Marvell: Logarithm with census data combining state level, national data. Year effects tend to pick up.

Dick Block: Year effects are correlated.

Tom Marvell: While mismeasured, the population data are good.

Dick Block: When did they start doing the Consumer Price Index [CPI]?

Answer: Way back to the Thirties. PI by state to 1929, and executions, prison populations, etc., go way back. A big problem for field regressions is that fixed effects are a lot of what's going on. In the handout, Table A, race differences are striking between 1989 and 1990. Surely, it's associated with crack trade.

Cheryl Maxson: Two years ago, John Jarvis presented a logged analysis and got totally different findings.

Tom Marvell: If you do a bivariate analysis you get a different picture -- if you take out the war years.

Cheryl Maxson: What are the policy recommendations?

Tom Marvell: The situation is totally irrelevant. It's the criminal. Violence-against-women policies are all wrong; the situation is irrelevant. The guy is a bad guy -- everything else is irrelevant. There hasn't been much about regression here. Causation does require some sophisticated analysis.

Chris Rasche: Following up on the men: Aside from locking them all up, what else can we do?

Tom Marvell: If you can single out all the real bad guys, the real question is how you identify the very few criminals that commit the vast number of crimes. These guys are highly mobile; they're rootless.

Candice Batton: What about one-time homicide offenders?

Alan DeLine: There's an alarming number of murders. If you want to get away with murder, do it in a prison -- solvability is low. Maybe it's because we don't care about them.

Dick Block: What's the difference between a field study and a pooled time-series analysis?

Tom Marvell: Never trust the results of a panel study; statistical problems are too huge. Sociologists doing panel studies and don't know how to fix them.

Dick Block: Donna, what is the prevalence of Munchausen Syndrome by Proxy per 100,000 children?

Donna Rosenberg: We don't know the prevalence. I have more cases -- 75 or 100 cases. That's way more than most. In Colorado, there's about 75 to 100 pediatric deaths per year. Approximately 0 to 2 cases each year can be complicated and expensive.

Steve Roth: You talked about "red flags." Do you have physician medical involvement to take the tests?

Donna Rosenberg: Yes, we have different ways of getting all the records.

Question: Don't the doctors realize what is going on?

Donna Rosenberg: I think most doctors miss cases at some point in their careers. There are many doctors, many charts. The overview of a child's health can get lost. It's almost a sociological study of doctors -- how we're taught to think; or, how we're taught not to think.

Eric Larson: How do you handle missing data?

Donna Rosenberg: I can't do anything about missing data. All I can say is I don't know. If a critical piece is missing, I can say I can't interpret it.

Dick Block: Where do you get your questions? With such vast amounts of data, what do you choose to ask?

Donna Rosenberg: I do a first pass read of the record, and figure out the main medical issues and describe what data I'm going to capture. That's the hard part -- figuring out the question; the rest is just "counting beans."

Dick Block: How do you know it's the same kid? Maybe the mother is giving different names -- so many hospitals, so many doctors.

Donna Rosenberg: The records are subpoenaed -- medical records, from medical departments -- the mother provides a list, medical insurance provides a list of who they have paid. The most reliable method is to canvas hospitals with subpoenas in the geographic area.

Dick Block: It might be valuable to link this to other databases -- like Aid to Dependent Children -- to find out other parts of the history of the child.

Donna Rosenberg: That's true. We can search the databanks, for child, alleged perpetrator. What is helpful is deposition records. I also get law enforcement data.

Question: Sounds like you are starting from dead children -- cold bodies. When can you begin to use this proactively?

Donna Rosenberg: This can be used to prevent deaths of future siblings and can be used to exclude Munchausen Syndrome by Proxy.

Mary Beth Emmerichs: What's the very first "flag"?

Donna Rosenberg: The volume of medical records, inaccuracies, an unexplained health problem in a child -- that's more reliable.

Question: Why is this not useful in a court of law?

Donna Rosenberg: The information is fine, but the format must be large for reading.

Doreen Hanson: Is this a more middle-class issue?

Donna Rosenberg: Yes, generally. They usually have not had prior involvement with the system.

Question: Have all the children died?

Donna Rosenberg: No.

Question: Are profiles of alleged perpetrators available?

Donna Rosenberg: No. The range of characteristics is too broad; this overlaps with so much else. Nothing is particularly unique or material to diagnoses.

Question: Do insurance companies continue to pay for this?

Donna Rosenberg: Yes. Nurses often catch it.

Becky Block: Could you describe your train of logic? Is it possible to write out your logic so you can teach someone else?

Donna Rosenberg: I've written a lot about that.

Dougie Eckberg: This morning there was a woman accused of killing eight of her children -- passing them off as SIDS deaths.

Donna Rosenberg: SIDS basically means: A child died, we don't know why. But we don't know if that's because of faulty/inadequate investigation. Cases may be misdiagnosed. Of one sample of 117, about 10 were SIDS, 5-6 were misdiagnosed as Munchausen Syndrome by Proxy.

Billie Weiss: In Los Angeles, all SIDS cases are reviewed by a Child Death Review Team.

Donna Rosenberg: Sudden death in infancy has standardized variables for surveillance.

CHAPTER FOUR

GUN-RELATED RESEARCH AND RESEARCH IN PROGRESS

USING FEDERAL FIREARMS LICENSES (FFL) DATA AS AN INDIRECT MEASUREMENT OF GUN AVAILABILITY

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ABSTRACT

Unraveling the linkages between gun availability and violent deaths from homicide, suicide, and accidents is a major area of research in the social science and public health fields. Although the number of empirical studies addressing these issues continues to expand at a rapid rate, definitive answers to basic questions, for example, whether gun availability is directly related to homicide rates, have remained elusive. In this paper, we argue that aggregate-level research on firearms and violence has been limited by the scarcity of direct measurements of gun availability, and recommend using data on federal firearms licenses (FFLs) as an indirect measurement

INTRODUCTION

Policy debates over the acquisition and carrying of firearms, especially handguns, have become a persistent characteristic of the political landscape in the United States during the latter decades of the 20th century. Recent attention has focused on the passage, implementation, and impact of the 1993 Brady gun control law. Other legislative measures, including increasing the penalties for crimes committed with guns and permitting private citizens to carry concealed guns in public places, have also received close scrutiny by policy makers, scholars, and the media. Voluntary organizations supporting significantly greater legal controls over firearms, e.g., the Coalition to Stop Gun Violence, and opposing further restrictions on law-abiding adults' right to purchase and possess firearms, e.g., the National Rifle Association, vie for the allegiance of politicians and the public.

Widespread concern over the possible linkages between guns and violence provides the foundation for the ascendancy of firearms control as a political issue. The United States consistently posts the highest homicide rate among industrialized nations, and approximately two-thirds of these killings are committed with firearms, more often handguns than rifles and shotguns. Even though the overall rate of gun ownership in the United States is surpassed in Switzerland and perhaps a few other industrialized nations, the level of domestic armaments in private hands is truly impressive. Estimates vary, but there are more than 200 million guns in current circulation in the United States, and approximately 50% of households possess one or more firearms (Kleck, 1997).

Unraveling the impact of high gun availability on the volume of violent deaths and injuries has proven difficult. There is an emerging agreement that, because of their greater lethality, the use of a firearm in a

crime increases the risk of death for the victim(s) (Barlow & Barlow, 1998; Felson & Messner, 1996; Kleck & McElrath, 1991). Whether gun availability increases the level of interpersonal violence *per se* remains an unanswered question, however. Summarizing a review of the extant literature, Kleck (1997, p. 383) concludes that “(l)evels of general gun ownership appear to have no significant net effect on rates of homicide, rape, robbery, or aggravated assault. . . .” Although many researchers would dissent from this viewpoint, we agree that the current empirical evidence on the linkage between gun availability and violent crimes, including homicide, is inconclusive.

In this paper, we contend that research on firearms ownership and homicide (as well as other violent offenses) has been hampered by limitations of the existing data on gun availability. We first review the direct and indirect measurements of gun availability that have been used by researchers and discuss sources of firearms in the United States. We then recommend the adoption of federal firearms licenses (FFLs) per capita, an indicator of the size of the retail firearms market, as a preferred indirect measurement for aggregate-level studies. Regression analyses show that county-level social and demographic indicators predicting variation in the size of the retail firearms market closely correspond to those that predict gun ownership at the individual level.

MEASUREMENTS OF GUN AVAILABILITY

Direct Measures

There are two direct measures of gun availability in the United States, survey data and production records of the number of firearms manufactured (Kleck, 1991). Both are widely used in studies of firearm ownership and violent crime, but each has significant limitations. The major source of survey-based measurements of gun availability is the General Social Survey (GSS), a nationally representative survey that was conducted annually for several years and is now completed every other year. Although Lester (1988) and others have aggregated GSS data to compute gun ownership estimates for the nine census subregions, their primary usefulness is for cross-sectional and time series analyses at the national level. Notably, they are inappropriate for research designs using counties, cities, or metropolitan areas, the units of analysis that are the focus of a substantial level of research on violent offenses. Scholars have relied on smaller scale surveys for particular states (e.g., Lizotte & Bordua, 1980) or metropolitan areas (e.g., Young, 1985) for investigations of issues related to firearms ownership, but the availability of these data is limited.

Furthermore, there is a persistent question concerning the validity of survey data on who owns guns in the United States. Beginning with Erskine (1972), several investigators have suggested that there is a systematic underreporting of gun ownership. Some persons may prefer to hide what is viewed as a stigmatized behavior in some circles. There may also be a reluctance to divulge firearm possession based on fears of future confiscation, i.e., “They can’t take my guns if they don’t know about them.” And some respondents may be uncertain about the legal status of one or more guns in their possession. Although this possible undercount of firearms would not bias results of multivariate analyses of violent crimes unless it was systematically related to other independent variables, it does introduce a further reason for caution in relying on survey data for estimates of gun ownership. Our primary point is that limitations in available survey data

restrict the research designs that may be adopted by scholars studying the linkage between gun ownership levels and rates of violent crimes.

Production-based measurements of gun availability are typically calculated by adding the number of firearms manufactured in a given year to the available stock, adding imports, and subtracting exports. They have been used in several studies (Kleck, 1979, 1984), but there are questions about how to compute an attrition rate. In other words, although guns are a relatively durable consumer product, some are lost or misplaced, others are disposed of purposefully, and most will eventually fail to fire. More importantly, these estimates are a useful indicator of the number of guns in civilian hands, but provide no information on the location or the owners of the firearms. Therefore, they are appropriate only for time series analyses at the national level.

Indirect Measures

In addition to estimates of gun ownership derived from survey and production data, researchers have adopted several indirect measures, including firearm homicides and suicides, gun licenses and registrations, the percentage of robberies and aggravated assaults committed with guns, and subscriptions to gun magazines (Kleck, 1997). The findings and implications of studies using these proxy variables are mixed, but many of them are of questionable validity. It is well known that with the exception of murder, official crime data seriously underreport the level of violent crime (O'Brien, 1985). Of particular concern is whether the under reporting of gun-related offenses is consistent across cities or other units of analysis. And similar questions have been raised concerning official suicide data (Pescosolido & Mendelsohn, 1986). Gun licenses and registrations may provide comparable estimates of firearm ownership for political subdivisions within a state, but variation in requirements across states and time periods limits their utility for both cross-sectional and time series analyses. These measurements have been used for a majority of studies linking firearm ownership and violent offenses, however, and some have been validated through comparison with more direct estimates. Perhaps the most widely used is the gun suicide rate.

Because suicides, homicides, robberies, and aggravated assaults with firearms are relatively rare events in political subdivisions with smaller populations, e.g., rural counties, stable estimates across the continuum of urban and rural communities are difficult to obtain with most of the indirect measures discussed above. With a few exceptions (Bankston, Thompson, Jenkins, & Forsyth, 1990; Bordua & Lizotte, 1979), most studies of firearms have excluded rural areas. This restriction is especially important because surveys consistently show higher rates of gun ownership in rural areas; therefore, most studies of firearms and crime have excluded communities with the highest levels of gun availability.

An innovative approach to measuring gun availability at the aggregate level is proposed by Gundlach (1990). Specifically, he (1990, p. 8) advocates the use of the "count of retail outlets listed under 'guns' or 'firearms' in the Phonefiche version of the... Yellow Pages" as an indicator of relative access to firearms. For 1980, this measurement is highly correlated ($r=.90$) with the firearm suicide rate for a sample of 77 Metropolitan Statistical Areas (MSAs). To our knowledge, this measurement has been used in only one other empirical study (Stack & Gundlach, 1992), but it is a creative strategy that avoids many of the problems associated with other indirect, or proxy, variables for firearm ownership that are noted above.

A potential source of bias is the practice of businesses advertising in directories outside the city or county where they are located, however. In the November 1998 issue of the *Greater Orlando Yellow Pages*, only two of the 28 listings under “guns and gunsmiths” are outside the three-county region, but we do not know if this is a typical pattern for other metropolitan areas. It is noteworthy that most pawnshops in the Orlando area, including some promoting guns in their advertisements, are not listed under “guns and gunsmiths.” Computing this measurement of firearm availability for a large number of political subdivisions would be time consuming, but we believe that Gundlach’s approach is a step in the right direction.

FFL Data

An alternative measurement of the relative size of the retail firearms market in communities is the number of FFLs issued by the Bureau of Alcohol, Tobacco and Firearms (ATF). Beginning with October 1993, monthly counts of FFLs are available on a machine-readable data file (MRDF) under the Freedom of Information Act from Basic Information Systems, a private firm that contracts with the ATF. FFL data offer several advantages when compared to the Phonefiche Yellow Pages. First, FFL data are more inclusive because they include firearm dealers who operate from their homes and do not maintain separate business addresses and telephone listings. Because the data for each FFL includes the business address when one exists, however, researchers may easily distinguish between “store front” and “kitchen top” dealers, those with and without a regular place of business. Second, the location of each FFL by both state and county are included in the data file, so counts for most of the political units that are of interest to scholars can be readily obtained. Importantly, FFL data provide an accessible indicator of the size of the retail firearms market in rural as well as metropolitan areas. Third, the problem of multiple listings by gun dealers and other businesses in yellow pages noted above is avoided with FFL data. And, finally, because data on all FFLs in the United States are available in a single MRDF, they are easier to use than corresponding data from telephone directories.

Obviously, whether measured through telephone directories or FFL records, the retail market does not exhaust the sources of firearms available to motivated buyers in the United States. It is useful to distinguish between three distinct but overlapping gun markets; retail, secondary, and illegal. The retail market is comprised of sporting goods, department and discount stores, pawnshops, and individuals, and it provides new and used firearms to customers. It is regulated by the ATF, and sellers must possess a FFL that, once obtained, is renewable upon payment of the appropriate fee. In addition, there is an active secondary market, consisting of gun shows, flea markets, garage sales, and private exchanges, through which guns change hands after their initial purchase. Third, there are illegal markets that provide types of guns that are illegal *per se*, e.g., some assault weapons, move stolen firearms into private hands, and sale to persons who are under the legal age for purchasing particular types of firearms.

The linkages between retail, secondary, and illegal gun markets are complex. FFL holders are a significant percentage of the sellers who operate at gun shows that comprise a major segment of the secondary market. In addition to firearms taken from individuals, thefts from retail outlets provide a significant percentage of the stolen guns that are resold to individuals each year (Cook & Moore, 1999). Juveniles sometimes acquire guns from retail outlets indirectly through intermediaries who meet the legal

requirements for purchasing them, i.e., “straw purchases.” Some dealers and other federal firearms licensees knowingly violate the legal requirements by selling guns to juveniles, felons and others who are excluded from purchasing and/or possessing firearms. While the retail market is not the *only* source of firearms for buyers, it is reasonable to assume that it is the *original* source of the vast majority of guns that are owned and exchanged by private citizens in the United States. Furthermore, it is the primary source for ammunition and other merchandise that are regularly purchased by gun owners. Our basic premise is that there is a significant, positive correlation between the per capita size of the retail gun market and firearm ownership, or gun availability, at the individual level across political subdivisions in the United States. In other words, communities with higher percentages of gun owners will support larger per capita retail markets for firearms and related supplies.

Although FFL data provide significant advantages as an indicator of gun availability at the aggregate level, they have been used in only a handful of empirical studies (Corzine, Huff-Corzine, & Weaver, 1998; Weaver, Huff-Corzine, & Corzine, 1999). Because they are a new measurement, assessing their validity is an important stage before their adoption by a larger number of researchers can be expected to occur. In the remainder of the paper, we examine the correspondence between county-level variables that influence the size of the retail firearms market and individual-level variables that are related to gun ownership.

WHO OWNS A GUN?

While we can not directly compare gun ownership rates and the size of the retail firearms market at the county level, research has consistently found that several demographic and socioeconomic characteristics influence the odds that a person will own a gun. In fact, the consistency of research results addressing the question of “who owns guns” emerges as a notable exception to the discrepant findings and controversies that mark research on gun issues in the United States (for useful reviews of this literature, see Kleck, 1997, and Wright, Rossi, & Daly, 1983). Men and Whites are more likely to own firearms than women and minorities (Kleck, 1997), although racial differences disappear in rural areas (Wright, Rossi, & Daly, 1983). Generally, higher socioeconomic status is positively related to gun ownership, but the relationship appears to be more linear for income than for education. The age categories employed in previous studies vary, but there is a clear pattern for the middle-aged to own firearms more often either younger or older persons. And prior studies have shown that Protestants are more likely to own guns than members of other religious faiths, although this relationship may reflect the influence of religious fundamentalism (Young & Thompson, 1995).

In addition to individual-level characteristics, research has consistently found that type of residence has a strong impact on gun ownership. Specifically, persons living in rural areas have significantly higher levels of gun ownership than their urban counterparts. This difference undoubtedly reflects the greater popularity of hunting as a recreational pursuit in rural areas, and intergenerational transmission of firearms as a normative part of family life. Most surveys find Southerners to have the highest rates of gun ownership, although those in the Rocky Mountain and Midwestern states do not lag far behind. It has been questioned whether Southerners’ propensity to possess firearms reflects a distinct regional tradition or simply that they

are more often socialized in rural areas, however (Young, 1986).

There is substantial controversy over the presumed relationship between fear of crime and firearms ownership. Some authors assert that fear of crime drives the acquisition of firearms, but the results of studies are mixed. In what is one of the more significant tests of this relationship, Bankston et al. (1990) report no relationship between fear of crime and *carrying a firearm for protection*. There is evidence that fear of crime may be a more important factor in the decision to own a firearm for women than men (Young, 1986). At the aggregate level, Kleck (1979) found that changes in the homicide rate over time were positively linked to subsequent changes in gun ownership levels, but his study used a production-based measurement of gun ownership instead of survey data. Although we find the argument that it is higher levels of gun ownership that increase the homicide rate to be more compelling (but admittedly unproven), the county homicide rate is included as an independent variable in the analyses.

Finally, counties that are larger in size would be expected to support a higher number of retail outlets for firearms per capita than smaller counties. We do not assume that size of county has any direct influence on the propensity to own a firearm at the individual level, only that more outlets will be necessary to supply the needs of a geographically dispersed population.

DATA AND METHODS

Dependent Variable

The dependent variables are the number of FFL licenses per county as of October 1, 1993. Type 1 FFLs are issued to gun shops, sporting goods stores, department stores, most other businesses, and individuals who deal from their homes. Type 2 FFL licenses are specifically issued to pawn shops. Because preliminary analyses showed differences in the patterns of results for Type 1 and Type 2 licenses, results of regressions for the size of each type of gun market are reported separately. To control for differences in the size of county populations, we calculate the number of Type 1 and Type 2 FFLs per 10,000 persons.

The units of analysis are counties in the 48 contiguous states. Our early analyses of the FFL data showed an anomaly for the state of Texas; there were no FFLs listed for over one-half of the counties. Contacts with employees of Basic Information Systems and the ATF provided no explanation for what everyone agreed were obvious omissions for a state with a high rate of gun ownership. Although it would have been possible to examine FFL data for other months, e.g., November or December of 1993, the inability of Basic Information Systems to explain the missing data makes it unlikely that the problem was soon resolved. Because we wanted to use FFL data for a time period as close to the 1990 census that provided most of the data for the independent variables as possible, we excluded Texas counties from the analyses. An examination of the data for each state did not identify other problems.

A potential source of bias in our analyses is that the measurement for the two dependent variables are based on 1993 data, while most of the independent variables in the models are taken from the 1990

census. There has been a sharp decrease in the number of FFLs following the implementation of the Brady Act in 1994, but numbers were relatively stable during the early 1990s. Therefore, we do not believe the time difference in the measurement of variables will significantly influence the results. The most important consideration, however, is that no counts of FFLs are available prior to October 1993.

Independent Variables

The measurements for most of the independent variables are straightforward and taken from the 1990 U.S. Census. Sex, race, and age differences between counties are measured by the percentage of males (% Male), the percentages of Whites (% White) and persons between the ages of 30 and 54 (Ages 30-54), respectively. Mean income level (Mean Income) is used as an indicator of the socioeconomic status of counties, and their area is measured in square miles (Square Miles).

As noted above, previous research has found that both rural residents and Southerners are more likely to own firearms, with both relationships linked to early socialization into cultural traditions that approve of weapons possession. The type of residence is measured by the percentage of the county population living in rural areas (% Rural). Region is often measured at the nominal level by dummy variables for southern versus non-southern units of analysis based on census definitions, but we use the percentage of the county population born in the census South (% Born in South) as a more refined indicator of socialization experiences.

The measurements of two variables are taken from noncensus sources. Although they pose a national problem, homicides are a rare event in many counties, especially those with smaller populations. Therefore, the homicide rate is calculated as the three-year average for 1989-1991 per 100,000 population to provide a stable indicator and to decrease the effect of yearly fluctuations. The numbers of killings by county are taken from Vital Statistics records. The religious affiliation variable is the percent of the county population identified as affiliated with a Protestant denomination, derived from data in Bradley et al. (1991).

Analyses

Regression diagnostics of variables and estimations of regression models were completed with the SPSS-PC statistical package. The age variable (Ages 30-54) was transformed to logarithmic form to correct for skewness. Variance inflation factors (VIFs) were computed to test for possible bias from multicollinearity between the independent variables in the regression models. All of the VIFs were below 4, the most conservative indicator of potential multicollinearity problems that to our knowledge is recommended in the literature (Fisher & Mason, 1981).

Before proceeding to the findings, it may be useful to restate our primary purpose in this study. We are contending that FFL data as an indicator of the size of the retail gun market provide an indirect measurement of gun availability at the aggregate level that is preferable to the ones that have been used in previous studies. Our goal is to assess their validity by regressing the size of the retail gun market (as

measured by FFL data) on aggregate-level characteristics, e.g., % Rural, that correspond to individual-level characteristics that are known to influence firearm ownership, e.g., rural residence. The following pattern of relationships would support the validity of FFL data. Ages 34-50, % Male, % Born in the South, % White, % Rural, % Protestant, and Mean Income should have positive and significant relationships with the FFL Rate. Prior findings on the relationship between fear of crime and gun ownership are mixed, but there is a weak expectation that Homicide Rate will be positively related to the FFL rate.

FINDINGS

The zero-order correlations for variables in the regression models are provided in the Appendix. Interestingly, the correlations for many of the independent variables have opposite signs for Type 1 and Type 2 FFLs. The regression results are reported in Table 1. The first and second columns include the coefficients for Type 1 FFLs. Overall, the relationships are consistent with what would be expected on the basis of survey data on gun ownership. Specifically, the size of the retail firearms market is larger in counties with higher percentages of males, Whites, Protestants and middle-aged persons. Furthermore, % Rural is positively and significantly related to the number of FFLs per capita; in fact, it has the strongest relationship with the dependent variable (Beta=.386). This finding is consistent with surveys that consistently show rural residence to be one of the strongest predictors of gun ownership by individuals.

Two findings in the regression of Type 1 FFLs are not consistent with survey data on gun availability. While % Born in South and Mean Income are significantly related to the size of the retail firearms market, the direction of the relationship in each case is negative. Although it is commonly used in social science research, the mean income of the population may be an inadequate indicator of socioeconomic status in the context of the present study. Notably, the correlation between the size of the retail firearms market and Mean Income is also negative, so the regression result is not produced by introducing controls for other variables. The negative relationship between the percent of the population with southern roots and the FFL rate is more surprising, but further clarification of this finding is provided by the regression of Type 2 FFLs in columns 3 and 4.

Counties with higher homicide rates have larger retail firearms markets, but the relationship is not significant. As expected, the geographical size of the county positively affects the FFL rate apart from demographic and socioeconomic characteristics of the population. Once again, we do not attach substantive significance to this finding.

The regression results for Type 2 FFLs, i.e. pawnshops, show both similarities and differences with those for Type 1 FFLs. Perhaps the most important finding is related to the regional origin of the population. The relationship between % Born in the South and other retail firearms outlets was unexpectedly negative (columns 1 and 2), but the higher percentages of native Southerners is significantly and positively related to the per capita number of pawnshops with FFLs. This finding deserves more in-depth attention from researchers. Because counties with higher percentages of persons born in the South are not surprisingly concentrated in the census South, it suggests that pawn shops may be a more important

source of firearms in the southern region than in other parts of the United States.

TABLE 1: OLS REGRESSION ANALYSES OF COUNTY FFL RATES, TYPE 1 AND TYPE 2 (N = 2851).

	Type 1: Retail Outlets		Type 2: Pawn Shops	
Variable	Unstandardized Coefficients (b)		Standardized Coefficients (Beta) Unstandardized Coefficients (b) Standardized Coefficients (Beta)	
Ages 30-54	107.709	.073***	8.809	.070**
% Male	599.843	.071***	19.361	.027
% Born in South	-.922	-.269***	.219E-02	.317***
% White	.708	.075***	9.224E-02	.116***
% Rural	1.800	.386***	-2.267E-02	-.057**
% Protestant	33.768	.131***	-.621	-.028
Mean Income	-3.615E-03	-.070**	-1.105E-03	-.254***
Square Miles	2.427E-02	.232***	1.449E-03	.164***
Homicide Rate	.708	.029	.199	.097***
R ²	.333	.184		
F	157.943***		71.046***	
Constant	-56.926		17.344	

$p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Several findings from the regression of Type 2 FFLs reflect pawnshops' status as an urban institution that draws a large segment of its clientele from persons with lower socioeconomic status. Both % Rural and Mean Income are negatively related to Type 2 FFLs. The rates of both Type 1 and Type 2 FFLs are higher in counties with greater percentages of Whites and the middle-aged in the population. The coefficients for % Male and % Protestant are not significant.

Similar to the results for retail outlets (Type 1 FFLs), the rate of pawnshops that sell guns is higher in counties with larger geographical areas. Finally, the homicide rate is significantly and positively related to the rate of Type 2 FFLs.

DISCUSSION AND CONCLUSION

Our goal in this paper was to assess the validity of FFL data as an indirect measurement of gun availability at the aggregate level. As noted above, FFL data offer several advantages for calculating the size of retail firearms markets in counties and other political subdivisions. Survey data on gun ownership provide what are probably the most valid indicator of gun availability for cross-sectional studies, but they are routinely collected only at the national level. We compare the size of retail firearms markets in counties to the results of surveys by regressing rates of Type 1 and Type 2 FFLs on aggregate-level variables that correspond to the demographic and socioeconomic characteristics that are significantly related to gun ownership by individuals.

What do the results show? There is substantial support for using Type 1 FFLs, those representing retail outlets with the exception of pawnshops and individual dealers, as an indirect measurement of gun availability. Corresponding to survey results, the size of the retail firearms market is directly related to the percentages of males, Whites, the middle-aged, Protestants and rural residents in counties. The relationships for two other variables, mean income and percent born in the census South, are opposite what would be expected from survey studies, but the latter findings apparently reflect differences in the composition of retail firearms markets in areas with large numbers of native Southerners. On the other hand, Type 2 FFLs representing pawnshops do not appear to be a valid measure of gun availability.

The use of FFL data by investigators will provide more flexibility in designing studies focused on the relationship between guns and violent events, including homicides, suicides, and accidents, but they are not a panacea. As noted above, they are easily available at a modest cost from Basic Information Systems, but combining them with other data files can prove tedious. The state codes for the data file are Internal Revenue District Codes, and county codes within states are based on alphabetical listings. The number of FFLs by county are easy to calculate, but the organization of the data makes it difficult to easily merge the data with files using the familiar FIPS codes for counties. Additionally, our preliminary work using FFL data as an independent variable in studies of homicide and suicide indicates that researchers must be attentive to potential outliers. Specifically, there are several sparsely populated counties, mostly in the

West, that apparently attract large numbers of hunters from other areas. As a result, their FFL rates are extreme values that can unduly influence regression results. Nevertheless, these are routine problems that can be easily resolved by experienced researchers. Because they offer substantial advantages over current alternatives, we recommend the adoption of FFL data as an indirect measurement of gun availability for research using political subdivisions as units of analysis.

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APPENDIX: CORRELATION MATRIX FOR VARIABLES INCLUDED IN OLS REGRESSION ANALYSES OF COUNTY FFL RATES.

	LOG % 30-54	% Male	% Born South	% White	% Rural	% Prot	Mean Income	Square Miles	Hom Rate
Log % 30-54	1.000	.220	.060	.103	-.156	-.080			

.587
.016
-.030
-.031
-.031

% Male		1.000	-.258	.300	.182	-.202	.041	.236	-.181
% Born South			1.000	-.601	.089	.258	-.244		

-.252
.554
-.285
.307

% White				1.000	.075	-.176	.157	.164	-.608
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.281
-.131

% Rural					1.000	-.033	-.523	-.069	-.035
% Prot						1.000	-.021	-.161	.139
Mean Income									

1.000
-.024
-.198
-.163
-.263

Square Miles								1.000	-.055
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Hom Rate									1.000
FFL Type 1									
FFL Type 2									

1.000

MATCHING HOMICIDE REPORTS AND DEATH RECORDS IN CALIFORNIA (Research in Progress)

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ABSTRACT

The California Department of Health Services (DHS), Epidemiology and Prevention for Injury Control (EPIC) Branch, matched and linked homicide records from the Department of Justice (DOJ) with death records from DHS for 1990 through 1997. The matching was performed using Automatch¹ probabilistic matching software. During the 8-year period, there were 30,065 homicides, according to DOJ records, and we linked 26,637 (88.6%) of these to death records. The variables common to each data source were in good agreement in the linked file. This linkage process is accurate and useful for studying homicide in greater detail.

BACKGROUND

California accounts for approximately 18% of the nation's homicides. Unlike most other states, firearms are used more often to commit homicide than suicide in California. To understand homicide and its causes, we need detailed data to identify risk factors. Death certificates in California are completed by the presiding physician at the time of death or, in the case of homicides, by the coroner or medical examiner who investigates all sudden and unexpected deaths. These records may have detailed information on the victim (cause of death, age, race, marital status, education level, etc.) but they do not contain information on the circumstances of the homicide. Homicide reports are completed by local law enforcement officers investigating the case. These reports have more detailed information on the circumstances of the homicide (suspect information, weapon type, precipitating event) but information for the victim may not be as complete. Combining these two data sources gives us the opportunity to utilize the strengths of each.

MATCHING PROCESS

All injury deaths (E-codes 800-990) from DHS death records were available as potential matches to homicide reports from DOJ. Five blocking passes were used in the matching process. These passes

¹Matchware Technologies, Inc. (version 4.0). Mention of Automatch does not constitute endorsement of product by DHS.

searched for potential matches using the following criteria:

Pass 1 – Victim’s social security number

Pass 2 – Last name and first name¹

Pass 3 – Date of injury (DOJ) and date of incident (DHS)

Pass 4 – Date of injury and date of death (DHS)

Pass 5 – Last name, county, and sex

After each pass, all DOJ records that matched with a DHS record were evaluated on other matching variables to determine if they were a “true” match.

Matches were considered “true” matches if one of the following criteria were met:

Exact match on social security number AND full name

Exact match on full name AND date of injury/death

Exact match on full name AND (date of injury/death within 10 days) or (county codes match or contiguous and age within 10 years)

Exact match date of injury/death AND first or last name match AND (county codes match or contiguous) or (age within 5 years)

Cases that did not meet the above criteria due to typographical errors, etc. but met a predetermined level of probability for matching were put in a clerical file for manual review.

RESULTS

From 1990 through 1997 there were 30,065 homicides, according to DOJ reports. Of these, we linked 26,637 (88.6%) with death records. The death records agreed that homicide was the cause of death in more than 99% of the matched records. Of the 20,013 records coded as firearm homicide in the DOJ file, the DHS file was in agreement in 19,272 (96.3%) cases:

131 DOJ gun homicides were coded by DHS as unintentional gunshot wounds

38 DOJ gun homicides were coded by DHS as gun suicides

15 DOJ gun homicides were coded by DHS as gun injuries of undetermined intent

Sex was in agreement in 99.7% of the cases. Race (White, Black, Hispanic, Asian/Pacific Islander, other) was in agreement in 93.5% of cases. Age was in agreement in 79.9% of cases and it was within 3 years in 94.9% of cases.

¹Last name and first name are based on the New York State Identification and Intelligence System (NYSIIS) codes. This system uses common aliases for specific names to capture possible matches.

LIMITATIONS

The 11.4% of DOJ records that we could not match may very well be documented in DHS records, but the discrepancy between matching variables was too wide to justify matching. Some of the unmatched records may not have had an available death record with an injury E-code. The 184 cases not coded as gun homicide on death records are examples of the discrepancy between the two coding sources. Care was taken to capture all matches by searching for matches in different years. For example, if an incident occurred on December 31, 1995, but the victim did not die until the next day, DOJ may record this homicide in their 1995 file where DHS would include it in their 1996 file.

CONCLUSIONS AND RECOMMENDATIONS

Linking death records with supplemental homicide report data can be useful for homicide surveillance. The two data sources described here are valuable on their own, but linked together the strengths of each can be utilized to study homicide. For instance, looking at death records alone would not tell us anything about the circumstances of the homicide. We would not know the relationship of the suspect, the events that precipitated the crime, or the specific weapon type. With homicide reports we could get much of the information surrounding the event but the victim's data is not necessarily accurate or complete.

This matching process is only the first step. We must evaluate these data to determine what information we still must incorporate to provide a truly comprehensive homicide dataset. We can use this dataset to provide feedback to the source agencies (DOJ and DHS) so they can determine common discrepancies and try to correct them. These data are only valuable if utilized. Our next step is to disseminate this dataset to researchers and the public via electronic file and an internet website. Other agencies considering this process should be aware that the Automatch software we used is no longer available for purchase. An upgraded product is available through the company that purchased Automatch. The matching process can take a great amount of time, depending on the size of the datasets involved and how much subjectivity is desired. For instance, clerical cases are reviewed manually and the lower the weights for matches, the more clerical cases the reviewer has to review.

HOMICIDE GUN CHARACTERISTICS BEFORE AND AFTER THE 1994 CRIME BILL

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ABSTRACT

The Violent Crime and Law Enforcement Act of 1994 banned designated semi-automatic assault weapons and large-capacity magazines. To analyze the effectiveness of these provisions, we looked at changes in Milwaukee County in the frequency of use of banned firearms in homicides, the magazine capacity of firearms used in homicides, and the number of entrance wounds in homicide victims. This short-term evaluation in a single county found no significant expected changes in the use of the firearms, magazines, or in the number of wounds. Further analysis and evaluation of the effects of the federal assault weapon ban are warranted.

INTRODUCTION

The Violent Crime Control and Law Enforcement Act of 1994 (Title XI, Subtitle A) went into effect on September 13, 1994. This Crime Control Act banned the manufacture, transfer, and possession of designated semiautomatic assault weapons, but does not apply to the possession or transfer of firearms lawfully possessed on the date of enactment. The Act also banned the manufacture of large capacity (greater than 10 rounds) ammunition magazines but did not ban the sale or possession of those already made. Subtitle A of the Crime Control Act defined assault weapons in the ban to be any of 19 listed firearms, or copies or duplicates of the firearms in any caliber.

This policy intervention and its impact on crime and homicides have received limited study. Firearms with features such as high capacity magazines, folding rifle stocks, threaded barrel tips, and barrel shrouds were perceived as highly lethal. However, such firearms were being used in a low proportion of gun crimes, less than 8 % by most estimates (Roth & Koper, 1997 and 1999). Consequently, the policy intent of the Crime Control Act of 1994 and its effects may be difficult to measure. Currently, there is no national system of information that can readily evaluate this policy.

This analysis seeks to determine whether the Crime Control Act affected the nature of guns used in homicides, or confiscated at homicide crime scenes in a defined geographic area. Two potential effects are examined: the frequency of use of banned firearms, and the magazine capacity of firearms.

METHODS

All firearm homicide records from the Firearm Injury Reporting System from 1991 through 1996 for Milwaukee County were reviewed. The Firearm Injury Reporting System (FIRS) of the Medical College of Wisconsin (MCW) utilizes the public health model of host (victim), agent/vehicle (firearm), and environment for data collection and linkage. All fatal firearm events occurring in Milwaukee County were reviewed.

In FIRS, the following information regarding the victim is collected from the Medical Examiner (ME): name, address, type of death (homicide, suicide, unintentional, undetermined), age, race, sex, marital status, education, occupation, location of injury and death, weapon specification in suicides, unintentional and undetermined deaths, anatomical gunshot wound findings, cause of death, alcohol and drug usage, and the law enforcement agency investigating the death.

The case is linked with the appropriate law enforcement agency by utilizing the name, date of birth, and date of death of the victim from the ME files. From the closed case files (cases not under active investigation, estimated 90% clearance rate), the following information, primarily on the environment, is collected: demographics on the perpetrator(s), probation and parole status of the perpetrator(s), and any information available on the weapon specifications including the crime lab case number. This information is complemented with the Supplemental Homicide Reports (SHR) of the Uniform Crime Reports.

The SHR provides incident based information on homicides: type of weapon, relationship of the victim to the perpetrator, the situation (i.e., single victim/single offender, single victim/multiple offenders), the location, the circumstance (i.e., robbery, rape, fight, argument, gun cleaning), and drug and/or alcohol involvement.

An estimated 30% of homicides have guns submitted to the Crime Lab for investigation. The Crime Lab case number obtained from law enforcement files links the firearm with the event. The following information is abstracted: weapon make, caliber, model, type, serial number, barrel length, magazine capacity, safety features; bullet caliber, weight, and type; and casing/cartridge caliber, type, and manufacturer. We present two categories of both pistols and rifles: 1) the firearm linked with the fatality called the “incident” gun, and 2), the firearm(s) collected at the scene of the homicide, called “scene” guns. FoxPro and SAS were utilized in the analysis. Chi-square tests were used to compare proportion so firearms which were banned, or had large magazines. Wilcoxon rank sum tests were used to compare number of wounds before and after the ban.

RESULTS

Assault weapon homicide analysis

A total of 656 homicides occurred during the study period (1991-1996), 414 before the ban and 242 afterwards. Of these, detailed information on the incident weapon was available for 122 pistols or rifles and an additional 220 scene weapons. There were 79 incident firearms with sufficient information for analysis prior to the effective date of the Crime Control Act (Sept. 13, 1994), and 43 afterward. Before the ban, 7 were firearms banned by the Act (8.7 %). After the ban, 4 firearms were banned weapons: 4 out of 43 (9.3 %, p=NS). There was no difference in the proportion of homicides involving banned

firearms before and after the Act.

Magazine capacity

Prior to the Crime Control Act, 64 out of 180 (35.6 %) of all confiscated pistols detailed in our database (both incident guns and scene guns) had magazine capacity greater than 10. After the Act, a slightly greater proportion of all confiscated (incident and scene) pistols were of high magazine capacity: 45 out of 116 (38.8 %). With rifles, the difference was more pronounced: 11 large magazines out of 30 (36.7 %) prior to the ban, and 9 out of 14 (64.3 %) after the ban. The differences in proportion, however, are not statistically significant due to small numbers.

Incident firearms and scene firearms were also analyzed separately. Prior to the ban, 27 out of 66 (40.9 %) pistols used in the homicides had large magazines; after the ban, 15 out of 40 (37.5 %) pistols used in the homicides were of high magazine capacities. For scene pistols, 37 of 114 (32.5%) before the ban, and 30 of 76 (39.5%) after the ban, had large magazines. These differences were not statistically significant.

Four out of 11 (36.4%) incident rifles before the Crime Control Act had magazine capacities greater than ten; after the Act, 1 out of 3 (33.3 %) had large capacity magazine ($p=NS$). Before the Act, we found 7 out of 19 scene rifles (36.8 %) had magazine capacities greater than 10; after the Act, 8 out of 11 (72.7 %) had large capacity magazines ($p=.06$). The numbers of rifles are very small, however.

Multiple wounds

Prior to the assault weapon ban, our data indicate an average of 2.4 entrance wounds per victim, with a standard deviation of 3.1. After the ban, there was an average of 2.8 entrance wounds per victim with a standard deviation of 2.9 ($p=NS$).

DISCUSSION/CONCLUSIONS

One way to measure the effect of the Crime Control Act is to compare the proportion of homicide firearms that were banned by the Act and magazine capacities of incident guns before and after the ban. The expected result of this policy should be a smaller proportion of banned homicide firearms (incident and scene) and fewer firearms with high capacity magazines after the Act. However, we found no trend in either direction.

We believed that a policy intent of the Act was to address the indirect effect of large capacity magazines on wounding. We expected to find a decrease in wounds per victim after the Crime Control Act. A ban on assault weapons might be expected to result in a decline in entrance wounds per victim. We found no significant difference in wounding frequency before and after the Act.

The named categories of rifles and pistols targeted by the 1994 Crime Control Act were not a major factor in Milwaukee County gun homicide before or after the federal ban. The proportion of homicides perpetrated with the targeted weapons did not change significantly after the law took effect. The magazine capacity of homicide weapons and the number of entrance wounds per victim also did not change

significantly during this period.

The geographic and temporal limitations of the data used in our investigation do not permit conclusive evaluation. One metropolitan area and a short follow up time period after the ban (a little more than 2 years post ban) were examined providing a very small number of cases to quantify the effects of the Act. It is reasonable to expect that there would not be a difference in assault weapon use or high capacity magazines for several years. Weapons and magazines manufactured before the ban are still available; a longer follow-up period is required. This examination is preliminary. There are too few cases for conclusive conclusions to be drawn. Further analysis and evaluation of the effects of the federal assault weapon ban are warranted.

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**SCHOOL SHOOTINGS IN THE UNITED STATES:
A TYPOLOGY OF LETHAL AND NONLETHAL INJURY
(Research in Progresss)**

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ABSTRACT

Worldwide attention has focused on school shootings in the United States during the last 2 years. This paper examined school shootings that occurred during 8 academic years, 1990/91 through 1997/98. The authors propose a typology of school shootings that aims to put the phenomena of school shootings in a scientific framework where it can be objectively investigated. This typology clearly suggests that the school shooting events that occurred in places such as Pearl, Mississippi, Padukah, Kentucky, Edinboro, Pennsylvania, and Springfield, Oregon, were operationally different from other types of shootings that involved multiple shots, and represent a different, more pernicious type of threat than other types of school shootings.

THE PRESENT STUDY

Questions have been raised why some mass shootings receive significant news coverage whereas others do not. Allegations have been made that the national coverage expressed over school shootings in rural areas is reflective of a racist society that ignores minority youth killing other minority youth in cities, and attends only when the victims and offenders of multiple shootings are white and more representative of middle class America (e.g., Homa, Menifield, & Brewer, 1999).

We looked closely at school shootings reported in U.S. newspapers from January 1990 to December 30, 1998, in an effort to better understand the phenomenon of school shootings. Our focus was on shootings in which one or more youths intentionally fired shots at other students. Lexus-Nexus was used to search for newspaper articles about school shootings. Key search words included "school," "shooting," "wound," and "juvenile." Newspaper articles identified by the search were then scanned. Incidents were eliminated when the shootings did not occur on school grounds or at school-related activities, did not involve students, or did not result in any person being wounded or killed. Events in which the shooting and resulting injury/death appeared accidental (e.g., gun discharged, no person was targeted) were also discarded from further analysis.

We did not view this search as exhaustive because some shooting events may not have been entered into Lexus-Nexus and catalogued with the key words identified. However, it seemed highly likely that shootings that resulted in a significant number of students being killed or wounded would be available through this computer network. The results of this search suggested that intentional shootings at schools in the U.S. that resulted in injury or death could be divided into four broad categories: 1) those that were undertaken to settle personal disputes or get revenge against a specific target; 2) those that were gang-

related; 3) those that had no clear motive; and 4) those that targeted random victims to express strong feelings and to send a message to society. The first three types are briefly discussed and illustrated. Thereafter, the paper focuses on school shootings in which the apparent motive seemed senseless unless, and until, expressive factors are taken into account.

Shootings at Schools to Settle Personal Disputes or to Get Revenge

These shootings are directed at a specific person or group whom the shooter perceives as having harmed him or her in some way. Although the violence in these incidents occurs in school settings, it is aimed at particular youths or school personnel, and students in general are not at risk of being intentionally targeted. A case that occurred in Stamps, Arkansas, is one of many that could be cited in this regard. Joseph Colt Todd, a 14-year-old eighth grader, was a victim of bullying and extortion by his classmates. He was forced by others to give his money to them to avoid being beaten up. Before classes started on the morning of December 15, 1997, Todd came to school armed with a .22 caliber rifle and shot two of his classmates. Police believed that he specifically targeted the two students. Both victims, although critically wounded, survived the attack (Lacayo, 1998).

Gang-Related Shootings Occurring at Schools

On occasion, gang-related shootings take place on school grounds. Youths in gangs often use violence to redress perceived wrongdoing by rival gangs. Although these shootings are targeted at members of groups, bystanders who are in the way may inadvertently get caught in the crossfire. For example, on September 11, 1992, a dispute between two adolescents who were allegedly gang rivals resulted in a wild shooting spree in a crowded high school hallway in Amarillo, Texas. These two youths had been taunting each other repeatedly throughout the week and decided to settle the score in a parking lot outside the school. However, when they ran into each other in the hallway, one of the boys punched the other, sending him careening in the wall lockers. The boy who had been slugged reached into his pocket, pulled out a .38 caliber pistol, and shot his assailant. He then proceeded to run down the hallway yelling the name of his gang and firing the pistol. Five additional students were injured, although not as seriously as the first victim. A seventh victim was trampled as youths attempted to flee the area (Reed, 1994).

Shootings at Schools with No Clear Motive

Occasionally, shootings at schools appear to lack a clear motive. Subsequent investigation may help to elucidate the motivational dynamics behind the violence and enable the incident to be categorized into one of the other categories. On June 30, 1994, a 14-year-old boy in Chicago, for example, fired into a crowd of high school students who were assembled in front of their school preparing to end the school year. The boy wounded four students; two other students were injured as they attempted to flee to safety. The assailant was a student at another school, but did not attend regularly. He was accompanied by his 13-year-old cousin; both boys fled the scene after the shooting and were apprehended (Seibel, 1994).

SCHOOL SHOOTINGS WITH RANDOM VICTIMS: A CLOSER LOOK

School shootings that have targeted random victims to express strong feelings and to send a message to society often can be differentiated from other types of school shootings by five criteria: 1) multiple shots were fired; 2) the suspects were enrolled at the schools where the incident occurred; 3) death or injury resulted; 4) the victims were associated with the schools; and (5) at least some of the victims were randomly selected. Ten shooting incidents that met these criteria were found to have occurred during the academic years 1990/91 to 1997/98: Grayson, Kentucky (January 18, 1993); Lynnville, Tennessee (November 15, 1995); Moses Lake, Washington (February 2, 1996); Bethel, Alabama (February 19, 1997); Pearl, Mississippi (October 1, 1997); West Paducah, Kentucky (December 1, 1997); Jonesboro, Arkansas (March 24, 1998); Edinboro, Pennsylvania (April 24, 1998); Springfield, Oregon (May 21, 1998); and Richmond, Virginia (June 15, 1998). Interestingly, no school shootings that fit these criteria were identified in 4 of the 8 academic years (1990/91, 1991/92, 1993/94, and 1994/95).

Six of the 10 school shootings whose targets included random victims occurred in the academic year 1997/98. Although the number of incidents in 1997/98 was small, the body count when measured in terms of lives lost and innocent people injured was high. Across the period, 25 persons were killed and 53 were wounded. Close inspection of these data indicates that 64% of those killed and 92% of those wounded were victimized during the academic year 1997/98 (Heide et al., 1999).

Portraits of School-Yard Shooters Who Target Innocent Victims

There were 11 boys involved in these 10 incidents. With the exception of the Jonesboro massacre, the young assassins acted alone. A form was devised to collect available information on these incidents using primarily newspaper accounts, although some weekly magazines were also reviewed, generated from Lexus-Nexus computer searches. The form had a series of questions pertaining to incident data, suspect information, system processing of the offenders, and characteristics of the victims.

Information available on these youths from newspaper accounts was often sketchy and incomplete. Data pertaining to the victims was even more obscure, particularly if the victims were among the wounded rather than the deceased. For example, the race of the victims was rarely reported. It appears that the victims were probably white because the suspects were almost always white and racial characteristics were not among the descriptors typically given in the news article. In one case where a White suspect killed a suspect from another race, it was clearly noted in the article. In addition, the age and sex of wounded victims was often missing from the news story.

Perusal of these cases revealed several characteristics. Ten of these boys were White; the youth in the last incident in 1997/98, the only incident in which no victims died, was Black. All of the youths were apprehended at the scene or shortly thereafter. All of the boys had troubled histories. In almost all cases, there were signs that the adolescent was absorbed with activities that had violent and/or nihilistic themes (Heide et al., 1999).

DISCUSSION AND IMPLICATIONS

This typology was developed before the mass school shooting in Littleton, Colorado, on April 20, 1999. Its characteristics clearly fit the category of the last category wherein two students from Columbine

High School wounded and killed other students in that school to send a message to others of their anger and pain. In this incident, at least some of the victims were again randomly selected. The two perpetrators were White, had troubled histories, and were absorbed in destructive ideology and activities. Unlike the other boys, however, the two offenders killed themselves at the scene (Bai, 1999; Gibbs, 1999).

The increased number of incidents in the academic year 1997/98 raised the question whether mass shootings of this nature were indicative of an upward trend. The school year 1998/99 is instructive in this record. In 1998/99, no incidents of this type appeared to have occurred until the mass shooting at Columbine High School. However, that incident alone claimed the lives of 13 victims (15 if the suicides of the two assailants are added to the death count); 23 other students were wounded, many of them seriously. The body count, whether measured in the number of those killed and/or the number of those wounded in any incident, was the highest recorded to date.

In the midst of these tragedies, the National School Safety Center has repeatedly underscored that the absolute number of deaths occurring in schools has not increased and has actually decreased from some prior years. The Center, however, has failed to note that the events leading to many of these deaths has changed. For example, in the school year 1998/99, prior to April 20, 1999, there were 9 homicides in school. On April 20, 1999, that number increased to 22, the result of one incident (Adler & Springen, 1999; Cloud, 1999).

The type of mass school shooting wherein the deaths of random students are intended by the perpetrators to send a message to society is now in the consciousness of students across the U.S. and even beyond its borders. Following the Littleton incident, several students in the U.S. were arrested for allegedly plotting similar acts of destructiveness. One boy was arrested in Canada for acting-out a "copycat" killing on a smaller scale in a high school setting.

This preliminary research suggests that mass murders at schools involving at least some random victims have received extensive news coverage because of the number of innocent victims targeted and the large number of children potentially at risk when events of this nature occur. At a colloquium held at this very meeting of the Homicide Research Working Group in Quantico, Virginia, the senior author asked correspondents from *U.S. News and World Report*, the *Washington Times*, the *Washington Post*, and *USA Today* if the Littleton massacre would still have received extensive news coverage if the perpetrators had been minority youth living in an inner city neighborhood rather than White teens living in a middle class neighborhood? The four correspondents agreed that an event of this magnitude would have been covered regardless of the race, ethnicity, and socioeconomic class of the perpetrators.

The beauty of the typology is that it allows researchers to study these events and the offenders who create them. Moreover, the proposed typology is useful in elucidating the phenomenon of intentional school shootings resulting in lethal and nonlethal injury. The typology is also valuable because it enables us to examine media coverage of school shootings when similar events are being compared with one another. Earlier research claiming media coverage of school shootings was biased by the race of the offender and rural-urban setting was flawed because it often compared apples (e.g., four students and a teacher were shot by two boys enrolled in the same school in a rural setting) with oranges (e.g., a 23-year-old alumnus was shot by a teen in an urban area) (e.g., Homa et al., 1999).

This typology could be extremely helpful in identifying trends and planning appropriate treatment interventions if this typology was used to catalogue all school shootings in the U.S. occurring during the last decade. Given the seriousness of this problem, keeping track of threats of mass school shootings, foiled plans involving multiple murders at school, and school shootings wherein no one is injured or killed would seem desirable. Unfortunately, incidents of this type are less likely to be reliably reported than those in which injury or death results.

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DISCUSSION

Tom Marvell: Jay, did you consider calculating the percent of suicides with a gun, and the percent of accidents using FFL [Federal Firearms License] data in order to compare with the percent homicide?

Jay Corzine: I'm unsure of the feasibility of using FFLs for suicide since reports on the percent of suicide are relatively rare. Without Texas, there were only 69 counties with one FFL; the rest had two or more.

Roland Chilton: The number of FFL dealers are being used as a proxy for gun availability. When you aggregate for all counties, you should then have a rate for the U.S. How does it vary?

Jay Corzine: In 1993 data, approximately two-thirds of the counties in Texas have no FFLs. Also, there is a difficulty with type of county and different patterns of residency. In the East, there are smaller counties with dense populations. The South and Midwest are more agricultural, having rural counties without dense populations. Areas of ranching have a small percent of population in these rural areas. Most people live in the small cities.

Cheryl Maxson: An FFL can sell zero guns or 10,000 guns. How does this relate to the measures being used?

Jay Corzine: The ATF has no information on gun sales per FFL. The dealer maintains sale numbers at his place of business.

Cheryl Maxson: Do the FFL data give counts of the number of guns seized?

Jay Corzine: That is a measure of law enforcement activity, and is not available in the FFL data we have.

Tom Marvell: In reference to the results, that "percent rural" was negatively related to population size and to area of county, and the percent born in South was negatively related to size of the gun market on homicide rates: Can you check this out with some states?

Jay Corzine: Yes, some state FFLs are hunting licenses.

Lois Mock: The number of FFLs are way down (about 70%). Has the availability of guns also gone way down?

Jay Corzine: Not 70%. It would be interesting to look at the percent of decrease. It's unknown how many moved to "kitchen counter" sales.

Paul Blackman: Zoning code enforcement in cities did affect the FFL decrease.

Chris Rasche: It appears that the number of gun shows has increased. Could this be responsible for some of the difference?

Jay Corzine: Before 1986, dealers were not able to sell through gun shows. There is no research giving the number of tables at gun shows by licensed dealers vs. non-licensed dealers.

Chris Rasche: Would it be possible to check the number of gun shows through convention center bookings?

Jay Corzine: It's entirely possible, but there's no way to really know.

Paul Blackman: There's no information on how many gun shows there were before to be able to compare.

Jay Corzine: Licensed dealers are not supposed to sell outside of their home areas, but there's no way to know if they do.

Tom Marvell: What would happen if you look at the numbers for big counties only?

Jay Corzine: You'll lose something.

Question: How many first purchases are at gun shows?

Jay Corzine: There's no way to determine that.

Dick Block: Regarding the statement about the difficulty in determining what "percent rural" means and how it's changed: Some rural areas have become resort areas.

Jay Corzine: We have nothing on outliers and multicollinearity.

Everett Lee: Census changes have made rural different than it was before. Also, area of counties range widely, from 22 square miles to San Bernardino, which is larger than some states.

Tom Marvell: How did you handle Virginia, with its independent cities inside of county boundaries?

Jay Corzine: The data for the independent cities are in their original counties.

Roland Chilton: Do the data show that the increase in gun availability leads to an increase in the homicide rate?

Jay Corzine: Yes, but with the difference that occurred in the South. The data do not show this in the South.

Roland Chilton: Did the General Social Survey show this?

Jay Corzine: Compared to these product-based measures? Yes, but which drive which?

Vickie Brewer: Jason and Allegra, were there records which were not matched from Vital Statistics or Uniform Crime Reporting (UCR) data?

Jason Van Court: All of the records were in the UCR data, but they were not always good enough match to Vital Statistics. We could try looking for Vital Statistics link -- not just using intentional injury -- but other ICD codes.

Steve Hargarten: What are the characteristics of the unmatched cases?

Allegra Kim: Determining this is one of the next steps. The matches for 1993-1995 are done, but nothing stood out.

Cheryl Maxson: What in the death certificate data enhances the Department of Justice (DOJ) data?

Jason Van Court: Age is more accurate; sex, race, marital status, education level, income, occupations are in the Vital Statistics data.

Lois Mock: Are offender data in Vital Statistics?

Jason Van Court: No.

Everett Lee: In Vital Statistics, it gives residence where the deceased was living but doesn't the DOJ data identify where he was killed?

Allegra Kim: That is why not to use county as a match. But, often, they lived and died in same county or in contiguous counties.

Jason Van Court: This may also explain some unmatcheds, if someone lived in another state but died in California.

Linda Langford: You may want to look carefully at the education and occupation data in Vital Statistics; there may be a quality issue.

Roger Trent: Yes, use only if more stable occupation. Also, California has a large immigrant population. With multiple causes of death, look at underlying specific cause of death.

Becky Block: You should include a variable on how it's classified in Vital Statistics data. Try the reverse -- take intentional in Vital Statistics and match it to Supplementary Homicide Reports and see what matches are. We tried similar links with their data and found different errors each way. This would give an evaluation of linkage from the other direction.

Britt Olson: Steve, was a confiscated gun linked to a homicide?

Steve Hargarten: We plan to do additional linkage with ATF database.

Lois Mock: There's a stockpile of grandfathered guns. The murder of police officers with assault weapons did go down.

Question: In this study, what is the distinction between an assault versus a regular gun?

Steve Hargarten: We used the description supplied in the law. Nineteen weapons with their characteristics, used that way in the study. There was no problem with that.

Vance McLaughlin: In my historical data, 62% were gun homicides, and there were only two cases where the offender reloaded. In my recent data, no one shot more than 10 shots, although between two people, in one incident, there were 12 shots.

Everett Lee: Foreign manufacturers are assembling in the United States now.

Dick Block: In my data, we are doing additional links with ATF and the county prosecutor.

Paul Blackman: Kathleen, in the Columbine incident, the youths took a year to plan the shootings. In this study, should that be counted in the '97/98 school year?

Kathleen Heide: Since it was carried out in '98/99 school year, we counted it then. Other shootings in the study were counted when they were carried out.

Mary Beth Emmerichs: Is it important that all the offenders were boys?

Kathleen Heide: Yes.

Vance McLaughlin: In my data, the shootings were not in schools, but all the other factors were there with the exact same syndrome.

Kathleen Heide: Our study focused on schools because schools are the ones being focused on lately.

Cheryl Maxson: What are the distributions on other characteristics?

Kathleen Heide: We didn't measure gang-related, etc.

Cheryl Maxson: Ten incidents out of how many?

Kathleen Heide: In the search over an 8-year period, there were over 1,000 Lexus-Nexus results, but with some overlap.

Question: How many lone offenders?

Kathleen Heide: One of the 10 incidents involved two boys. Almost all were lone offenders, spurned by someone or by a group.

Chris Rasche : How are these characteristics similar to adolescents in general?

Kathleen Heide : The nihilistic quality to great extent is the main difference. Many adolescents have some of the study characteristics, but also have prosocial involvement. We see a repeated fascination with destructive themes with the adolescents who do these shootings.

Alan DeLine : In a small town in New York, a student told another student that he planned to kill a school counselor. The student came to school with a rifle. Another student told what was going to happen and the student was stopped. Why not count in this study?

Kathleen Heide : That could be put in "targeted" violence. But the country is currently obsessed with situations with injury or death.

Alan DeLine : How about a situation where the person actually shot but did not hit the victim. Doesn't that count?

Kathleen Heide : It seems appropriate to have a category for "attempted" or "targeted." But after Littleton, lots of kids threatened. We don't want to count those.

Candace Skrapec : A number of kids don't look like this. My work with men shows lots of them like us. We're concerned about the extreme nature of the characteristics and the distorted ways it's manifested. It's really an issue of degree and nature. Was there a problem with taxonomy by motive -- often categories contaminate another?

Kathleen Heide : There may be crossover. Pearl, Mississippi, and Jonesboro; we need to look at events like this. It died down in focus, and raised again with Littleton. We're looking to develop mutually exclusive categories -- target because in rival gang vs. revenge of someone but not gang-related.

John Jarvis : You should also focus on risk factors, such as poor self-esteem, etc.; and avoid civil rights issues; focus on prosocial/protective factors as well.

Kathleen Heide : Most kids reacted with horror and were upset. These indicators are positive vs. a kid saying that she was going to school the next day in a trench coat.

Linda Langford : The media accounts are not independent. One initial news account is used for all following accounts, and leads to a bias. People see people and events through their own frames of reference. Think about the initial construction. Look at behavior vs. affected. Clinical interviews of primary sources, like those that the Secret Service are doing, are highly valuable and best.

CHAPTER FIVE

MULTIPLE MURDER

FIREARM HOMICIDE-SUICIDE EVENTS IN SOUTHEASTERN WISCONSIN, 1991-1997

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ABSTRACT

The public health model for injury prevention is utilized to comprehensively examine firearm homicide-suicide events. Records from multiple data sources were linked to better describe homicide-suicide events that occurred in 8 counties in Southeastern Wisconsin. Homicide-suicide events were 3.8% of all firearm deaths for the study period. Of those deaths, 65% were classified as intimate partner violence. This paper will discuss the trends of homicide-suicide incidence, circumstances, type of relationship, alcohol usage, firearm specifications including firearm ownership, and trace information. Comprehensive knowledge of the victims, perpetrators, and firearms is crucial to evaluate current prevention programs and direct future efforts.

INTRODUCTION

Reports continue to suggest the increasing mortality and costs, both social and medical, associated with firearm injuries (CDC, 1994). The American College of Physicians (1998) has published a series of policy statements calling for a variety of prevention and education strategies to reduce the "epidemic" of handgun violence. The Institute of Medicine report (1999), *Reducing the Burden of Injury, Advancing Prevention and Treatment*, made several recommendations regarding firearm injury prevention and firearm injury surveillance. They included implementing a comprehensive approach for the prevention and reduction of firearm injuries by including firearm surveillance, firearm safety regulation, and multidisciplinary research.

The Firearm Injury Reporting System (FIRS) of the Firearm Injury Center at the Medical College of Wisconsin uses the public health model of host, agent, and environment as the framework for data collection. Historically, data on firearm injuries and deaths have been fragmented, placing firearm suicides with mental health professionals, homicides with criminal justice officers, and "accidents" with safety leaders. Utilizing the framework provides a complete and accurate picture of the firearm injury problem and allows for a detailed examination of trends. In cases of homicide, medical examiners/coroners are the lead reporting agency for information on the victim (host), local law enforcement is the expert on environmental information, and the Wisconsin State Crime Laboratory provides specifics on the firearm (agent). In cases of suicide, undetermined and unintentional firearm deaths, data are obtained from medical examiners/coroners and law enforcement, as firearms are not routinely sent to the crime lab. The Supplemental Homicide Reports (SHR) of the Uniform Crime Reporting System, is a report provided by local law enforcement and forwarded to the Department of Justice describing homicide circumstances, victims and suspects.

The Criminal Information Bureau (CIB) of the Department of Justice provides additional information to be linked with the FIRS. The CIB supplies criminal background information on the homicide perpetrators (suicide victims) in these cases, allowing for a more complete description of these individuals and their histories.

These firearm fatality events are unique; while they encompass a homicide, a potential criminal investigation, the perpetrator has expired. This allows for an in-depth case review, including toxicology analyses on the perpetrator, and opportunities to recover and analyze the firearm, information not always available in homicides.

OBJECTIVE

To examine firearm homicide-suicide cases and identify incidence, victim and perpetrator demographics, relationship type, circumstances, alcohol usage, incident firearms, firearm ownership, and the criminal histories of the perpetrators.

METHODS

A retrospective case review was completed on homicide-suicide events from the FIRS, reviewing Milwaukee county data from 1991-1997 and seven Southeastern Wisconsin counties from 1994-1997. All firearm homicide-suicide cases were included. Cases were identified by the medical examiner/coroner. There were 24 homicide-suicide events, representing 53 deaths, and 27 firearms. The fatalities represented 3.8% of all firearm deaths in the study period.

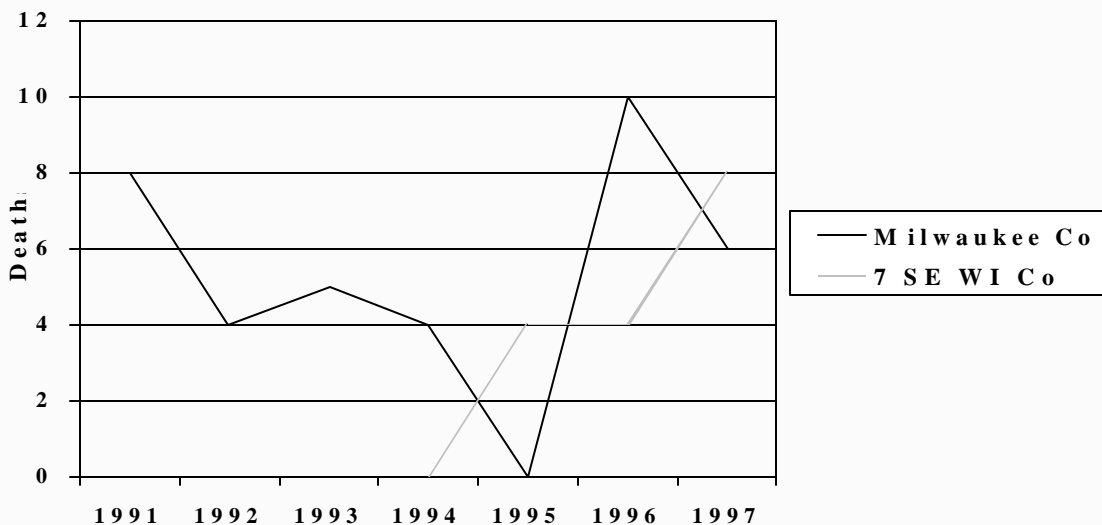
The focus of this analysis is immediate homicide-suicide events utilizing only firearms. One case resulting in 4 deaths can also be classified as a familicide. In this study we defined partner violence where the victim was a current or former legal or common law spouse, dating partner, or cohabitant at the time of the death (Smith, Moracco, & Butts, 1998). Children living with the perpetrator were excluded from this definition. The categories for type of relationship were obtained from the Supplemental Homicide Reports.

RESULTS

Incidence

For Milwaukee County homicide-suicide events averaged 2.3 per year, while number of deaths averaged 5.3 per year. In the seven other counties, homicide-suicide events and number of deaths averaged 2.0 and 4.0 respectively. Milwaukee County's high (10 deaths) incidence occurred in 1996, and no homicide-suicide deaths occurred in 1995. For the seven other counties, high incidence (8 deaths) occurred in 1997 and no deaths took place in 1994. Figure 1 details the comparison of incidence between Milwaukee County and the other seven southeastern Wisconsin counties. For Milwaukee County the incidence appears to be quite variable with a sharp increase between 1995 and 1996. Incidence for the seven counties has an overall gradual increase. The fatality rate for Milwaukee and the seven other counties is 0.55 and 0.38 per 100,000 per year respectively.

Figure 1: A Comparison of Homicide-Suicide Incidence for Milwaukee and Seven Southeastern Wisconsin Counties*



* Data collection for the seven Southeastern Wisconsin counties began in 1994.

Demographics

The majority of victims and perpetrators were between the ages of 30 and 39, however, the average age of the victim was 38 years old, while perpetrators averaged 44 years of age. All homicide perpetrators (suicide victims) were male, and the majority of homicide victims (18, 62%) were female.

Relationship

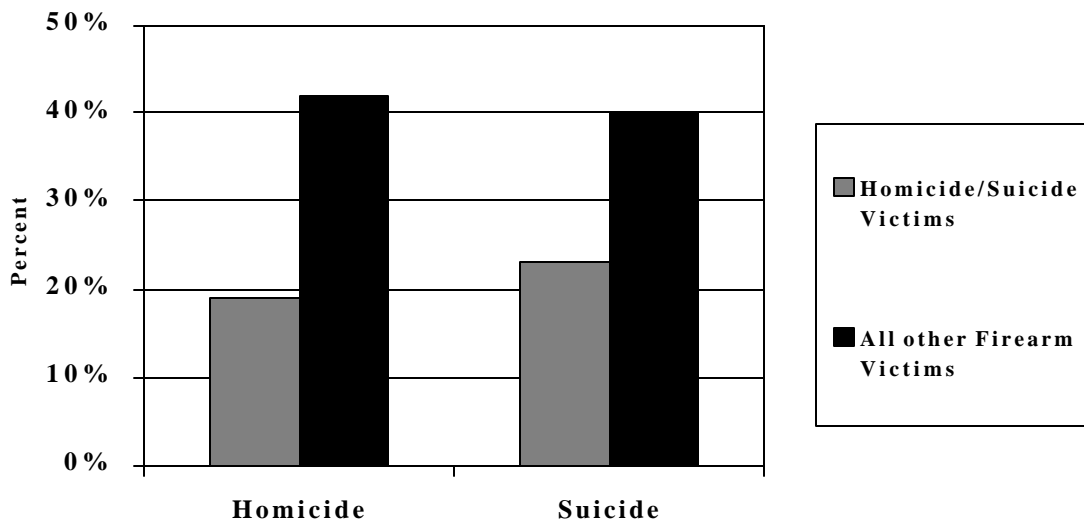
Of victim-perpetrator relationships, 17 (58%) victims were current spouses or girl/boyfriends. Ex-spouses and ex-girlfriends accounted for an additional 2 (7%) events. There were multiple other relationships involving 4 (14%) friends/acquaintances, 3 (10%) children, 1 (3%) roommate, 1 (3%) employer, and 1 (3%) stranger.

Alcohol Usage

Alcohol testing was obtained on 26 (89.6%) homicide victims and 22 (91.7%) suicide victims. Of those tested, 5 (19.2%) homicide and 5 (22.7%) suicide victims had positive blood alcohol levels. Figure 2 compares the homicide victims of homicide-suicide events positive for alcohol to all other homicide

victims (n=717), the difference in positive alcohol levels, 19.2% and 42.1% respectively, was significant (p<.02). However, in comparing the suicide victims to all other suicide victims (n=456), despite the apparent disparity, 22.7% to 40.1%, there was no significant difference.

Figure 2: A Comparison of Positive Blood Alcohol Levels for Firearm Homicide-Suicide Events



Circumstances

Law enforcement data describing the homicide-suicide circumstances are abstracted from the Uniform Crime Reports. As suggested from the victim-perpetrator relationship analysis, the largest group (9, 38%) was due to relationships (divorce, separation, and love triangles) in varying stages of discourse. Six (25%) additional cases were Arguments, and Unknown circumstances attributed to 4 (17%) fatal events. Mercy Killing and Other Non-Felonies each accounted for 2 (8%) fatalities, and there was 1 (4%) Hostage /Kidnapping. Homicide-suicide circumstances are depicted in Figure 3. Additional reviews of the narrative notes from law enforcement indicate that over twenty percent of perpetrators in these cases had prior violent reports, although specifics were not available.

Similarly, a review of medical examiner/coroner narrative records indicated that in 5 (20.8%) of the cases, the suicide victim had been depressed prior to the fatal event. Six (25%) left some sort of suicide

note, 2 (8.3%) had previously tried to commit suicide by any means, and 2 had talked of committing suicide.

Firearms

Twenty-three (85%) of the involved firearms were handguns and 4 (15%) were long guns. Specifically, (figure 4) there were 13 (48%) pistols, 10 (37%) revolvers, 3 (11%) shotguns and 1 (4%) rifle. In three events, more than one firearm was used. The most common caliber (figure 5) was .38 (n=10, 37%) followed by 9mm and 22 (n=4, 15% for both). Colt's Manufacturing Company, Rossi Firearms, (n=4, 14.8% for both) and Beretta USA Corp (n=3, 11.1%) were the most common manufacturers. The five manufacturers of handguns involved in more than one homicide-suicide event represented 28% of the handguns used in Southeastern Wisconsin suicides and about 14% of handguns used in homicides. In a comparison of manufacturers of homicide handguns, suicide handguns and homicide/suicide handguns, the handguns used in the combined homicide-suicide event most closely resembled suicide handguns. Firearm ownership (figure 6) was known for 14 (52%) of the firearms. When known, 11 (78.6%) firearms were owned by the suicide victim (homicide perpetrator), 2 (14.3%) by a family member and 1 (7.1%) by a family friend.

Figure 3: Firearm Homicide-Suicide Circumstances, 1991-1997

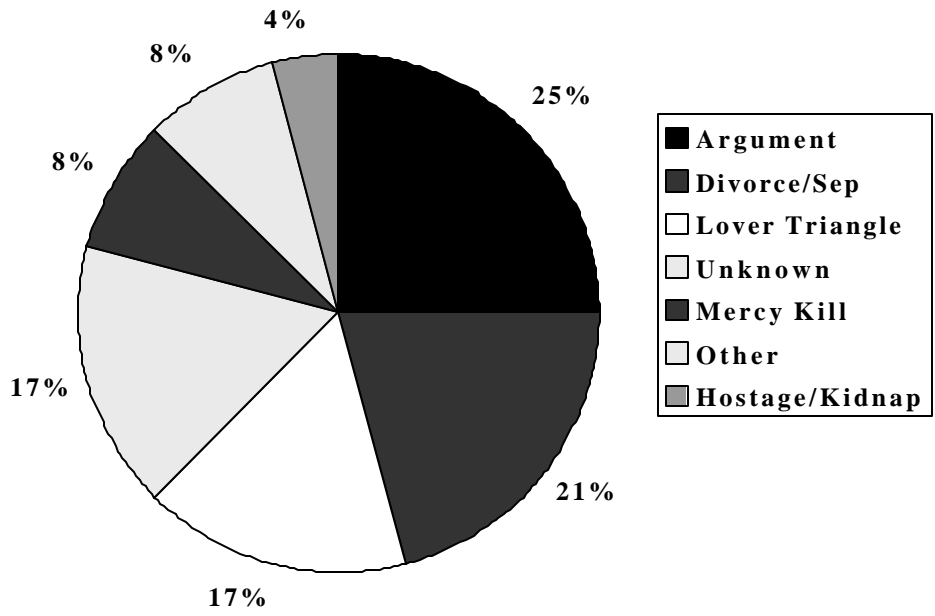


Figure 4

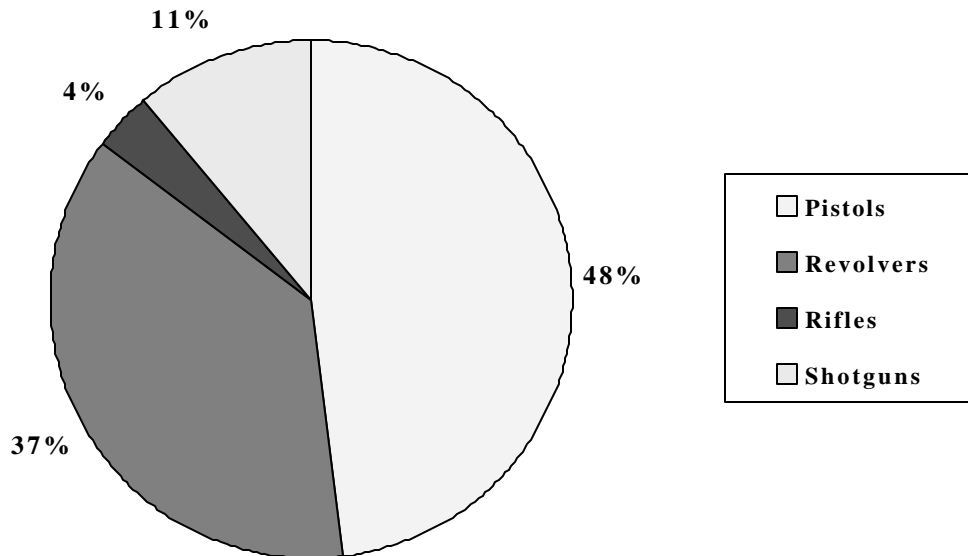
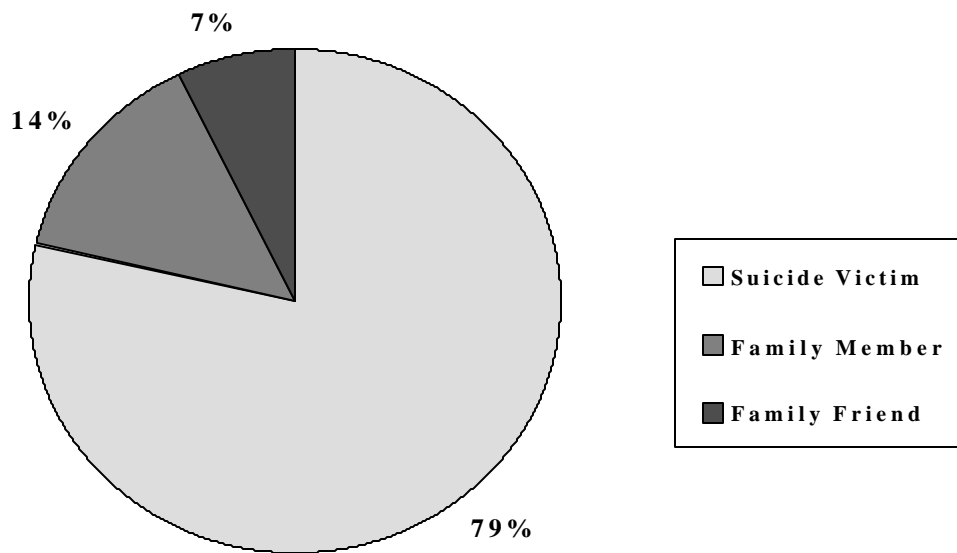
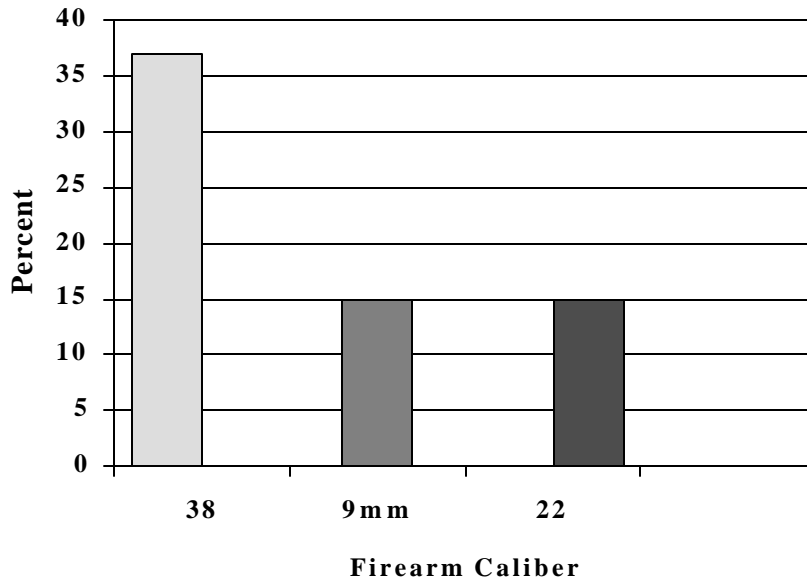


Figure 5: Most Common Caliber of Firearm Used in Homicide-Suicide Events; 1991-1997 (n=27)

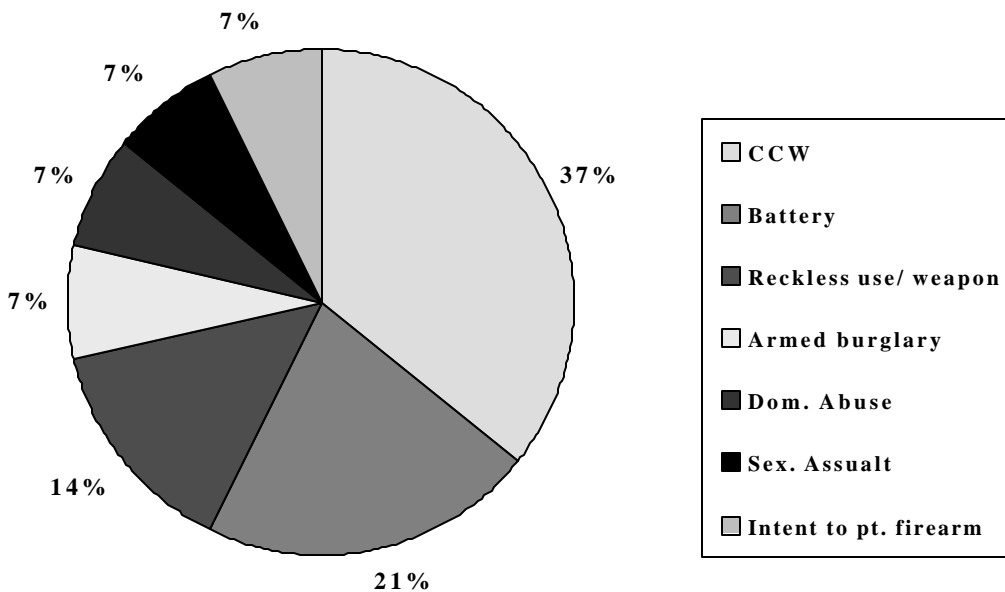


Ownership was known for 14 (52%) of the firearms used in these events.

Criminal Histories

Of the 24 perpetrators (suicide victims), 8 (33.3%) had prior arrest records. There were a total of 30 arrests resulting in 35 charges. Among arrest descriptions were 5 (16.7%) concealed carry weapons, 3 (10%) battery arrests, 2 (6.75) reckless use of a weapon, 1 (3.3%) armed burglary, 1 (3.3%) domestic abuse, 1 (3.3%) first degree sexual assault, and 1(3.3%) intent to point a firearm (figure 7). Of the 35 charges, 27 (77%) came to final disposition. No Prosecution and Dismissed each accounted for 4 (14.8%) dispositions. Seventeen (62.9%) were convicted including 3 that were plead to lesser charges, and 2 (7.4%) were acquitted.

Figure 7: Arrest Descriptions Among Firearm Homicide-Suicide Perpetrators with Prior Arrests, 1991-1997



Analysis of both firearm ownership and criminal history revealed that 5 (62.5%) of the perpetrators with criminal histories had an indication of ownership. Of those individuals with criminal histories, 3 (60%) owned the incident firearm, and 2 (40%) used a firearm owned by a family member.

DISCUSSION

The analysis conducted in this study identified several variables describing the host, agent and environment of firearm homicide-suicide events. For the purposes of discussion, focusing on the issue of intimate partner violence identifies some important issues. It is clear that even though these events only account for 3.8% of the total firearm deaths, a large portion (over 60%) of these events were intimate partner violence. There was a strong relationship between the most common victim-perpetrator relationship (spouse or girl/boyfriend) and the circumstances (argument or divorce/separation) of the event. The majority of victims were female and their perpetrators male. Law enforcement data also found that the perpetrators tended to be older, male and intimately involved with the victim. The gender discrepancy is similar to other findings regarding intimate partner violence. Research indicates that the most common homicide-suicide episode included a man killing his spouse and/or children with a firearm, and the most common motive was jealousy and/or revenge, usually as a result of a breakdown in the spousal relationship (Milroy, 1995). Suicide following homicide is higher when there is a social tie between the victim and offender, when a firearm is used and when the victim is a female (Gillespie et al., 1998). A similar analysis found that killing an ex-spouse/lover increased the risk of suicide by almost 13 times. Killing a child increased that risk 10 times, a spouse 8 times and girlfriend or boyfriend 6 times and killing a friend almost 2 times (Stack 1997).

Analysis of the agent, or firearm, found the most popular incident firearm (firearm used in that event) to be a medium caliber pistol, and when known, the firearm was owned by the perpetrator. Few authors can comment on the specific firearm used in these cases, however, one study did report that handguns were the most commonly used weapons in intimate partner violence (Smith et al., 1998). The current analysis of firearms while pertinent in describing the similarities of firearms used in suicides acts as a benchmark to follow future firearm trends.

Implications for prevention might include policy regarding firearm ownership/possession. Longer waiting periods could allow a more complete review of the gun purchaser's criminal background. We found in this study that several of the perpetrators had several previous arrests some including firearm related charges. We do not know when the perpetrators obtained their firearms. An additional piece of information that would help answer this question is firearm trace data. Cooperation with the Bureau of Alcohol Tobacco and Firearms (ATF) will begin tracing both homicide and suicide incident firearms to the point of first purchase. This additional data will link to the current Firearm Injury Reporting System. This detailed information may identify the relationship of the first purchaser to the perpetrator and the time the purchase occurred in relation to the fatal event. However, firearm traces can only be completed if essential elements about the firearm are present. Many of these elements are not routinely recorded by law enforcement, presenting a limitation to successful tracing.

It would be remiss not mention non-firearm related prevention measures. As stated previously, a large group of the circumstances surrounding the fatal event were due to divorce or separation. One could

propose, as one coroner did in Wisconsin, offering counseling to individuals who are served with divorce papers. Additionally offering resources to the female, in most cases, for safety and protection as male perpetrated intimate partner violence usually occurs when the female is attempting to leave (Smith et al., 1998).

CONCLUSION

While the FIRS database is the most comprehensively linked data with regard to firearm fatalities, it has limitations. First, this data is simply a report, not an audit, of data from medical examiners/coroners, law enforcement and the crime laboratory. The nature of this data depends on complete and accurate reporting of all parties involved. One example often discussed is the credibility of the victim-perpetrator relationship data reported on the Uniform Crime Reports (UCR). One study indicated that almost 40% of their intimate partner homicides were not reported or miscoded according to the UCR (Langford et al., 1998). Second, we were unable to compare these fatalities with non-firearm homicide-suicide events. Third, in collecting this information it was discovered that crime related records and domestic/partner violence records were not always connected. The physical separation makes it more difficult to assess risk or prevent future violent acts. A similar assessment was found for mental health records. While this type of medical record is confidential, the disconnection between mental health and law enforcement does not allow for preventive collaborative efforts.

Finally is important to realize that prevention efforts for intimate partner violence are difficult because there is a lack of knowledge about these incidents. While significant research has been done on intimate partner violence reviewing large population based data; specific circumstantial data are limited. On the other hand, this type of case-study research enables a qualitative analysis but not of population-based data (Smith et al., 1998). In conclusion, better information is needed in regard to the circumstance surrounding the perpetrator and victim, including prior criminal and mental health records, and prior violent reports and firearm ownership. The continual linkage of medical examiner/corner, law enforcement and crime laboratory data and the additional linkages of ATF and the Department of Justice can provide the complete data to better describe these fatal events and direct specific points of intervention.

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PARRICIDAL FAMILICIDE

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ABSTRACT

Familicide accounts for but a fraction of the national murder rate. Perhaps this explains why it is the least explored, and consequently, least understood type of domestic homicide. Research in this area is limited to the prototypic familicide: the male head of the family slaying his wife and children before, in most cases, committing suicide. While familicide is a distinctly male-perpetrated crime, it is not always committed by the patriarch. This paper addresses "parricidal familicide," or familicide committed by non-patriarchal young-adult males. Using 4 Texas cases, classes of parricidal familicide, motivational factors, and types of offenders, by relation, are examined. First, cases are broadly categorized as spontaneous or planned parricidal familicides. Next, they are distinguished by motivation -- whether expressive or instrumental. Finally, the offender's relationship -- biological, adoptive, nuclear, and/or extended -- to family members is shown to not only inform the motive, but also influence the manner in which the victims are slain.

INTRODUCTION

Although domestic violence has been at the fore since the 1960s, it seems that in the last decade the issue has taken center stage. In fact, the 1990s have witnessed a heightened awareness of the various types of domestic homicide, primarily due to their magnification in the media. The last decade of the millennium was ushered in by the Menendez brothers' act of parricide, and sustained for its better part by the filicides of the sons of Susan Smith and Darlie Routier, and the femicide of Nicole Brown Simpson, with suspicion centered on her ex-husband. And while speculation about who killed JonBenet Ramsey may continue into the next century -- whether her death was a filicide perpetrated by either or both of her parents, or a sororicide carried out by her brother -- it is assumed her murder is but another case of domestic homicide. Even with the exposure intrafamilial killing has received, however, little has been said of what is perhaps the most devastating form of domestic homicide: the familicide.

While routinely capturing the media's attention, the study of familicide has been largely ignored by researchers of homicide. As Wilson, Daly, and Daniele (1995) noted, scholars for the most part have not examined the incidence or epidemiology of familicides. A review of the literature on familicide shows that only a handful of researchers have explored the topic at all. Little wonder, considering the dearth of data in this area. Although statistical databases such as the Uniform Crime Reports (UCRs) and the Supplementary Homicide Reports (SHRs) identify victims' relationships to their killers -- encompassing all members of families, including step relatives -- there is no coding system for multiple victims. Hence, incidents of familicide are not recorded. Availability of data is further restricted for the researcher of familicide committed by juveniles, as the minor status of many offenders excludes them from statistical analyses. Thus the researcher of familicide has no empirical means of tracking its epidemiology.

Given this scarcity of information, it is not surprising that parricidal familicide is not even recognized as a type of familicide. Indeed, literature on familicide almost exclusively defines it as a patriarch-perpetrated crime. Because of increasing incidents of parricidal familicide, this phenomenon warrants independent study. Ewing (1990a) and Leyton (1990) apparently agreed when, at the dawn of the decade, they addressed familicide committed by adolescents. Several years later, Ewing gave it a name: "juvenile familicide" (1997).

However, the term juvenile familicide is somewhat exclusive. A review of news accounts reporting on familicides committed by young males across the nation shows that many such killings are executed by young adults rather than by juveniles. Accordingly, this paper builds on prior studies by focusing on the role of the young-adult male offender. The author terms this type of familicide "parricidal familicide."¹

Within this framework, it is theorized that familicides perpetrated by young-adult males are usually expressive crimes driven by the offender's relationship to family members -- whether biological, adoptive, nuclear and/or extended -- as is evidenced by the manner in which these youths elect, consciously or otherwise, to kill their family members.

METHODS AND DATA

Originally, this study was initiated to locate all cases of parricidal familicide in Texas's 10 largest-populated cities,² and their respective counties, over a 20-year period (1978-1998). Once identified, the intent was to use as variables the offenders' relationships to their victims, whether biological, adoptive, nuclear, and/or extended. But the paucity in familicide data in general, coupled with the peculiarity of parricidal familicides in particular, considerably narrowed the scope of the study. Out of the 10 subject cities only 2, Houston and Lubbock, reported cases of parricidal familicide. Between these 2 cities, four cases were identified, spanning a 13-year period beginning in 1985 and ending in 1998. Despite this limited sample size, all targeted variables are represented.

Because official records of this type of homicide are unattainable, the author had to rely on newspaper accounts and the recollections of veteran investigators to identify cases of parricidal familicide. The methodology of this study consisted of the following. A search for cases was performed using the Texas Newsfile database, which has a record of newspapers from all major Texas cities, from 1992 to the present. Next, telephone interviews were conducted with detectives from the homicide and juvenile

¹The term parricide, which was originally defined as father killing (now termed patricide), has grown more inclusive as its connotation has evolved. It is currently used interchangeably in reference to the murder of parents, both jointly and individually, and/or any close relative. Paired with familicide (family killing), parricide seems the most fitting term to characterize killings involving young-adult men (son, brother, nephew, cousin, grandson, etc.) who murder their families.

²The ten largest cities were, in order of decreasing population: Houston, San Antonio, Dallas, El Paso, Austin, Fort Worth, Arlington, Lubbock, Corpus Christi, and Plano. (Order of cities based on 1999 almanac; populations determined by 1996 Census, containing latest available figures.)

divisions of the 10 subject cities' police departments, as well as investigators from the sheriffs' offices of the counties wherein each city is located. Once cases were identified, investigation files, autopsy protocols, and crime-scene photos were reviewed and prosecutors and defense attorneys interviewed where available. Finally, the offender (Robert Coulson) most representative of the variables¹ is the subject of a work in progress by the author, and thus has been interviewed extensively. These interviews -- conducted over the past several years while the subject has been in custody awaiting execution -- provided the inspiration for this study.

The other three offenders were not available for interviews. In one case, the perpetrator had committed suicide. And because the other two offenders' cases were on the eve of their respective trials when this study was conducted, information was limited pending adjudication. Due to these lacunae in analyses, the small sample size, and the gross limitations of empirical data, findings in the present study are preliminary, and thus should not be construed to generalize to all, or even most, parricidal familicides. These cases might serve as subjects of a larger, more exhaustive study, at such a time when more data are available.

For purposes of this study, the parricidal familicide is defined as a multiple murder in which a non-patriarchal male under the age of 30 kills three or more of his family members (biological, adoptive, nuclear and/or extended) in a single episode. The following cases involve triple, quadruple, and quintuple parricidal familicides.

Case Reports

Offenders in these four cases are educated young men in their 20s. All are from middle- to upper-middle class families and, as is common in parricidal familicides (Birnie, 1991), none had a history of prior violent offenses.² One case involved a Black male, and the other three White males, one of which was the only offender who was no longer who living at home. While greed was more or less pitched as a motive in all cases, the expressive nature of the crimes is evident, even in the more premeditated cases. Below are the factual backgrounds of the cases.

Michael Yowell

¹Coulson's victims included biological, adoptive, nuclear, and extended family relations.

²Yowell had a juvenile criminal history, and he and Edwards both reportedly had a handful of nonviolent offenses on their records, ranging from burglary and theft to drug and fraudulent check charges. Lewis and Coulson, the two who had attended college, had no prior convictions.

At age 28, Michael Yowell, a White male, was arrested for a triple homicide in which his biological mother, father, and maternal grandmother were killed. The incident occurred in Lubbock, Texas, in the home in which they all resided.¹

Yowell had a costly addiction to crystal methadone, a habit he supported by stealing from his parents and grandmother. His stealing had progressed to such a point that Yowell's father had begun sleeping with his wallet.

On the eve of Mother's Day in 1998, Yowell, using a .25 automatic, shot his father in the temple while he was in bed sleeping. His mother was strangled with a lamp cord, which was wrapped thrice around her neck. Before leaving the scene, it is theorized Yowell turned on the gas in the house where his grandmother still remained, apparently sleeping throughout the entire incident. Some time later, the house combusted. Nearly 3 weeks later, his grandmother died from injuries sustained in the fire.

When he confessed, Yowell said that he didn't intend to kill his parents; he was only trying to obtain money for drugs.

David Edwards

Another White male drug addict, 20-year-old David Edwards, killed three members of his extended family with whom he lived in Houston. Around mid-January of 1997, Edwards shot his paternal grandparents and aunt with a .38 Special revolver his aunt and grandmother had obtained a week before to protect them from Edwards. Each victim died of a single gunshot wound to the head. Five days after the murders, Edwards used the same gun to shoot himself in the head while driving with police in pursuit.

Edwards' father had a criminal record, for drug offenses among other things, and Edwards Jr. blamed his own substance abuse on his father's influence. Before Edwards Sr. was sent to the penitentiary, he was living in the home of his parents, Edward Jr.'s grandparents, where he had occasionally been arrested. While his father served his prison sentence, Edwards, who had been in and out of Alcoholics Anonymous and a treatment center, stayed in his father's room.

When he moved in, Edwards was out of work and the strained financial situation led to an inimical relationship with his three victims. Because he habitually stole money and took their cars without permission (sometimes not returning for days at a time), he had been told he had 2 weeks to get out of the house -- a threat that had been made before, but this time would likely have been carried out. A telling piece of evidence collected at the scene was Edwards' T-shirt which read: "Lost Dysfunctional Family."

Reginald Lewis

In February of 1985, Reginald Lewis, a 20-year-old college student, with no history of mental illness or substance abuse, committed a quadruple parricidal familicide by killing his biological parents and two brothers in their Houston home. Lewis, the middle child in a Black family, shot his mother and two

¹Since Yowell left his parents' home he had periodically returned over the years. At the time of this offense, however, he was living at home.

brothers. Next, he shot his father, whom he also stabbed and bludgeoned to death before setting him on fire.

Lewis, an upper-middle-class Black male, had no prior criminal record. As prosecutors prepared for a third trial of this case, a motive still eluded them. One theory held that Lewis was distressed over his failing status in college -- surprisingly, not an uncommon catalyst in these types of cases (Birmie, 1991). Another proposed greed as a motive, citing Lewis' purchase of a new Porsche after he was named heir to his family's quarter-million-dollar estate.

While he had not been diagnosed with any psychopathology, Lewis contended that he suffered from a severe "bladder problem," which caused him to experience urinary incontinence. Claiming he was pulled over on the side of the road to urinate in a plastic bag at the time his family was killed, Lewis maintains his innocence, despite three convictions.

Robert Coulson

On a Friday the 13th in 1992, Robert Coulson bound his five family members, placed plastic bags over their heads and set their bodies afire, single-handedly extinguishing three generations of a family, in what was of the most horrific crimes Houston had ever seen. In this quintuple parricidal familicide, Coulson, a 24-year-old White male, suffocated his adoptive mother, asphyxiated his adoptive father and younger adoptive sister, and asphyxiated his older biological sister, seven months pregnant, and her husband.

Coulson, who had no criminal history, carefully planned the crime, and fled the scene after the slayings. A statement made by Coulson shortly after his arrest is chillingly similar to Yowell's admission that he did not mean to kill his family. Coulson told detective Sergeants John W. Belk and Brad Rudolph that he didn't mean to kill his family; he really loved them. As heir to his family's half-million-dollar estate, Coulson, who was unemployed at the time, indicated he felt societal pressure to break out of a middle-class lifestyle.

DISCUSSION

Various behavioral and motivational dynamics distinguish the traditional familicide from the parricidal familicide. Familicide is recognized as a distinctly male-perpetrated crime (e.g., Daly & Wilson, 1988; Ewing, 1997), and is traditionally defined as a homicide in which the male patriarchal figure kills his wife/partner and children -- all of whom he views with a proprietary ideation (Daly & Wilson, 1988, Wilson, Daly, & Daniele, 1995) and whom he feels he is no longer able to control (Ewing, 1997). Thus, it has been argued, the prototypic familicidal male is in a sense killing those he believes he has created or over whom he thinks he exercises control. By contrast, in the parricidal familicide, the offender, resentful of his lack of autonomy, can be viewed as destroying the unit which he deems has created or controls him. It should also be noted that in typical cases of familicide, the father-figure's primary motive is often to end his own existence. Believing that his family cannot go on without him (Daly & Wilson, 1988) or wanting to protect them from shame ("Rage, Pain Dominate Familicide," 2000) he claims their lives before taking his own.

Suicide, however, is rarely found in the parricidal familicide. To the contrary, the offender in a parricidal familicide believes he must slay his family to restore his *own* life which he feels is threatened or has been eroded by the depersonalization that accompanies abuse. Unlike the typical familicide, where in many cases the patriarch's primary motivation is suicide, in the parricidal familicide, any act of suicide may be viewed as reactionary -- a mental fallout brought on by the offender's realization of the enormity of his act and the consequences he is facing. The rarity of suicide in the parricidal familicide is evidenced by the title of the only book detailing these types of cases: *Sole survivor: Children who kill their families* (Leyton, 1990)[emphasis added].

In typical cases of parricidal familicide, suicide is neither the solution nor the primary motive. If the offender has suffered abuse at the hands of one or more of his family members, his act can be seen as an attempt to escape a family which, in some sense, he views as owning him. Whoever he feels is controlling him is likely his abuser or perceived oppressor. Anthropologist Elliot Leyton (1990, 1992), who characterized the family as the "crucible of identity" (1992) argues that in an "angry and intimidating familial milieu, a sensitive child who is failing the family's evaluative index may feel entrapped as his or her unique, individual needs remain quite unrecognized, or are swept aside, by the force of the dominant parent." To reclaim his identity, in other words, he murders all he perceives have robbed him of it (Birnie, 1991; Leyton, 1992). Thus it is through the act of killing, and the means by which the offender chooses for execution, that he is subliminally severing himself from the vine he believes is poisoning him.

Indeed, the body of research in the area of patricide cites such abuse as the motivation behind these young men killing their fathers. Greed is also frequently identified as a motive (Ewing, 1997; Leyton, 1992), and has been advanced, primarily by prosecutors,¹ in three of the four illustrated cases of parricidal familicide. Whatever the motivation may be, however, it is argued that whether or not the perpetrator has been a victim of abuse, perceived or actual, or was motivated by greed, the parricidal familicide is an expressive crime as is evidenced by the manner in which his victims are murdered. As will be discussed below, nowhere is this more evident than in the crime scene.

Classes of Parricidal Familicide

Like other forms of domestic homicide, the parricidal familicide can be classified according to crime-scene dynamics. In their *Crime Classification Manual*, Douglas, Burgess, Burgess, and Ressler (1992) dichotomized domestic homicides into spontaneous and/or staged categories.

¹In the Michael Yowell case, prosecutor Matt Powell argued that Michael killed for drug money. While this was likely all Powell needed to prove his case, it does not explain the personalized aggression Michael displayed in killing his mother. In pursuit of a viable motive for Reginald Lewis murdering his family, former special prosecutor Bryan Best acknowledged that Reginald's rampage was so outrageous that greed was the only remotely graspable straw (personal communication, June 28, 1999). And in the mass murders committed by Robert Coulson, prosecutor Chuck Rosenthal cited as evidence of greed Robert killing his beloved younger sister -- another beneficiary to his parents' estate.

The spontaneous domestic homicide is unplanned and is prompted by either an event immediately preceding the incident, or by an accumulation of hostility.¹ This rage is manifest in the disordered nature of the killings. The weapon is one of opportunity, and is both obtained from and left behind at the crime scene.

In contrast, the staged domestic homicide is a premeditated event. Weapons used are not typically found at the crime scene. And whereas the perpetrator of the spontaneous domestic homicide is typically at the scene when bodies are discovered, in the staged domestic homicide, he is frequently missing.

Coulson's killings, and perhaps Yowell's, appear to have been premeditated events. In the Coulson case, almost all of the items used -- flex cuffs, duct tape, plastic bags, ignition fluids, even matches -- were brought to the scene 3 days before the killings. Coulson also arranged for his five family members to arrive at the home at staggered times so that he could control the scene and successfully subdue his victims. Michael Yowell's premeditation was gauged by his bringing to the scene the gun used to kill his father.

However, the Lewis and Edwards cases seem to have been spontaneous acts. Not only were all of the weapons taken from, and, in Lewis's case, left at, the scene, but Lewis himself emerged from the home covered with blood spatter, announcing to neighbors that his family was dead. And while Edwards did not leave the weapon at the scene, he left behind blood evidence on his clothing, shoes, and other items when he changed before fleeing.

Motivation, Typology, and Psychopathology of Offenders

In their 1995 study, Block and Christakos described "Homicide Syndromes"²

as existing along a continuum comprising "expressive" and "instrumental" extremes. The expressive fatal confrontation has as its chief objective the violence itself; any other motivate is ancillary. The instrumental confrontation is materially motivated, but may also contain expressive elements depending upon the nature of the victim-offender relation.

Because the parricidal familicide is an intrafamilial homicide, the intimacy the perpetrator shares with his victims -- even in the most methodical, premeditated killings (Coulson's act the quintessential example) -- means that expressive elements should be found at the scene. The process of discovering these elements is analogous to what is involved in detecting "signature" aspects of violent crime. An offender's signature consists of personalized actions which exceed the means necessary to effect the killing. These extra

¹In their investigation of interfamilial homicide committed by juveniles, Kashani, et al. (1997) attributed such pressure as attributed to "catastrophic conflict," in which the stress caused by a youth's family member impairs his ability to contain his rage which is then expressed violently.

²According to Block and Christakos, homicide syndromes combine two offenses, the first either expressive or instrumental in motivation, but both containing elements of the other, to greater or less degrees.

measures are usually unconscious and are the realization of fantasies long harbored by the offender who cannot help but act them out (Douglas, et al., 1992).

Although the Yowell, Edwards, and Coulson cases appear to be instrumentally motivated -- two for the drug money, the other for an inheritance, respectively -- each crime is also highly expressive in nature. The Lewis murders are also expressive, but any link to instrumentality is a tenuous one. In all cases, violence is exacted on victims in varying degrees, proportionate to the offender's relationship with each. Planning matters little, as the instrumentality of each crime is at some point eclipsed by the offenders' irrepressible need for expression.

Michael Yowell

Such a need may explain why a crime that began as a means to obtain money for drugs somehow escalated into a vicious triple homicide. Michael Yowell intentionally embarked upon his course of conduct literally armed in anticipation of robbing his father. Because his father slept with his wallet, Yowell deemed it necessary to shoot him while his father was in this helpless position. Yowell's choice of weapon is telling. Many have hypothesized that weapons used by juvenile and young-adult offenders reveal something about the relationship between the offender and victim (Cornell, Benedek, & Benedek, 1987; Heide, 1993; Kashani, et al., 1997; Malmquist, 1996; Silverman & Mukherjee, 1987). In her investigation of juvenile parricide offenders, Heide (1993) concluded that, as would be expected, fathers were significantly more likely than mothers to be slain with firearms. In most cases, she found that, not surprisingly, fathers are more difficult to overpower than mothers, especially by juveniles under 18 years old. The Yowell case supports this hypothesis. Yowell, a young man of slight stature -- made more frail by his drug addiction -- was significantly smaller than his father. Experts in the field of parricide (e.g., Duncan & Duncan, 1971; Ewing, 1990b; Heide, 1993) have suggested that children who kill parents while they are relatively defenseless (e.g., with their backs turned, while sleeping, etc.) were usually abused by that parent.

While a compelling theory, this does not appear to be the case with Yowell. In fact, Assistant District Attorney Matt Powell, who prosecuted Yowell, stated that the young man's parents "bent over backwards" for him (personal communication, June 15, 1999). Yowell's familicide may have been drug induced. As Duncan and Duncan (1971) observed, a youth's inability to control his impulses may be the result of drug ingestion or disease of the central nervous system. Crystal methadone (Yowell's drug of choice) is known to degenerate the central nervous system and produce homicidal tendencies. In all likelihood, the narcotics unleashed murderous fantasies. The manner in which Yowell killed his mother -- strangling her with a lamp cord, a weapon of opportunity found and left at the scene -- indicates the spontaneity and expressiveness of her slaying. The brutality and gratuitousness of this method of killing suggests that on some level Yowell was seeking fulfillment of his destructive phantasms. It is worth noting that Yowell did not personally kill his grandmother. Thus, while the motive in killing his father was instrumental, the resultant parricidal familicide became an expressive crime primarily directed toward his mother (the more domineering of his parents). The death of the grandmother was the most removed, and may have been incidental.

David Edwards

Similar to the Yowell killings, Edwards' crime was initially motivated by drug addiction -- in this case, marijuana and crack. At the time of the murders, Edwards' life was in a state of despair. His father was an habitual criminal who was serving a drug-related prison sentence and his mother refused to let him live with her. Further, Edwards' addictive behavior had left him with few friends. And he was only able to get a job as a consequence of stealing money from his girlfriend. (Her father allowed Edwards to pay off the debt by working at his company.)

With nowhere to turn, Edwards moved in with his grandparents and aunt. Tension in the home soon mounted due to Edward's behavior, and the living situation quickly deteriorated. Like Yowell's father who slept with his wallet under his mattress, Edwards' aunt had begun hiding her purse under her bed to prevent Edwards from stealing from her. Likewise, to protect himself, Edwards' grandfather was sleeping with a baseball bat under his bed. Shortly before the offense, his aunt borrowed a .38 Special revolver.

A variety of stressors contributed to Edwards' crime. With no reliable means to support himself, Edwards now faced the reality that he would soon not have a place to live. He had exhausted financial support from his family. Five days before the incident, Edwards allegedly cut the phone lines to their home in an attempt to convince his grandfather to give him money to ward off a fictitious drug dealer. Also around this time, Edwards was taken to the hospital for a drug overdose, quite possibly a suicide attempt. One way or another, Edwards' relatives wanted him out of the house, and he seemed to know it would be permanent this time.

A review of the crime-scene dynamics indicates that because Edwards' grandfather's wallet was found in a pool of blood on the ground next to his body; it appears the crime may have begun when Edwards shot his grandfather who may have refused, for the last time, to give him money. It seems that Edwards next shot his grandmother as she emerged from her adjacent room responding to the gunfire. His aunt, down a long hallway in another part of the home, may have run to the end of the hall where a bullet that had missed her was found embedded in the Sheetrock. It is speculated that Edwards followed her down the hall and into her room where he shot her at close range in the head as she reached for the phone to call for help. While less expressive than the other three crimes, Edwards nevertheless went beyond what was necessary to commit a robbery.

Reginald Lewis

As in the Edwards case, it seems Reginald Lewis's crime was triggered by a precipitating event and was thus a spontaneous, expressive offense with no clear secondary motive. Lewis's grades in college were plummeting and it could be that he could not handle the pressure of school or the fear that his family, especially his father, would discover he was failing.

The night of the offense, Lewis and his father had an argument just prior to the father leaving for a night job. While his father was gone, Lewis, using a .38 Special, shot his mother and younger brother as they were sleeping, before firing a bullet into the head of his older brother, who was in the middle of a

telephone conversation with a girlfriend. After killing his mother and brothers, Lewis waited for his father to return from work.

While his mother and brothers were each shot, his father, likely the target of his rage, suffered the most violence. Lewis bludgeoned and stabbed his father, strangled him with a telephone cord, choked him with a wood log near the fireplace, and finally shot him with the same handgun before setting him ablaze. Lewis's choice of weapons -- especially the telephone cord and log -- indicates the spontaneous nature of what may have been a more planned offense.

Undoubtedly, this last murder was infused with hate-filled expressionism, but its focus is unclear. His father's slaying exhibits the type of depersonalization via mutilation one expects to find in the most iniquitous cases of sexual or physical abuse. Despite Lewis's father being known as a "disciplinarian," however, no evidence of abuse, physical or otherwise, was presented. There are numerous cases in which youths kill their parents rather than expose them to the shame of their academic failure. This may have been the reason Lewis killed his family, particularly since his brothers' and mother's murders were nonconfrontational. While his academic failure may have contributed to the crime, however, a more likely scenario is that Lewis knew he was going to kill his father, and did not want the others to know about it.

The inevitability of the crime could have been set in motion because Lewis's father had the last word before leaving, or threatened him in some way. Once his father left, Lewis may have flown into a homicidal rage of displaced aggression. Typically, though, if that were the case, he would have released a great deal of that aggression in killing his mother and brothers -- may have even been able to psychologically substitute their deaths for the father's. In other similar cases of domestic homicide, this type of offender may have cooled down, perhaps even engaged in acts of undoing, such as cleaning up his victims. And in the event the offender did dissolve into remorse and confession, one would at least expect him to set about the business of conjuring an alibi and staging the scene before his father returned. Not so with Reginald Lewis. While his father was at work, Lewis may have been brooding -- building up to another deadly crescendo. It could be that Lewis is one of Leyton's (1992) vulnerable kids who, having failed his family's "evaluative index" -- particularly by not meeting the expectations of the dominant parent -- saw the slaughter of his entire family as the only way out. One can only speculate as to what set him on his path of destruction.

Surely some type of psychosis must have accompanied any of the scenarios that could have led Lewis to kill his entire family and stroll from the smoking home with the blood of guilt on his hands. And it is not just enuresis.

Robert Coulson

At least on the surface, Coulson's parricidal familicide appears to have been primarily motivated by material gain. But, despite his cool, meticulous planning, the manner in which his family members were killed is distinctly expressive of his relationship with each. This case is especially instructive in that all

targeted relationship variables (biological, adoptive, nuclear, and extended) are represented. Analysis of autopsy findings and crime-scene photographs and videotape support this study's hypothesis.¹

While Coulson did not particularly dislike his adoptive father, he had an intensely acrimonious relationship with his adoptive mother, who was somewhat of a virago. Coulson felt almost as much antipathy toward his biological sister, who was, notably, closer than the other children to the mother. Coulson most identified with his younger, adoptive sister, with whom he had always maintained an amicable relationship. It was even speculated that he waited to commit the murders until she had delivered a child she gave birth to out of wedlock less than a month before the killings. His older, biological sister, on the other hand, was killed just 2 months prior to her delivery date. Despite his disdain for her, Coulson was apathetic toward her husband, his brother-in-law.

An examination of the crime scene and autopsy photos reveals these relationship typologies. Coulson's relationship with his adoptive parents is especially illustrative. The adoptive mother was killed first by suffocation with a pillow. Considering this act requires significant upper-body strength for 5 to 10 minutes, this was a highly-personalized killing, and evidence showed she fought fiercely for her life.² Coulson's father was uneventfully subdued and killed in the planned, clinical fashion: asphyxiation with a plastic bag. His younger, adoptive sister's murder was even less aggressive than his adoptive father's. She was loosely restrained and, unlike the other victims, there was no sign of blanching from duct tape, as was the case with the other victims.

The typologies of his last two victims, one biological, the other, an in-law, reveal Coulson's relationship to each. While the first three victims were ambushed individually, Coulson's biological sister and her husband were slain spontaneously. Coulson first killed his brother-in-law, who otherwise would have interfered with the murder of his wife, who, due to her pregnancy and a back injury, was essentially defenseless. Here Coulson deviated from his original plan just as he had when he confronted his adoptive mother. He impulsively grabbed a crowbar (obtained at, but removed from, the scene) which he used to immobilize his brother-in-law, striking him once in the head. Turning to kill his sister, Coulson repeatedly bludgeoned her with the crowbar. When the carpet was later cut away by crime-scene officers, residual blood stained the floor where her head had lain.

Expressive elements were also found in the way these two victims were bound. His able-bodied brother-in-law, clearly the greater threat, was bound according to plan: flex cuffs at his wrists and ankles, duct tape over his mouth, and bag over his head. By contrast, his helpless biological sister was double- and triple-bound with flex cuffs and duct tape around the arms, wrists, legs, and ankles. Further, the duct tape not only covered her mouth, as it did the other victims, but it also extended from above her nose to below

¹The oral presentation of this paper was accompanied by slides of autopsy and crime-scene photographs, demonstrating that the offender's relationship to each family member is revealed in the expressive elements found at the crime scene and on the bodies.

²According to the assistant medical examiner who performed Mrs. Coulson's autopsy, her body was described as frozen in a pugilistic stance (Espinola, 1992).

her chin. Although unplanned, it was no accident that excessive hostility was directed toward the weaker victim whom Coulson regarded with contempt.

Thus, while Coulson may have had greed as a primary motive, his impetuous, almost involuntary actions reveal a spectrum of expressive elements. The purpose of his crime may have very well been to secure financial independence, as he did tell detectives that he felt pressure to meet society's expectations of him.¹ In an article on familicide, sociologist Jack Levin stated that money is often a factor: "Many people feel their middle-class lifestyle is slipping away and they're looking for someone to blame" (Smith, 1995).

In all four cases, then, expressive elements are found which reveal the nature of the offenders' relationships to their victims.

Although relationship typologies are somewhat salient, psychopathology in parricidal familicides is often difficult to detect, especially in cases involving young-adult males. Various studies addressing adolescent intrafamilial killers (Heide, 1995; Kashani, et al., 1997) type juvenile murderers as either abused, mentally ill, or antisocial.

While greed may have been the primary motive in all four cases, such greed was fueled by a constellation of these circumstances or disorders. Mental illness can be exacerbated by as well as induce drug abuse. All forms of abuse, including drug abuse, can lead to a panoply of personality disorders. Arguably some combination of these contributed to the killings committed by Yowell, Edwards, and Lewis.

With the Coulson case, however, pigeonholing is not so neat. Ostensibly sane, educated, and drug-free, the heinousness of Coulson's crime was incomprehensible. Upon examination, one psychologist determined that Coulson has a personality disorder, which may be a byproduct of another malady termed Reactive Attachment Disorder [RAD]. According to the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, RAD is brought on by the trauma of adoption and lack of attachment to a mother figure. This disorder is formed within the first 5 years of life (which was the time span during which Coulson was abandoned, placed in a foster home, and ultimately adopted). The absence of a bond leads to an inability to empathize with others. Violent eruptions often beginning in childhood are not unusual, and are sometimes fatal. Still, Coulson -- who at will could turn on the charm and be pleasant, sociable, and courteous -- did not exhibit typical symptoms of RAD. Thus, the psychologist concluded that Coulson has what is termed the "as if" personality. Also referred to as "passive plasticity," this type of personality renders one capable of the deepest fidelity and basest depravity. Any signs of aggression are "almost completely masked by passivity, lending an air of negative goodness, of mild amiability which, however, is readily convertible to evil" (Stone, 1993). This type of personality is associated with Nazis, the majority of whom had been beaten into obedience and proper form by parents striving to uphold their cultural values. Coulson's adoptive family, especially his mother -- despite what may have been her good intentions -- tried to forge the children into a certain righteous image. Unfortunately, this heavy-handedness

¹And Coulson, who was unemployed and had stopped attending college, was probably eliminating those he felt were judging him. In fact, a delusional arrogance may have caused Coulson to believe his bourgeois family was responsible for his lack of success.

from a person Coulson was not attached to and thus unable to empathize with may have proven a fatal combination. Stone (1993, p. 12) addressed the danger of this type of situation:

When obedience is put ahead of fundamental human values, this strangely juxtaposed niceness and wickedness may develop, creating a personality whose abnormality may surface seldom -- or never -- unless the capacity for malice is suddenly "switched on" by certain pressures within one's social or political milieu.¹

Considering the pressures weighing on Coulson, this brewing personality disorder may have surged, leaving in its wake the blackest evil.

Notwithstanding variances such as Coulson's psychopathology, in the aggregate, the cases in this study suggest that the more intimate the relationship between victims and their perpetrators, the more personalized the manner of killing. Face-to-face, hands-on encounters, such as bludgeoning, asphyxiating, strangling and fire-setting are highly-personalized methods that convey the degree of intimacy between these offenders and their victims. Shooting, however, is a relatively impersonal, removed form of killing inconsistent with what would be expected in a parricidal familicide. Edwards' frugal bullet-per-victim *modus operandi* and subsequent suicide distinguish his crime from the others, which were emotionally charged and self-preserving. An interesting observation is that fire was involved in all cases but Edwards'. While arson is instrumentally intended to destroy evidence, these offenders' use of fire -- an element at once destructive and purifying² -- may perhaps be viewed as an expressive act symbolizing their drive to decimate what they believe has controlled them, so that, in their own minds at least, they may emerge from the ashes of their origins to reclaim their lives independently and anew. But while a number of those who commit parricidal familicide experience a great sense of relief and freedom (Birnie, 1991), in most cases, their new lives are confined to an 8' x 10' cell until they are truly released from their misery.

CONCLUSION

Although limited by an inconclusive sample size and restricted data, this study nevertheless supports the budding hypothesis that, on a primal ontological plane, the parricidal familicide is marked by expressive elements -- even in killings executed with exacting calculation. Further, these elements, as evidenced in the cases forming this study, fortify the theory that the manner in which the victims are killed betrays the

¹Leyton (Birnie, 1991) also identifies this phenomenon, which he terms "status hysteria." He posits that the genesis of familicide "lies in two of modern society's greatest strengths: the possibility of social mobility and the relative freedom from rigid rules and prescriptions. Paradoxically, these strengths are also society's greatest weaknesses," he argues, as emotionally unequipped parents "impose their plans by manipulation and exploitation, [creating] incredible stresses and tensions within the family."

²Symbolically, fire may represent the "perfect and pure reflection of the one universal flame; it is life and death, creator and recreator; the origin and end of every material thing. . . .The fires of hell are purificatory. By his power of self-conscious choice an individual may set himself at variance with nature's processes, thus creating his own devils" (De Purucker, 2000).

offenders' propinquity to each of their family members. Like genetic traits that are peculiar to families in varying degrees, behavioral characteristics of each parricidal familicide reveal the nature of relationships and levels of intimacy, ultimately forming the blueprint for understanding this most unnatural crime. It is hoped that this study will generate interest in and encourage further research in parricidal familicide.

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OFFENSE, OFFENDER, AND VICTIM CHARACTERISTICS OF PUBLIC MASS MURDER INCIDENTS IN THE UNITED STATES, 1975-1999

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ABSTRACT

Mass murder has attracted considerable attention over the past decade largely due to several high profile incidents. This paper explores the context of mass murder occurring in both public and private settings in the United States between 1975 and 1999 using data derived from newspaper articles. Key factors such as offender background, victim-offender relationship, and weapon choice are examined in order to better understand the context of this type of homicide.

INTRODUCTION

Events such as the school massacres in Pearl, Mississippi, West Paducah, Kentucky, Jonesboro, Arkansas, Springfield, Oregon, and Littleton, Colorado have attracted an enormous amount of attention and heightened concerns over public incidents of mass murder. The most recent of these episodes, the massacre that took place on the grounds of Columbine High School in Littleton, generated intensive media coverage, and spawned numerous forums, task forces and even a Congressional inquiry in an attempt to quell public concern and otherwise explore how such a tragedy could have occurred.

Yet despite a great deal of speculation by the media and some academics, to date, little research has been done on this form of multiple murder. The literature on this topic has primarily been limited to differentiating between different types of multiple homicide (see Busch & Cavanaugh, 1986; Dietz, 1986; Gresswell & Hollin, 1994; Rappaport, 1988), or attempts to create a typology for various types of mass murder (Dietz, 1986; Holmes & Holmes, 1994; Kelleher, 1997; Petee, Padgett, & York, 1997; Rappaport, 1988; Rowlands, 1990). Very little is known about patterns and trends related to mass murder.

The present study will examine situational factors related to public incidents of mass homicide. In the wake of recent incidents, a number of questions have been raised about the nature of mass murder. Specifically, this paper will attempt to address the following:

1. *Is mass murder being perpetrated by younger offenders?* The school massacres in particular have raised questions about the participation by younger offenders in mass murder incidents. Overall, homicide statistics indicate a increase in the percentage of juvenile offenders. However, does this trend apply to mass murder as well?

2. *What is the role of firearms in mass murder incidents?* The question of accessibility and lethality have been raised as a result of some of the more highly publicized mass murder incidents (e.g., Colin Ferguson, the Jonesboro case). How often are firearms used in mass murder incidents? How do these figures compare to overall trends for homicide? Moreover, what kind of firearms tend to be used in these incidents?
3. *What kind of patterns exist pertaining to victimization?* Several of the school shootings appeared to focus on female victims in particular. Is there any specific pattern to victimization for mass murder incidents? What is the percentage of female victims relative to male victims, and has this changed over time?
4. *What kind of spatial and temporal elements exist regarding mass murder?* Do they tend to occur in any one kind of place? Is there any particular pattern pertaining to day of the week when mass murders occur? Is there any pattern to the time of the day when these incidents occur?

METHODS AND DATA

This study consists of public incidents of mass murder which occurred in the United States between 1975 and 1999. For the purpose of this study, mass murder was defined as the murder of three or more persons (see Petee, et al., 1997) in a limited area (usually one place), over a limited time period (i.e., less than 12 hours). Public place was defined as any setting other than a domicile. We chose to focus on public setting mass murders because of the kind of attention given to these incidents, and because of variation in both the nature and context of these homicides. By contrast, mass murders occurring in a home setting are relatively invariant in terms of the circumstances surrounding the incident, almost always involving domestic relationships (Petee, et al., 1997).

Data for this study were derived from newspaper articles. For articles appearing prior to 1990, newspaper indices were used to identify possible cases for inclusion in the data set. The following newspapers were utilized for this purpose: *The Atlanta Journal-Constitution*, *Birmingham Post-Herald*, *The Boston Globe*, *Chicago Tribune*, *The Detroit News/Free Press*, *Houston Post*, *Los Angeles Times*, *The Miami Herald*, *The New York Times*, *The New Orleans Times-Picayune*, and the *San Francisco Chronicle*. Articles appearing after 1990 were located using *Newsbank*, *Newsfile*, and *Newspaper Abstracts* (NPA).

All articles were screened to determine if they met the criteria for the requisite number of homicides (at least three) and the appropriate context (occurring in a public place). Mass shootings and other potential mass murder events that did not initially meet the victim criterion were subjected to a 1-month follow-up period to determine whether any additional victims died. Several cases were ultimately excluded from our analysis because they appeared to be spree murders rather than mass murders.

A data code sheet was used for the collection of all relevant information on the offender (s), victims, and incident (see Petee, et al., 1997). The data consisted of more than 80 indicators. For the purpose of analysis, three separate data files pertaining to offender data, victim data, and incident data, were developed.

AGE TRENDS FOR MASS MURDER

The school massacres raised concerns over the participation of juveniles in mass murder. Historically, the perception has been that mass murder tends to be committed by middle-aged adults (see Levin & Fox, 1985). However, that perception has changed markedly in the past few years. There had already been a good deal of concern over youth violence due to the steady increase in the percentage of youth committing homicide since the mid-1980s (Federal Bureau of Investigation, 1985-1998; Heide, 1999). The Jonesboro and Littleton incidents in particular seemed to heighten these concerns. Consequently, as of late there seems to be a tendency to equate mass murder with younger offenders.

TABLE 1: MEAN OFFENDER AGE, 1975-1999

<u>Year</u>	<u>Mean Offender Age</u>	<u>Year</u>	<u>Mean Offender Age</u>
1975	23.7	1988	40.0
1976	37.0	1989	33.7
1977	33.0	1990	25.4
1978	37.5	1991	25.3
1979	27.8	1992	25.8
1980	25.3	1993	32.3
1981	39.3	1994	24.7
1982	35.0	1995	31.0
1983	27.0	1996	33.3
1984	32.7	1997	36.2
1985	30.7	1998	18.5
1986	33.0	1999	19.3
1987	60.5		

An analysis of the distribution of age categories for mass murder reveals that youth (i.e., offenders under 18 years of age) constitute a relatively small proportion (10.5%) of all offenders. However, an analysis of offender age over time (Table 1) demonstrates that the average offender age has dropped precipitously in the last 2 years. In 1997, the mean offender age was 36.2 years. In 1998, that figure dropped to 18.5 years, and thus far in 1999, the mean offender age has been 17.5 years. In fact, the lowest mean offender age prior to 1998 was 23.7 years in 1975. The significance of this finding, however, is hard to evaluate. It should be remembered that mass murder is a relatively rare phenomenon, and that the influence of even a handful of cases could dramatically impact these averages. Nevertheless, half (50.0%) of the juvenile offenders in this data set committed their offenses after 1994. For most of the years examined, none of the offenders was under 18 years of age (see Table 2).

FIREARMS AND MASS MURDER

A more complex question has to do with the use of firearms in mass murder episodes. On one hand, firearms are used in 88% of the mass murder incidents examined in this study, thus making them the weapon of choice. As Table 3 demonstrates, with the exception of some years (1977, 1981, and 1995) where victimization counts were skewed by high fatality arsons or bombings, the percentage of victimizations involving firearms in mass murder cases was higher than the comparable percentage of victimizations for homicide in general. In fact, in the majority of the years analyzed here, firearm fatalities accounted for all of the victimizations.

TABLE 2: NUMBER AND PERCENTAGE OF OFFENDERS UNDER 18

<u>Year</u>	<u>Offenders</u>	<u>Percentage</u>	<u>Year</u>	<u>Offenders</u>	<u>Percentage</u>
1975	0	0.0%	1988	0	0.0%
1976	0	0.0%	1989	0	0.0%
1977	0	0.0%	1990	1	20.0%
1978	0	0.0%	1991	4	23.5%
1979	0	0.0%	1992	2	50.0%
1980	0	0.0%	1993	0	0.0%
1981	0	0.0%	1994	0	0.0%
1982	0	0.0%	1995	1	7.7%
1983	1	20.0%	1996	1	25.0%
1984	0	0.0%	1997	2	40.0%
1985	0	0.0%	1998	3	75.0%
1986	0	0.0%	1999	1	33.3%
1987	0	0.0%			

However, while some critics might question how some of the offenders acquired the weapons used in these murders, the evidence from this study suggests that some of the recommended remedies might be misguided. Very frequently, anti-gun forces call for the banning of “assault” weapons, or the implementation of waiting periods and background checks for prospective buyers. These background checks typically target those potential buyers with a prior history of violent crime or with a history of mental illness. Of the known offenders in this study, only 18.9% had any history of mental health problems. Moreover, while a fairly high proportion of the offenders had a prior criminal history (50.9%), only 15.7% had a history of violent crime. Perhaps even more important, 63.3% of these offenders purchased the firearm(s) used in the offense legally (interestingly, another 20% borrowed the weapon they used), which is inconsistent with findings for other gun-related crimes (Wright & Rossi, 1986).

Average Killed or Wounded

The most lethal mass murder events did not involve firearms at all. As can be seen in Table 4, mass murder involving the use of firearms resulted in an average of 4.86 victims killed per incident. By comparison, mass murder involving arson had an average of 8.5 victims killed per incident, and those involving explosives resulted in an average of 86.5 victims killed per incident, although the latter figure is obviously skewed by the Oklahoma City bombing. However, the use of arson materials or explosives in mass murder incidents is relatively rare -- accounting for only 4% of the cases. Ultimately, the prevalence of firearms in mass murder incidents may be an issue of weapon availability (see Cook & Moore, 1999).

TABLE 3: PERCENTAGE OF VICTIMIZATIONS INVOLVING FIREARMS, 1976-1997

<u>Year</u>	<u>All Homicides</u>	<u>Mass Murder</u>	<u>Year</u>	<u>All Homicides</u>	<u>Mass Murder</u>
1976	63.8%	100.0%	1987	59.1%	100.0%
1977	62.5%	66.7%	1988	60.6%	100.0%
1978	63.6%	100.0%	1989	62.4%	100.0%
1979	63.3%	100.0%	1990	64.3%	100.0%
1980	62.4%	100.0%	1991	66.3%	94.6%
1981	62.5%	52.9%	1992	68.2%	100.0%
1982	60.2%	100.0%	1993	69.6%	100.0%
1983	58.4%	81.8%	1994	70.0%	100.0%
1984	59.0%	100.0%	1995	68.2%	5.6%
1985	58.7%	100.0%	1996	67.5%	100.0%
1986	59.1%	82.4%	1997	68.1%	88.0%

TABLE 4: LETHALITY OF INCIDENTS BY WEAPON

	<u>Average Number Killed</u>	<u>Average Number Wounded</u>
Explosives	86.50	53.00
Arson Materials	8.50	103.30
Firearms	4.86	3.82
Multiple Weapons	4.50	2.50

FEMALE VICTIMIZATION

The Jonesboro incident in particular raised questions about the targeting of females for victimization. In that incident, all five of the victims who were killed by Mitchell Johnson and Andrew Golden were female, and the offenders had apparently targeted girls. Following the incident, there was some discussion in the media which equated mass murder with femicide (see Palmer, 1998). In fact, females account for

30.9% of the victims of mass murder, which is indeed higher than their representation in homicide statistics in general (on average about 25% for the time period studied). On the other hand, some argument may be made regarding risk of victimization. Overall, men are much more at risk for homicide victimization than women (Segall & Wilson, 1993; MacKellar & Yanagishita, 1995; see also, Brewer & Smith, 1995), and it has been speculated that this may be attributed to the kinds of activities that they engage in which put them at risk for victimization (i.e., the routine activities approach). With mass murder -- especially those incidents occurring in public settings -- one might expect to see a more even distribution of male and female victims because of the context. Essentially, one would expect to see the "at risk" proportions to be representative of the distribution of males and females in the population in general, although some modifications to the expected victimization rate would be made for specific contexts (e.g., the workplace, which would take into account female participation in the labor market).

TABLE 5: PERCENTAGE OF FEMALE VICTIMS, 1975-1997

<u>Year</u>	<u>Mass Murder</u>	<u>Single Victim Homicides</u>	<u>Year</u>	<u>Mass Murder</u>	<u>Single Victim Homicides</u>
1975	0.0%	24.0%	1987	22.2%	27.0%
1976	15.4%	24.5%	1988	28.6%	27.4%
1977	33.3%	24.2%	1989	46.7%	25.2%
1978	13.6%	23.9%	1990	47.4%	24.3%
1979	25.0%	23.6%	1991	36.2%	25.0%
1980	28.6%	23.2%	1992	50.0%	25.0%
1981	15.4%	23.2%	1993	40.0%	26.4%
1982	25.0%	24.4%	1994	40.0%	25.2%
1983	18.2%	25.0%	1995	36.2%	26.0%
1984	53.1%	26.4%	1996	12.5%	26.0%
1985	9.1%	26.5%	1997	42.9%	26.7%
1986	33.3%	25.9%			

An analysis of female victimization over time (see Table 5) reveals a fairly substantial variation in the percentage of female victims. For some years (notably, 1977, 1984, 1989, 1992 and 1998), the proportion of female victims exceeds 50%. For one year (1975), there were no female victims for mass murder incidents. Again, the lack of stability in the proportion of female victimizations has much to do with the relative infrequency of mass murder. However, the data do not support the notion that equates mass murder with femicide, although there are certainly some incidents in which females are specifically targeted (e.g., Jonesboro, or the Marc Lepine incident in Montreal in 1989).

SPATIAL AND TEMPORAL PATTERNS

In the past 2 years, there has been a great deal of concern over the safety of schools after the shootings in Pearl, West Paducah, Jonesboro, Springfield, and Littleton. Despite the recent concentration of mass murder incidents in these school settings, spatially there appears to be no particular pattern to where mass murder occurs. As can be seen in Table 6, restaurants are the most likely place for a mass murder incident to occur (16.1%), followed by retail/grocery stores (14.5%) and government offices/facilities (12.9%). Schools (which includes universities) represent 9.7% of the cases, only the fourth most likely place for a mass murder to occur. Within this category, 42% occurred on a university campus, which was the more typical “school setting” for mass murder in the late 1980s and early 1990s (e.g., Gang Lu at the University of Iowa in 1991).

TABLE 6: MOST FREQUENT LOCATIONS OF MASS MURDER INCIDENTS

<u>Location</u>	<u>Percentage of Incidents</u>
Restaurant	16.1%
Retail Store	14.5%
Government Office/Facility	12.9%
School/University	9.7%
Factory	8.1%
Street/Sidewalk/Parking Lot	7.3%
Nightclub/Bar	6.5%
Bank/Financial Institution	4.0%
Business Office	4.0%
Church/Temple	3.2%
Other Location	13.7%

If more general categories were used for defining location, 40% of the mass murder incidents occurred in a commercial location (i.e., restaurants, stores, etc.), and 31% in the workplace. However, these categories do not entirely correspond to certain kinds of risk factors (i.e., robbery for commercial settings and disgruntled employees for the workplace). Because the location of mass murder incidents is widely dispersed, it is difficult to determine what kind of implications can be drawn from these findings. It does not appear as though any particular public place is substantially more likely to be targeted for such an event.

Interest in the temporal characteristics of homicide can be traced back to Wolfgang (1958). In general, studies on temporal distribution of homicide tend to focus on work and leisure patterns, with weekends accounting for a greater relative frequency of homicide (see Kposowa & Breault, 1998). As can be seen in Table 7, mass murder is most likely to occur on a Monday (21.8% of the incidents), although there is a fairly even distribution of cases across the week with the exception of Saturdays (only 8.1% of the cases).

TABLE 7: DISTRIBUTION OF MASS MURDER INCIDENTS BY DAY OF WEEK

<u>Day of the Week</u>	<u>Percentage of Incidents*</u>
Monday	21.8%
Tuesday	14.5%
Wednesday	13.7%
Thursday	14.5%
Friday	13.7%
Saturday	8.1%
Sunday	12.1%

* Percentages do not total to 100% due to the inability to determine when two of the incidents occurred

The time of day the mass murder incident occurred was also examined. As can be seen in Table 8, 22.1% of the mass murders occurred between 9:00 a.m. and 11:59 a.m., which corresponds to the beginning of the work day. When this finding is taken in conjunction with the most likely day of the week for a mass murder to occur (i.e., Monday), it seems to suggest a connection to workplace violence. Overall, nearly half (48.9%) of mass murders occurred between 9:00 a.m. and 5:00 p.m., which is consistent with the routine activities explanation.

TABLE 8: DISTRIBUTION OF MASS MURDER INCIDENTS BY TIME OF DAY

<u>Time of Day</u>	<u>Percentage of Incidents</u>
12:00 am - 2:59 am	8.0%
3:00 am - 5:59 am	6.2%
6:00 am - 8:59 am	10.6%
9:00 am - 11:59 am	22.1%
12:00 pm - 2:59 pm	14.2%
3:00 pm - 5:59 pm	15.0%
6:00 pm - 8:59 pm	13.3%
9:00 pm - 11:59 pm	8.8%

SUMMARY

In examining mass murder events occurring in the United States from 1975 until 1999, this paper set out to determine some of the key characteristics of these incidents. An examination of the age distribution for offenders suggested that there is comparatively a greater representation of juvenile offenders by the late 1990s. The issue of weapon choice was also explored. While firearms accounted for a high proportion of the homicides (88%), other weapons (i.e., bombs and arson materials) have a greater lethal potential. An exploration of victimization patterns does not support the thesis that equates mass murder to femicide. While females are more likely to be the victims of mass murder compared to homicide in general, if risk and routine activities are taken into account, their proportional representation is somewhat lower than expected. Finally, an examination of spatial and temporal patterns of mass murder incidents revealed that this type of homicide may be consistent with a routine activities approach in regards to temporal distribution, although no particular spatial pattern was noted.

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MURDER-FOR-HIRE: AN EXPLORATORY STUDY OF PARTICIPANT RELATIONSHIPS

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ABSTRACT

Murder-for-hire events involve interpersonal relationships that are more complicated than those existing in typical one-on-one violent events. This paper presents findings that explore 2 features of relationships between solicitors, hit men, and targets in 30 murder-for-hire events in Tennessee. First, findings are presented showing differences between male and female solicitors when socially negotiated contracts to kill are distinguished in terms of their “explicit” or “implicit” natures. Second, findings are presented showing that the instrumental and expressive motivations for participation in murder-for-hire events vary, depending on whether the relationship is between solicitors and hit men, solicitors and targets, or hit men and targets. The implications of these findings for explanations about the involvement of females in lethal violence and for treating murder-for-hire events as strictly instrumental are briefly discussed. Overall, the findings challenge the underlying assumption of a face-to-face expressive confrontation in intimate violence.

INTRODUCTION

That intimate relationships and the contexts in which they occur contain the seeds of violence, some of it lethal, is a well-recognized fact. Sometimes the violence is spawned over time, growing out of a constellation of conditions that tend to unleash human tendencies toward harmfully aggressive behavior. Other times, the violence erupts quickly, almost unexpectedly, ignited by instantaneous flames of passion and emotional outburst. A central assumption about violence involving intimates is that it ultimately always involves some face-to-face expressive confrontation between the intimates themselves as offender and victim.

Embedded deep in the cultural context of intimate relationships, however, is a type of lethal violence that is more complicated than that represented by the one-on-one lethal violence so often the subject of research. It is the solicitation to hire someone to kill someone else, otherwise known as murder-for-hire. At first glance, it might seem odd to treat murder-for-hire events as expressive violence, even those involving intimates. It is, after all, almost universally classified as a type of instrumental violence (Block & Block, 1993; Derber, 1997; Luckenbill, 1977). Yet, findings from an exploratory study of murder-for-hire in Tennessee suggest that these events contain relationships that are both expressive and instrumental and, furthermore, that the contracts to kill are very often made by one partner against the other partner.

A few examples will illustrate the involvement of partners in these offenses. A woman, long abused by her husband, agrees to pay someone money to kill him and end the abuse; an ex-spouse hires someone to kill his former wife to avoid further alimony payments; a young female entices her boy friend to kill her father so she can collect insurance money. What these examples allude to is a pattern of involvement in murder-for-hire that draws a third participant, a hit man, into the relationship between intimates. This type

of partner violence cannot be explained by examining the usual nexus of causal variations in the relationships among participants in one-on-one lethal events. The relationships of the participants in murder-for-hire events involve more complex instrumental/expressive patterns than those found in typical one-on-one instances of expressive violence between intimates.

Because murder-for-hire has not been viewed as an especially urgent topic in lethal violence research, there is little systematic research about it. Much of what we know of it is drawn from anecdotal and non-scientific sources.

ANECDOTAL EVIDENCE

With notable exception (Levi, 1981), almost all of the information available about murder-for-hire is anecdotal and non-scientific, drawn from fictional literature (Hopler, 1996), nonfiction novels (Griffiths, 1995; Humes, 1994; Lewis, 1975; Porch & Easley, 1997; Siegal, 1990), or from social commentaries (Dershowitz, 1994; Derber, 1996). Along with murder-for-hire movies (Black & Romano, 1999), TV drama series, TV investigative reporting series, and newspaper stories about murder-for-hire, these anecdotal sources constitute the sparse base of knowledge about this type of lethal violence. From them, a sketchy and highly provisional overview of murder-for-hire in time can be fashioned.

CONTRACT KILLINGS IN TIME

Jay Hopler begins *The Killing Spirit* by observing, “It is easier to find a good hit man than it is to find a good hit man story. In Baltimore, you can have anyone killed for \$25 -- more if you want finesse. I knew of a dozen street corners, all within five blocks of my one-bedroom apartment on St. Paul Street, where an assassin could be hired; the only modern hit man story I knew of was Earnest Hemingway’s ‘The Killers.’ But the existence of one argues favorably for the existence of the other...” (Hopler, 1996, p. xi).

There is nothing by way of an accurate historical record but, if fictional accounts can argue favorably for the existence of reality, then murders-for-hire have been around since at least Shakespeare’s time (Hopler, 1996, p. xii). How murder-for-hire has both persisted and changed in time has never been subjected to rigorous empirical scrutiny, but anecdotal evidence enables us to capture a casual glimpse of both its enduring and changing qualities.

Murder-for-hire has gone through roughly a three-stage metamorphosis in America. In stage one, the stage of the *entrepreneurial murder-for-hire*, those who solicited the services of a hired killer did so primarily with particular protective reasons and justifications in mind. Most often, at least according to historical statements, these were economically and racially motivated reasons. There is nothing in the scanty, fragmented anecdotal historical record to suggest that solicitors were motivated by their personal, private lives, and their intimate associations and relationships. Indeed, a purely business type of arrangement engaged in for the protection of essentially business types of reasons was what kept hired guns working.

In what was probably its earliest form, a “hired gun” was used for protection of one’s economic interests. Roger Lane speaks, for example, of the need for “Pinkertons or other hired guns” to protect striking workers from employers and each other (Lane, 1997, p. 163). Over time, the need for protection of economic interests was enlarged to include the need for control, and extended beyond the realm of economics into racial conflicts. A riveting set of scenes in *The Autobiography of Miss Jane Pittmann*

(Barry, Christiansen, & Rosenbert, 1974) highlights, for example, the use of a killer hired by the equivalent of the KKK, an old fishing buddy of Miss Jane's, to kill her son.

As the American economy stabilized around industrial activities, conditions of employment settled into more routine existences, and the racial violence following slavery subsided, the need for independently contracted hired guns dissipated. Spurred by the rising tide of immigration and their settling into urban enclaves and the emergence of organized underworld criminal organizations, a new breed of solicitors sought out the services of hit men for reasons other than just protection. Originally, solicitations were more or less mob-based. However, over the years, as political climates and underworld business dealings assumed global proportions, there was an increased demand for assassins and terrorists. Murder-for-hire in this second stage assumed more of a *professional/independent* quality. The reliance on violence as a means of internal organizational control as well as for protection from outside interference created the need for more mob-based hit men.

By the early part of the 20th century, murder-for-hire had become equated with the business of the underworld. Mob-based "hit men" were relied on to carry out "contract killings" to maintain control within and between mobster organizations and to extract revenge as a part of the ongoing and more highly organized nature of crime as a business enterprise. The need to maintain control supplanted the need for protection but did not entirely replace it. The independent "hired gun" of a previous era was overshadowed by the professional "hit man" of the underworld. In Hopler's analysis of fiction literature on professional hit men, these two types of hit men are embodied in the "Metamorphosis tale" and the "Utopian tale." Images of the hired gun or a hit man as an unknown assassin continue to shape conventional wisdom about murder-for-hire in contemporary America.

There is growing evidence that this stage of murder-for-hire is on the wane, taking with it mob bosses issuing contracts to kill, and those highly skilled at the craft of killing. It is being replaced by a murder-for-hire that resembles its predecessors in only a few core ways. A picture of this newly emerging murder-for-hire is difficult to draw, except in the boldest of strokes. There are signs that the demise of the professional/independent is accompanied by the ascendancy of a more *personalized* murder-for-hire. The professional/independent hit man is being replaced by a hit man that is more friendly, casual, and personable. Lyrics in the AC/DC song "Dirty Deeds Done Dirt Cheap" (1976) illustrate the extent to which that transition has occurred:

If you got a lady and you want her gone
But you ain't got the guts
She keeps nagging at you night and day
Enough to drive you nuts
Pick up the phone, leave her alone
It's time you made a stand
For a fee, I'm happy to be
Your backdoor man, hey.

To the extent that the hit man has become a "back door man" and his services more amateurish, he has become more accessible to those who "ain't got the guts" to do their own killing. Solicitors as well as hit men are changing. It is this new demand for solving one's personal problems arising out of intimate relationships that transforms solicitors prodded by economic and ideological concerns into

solicitors propelled by expressive motives more reflective of excessive self-centeredness and self-preservation than by economic greed and control. Murder-for-hire solicitors have problems in their personal, intimate, domestic lives that seem only to be resolved by killing.

The anecdotal evidence, while fascinating, tells us little about the totality of murder-for-hire as a lethal event. It is far too skewed. The aspect of the killing that so fascinates the public, being paid in some way to so someone else's killing, draws anecdotal evidence less to the solicitor and the target than to the hit man in murder-for-hire homicides. Whether as hit men, hired guns, or assassins, murder-for-hire killers share a core element: murder by contract is presumably a purely instrumental undertaking, one in which killing is done for gain. In both fiction literature (Hopler, 1996) and films (Black & Romano, 1999), characterizations of hit men serve as the representational models that frame our cultural perceptions of murder-for-hire. While attention occasionally shifts from the hit man, the relationships between solicitor and target remain minimized. The intimacy of their involvement is masked by the seemingly solely instrumental nature of the killing contract.

In the final analysis, of course, anecdotal information lacks the rigor of what Katz refers to as the "Four R's" (Katz, 1988) and can only serve as a foil against which more systematically obtained data can be placed. It is necessary to search beyond anecdotal sources to obtain more systematically developed knowledge pertinent to murder-for-hire events. That can be accomplished by examining research into criminal homicides.

HOMICIDE RESEARCH

Contemporary homicide research continues to expand the rich legacy of Wolfgang's *Patterns of Criminal Homicide* (1958) in the important directions delineated by his focus on constellations of variations in the totality of criminal homicide events. Investigations of the interpersonal dynamics and structures of various types of homicide offending (offender-victim relations, expressive-instrumental motives, demographic characteristics, and cultural contexts) have contributed significantly to refinements in our knowledge of criminal homicides as total situations and provided a framework for empirical inquiry into newly emerging types.

A substantial body of research findings has expanded our knowledge of homicide in a variety of directions. Examples of the multi-faceted nature of homicide research is reflected in studies about the characteristic features of homicide (Decker, 1993; Zimring & Hawkins, 1997), victim-offender relationships (Block & Block, 1972, 1976, 1977, 1992; Block & Skogan, 1986; Block & Zimring, 1977; Luckenbill, 1977; Parker, 1989), killings in intimate contexts (Jackson & Oates, 1998; Plass & Straus, 1987; Straus, 1985), stranger murders (Zahn & Sagi, 1987), and measures of violent cultures (Baron & Straus, 1989). Several compendiums offer an overview of major research findings and issues (Hall, 1999; Miethe & McCorkle; 1998; Reiss & Roth, 1993; Smith & Zahn, 1999; Weiner, Zahn, & Sagi, 1996).

There are still many unanswered questions about what types of criminal homicides exist and who they affect, how and why criminal homicide types vary over time and through space, and what constellations of causal factors account for each distinctive type of event (Daly & Wilson, 1988a, 1988b; Maxfield, 1989; Williams & Flewelling, 1988). This is especially so as the thrust of

Wolfgang's original contribution is expanded to incorporate "additional historical and social contexts" of criminal homicide and other forms of lethal violence (Zahn, 1991, p. 27).

Variations in relationships between intimate offenders and victims have also been examined extensively for evidence leading to an understanding of their participation in violent acts. In this vein, Block & Block (1992, p. 64) have observed:

A growing body of research indicates that the participation of the victim and offender in violence must be understood in the light of the total situation. The total situation is best understood by relating the homicide to the expressive or instrumental nature of similar ("sibling") incidents in which fatal outcomes did not occur. Homicide is not one type of event, but many. Almost all acts of lethal violence begin as another confrontation -- a spousal argument, a fight or brawl between acquaintances, a robbery, an act of sexual violence, a street gang confrontation -- which escalates to death. To understand lethal violence, we must first understand why some, and only some, of these violent events become lethal. The key to this understanding differs for violence that begins as interpersonal confrontation (expressive violence) and violence that begins as a predatory attack (instrumental violence).

Homicide events are frequently classified on the basis of whether they are instrumental or expressive in nature. Precisely what the terms *expressive* and *instrumental* refer to varies somewhat among authors, though, so it is important to specify the dimension(s) of expressiveness and instrumentality being examined. Those dimensions include: spontaneous or goal-oriented nature (Block & Block, 1992, p. 39; Miethe & McCorkle, 1998, p. 13); emphasis on sheer personal satisfaction or calculable personal gain (Derber, 1996, p. 6-7); rationality vs. irrationality (Nettler, 1982, pp. 62, 201); control and moral responsibility (Newman, 1998, pp. 42-43); interpersonal confrontation or predatory attack (Flewelling & Williams, 1999, p. 101); public vs. private space (Flewelling & Williams, 1999, p. 102); and primary or secondary nature of interpersonal relationships (Decker, 1993, p. 587). Expressive and instrumental events are also differentiated in terms of event duration and on the basis of sub-cultural contexts of race and region (Rose & McClain, 1990, pp. 36, 40), with expressive motives occurring over a series of time-connected events, and with Black and Southern being more closely associated with expressiveness.

Whether by one definition or another, murder-for-hire events are almost universally classified as instrumental rather than as expressive (Block & Block, 1992; Luckenbill, 1977; Flewelling & Williams, 1999). Riedel, however, has cautioned that events must be differentiated from the relationships of the event participants (Riedel, 1987, p. 251). Victim-offender relationships in murder-for-hire events differ, of course, from the one-on-one homicide events typically assessed in terms of an instrumental/expressive dichotomy. They are a distinctive subtype of multiple offender murders containing three very different sets of interrelationships: 1) the solicitor/hit man relationship; 2) the solicitor/target relationship; and 3) the hit man/target relationship. Given this complexity, the classification of murder-for-hire event relationships as instrumental or expressive is more problematic than the classification of events themselves as instrumental.

In sum, homicide research is not sensitive to the study of various types of multiple-participant homicide, including murder-for-hire. Whether demographic and circumstance variations, and patterns found for individual offenders and victims in typical homicide events, can be used as a basis for theorizing about variations and patterns of murder-for-hire offending awaits an answer from data sources sensitive to the complexities of multiple-participant offending.

An exploratory study of murder-for-hire events being conducted in Tennessee provides a design for acquiring data that speaks to these larger theoretical interests. At the same time, it enables the building of a solid data set on murder-for-hire events and their participants.

TENNESSEE MURDER-FOR-HIRE PROJECT AND FINDINGS

A study of 30 murder-for-hire events in Tennessee has produced some empirical evidence about the lethally violent nature of these crimes, the circumstances surrounding their perpetration, and the characteristics of those who participate in them as solicitors, hit men, and targets. In our study, a murder-for-hire event is *a continuous sequence of interactions by one or more persons in which one person solicits another person to have a third person killed for gain, monetary or otherwise. An event begins with the initial exploration of the possibility of having someone killed, and terminates with a murder, attempted murder, or police intervention.* The study consists of an in-depth examination of those convicted of solicitation and/or conspiracy to commit murder or murder/attempted murder with a murder-for-hire element to them who are currently incarcerated in the Tennessee adult prison system. Information has been obtained from law enforcement records, trial transcripts and other court documents, pre-sentence reports, newspaper stories, and interviews with inmates.

A general overview of our findings about the events (e.g., definition, distinctive features) and their participants (demographics and circumstances, interpersonal dynamics) have been presented elsewhere (Black & Corsaro, 1997; Corsaro & Black, 1998). The most interesting findings are that about as many women (47%) as men (53%) are involved in murder-for hire events as solicitors, that nearly all participants in the events are White (91%), and that undercover law enforcement agents posing as hit men are frequently involved in these events (35%).

The findings from the Tennessee murder-for-hire project touch on two questions pertinent to those raised in other homicide and intimate violence studies: 1) classifying events as murder-for-hire; 2) assessing the underlying instrumental/expressive dimensions of the participants' motivations.

CLASSIFYING EVENTS AS MURDER-FOR-HIRE

The problem here is, simply put, when is an event murder-for-hire. It is not always easy to determine this from one or another data source. Rather, a combination of them must be relied on. Furthermore, there are times when there is no clear way to assess the "gain" to be derived, especially if it is a non-monetary one. That is because a socially negotiated "contract to kill" is not always a particularly explicit one in solicitations and conspiracies to murder, especially when the participants are acquainted to some degree. The dynamics of interpersonal relations are such that "promises" of monetary or non-monetary (e.g., sexual) rewards are often unspoken or at least not

carefully spelled out in contractual terms. The events we studied included instances where explicit amounts of money were agreed upon (sometimes with certain payments before and after the killing) to “understandings” that bills would be paid, new cars purchased, insurance money shared, and so forth (with no explicit amounts or dates specified).

Therefore, it has been necessary in the Tennessee study to distinguish murder-for-hire events on the basis of “explicit” (overtly specified monetary gains in exchange for killing) and “implicit” (mutually understood and anticipated but unspecified gains, monetary or otherwise) arrangements for killing (Rubin, 1996, p. 6). Distinguishing between “explicit” and “implicit” contracts to kill is admittedly a daunting task. We chose to classify events as explicit or implicit on the basis of direct evidence of a specific sum of money being agreed upon between the solicitor and hit man, and to examine the extent to which men and women solicitors varied in terms of this distinction.

Table 1 shows that female solicitors tend to be involved in implicit rather than explicit contracts to kill. Males, at least based on findings from the Tennessee study, are more likely to be engaged in explicit contracts to kill.

Table 1. EXPLICIT/ IMPLICIT EVENTS BY GENDER

	Female Solicitors	Male Solicitors
Explicit	4	13
Implicit Events	9	1

EXPRESSIVE AND INSTRUMENTAL MOTIVATIONS

As has already been shown, there are several ways of looking at instrumental and expressive motivations. We chose to rely on Block and Block’s primary goal distinction to classify event *participant* relationships as expressive or instrumental. In their view, “expressive motivations are aligned with spontaneous and impulsive acts that are done in rage, anger, and with little thought of consequences,” while “instrumental motives reflect future goals or ends.” (Block & Block, 1992, p. 39) For illustrative purpose, we also display the findings that result when using Decker’s *interpersonal* relationship emphasis, in which primary relationship homicides are seen as more expressive and stranger homicides as more instrumental (Decker, 1993, p. 587).

Our findings indicate that, indeed, in murder-for-hire events participant relationships reflect both instrumental and expressive motivations. Furthermore, when categorized along interpersonal lines, expressive participant relationships tend to conform to the qualities of expressive interpersonal relationships (e.g., involve primary, face-to-face, and emotional features) and instrumental

participant relationships tend to conform to patterns of instrumental interpersonal relationships (e.g., involve more secondary, formal features).

Table 2. EVENTS BY RELATIONSHIP GOALS.

Explicit/ Implicit	Solicitor/ Hitman Relationship (Instrumental)	Solicitor/ Target Relationship (Expressive)	Hitman/ Target Relationship (Instrumental)
EXPLICIT EVENTS	Friendship: 3	Acquaintance: 2	Acquaintance: 1
	Kin: 4	Friendship: 2	Friendship: 1
		Kin: 1	Kin: 4
	Stranger: 9	Marriage: 11	Marriage: 1
IMPLICIT EVENTS	Kin: 2	Kin: 2	Acquaintance: 8
		Marriage: 7	Kin: 1
	Friendship: 2	Paramour: 1	Friendship 1

DISCUSSION

The complex nature of murder-for-hire events poses several problems for researchers. Two of these problems have been touched on here. The first problem, classifying events as murder-for-hire, has led us to distinguish between explicit and implicit contracts. This is an important distinction with a number of relevant implications for the shifting nature of social relations in contemporary society, such as the killing of strangers and the involvement of females as perpetrators of lethally violent homicides. Beth Rubin's claim that "the implicit social contracts underlying much social life are breaking down as the explicit contracts shift" (Rubin, 1996, p. 7) suggests that the explicit/implicit nature of murder-for-hire crimes are worth exploring in greater detail, especially as they involve women as solicitors. Whether females are being driven more toward murder as part of deeper shifts in the marital contract, because of more independence through participation in the labor force, or for some other reasons, is open to speculation. Our finding on the implicit nature of female solicitations suggest, though, that females are not relying on strangers to do their killings. Our female solicitors, as our male solicitors, are not cold-blooded enough to do their own killing. But neither are they cold-blooded enough to engage strangers in explicit contracts to kill, as our male solicitors are willing to do. We do not, of course, have evidence to examine whether these findings represent a shift in one direction or another over time (Mann, 1996, p. 119).

To examine the extent to which murder-for-hire events can be explained by the shifting nature of social contracts in contemporary American society (Rubin, 1996, p. 7) or by subtle changes taking place in patriarchal relationships between intimates (Websdale, 1999, p. 207) requires that they be studied in very systematic and deliberate ways. They must be studied in ways that are sensitive to the nature of this specific type of lethal violence.

In addition to questions about possible shifts in the nature of killing contracts that might affect the participation of females as solicitors, there has been a shift in the location of contract killings. As Block and Block (1992, p. 67) note:

Because the immediate, primary motive of a contract killing or a gangland hit is to acquire money or property, they are instrumental homicides. That they are not associated with any non-lethal offense demonstrates that the homicide syndrome taxonomy is more exhaustive than the sibling crime taxonomy. The kind of organized crime hit that was largely responsible for Chicago's notoriety as a murder capital occurs much more rarely today, and most of the cases that do occur happen outside the cities boundaries.

Over time, as contract killings have moved out of their mob-based, organizational, and business contexts into more "casual" and informal surroundings, it is possible that contracts have become more casual as well. Again, we lack data to examine this problem over time.

The second problem, viewing murder-for-hire events as instrumental, is complicated by the fact that, in addition to examining events, there are three distinct sets of interrelationships within events to be examined for their instrumental/expressive nature. Our findings indicate that there is much more work to be done on this powerful classification scheme, especially when it involves multiple motivations and multiple relationships. One point is unmistakably clear, however. The classification of murder-for-hire *events* as instrumental blurs complex expressive and instrumental motives that define the *relationships* in these events. Instrumental and expressive motivations for killing in murder-for-hire events vary by solicitor-hit man, solicitor-target, and hit man target relationships. Solicitor-target relationships are predominantly expressive and partner-based.

These findings challenge the underlying assumption of a face-to-face expressive confrontation in intimate violence. Overall, our findings suggest that lethal violence is sometimes the result of a complex set of relationships involving a hired killer. Rather than becoming directly involved in a face-to-face context, some offenders choose to hire others to kill for them. Many of those killing contracts have intimates as targets and range from highly explicit to very implicit arrangements.

The findings, however, are limited to events from one state. To establish a more adequate base of data from which to generate generalizations about this type of homicide, it is necessary to broaden the scope of our knowledge of murder-for-hire events to additional jurisdictions representing more diverse social and legal setting. It is necessary to gather data on additional murder-for-hire events to explore the questions raised in the Tennessee study in more rich case-by-case detail. Only in that way will it be possible to assess the linkages between murder-for-hire and the broader theoretical issues germane to homicide and intimate violence.

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DISCUSSION

Chris Rasche: Carrie, how do they get the circumstances of the murder/suicide?

Carrie Nie: This is all UCR/police data, so they get it all somehow.

Chris Rasche: You mentioned 3.75 average charges. Was that only of those with a charge?

Carrie Nie: Yes.

Dougie Eckberg: You said 27% of offenders tested positive for alcohol? That seems low.

Carrie Nie: I have not seen any other data, so I don't know for sure.

Dawna Fuqua-Whitley: I thought it was low also. Does the body continue to metabolize after death? Does it matter when they test for alcohol?

Jamie Downs [Alabama State Medical Examiner]: No, as long as decomposition has not started. If you are 12-24 hours out the blood alcohol level will be OK.

Carrie Nie: Everyone in Milwaukee gets an autopsy.

Kim Vogt: Criminal histories are neat, but you need more data, and once you get more, focus on the criminal histories.

Carrie Nie: We have it, we just have not analyzed it yet.

Chris Rasche: The "other" people that are children are probably familicide, not just killed by accident or proxy; they are targeted.

Vickie Brewer: Were these cases where there were multiple homicides and then the suicide -- basically a familicide?

Carrie Nie: Yes.

Becky Block: Did you look to see how many committed suicide months later?

Carrie Nie: I'm not sure how many. We looked at only those that were contiguous events.

Dick Block: Police-assisted suicide might be interesting to look at if you can -- suicide by cop. I don't know if you can capture those data, but I suspect it would probably look similar.

Roland Chilton: Just using firearm deaths looks more like rhetoric than science; you should look at all homicide/suicides to give it some perspective. You need to know all the data.

Carrie Nie: We will get it from other centers.

Anne Lee: You might want to look at the time variable in order to get some context. It could help with prevention. Do they kill after drinking all evening?

Dougie Eckberg: In half the cases, they owned the weapon. Could they not determine the other half?

Carrie Nie: No, they couldn't.

Becky Block: I'm surprised that Milwaukee isn't tracing homicides with the help of the ATF.

Carrie Nie: They are, but it is taking time to get the data.

Steve Roth: Is mapping taking place to determine where they occur? Are they in certain geographic areas that are lower class?

Carrie Nie: We have not looked at it yet, but we are capable of doing it, and are thinking about doing it.

Steve Roth: Who are the people? Can you make a general composite of them using other external data, cultural, economic, etc.?

Carrie Nie: We have not gone that route yet.

Mary Beth Emmerichs: What do you do if you have a mixed weapon murder-suicide, where she is not shot but he is?

Carrie Nie: We only deal with victims of firearms.

Everett Lee: Homicide and suicide are very different things. The ages, races, etc., are very different.

Linda Langford: Murder-suicides that occur at different times are very different than those that are single events. Time is an important factor.

Becky Block: That's why we need to get data, to figure out the different contexts in which they occur.

Chris Rasche: Has anyone ever done a study of murder, suicides, and murder-suicides?

Dougie Eckberg: Yes, a historical study from Chicago.

Chris Rasche: It would be interesting to look at the dynamics to see if they have any common elements.

Dwayne Smith: There is a murder-suicide article in the second volume of *Homicide Studies* about the Canadian phenomenon.

Steve Roth: Vanessa, do females ever do this?

Vanessa Leggett: Not that I could find. As Daly and Wilson say, it's a very sex-oriented phenomenon. There are some cases of middle-aged females where it goes undiscovered for a long time.

Chris Rasche : It is a different phenomenon. "Time series" killing is different than a family wipe-out.

Vanessa Leggett: What I'm talking about are singular events, not time series or serial events.

Steve Roth: In the slides you showed, we could not tell cause of death. Was fire the cause of death?

Vanessa Leggett: He suffocated them and burned them post mortem, in order to destroy evidence.

Bill Edison: I was the captain of the homicide division that investigated those deaths. He used a stun gun for control, and then killed them in an organized way.

Myrna Dawson: I'm not sure I accept the expressive-instrumental categorization. How did you do it?

Vanessa Leggett: Just by the way they were killed. Although they appeared instrumental they have much more expressive components to them.

Dick Block: Do you have any other data?

Vanessa Leggett: No. These were the only three cases that I have found.¹

Eric Larson: Wouldn't some big departments have been willing to help?

Dougie Eckberg: Because of the small sample you should perhaps broaden your scope, and include parricide because of its similarity.

Vanessa Leggett: Yes, but I'm afraid of getting into a different dynamic.

Linda Langford: Including other types of juvenile parricides may provide context and comparisons to study.

Kathleen Heide : There are differences between parricides and familicides, but you should be wary of your age group comparisons, with 14- and 28-year-olds in the same age group, because of maturity and life experiences. Look at typologies from parricides, and look at how they interact with age. The expressive may be present, but the instrumental may be more common.

Dick Block: Jim, there are differences in murder-for-hire events. In Chicago, there are the well-known gangland killings, but a different type involves deaths that occur from arsons that have been contracted by the building owners.

¹Information from a fourth case became available after the symposium in June and is discussed in the paper as published here.

Lois Mock: What are the relationships between the solicitors and the hit men?

Jim Black: Well, they were not always paramours when the solicitor was female. Many of the solicitors hire nephews and other male relatives.

Chris Rasche : Were the female solicitors trying to end abusive relationships by hiring a killer?

Jim Black: Approximately one-half were in long-term abusive relationships, but money was often the primary factor. What the female solicitors shared was a desire to end an unwanted relationship.

Vanessa Leggett: There are parallels, since the desire to end abuse is a factor in some parricides by juveniles.

John Jarvis: Are stranger relationships between solicitors and hit men possible?

Jim Black: There were none in my data file.

Mary Beth Emmerichs : How many of the contracts resulted in a killing?

Jim Black: With the exception of contracts that were terminated because the hit man was actually an undercover police officer, killings resulted in all but one case, but one hit man killed the wrong person.

Becky Block: It could be that the coding instructions for contract killings in the Chicago Homicide Project could be changed to include the implicit-explicit dimension of the contracts.

Question: What types of gain may be promised in implicit contracts?

Jim Black: In my cases, a continuation of a sexual relationship was one type of implicit gain offered by solicitors, but in some cases the nature of the gain was not clearly stated.

Dallas Drake: Had any of the solicitors contracted for more than one killing?

Jim Black: Although this was unusual, I identified one solicitor who had previously had three or four persons killed, and another who contracted for a multiple killing.

Steve Roth: In the implicit contract cases, was there a prior relationship and therefore perhaps some empathy between the solicitor and the hit man?

Jim Black: Yes. In many cases, the hit man wanted to make the solicitor happy.

Question: Had the hit man ever recruited others?

Jim Black: That was not uncommon.

Question: Tom, how did you classify multiple killings in prisons?

Tom Petee: They were included as public places. The total number of incidents was 114 (4.5+ per year), and the bombings of the World Trade Center in New York City and the Federal Building in Oklahoma City were included in the data set.

Cheryl Maxson: Was the offender identified in all of the incidents?

Tom Petee: The offender or offenders were unknown in approximately 10% of the incidents, and most of these cases involved mass murders connected to robberies.

Paul Blackman: Was Waco included in the data set?

Tom Petee: No. Incidents like that were excluded; if the deaths had occurred through the intervention of government officials, they weren't included.

Paul Blackman: I notice that the number of deaths per incident was higher in cases involving arson and explosives than those in which killers chose firearms as weapons. When guns were the weapon of choice, was magazine capacity a factor in the killings?

Tom Petee: In 20.9% of the cases, there were 3-4 shots, 35.5% involved 5-9 shots, and the remainder involving 10 or more shots.

Candi Batton: What was the relationship, if any, between the number of offenders and the number of rounds fired?

Tom Petee: There was a positive relationship between the number of offenders and how many shots were fired during the killings. There were no incidents with less than three shots because a minimum of three deaths was necessary for a killing to be included as a mass murder. Cases with only three shots usually involved the killing of three victims execution style.

Lois Mock: How many cases involved the use of assault weapons?

Tom Petee: The newspaper accounts were often not specific as to the type or types of guns used in mass murders.

Chris Rasche: Were all of the perpetrators male?

Tom Petee: Approximately 90% were men. Most female offenders either killed their own children, or they collaborated with a male accomplice. Many of the offenders had a history of mental illness or prior offenses, although these categories are not mutually exclusive.

Becky Block: Data on mental health history are often missing.

Paul Blackman: Were data on mental illness in the public records?

Tom Petee: That I don't know.

John Jarvis: The differences between spree, mass, and serial killings are often difficult to make.

Jay Corzine: Charles Starkweather would have met the definitions for both a mass murderer and a serial killer.

Chris Rasche: Other authors have used different definitions to identify mass murders, of course.

Jay Corzine: One possible explanation for the overrepresentation you found for mass murders occurring on Monday may reflect that many of the locations where they occur are closed on the weekend, especially on Sunday .

CHAPTER SIX

SUMMARIES OF PANELS WITHOUT PAPERS

STALKING

Pat Tjaden, Center for Policy Research
Bryan Vossekuil, Robert A. Fein, United States Secret Service
Marie Dyson, Federal Bureau of Investigation

Pat Tjaden: Problems in defining stalking and what constitutes stalking have caused marked variation in laws from state to state. The National Institute of Justice mandated the development of a model anti-stalking code for states. The Violence Against Women survey -- which provides data on stalking -- used a nationally representative sample of 8,000 men and 8,000 women using random digit dialing techniques. If stalking occurred more than once for a respondent, they were asked a battery of questions related to fear. To qualify as a stalking incident, respondents had to indicate that they were very frightened or feared being killed by their stalker.

Of the respondents, 8.1% females and 2.2% males indicated that they had been stalked at some point in their lives. It was also reported that 1% of female respondents and 0.4% of male respondents had been stalked during the previous year. Prevalence rates increased dramatically when fear requirements were lowered. Most stalkers were men, regardless of the victim's sex. Men stalked 94% of female victims, and 60% of male victims. Also reported was that 60% of women were stalked by a partner/intimate. Of the women who were stalked by ex-husbands, 80% reported having been assaulted in the relationship, and 31% reported having been raped in the relationship. Most men were stalked by other acquaintances or strangers. Data did not support the theory that stalking occurs after a relationship breaks up.

Bryan Vossekuil: Protecting public officials/public figures from violence requires both physical measures as well as an assessment of threats via protective intelligence. Protective intelligence involves identification of potential offenders, assessment of the threat, and management of that threat. The central objective is to identify potential threats earlier and assess them better.

Robert Fein: Through the National Threat Assessment Center, a data set comprised of 83 cases of attackers/lethal approachers who targeted either public officials or celebrities was constructed. The data contradicts three common myths of assassins. The first myth is that there is a profile of an assassin. Research shows, however, that there is actually no profile descriptively or demographically. The second myth is that assassination is a product of mental illness or derangement, when in fact mental illness only rarely plays a major role. The third myth proposes that explicit threateners are the persons most likely to carry out attacks. Data indicate that fewer than 10% of the explicit threateners carry out their threats. Persons who pose the greatest potential for attack do not explicitly make threats, although more than half communicate their intent in some way, usually indirectly.

Marie Dyson: Our findings at the FBI indicate that because stalking consists of a continuum of behavior, there is no profile of stalkers. In most cases, the offender is not delusional; he simply cannot let go of his "partner." Nuisance stalkers have a one-way relationship with their target. Delusional stalkers -- classified as erotomaniacs -- believe that they have a relationship with their intended target, but it exists only in their mind. And then there are the false victimization cases -- where the so-called stalking victim is not really a victim of stalking.

Candice Skrapec: Most bizarre cases are not associated with psychopathology. How can we deal with this?

Robert Fein: Taking a diagnostic approach can be counterproductive; it is better to look at concrete behavior.

Kathleen Heide: A clarification should be made here: While most offenders do not have a psychosis per se, they are nonetheless not mentally well.

Robert Fein: The Diagnostic and Statistical Manual does not help; they may be "strange" but cannot be treated.

Pat Tjaden: Less than 50% of victims are overtly threatened. Stalking laws go largely unenforced in terms of legal intervention.

Roland Chilton: I have two questions. Are the data available? And in the survey of Violence Against Women, is there a possibility of false positives?

Pat Tjaden: The survey on Violence Against Women is being archived. The data are perpetrator-specific, with detailed information on the offenders. Screening questions are designed to move toward the legal definition.

Chris Dunn: The data are not yet available through ICPSR.

Bryan Vossekuil: The data on assassins have been archived.

Alan DeLine: How was fear operationalized?

Pat Tjaden: Screening questions sometimes aided in defining fear. Ultimately, what is problematic in research on stalking is the meaning.

Tom Petee: This is directed to Marie Dyson: What about mixed offenders, for example, Richard Farley?

Marie Dyson: We are looking at patterns of behavior such as the fantasy of the offender. Although offenders may not be psychotic, they have identifiable mental problems.

Doreen Hansen: Is there any pattern regarding behavior that would indicate a stalker is going to escalate his/her behavior?

Robert Fein: There have been no studies to date of people who stalked before killing. We simply don't know.

Marie Dyson: There has been work done on serial murderers and serial rapists which might give us information on this possibility.

John Jarvis: For serial rapists, some markers are indicated, such as abusiveness.

Eric Larson: Was time frame taken into account with romantic relationships in terms of harassment?

Pat Tjaden: We have measured duration. The data can be disaggregated.

Linda Langford: What was the response rate for the survey of Violence Against Women?

Pat Tjaden: 69% for males, 72% for females.

HOMICIDE, HOMICIDE RESEARCH, AND THE NEWS MEDIA: LITTLETON AND BEYOND

Ted Gest, Editor, *U.S. News and World Report*

Gary Fields, *USA Today*

Kristan Trugman, *The Washington Times*

Allan Lengel, *The Washington Post*

Tom Petee, Auburn University

Ted Gest: We're here to discuss why the media covers particular homicides, and how we follow homicide trends. We cover unusual cases, especially unusual cases in the middle class -- like the Polly Klaas case. Shootings in middle-class communities we report more extensively and for more days than incidents in lower-class communities. The media can supply an excellent discussion of trends, but criminologists have difficulty supplying theories to explain those trends.

Gary Fields: What we consider in a story is subjective. Reporters typically don't live in neighborhoods where most crimes are happening. Reporters are middle class and often ignore homicides that are not. For example, JonBenet Ramsey was killed the same day as a three-year-old who was shot in a barbershop while he was getting his first hair cut. This killing was largely ignored by the media. The media rarely discuss the "crack war" because it is not likely to sell papers, and is largely irrelevant to middle-class neighborhoods.

Kristan Trugman: I have occasionally talked to criminologists, but typically have very little time. For example, I talked to Jack Levin about random shootings, but the limited resources of *The Washington Times* limit any in-depth preparation.

Tom Petee: Lack of representativeness extends even to serial killers. Killers of the middle class are more likely to be reported.

Allan Lengel: Crime reports are cathartic; we feel relief that the victim and offender are not like us.

Tom Marvell: Crime trends aren't well covered in the media because the media are not doing their homework.

Everett Lee: Statistics are not as effective at events such as Littleton.

Gary Fields: Statistics have no place in the ten-inch story that I typically write for *USA Today*.

Eric Monkkonen: Major media generally do a good job of coverage with the exception of major events that they are not equipped for explaining. Criminology also has its limitations in explaining these events.

Doreen Hansen: Should there be limits on coverage? Excessive coverage can teach people techniques and spread incidents.

Answer: We in the news media are put in a difficult situation because the newsworthy stories must be printed on the front page.

Roland Chilton: The lack of coverage of Black-on-Black crimes might result from political correctness. Extensive coverage of Black-on-Black crime might be seen as racist.

Billie Weiss: Media coverage requires a middle-class hook, and generally ignores lower-class kids who are dying. The media cover stories that sell to their own demography, which is middle class.

Lois Mock: What about "think pieces"? How are they picked?

Gary Fields: They're picked because they might help someone or some group. At *USA Today*, I have written think pieces that were eventually dropped because the editors did not think they were of general enough interest.

Margaret Zahn: We are currently developing a list of field experts, but what else can the HRWG do to help the media?

Kristan Trugman: Please send that to me. I'm always looking for an expert to quote in my stories.

Margaret Zahn: How might journalism schools change to better represent homicides?

Gary Fields: By providing "real-world" internships such as work in police departments and public records.

Dean Rojek: How do reporters know if they are getting to the intended audience?

Answer: There are various ways to capture the demography of your audience.

Gary Fields: An article is a success if other media pick it up.

Allan Lengel: Your own "news judgment" should be the measure of success.

Kathleen Heide: Littleton was heavily covered because it was both frightening and relevant to middle-class audiences.

Chris Rasche: The media report on what interests their audience.

Gary Fields: In an event such as Littleton, the news media sometimes have a feeding frenzy in which coverage escalates into more coverage and more coverage.

PROFILING: THE USE OF BEHAVIORAL ASSESSMENTS IN THE ANALYSIS OF VIOLENT CRIMES

Supervisory Special Agent Mark Safarik,
National Center for the Analysis of Violent Crime [NCAVC], Federal Bureau of Investigation

Mark Safarik: Profiling is a serious evaluation of a violent crime. The types of cases most frequently profiled are homicide, sexual assaults, arson and bombing, kidnapping, and child abductions. Profiling brings some focus to a case for law enforcement agencies. These cases are usually extremely violent and bizarre; they are cases that are on the end of the continuum of violence.

Police officers request insight into these cases. Police tend to explain away the offenders' behavior in such a way that the strange behaviors get minimized. They want to have the answers that they usually derive from their own experience, but they have a lower level of respect for behavior. People are uncomfortable when they do not understand an event. This brings about a tendency to generalize -- to apply what one knows. Behavior is what it is. Police officers tend to twist theories into facts. Take, as an example, the JonBenet Ramsey case. Right after the girl's murder, the parents cleared out their daughter's bedroom and placed her things in the basement. The behavior was rationalized by claiming that they needed the room to make flyers.

Background is required to profile. One begins by looking at facts, analyzing the data, and examining a behavior before applying a theory. Previous experience and personality gives an individual his perceptions. Perceptions of police officers dictate the direction of their investigation. They impose their value system on the crime. Police officers do not look at victimology. There are no absolutes in sex crimes. They fuse sexuality, violence, and a few mental disorders; what results can be anything. Offenders do not think or experience emotions like the rest of society. They have "thinking errors." Because they do not think or experience the world like others, standard values cannot be imposed upon them. Profilers try to think like they do -- to step into the offender's shoes to empathize with what he is feeling.

Profiling is an aspect of criminal investigative analysis. It involves studying every behavioral aspect in detail. A profile can provide race, sex, emotional age, marital status, formal education, occupation, work history, ability to relate and communicate with others, likelihood of prior criminal activity, mental deterioration, as well as feelings of remorse and/or guilt about the crime. How can one gain insight into offenders? Interview them in prison. It would be useful to interview the people around the offender, although it is not possible to do so. To truly understand the offender, profilers have to examine the crime scene: the canvas of the artist.

Crime analysis is an independent review of a variety of investigative efforts. Risk levels should be assessed. A behavioral assessment is done of the interaction between the victim and offender. Significant events during the offense are examined. Profiling involves an assessment of unknown offender characteristics. It is a way to narrow the pool of suspects. An investigative strategy may be offered based upon an evaluation of the crime scene and an assessment of the offender. Interview techniques involve an analysis of crime and behavior coupled with an evaluation of the subject's personality. Recommendations may be made about interviewer approach, environment, and technique. Search

warrants describe evidence to be found, probable cause, and "staleness" issues. Profilers may provide advice as to what police officers should be searching for and why. Profilers are also involved in prosecution and trial strategies with respect to crime analysis and motivation. Additionally, they may be called to testify and/or help jurors understand evidence or determine facts. NCAVC members qualify as experts.

Profiling involves asking four key questions: Why this victim? Why this day? Why this place? Why this behavior? To answer these questions, victimology (a complete and comprehensive history of the victim) is required. Components of victimology include: sex, age, marital status, income source and amount, previous victimization, criminal history, mental stability, alcohol use/abuse, drug use/abuse, physical handicaps, risk level, lifestyle, interpersonal relationships, family relationships, dating habits, sexual habits, reputation, leisure activities, type and number of friends, transportation used, future plans, and fears.

Victim risk-level indicates susceptibility to violent crime -- that is, the degree to which victims contribute or expose themselves to the chance of injury. It is affected by faulty decisions, judgmental errors, and lifestyle.

There are only three manifestations of offender behavior at a crime scene. Behavior is what one does and how he/she does it. It can be similar, but it is also unique to the individual. Anything an offender says is important. A man does not need to talk to a woman to rape her. Behavior will be repeated by the offender because it is a need. The sequence of interactions is also important. Violent crime involves all the dynamics of human behavior. An offender's behavior develops over his/her life course. In their own minds, offenders act normally during the crime. Emphasis is on the ability to recognize the crime-scene manifestation of behavior.

Three elements link crimes in a series: the method of operation (*modus operandi* or M.O.), ritual, and staging. In investigations where there are few or no leads, these are the profiler's tools that give investigators direction by identifying offender characteristics. The M.O. is the behavior that is necessary for the successful commission of a crime. Three purposes of the M.O. are that it: 1) ensures success of the crime; 2) protects identity; and 3) effects the escape. One cannot always link incidents by M.O. because the M.O. is dynamic and can change. For example, the M.O. for sexual offenders is about 4 months. The M.O. is a learned behavior. It changes from experience, education/time in jail, offender age/maturity, victim's response, media influences, environment, and other things beyond the offender's control that need to be altered or refined according to each situation.

Ritualistic behavior is behavior that exceeds the means necessary to successfully commit a crime. Examples include posing the body, overkill, bondage, and/or displaying the body. Ritual is based on psychosexual and emotional needs, and is critical to an offender's fulfillment of his/her emotional needs. Ritualistic behaviors are a unique and integral part of sex crimes. They are rooted in fantasy and provide emotional, sexual, and psychological gratification to the offender. Ritual frequently involves paraphiliac behavior. It is either constant or may change.

Signature is a unique combination of behaviors. It is identified in both the M.O. and ritualistic behavior. Ritual signature, however, is more likely. Just because a behavior is unusual, however, does not make it a ritual. Typically, ritualistic behaviors put the offender at greater risk because they require

that the offender stay at the scene longer. When a signature is identified, it is powerful evidence. Staging involves purposeful alteration of the crime scene in order to redirect the investigation away from the offender. It may also involve protection of the victim's family. "Red flags" include things that do not add up, such as an inconsistent crime scene.

SLIDE SHOW AND DISCUSSION

(Differences between M.O., ritual, and staging were illustrated using a serial homicide case.)

Chris Rasche: How did they know that George was the offender in the illustrated case?

Mark Safarik: The guy was known to the police, but had no prior for violent crime. He talked to police and cooperated until he was asked for a blood sample.

Question: Was he a suspect in other homicides?

Mark Safarik: No.

Question: What were the time spans between homicides?

Mark Safarik: There were 6 weeks between the first and second homicide, and 2 weeks between the second and third.

Question: How do you know if you were right or wrong?

Mark Safarik: It is difficult because we are often not told about the results of an investigation.

Kathleen Heide: What were the cues indicating that the one example case was a suicide?

Mark Safarik: Looking at victimology in combination with behaviors. I have seen horrific injuries inflicted by people on themselves.

APPENDICES

**AGENDA FOR 8th ANNUAL SYMPOSIUM OF THE
HOMICIDE RESEARCH WORKING GROUP
FBI ACADEMY, QUANTICO, VIRGINIA
JUNE 27-30, 1999**

Sunday, June 27: 5:30 - 7:15: Reception (cash bar) and dinner

7: 15 - 9 p.m.: Opening session: Introductory remarks by Chris Rasche, Convener, and John Jarvis, Local Arrangements Chair (moderator, Candice Skrapec)

Panel on Stalking

(Organizer: Lois Mock)

Pat Tjaden, Center for Policy Research

Bryan Vossekul, Secret Service

Robert A. Fein, Secret Service

Marie Dyson, FBI Special Agent

Recorder: Thomas A. Petee

Monday: June 28: 8:00-8:30 a.m.: Opening introduction; agenda review

8:30-10:00 a.m.: Session 1A: Papers on methodology of historical studies

(Organizer: Douglas L. Eckberg)

Eckberg: Intro: the 'dark figure' of historic murder and problem of comparing our rates with those of ancestors

Eric Monkkonen: Two-century homicide series: using capture-recapture methods to check estimates in 19th century NYC

Vance McLaughlin: Homicides in Savannah, 1896-1903, data collection

Mary Beth Emmerichs: Getting away with murder?: Homicide and the coroners in 19th century London

Recorder: Victoria Brewer

9:55-10:05: Coffee break

10:05-11:30: Session 1B: Discussion

Recorder: Allegra Kim

11:30-12:30: Lunch/set up poster session

12:30-1:30: Business meeting I/set up poster session

1:30-2:55 p.m.: Session 2A: Papers and discussion on homicides against women

(Organizer: Holly Johnson)

Judith McFarlane, Carolyn Rebecca Block, Gail Rayford Walker, and Christine Ovcharchyn Devitt: When homicide data bases do not answer the questions: Field strategies for locating and interviewing proxies

Linda Langford, Nancy Isaac, and Sandra Adams: Criminal and restraining order histories of intimate partner-related homicide offenders in Massachusetts, 1991-1995

Recorder: Paul H. Blackman

2:55-3:05 a.m.: Coffee break

3:05-5:10: Session 2B: Papers/discussion on homicides against women

Myrna Dawson: Legal reactions to intimate partner homicide: a preliminary look at the role of gender and intimacy

Todd K. Shackelford, David M. Buss, and Jay Peters: Wife killing: risk to women as a function of age

Recorder: Bill Edison

5:30 - 6:30 p.m.: Dinner

6:30 - 8:00 p.m.: Poster session

Derek J. Paulsen, Mitchel Roth and Victoria E. Brewer: The Media Construction of Child Homicide

Orest Fedorowycz: Statistics Canada CCJS Publications and Reports

Brad Gorby: Serial Murder: A Cross-National Descriptive Study

8 - 9:30 p.m.: Homicide, Homicide Research, and the News Media -- Littleton and Beyond (Organizer: Ted Gest, U.S. News & World Report/Criminal Justice Journalists)

Gary Fields, USA Today

Kristan Trugman, Washington Times

Allan Lengel, Washington Post

Thomas A. Petee

Recorder: Richard Block

9:30 - 10 p.m.: Meeting, Editorial Board of *Homicide Studies* (Editor: M. Dwayne Smith)

Tuesday, June 29: 8:00-10:05 a.m.: Session 3A: Papers and discussion on homicide perpetrators and victims (Organizer: Allegra Kim)

Harry M. Brownstein, Susan M. Crimmins, Judith A. Ryder, and Barry J. Spunt: Prior involvement with drugs, guns, and illegal activities among young homicide offenders

C. Gabrielle Salfati: The nature of expressiveness and instrumentality in homicide, and its implications for offender profiling

Evelyn M. Kuhn, Carrie L. Nie, Mallory E. O'Brien, Richard L. Withers, and Stephen W. Hargarten: Victim and perpetrator characteristics for youth homicides during 1991-1997

Recorder: Greg Weaver

10:05-10:15 a.m.: Coffee break

10:15 a.m.- 12:20 p.m.: Session 3B: Papers on homicide victims

Dean G. Rojek: Homicide and drugs

Thomas B. Marvell: State homicide victimization rates: Do regression results differ by sex or race

Donna Rosenberg: Fabricated illness and homicide of children: solving complex medical problems with the help of a computerized database system

Recorder: Dawna Fuqua-Whitley

12:20 - 1:45 p.m.: Lunch -- committees formed on Monday meet

1:45 - 3:15 p.m.: Profiling: FBI Special Agent Mark Safarik

Recorders: Wendy Regoeczi and Myrna Dawson

3:15 - 3:30 p.m.: Coffee break

3:30 - 5:00 p.m.: Optional FBI demonstrations, tours: Firearms; DNA; Academy tour

5:00 - 6:00 p.m.: Dinner

6:00 - 8:00 p.m.: Session 4: Gun-related research: papers and research in progress
(Organizer: Paul H. Blackman)
Jay Corzine, Lin K. Huff-Corzine, and Greg Weaver: Using FFL (federal firearms licensee) data for research on lethal violence and gun availability
Jason van Court: Matching death records and homicide records for firearm (and other) intentional deaths
Stephen W. Hargarten, Evelyn M. Kuhn, Carrie L. Nie, Mallory O'Brien, Richard L. Withers, and Garen J. Wintemute: Homicide gun characteristics before and after the 1994 crime bill
Kathleen Heide: School shootings in the United States: a typology of lethal violence
Recorder: Kaye Marz
8:00 - 9:30 p.m.: Business meeting II

Wednesday, June 30: 8:00 - 9:30 a.m.: Session 5A: Papers and discussion on multiple murder
(Organizer: Thomas A. Petee)
Carrie L. Nie, Evelyn M. Kuhn, Mallory E. O'Brien, Richard L. Withers, and Stephen W. Hargarten: Firearm homicide-suicide events in Southeastern Wisconsin, 1991-1997
Vanessa Levrier Leggett: Juvenile and young-adult male perpetrated familicides
Recorder: Derek Paulsen
9:30 -9:45 a.m.: Break
9:45 -11:30 a.m.: Session 5B:
James A. Black: Murder for hire: an exploratory study
Thomas A. Petee and Kathy G. Padgett: Offense, offender, and victim characteristics of mass murder incidents in the U.S., 1975-1999
Recorder: Jay Corzine
11:30 -12 m.: Meeting ends; final comments

Program Committee:

Paul H. Blackman, Chair
Carolyn Rebecca Block
Allegra Kim
Lois Mock
Thomas A. Petee
Candice Skrapec
Kimberly Vogt
John P. Jarvis, Local Arrangements Chair
Christine Rasche, *ex officio*

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